

Sustainable tourism in the protected areas: The evidence from Kopaonik national park

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ABSTRACT

In modern societies, tourism has the potential to create many income options for the local communities, as well as to contribute to the physical and mental health of people in a variety of ways. Although enhancing the development of economic activities and employment possibilities for residents, tourism can also cause negative environmental effects. The purpose of sustainable tourism is to enable sustainable economic growth and development which is socially acceptable and harmonized with environmental capacities. To ensure sustainability, tourism activities in the protected areas, such as national parks, must be adequately planned, managed, and supervised. In this regard, the aim of the paper is to assess the indicators of sustainable tourism development in Kopaonik National Park in order to demonstrate that sustainable tourism is a desirable form of tourism in protected areas, as well as to point out the advantages and disadvantages of sustainable tourism in Kopaonik National Park. The analysis has revealed that by promoting awareness and investing in environmental preservation, tourism in protected areas has the potential to make a substantial contribution to economic development without compromising the quality of the protected areas in terms of biodiversity, geodiversity, and cultural and historical values.

Keywords: *sustainable development, tourism, protected areas, national parks*

1. INTRODUCTION

Sustainable tourism is defined by the World Tourism Organization (WTO) as a principle that not only meets the needs of tourists and tourist destinations, but also protects and increases tourism opportunities for future generations by fulfilling the demand of today's tourists and host regions, and

securing and growing development potentials (Bramwell et al., 1998). Additional legal, institutional, financial, and economic arrangements, modern technological and technical solutions, promotion and education, new ways of public communication and interaction, and adequate coalitions for sustainable development are all part of the concept of sustainable tourism development (Angelus et al., 2003). Protected areas are essential not only for preserving the planet's biodiversity but also for fostering human well-being (Jones et al., 2018). On the other hand, tourism is an essential way for protected areas to deliver cultural ecosystem services (Buckley, 2020). By promoting awareness and investing in environmental preservation, protected areas tourism has the potential to make a substantial contribution to biodiversity conservation (Leung et al., 2018). Furthermore, tourism has the potential to create many livelihood options for the local society, as well as to contribute to physical and mental health by assisting people in recovering from stress, lowering depression, increasing happiness, etc. (Harris et al., 2021). Tourism, on the other hand, can have severe environmental consequences if it is not adequately managed, such as biodiversity loss, decreased soil porosity, and social tensions (Zhong et al., 2020). Therefore, the purpose of sustainable tourism is to enable sustainable economic growth and development, which is harmonized with environmental capacities and socially acceptable. The need to involve the local population in the entire planning process of sustainable tourism development is the next very important item, because sustainable tourism development is carried out in their surroundings, and they feel negative or positive consequences (Stojanovic, 2006). As Kopaonik National Park has extraordinary ecological and cultural value, the state, organizations, and individuals have a responsibility to protect it. In this regard, the aim of the paper is to present the identification, assessment, and use of indicators of sustainable tourism development in Kopaonik National Park in order to demonstrate that sustainable tourism is a desirable form of tourism in protected areas, as well as the advantages and disadvantages of sustainable tourism in Kopaonik National Park. The purpose of the paper is to use the perceived benefits of sustainable tourism in Kopaonik National Park to work on modern and innovative projects, which will result in a set of internal and cross-border partnerships and contribute to sustainable development and the arrival of more tourists.

2. LITERATURE REVIEW

To ensure sustainability, tourism activities in protected regions, such as national parks, must be properly planned, administered, and supervised (WTO, 2005; Cervený, 2022). Alternatively, such activities can have serious adverse repercussions, and tourism would worsen the situation in these locations. Although tourism can cause negative effects, it can also improve the development of economic activities and employment possibilities for residents (WTO, 2005). Protected areas are popular tourist destinations across the world, which are conserved with the aim to safeguard animal species and their ecosystems (Hasana et al., 2022). Sustainable tourism contains the transition, which results in the change from one state to another (Hall, 2008; Salerno et al., 2013). Furthermore, it must ensure a high standard of customer satisfaction and provide a valuable experience for visitors, boosting their understanding of sustainability concerns and encouraging them to participate in sustainable tourism initiatives. The goal of marketing efforts at the tourist attraction is to promote the essential aspects of the area, so that prospective visitors will be drawn to explore the location and use offerings within that location that should match their expectations (Gasic et al., 2014). National parks are the result of tourism's good environmental influence. They reflect features of tourism as a sustainable concept. In the administration of such tourism locations, sustainability is also an important approach. Tourism has both benefits and costs in protected areas and they are frequently combined in intricate ways. The protected area planner should provide the maximization of benefits and the minimization of expenses (Eagels et al., 2002). Protected areas are created primarily to protect a biophysical process or condition, such as a wildlife population, habitat, natural landscape, or cultural legacy, such as a community's cultural history. Tourists come to the protected areas to appreciate the values for which they were created, as well as to benefit personally. Protected areas are created mainly to protect a biophysical phenomenon, such as biodiversity, ecosystem, beautiful environment, cultural heritage, etc. (Eagels et al., 2002). Sustainable tourism planning and development processes strive to capitalize on visitor interest in order to improve economic prospects, safeguard natural and cultural

assets, and improve the quality of life for all parties involved (Eagels et al., 2002). Despite the good influence on local economic activities, excessive tourism has been found to have some negative consequences, including threats to endangered species and ecosystems (Belsoy et al., 2012; Zhang et al. 2022). The usage of the land, water, and energy, as well as the removal of natural vegetation and the concentration of waste, are all examples of adverse environmental effects that could lead to a progressive deterioration of wildlife ecosystems, either directly or indirectly (Belsoy et al., 2012). Tourist activities often disrupt biodiversity, causing changes in its natural tendencies and, in many cases, response to stress that have long-term negative consequences for its preservation (Tarlow & Blumstei, 2007). The kind and extent of negative environmental consequences are determined by the intensity and frequency of visits, tourist behavior, leisure activities, and site-specific biotic and abiotic characteristics (Sun & Walsh, 1998). The number of tourists is projected to grow in the coming years, but many protected areas throughout the world are unable to deal with the rising demand (Belsoy et al., 2012). In the context of tourism, sustainability includes the principle to have a balance between all stakeholders' economic, environmental, and social requirements (Rasoolimanesh et al., 2018). Efforts have been made to impose visiting limitations using several metrics in order to achieve sustainable development in protected areas. Metrics are critical in the development of sustainable tourism, as well as appropriate management instruments for dealing with a variety of difficulties (WTO, 2005). Tourists, local communities, corporations, governments, and non-governmental organizations are the five major stakeholders in the tourism industry, according to Lee and Hsieh (2016) and Rasoolimanesh et al. (2020). Tourists, communities, and resource managers are the most commonly stated stakeholders in protected areas (Nyaupane et al., 2020). On the other hand, some sustainable tourism metrics studies did not include tourists as crucial stakeholders (Rasoolimanesh et al., 2020). Complex dynamic tourism systems cannot be assessed in isolation from the ecosystem on which they rely, specifically those locations in or near ecologically sensitive areas like protected areas. Protected areas are multi-stakeholder, dynamic, responsive social-ecological systems that are influenced by societal, economic, and environmental elements as a result of the interaction of regional and international factors (Cumming & Allen, 2017). Hence, a community-based approach is important for developing dynamic strategies which involve nature conservation in relation to local place development processes and the tourist industry, hence integrating the opinions and interests of various stakeholders (Breiby et al., 2022). The considerable impact of the COVID-19 pandemic on sustainable tourism, such as protected areas tourism, emphasized the intricate interconnections among tourism, the local community, and protected areas, which should not be overlooked in order to increase protected areas' sustainability (Smith et al., 2021). Sustainable development attempts to create a balance between ecological sustainability and social development, with social justice at the forefront (Tsaur et al., 2006). Protected areas tourism is divided into two subsystems: the human system and the environment system (Huang & Huang, 2015). The human system and environment were employed as the basic concepts in tourism sustainability. For sustainable tourism measures, Lee and Hsieh (2016) pointed out two components: stakeholders and the natural environment. Both environmental and ecological dimensions, on the other hand, are just concerned with the natural habitat, neglecting the extremely significant and constantly evolving socio-cultural and economic settings.

3. CASE STUDY – KOPAONIK NATIONAL PARK

Kopaonik National Park is the most tourist-friendly of all the protected regions in the Republic of Serbia. It falls under the category of complex tourist attractions, since it has many characteristics (gorges, canyons, forest complexes, numerous hydrographic objects – springs, lakes, rivers, geysers, waterfalls, etc., animals, and vegetation) that attract visitors, and it offers a variety of tourist activities. It comprises 11,800 ha and has a protective belt of 19,986 ha, including 689 ha of the wildlife refuge under special protection. The park is located at the peak of the mountain – the lowest point is 640 m above sea level and the highest point is 2,017 m above sea level (Pancicev vrh). Kopaonik National Park has the treatment of the most valuable ecological and tourist potential. It represents a unique natural unity, and a complex ensemble of exceptional forest ecosystems, geomorphological and

hydrographic phenomena, relict, endemic, and other rare plant and animal species, mosaic cultural and tourist requirements (from recreational, summer to winter, sports tourism). Hence, the recreation and tourism development in it are becoming the most important activities. As accommodation and catering facilities are one of the most necessary bases for tourist movements, they need to be taken into account when determining the level of tourism development. The accommodation and catering capacities can generally be divided into basic and complementary. The basic capacities include hotels, boarding houses, motels, tourist resorts, hostels, and inns, whereas complementary ones include accommodation facilities in the spa and climatic health resorts, mountain homes and houses, workers' resorts, children and youth resorts, camps, private rooms, boat cabins, and sleeping cars. Both groups of accommodation and catering facilities on Kopaonik have a long tradition, making this area more equipped, more meaningful, and certainly interesting for tourists. The basic accommodation and catering capacities are concentrated mainly in Suvo Rudište, but these capacities are also connected to the parts of Jarma and Srebrnac. On this stretch, a tourist centre was formed, consisting of the most luxurious and, according to architectural solutions, the most beautiful hotels. A special quality of the tourist centre is given by the immediate vicinity of the dense network of cable cars and a large selection of accompanying catering facilities along the ski slopes. Hotels in the tourist centre, both in terms of quality and richness of content, can only compete with hotels in Brzece on the western slopes of Kopaonik. When it comes to the distribution of accommodation capacities by region, it is evident that the largest number of beds is located in the Southwest and Kopaonik region, i.e., 39% of all beds. Unfortunately, tourist accommodation capacities have a very low utilization rate – 25-30% annually. Of the mentioned tourist subcentres in the area of Kopaonik National Park, only Suvo Rudište site was realized, with 10.000 beds (2.000 more than envisaged by the current plan). Out of the total planned 13.750 accommodation capacities, 10.250, i.e., 75%, were built. The construction of infrastructure at these tourist locations was achieved with 35% of the planned. In addition to the recorded, i.e., unregistered, there are categorized and uncategorized accommodations. Categorized accommodation on Kopaonik is divided into basic in the form of hotels, motels and resorts, and private, and it consists of houses and accommodation facilities with appropriate rooms and apartments. The total number of beds in hotels is 1.800, while apartment accommodation has approximately 700 beds.

3.1. The indicators of tourist traffic in Kopaonik National Park

The advantages of Kopaonik in comparison to other high mountains in Serbia are reflected in a variety of climatic and morphological characteristics, but most notably in its advantageous location in relation to the most distinct dispersions of domestic demand and the most important traffic flows in the valleys of Ibar, Zapadna Morava, Južna Morava, and other culturally and historically heterogeneous environments (spas and monasteries), which allows the possibility of combining different contents and creating a complex tourist offer. Great natural and geographical potentials, a strong material base built in the area of Ravni Kopaonik, and good marketing presentation on the domestic and foreign markets, have enabled a great realization of tourist traffic. Winter sports are the basic type of tourist offer, according to which Kopaonik has gained a reputation as a tourist centre of international importance, which has led to a significant concentration of traffic in the winter part of the year. In the following, based on data (taken from the Statistical Yearbook of the Republic of Serbia for the period 2010-2020), we will point out the state of tourism in Kopaonik National Park, a tourist centre with a tradition of 50 years. During this period, this tourist centre had ups and downs in the number of tourists. From the first season until today, the tourist centre Kopaonik has gone through various phases of construction and organization of the tourist and catering economy, which has contributed to the development, but also caused some stagnation. In the observed eleven-year period (2010–2020), the ratio of overnight stays and accommodation capacities in Kopaonik National Park, as well as the number of tourists and average stays are shown in Table 1.

Table 1. Number of overnight stays, beds and number of overnight stays per bed in Kopaonik National Park in the period 2010-2020

Year	Overnight stays	Tourists	Beds	Average stay	Overnight stays per bed
2010	233.912	57.990	4.325	4,0	54
2011	270.535	65.874	4.018	4,1	67
2012	298.432	67.175	4.480	4,4	67
2013	341.299	80.375	4.221	4,2	81
2014	323.133	72.433	4.437	4,5	73
2015	427.383	102.198	5.404	4,2	79
2016	495.753	117.942	4.563	4,2	109
2017	550.962	131.178	6.686	4,2	82
2018	535.594	132.080	6.070	4,1	88
2019	565.980	135.613	8.242	4,2	69
2020	432.038	104.370	7.189	4,1	60

Source: Statistical Yearbooks of the Republic of Serbia 2011-2020

In the analysed period, the largest number of overnight stays per bed was recorded in 2016, when there were 109 overnight stays per bed. While the lowest number of overnight stays per bed was recorded in the first year of observation, i.e., in 2010. The number of tourists and the number of their overnight stays is an important indicator of the development of a tourist destination, but it is also an indicator of the success of the business of the tourism industry. In the observed period, the lowest number of tourists was recorded in the first observed year (2010), when it amounted to 57.990. Also, the lowest number of overnight stays was recorded in 2010, when it amounted to 233.912. The largest number of tourists and overnight stays was recorded in 2019 – 135.613 and 565.980 respectively. The average stay of tourists on Kopaonik was four to five days. Domestic tourism is mostly developed on Kopaonik, and the majority of tourists are families and young people of higher and middle purchasing power. In recent years, the number of stays of guests from abroad has been recorded the most in the winter period, but that is still a negligible number, considering the real potential of this mountain massif. The causes can be found in the lack of a unique tourist product, negligible appearance on the tourist market, the poor offer of accommodation facilities, lack of appropriate summer offers, neglect of the presentation of the values of the National Park and surroundings, etc. Table 2 shows the number of arrivals and overnight stays of domestic and foreign tourists in the period 2010-2020 in Kopaonik National Park. According to the data from Table 2, Kopaonik National Park was visited by 135.613 guests, who spent 565.980 nights in 2019. Of this number, domestic tourists were represented with 79,2%, while the participation of foreign guests was 20,8%. For the observation period 2010-2020, the largest number of foreign guests was recorded in 2019 – 28.191. For the observed period, the lowest number of foreign guests was in 2010, which was 5.394, or 9,3%. Based on the obtained data, there is an increase in foreign guests by slightly more than five times, which means that it increased from 5.394 to 28.191. Based on the previously presented data, it can be concluded that in the past eleven years there was high participation of domestic tourists, 84,85% in total tourist arrivals.

Table following on the next page

Table 2. Number of domestic and foreign tourists in Kopaonik National Park in the period 2010-2020

Year	Tourists	Domestic tourists		Foreign tourists		Overnight stays	Domestic tourists		Foreign tourists	
		Number	%	Number	%		Number	%	Number	%
2010	57.990	52.596	90,7	5.394	9,3	233.912	210.032	89,8	23.880	10,2
2011	65.874	59.350	90,1	6.524	9,9	270.535	241.557	89,3	28.978	10,7
2012	67.175	59.345	88,3	7.830	11,7	298.432	261.477	87,6	36.955	12,4
2013	80.375	70.301	87,5	10.074	12,5	341.299	293.746	86,1	47.553	13,9
2014	72.433	61.496	84,9	10.937	15,1	323.133	271.763	84,1	51.370	15,9
2015	102.198	87.453	85,6	14.745	14,4	427.383	362.945	84,9	64.438	15,1
2016	117.942	97.571	82,7	20.371	17,3	495.753	406.778	82,1	88.975	17,9
2017	131.178	107.417	81,9	23.761	18,1	550.962	445.971	80,9	104.991	19,1
2018	132.080	105.760	80,1	26.320	19,9	535.594	423.999	79,2	111.595	20,8
2019	135.613	107.422	79,2	28.191	20,8	565.980	444.027	78,5	121.953	21,5
2020	104.370	85.858	82,3	18.512	17,7	432.038	339.021	78,5	93.017	21,5

Source: Statistical Yearbooks of the Republic of Serbia 2011-2020

The largest number of overnight stays in Kopaonik National Park was also recorded in 2019, of which the participation of domestic guests was 78,5%, and foreign guests 21,5%. The largest share of domestic guests was in 2010, when it amounted to 89,8%, out of a total of 233.912 overnight stays. Domestic guests had the highest number of overnight stays in 2017 (445.971), which was 80,9% of the total number of overnight stays. In the past period, the number of overnight stays of domestic guests ranged from 210.032 to 445.971, and foreign guests from 23.880 in 2010 to 121.953 in 2019. By analysing these data, we can conclude that the number of overnight stays of foreign tourists has also increased by about five times. Additionally, the COVID-19 pandemic had a negative impact on the number of overnight stays and tourists during 2020, according to the data from both tables.

4. DISCUSSION

From the point of view of tourism, two types of space can be distinguished: the space in which the need for tourist movement is created or intensified and the space that is intended for the development of tourism. The space in which the need for tourist movement is created or intensified consists of: urban areas, industrial centres and mining basins. It is precisely the human environment and the space in which man performs his basic functions – housing and work. By the way, the human environment has become a contaminated area due to increasing pollution of air, water, soil, noise, etc., as well as increasing mental fatigue. Therefore, in these environments, the harmful impact of such spaces on the human organism is becoming more and more visible. In addition to taking measures to protect the human environment, primarily by limiting contaminating effects, man temporarily goes to a free, undamaged and healthy natural environment (tourism), which to a greater or lesser extent eliminates the harmful effects of urban space on the human body. The area intended for the development of

tourism is a free, undamaged and healthy natural environment which, thanks to its ability to have a beneficial effect on the human body, enables the development of tourism in these areas as an economic activity. Therefore, industry cannot be developed in the protected areas, as well as excessive urbanization, i.e., traffic, because otherwise the development of these activities would degrade the natural environment and thus suppress tourism. However, the excessive development of tourism can also jeopardize the primary properties of natural spaces, especially protected ones, intended for tourism development. This negative effect of tourism on the protected areas is reflected in the occupation of space by construction of: accommodation facilities (hotels, motels, caravans, tents, log cabins, etc.), food facilities (restaurants, cafes, bars, etc.), facilities for sale, warehouse space, roads and parking spaces, walking trails and recreational areas (ski trails, tennis courts, football, etc.). Therefore, the protection of nature must be viewed from the perspective of tourist development because the problem of space for the development of tourist activities may appear in the future. Today, tourist movements have become a mass form of circulation and direct communication. Therefore, tourism is of great importance not only for the economy, but also for health, culture, sports, politics and others. In addition, mass tourist traffic enables significant revenues to be generated in tourist destinations. However, in addition to these positive effects, mass tourism also causes certain negative effects. Due to the increased concentration of people in a smaller area, there are numerous communal problems (e.g., increased demand for water, electricity, parking space, generation of larger amounts of waste, etc.) that can negatively affect the quality of the environment. In addition to this, the increased negative impact on the environment is also increased by the increased use of means of transport by which tourists come to certain tourist places. Motorized tourism is one of the most important polluters of the environment. This huge mass of motorized tourists represents an economic boom for thousands of tourist places, but also a potential aggression that increasingly endangers the natural values of national parks with exhaust fumes, engine noise and, above all, insufficient driver awareness. This tourist influence has been noticed for a long time, which is why the development of tourist awareness must be intensified, as well as the adoption of certain legal regulations. Mass and uncontrolled tourist traffic can also endanger the environment. In some places, it is a matter of violating and even endangering the protection regime including permanent spatial degradation of the environment. The negligent attitude of tourists towards the environment, as well as certain professional services, is a source of the negative impact on the quality of the environment. Furthermore, bad habits of tourists and poor organization cause pollution of the natural space. Tourists pose the greatest threat to forest wealth when it comes to forest fires. Additionally, tourists cause direct forest fires in various ways (negligence of tourists in handling flammable materials, radiators, open flames, etc.).

5. CONCLUSION

Environmental protection and tourism are simultaneous phenomena that emerged at a period when industrialization started to endanger man and nature. The hassle of stuffy cities, traffic noise and the fatigue of uniform comfort are increasingly endangering man, which is why man decides to stay in nature. As a result, it is vital to harmonize the goals of nature protection with the degree and forms of tourism development. The fact that objects of protected nature are at the same time the most famous tourist values speaks of the close connection between these two issues. Tourism, on the other hand, is a significant "consumer" of the natural environment, i.e., a contributor to its degradation. Tourism has a negative effect on the environment by endangering space, tourist movements, tourist traffic, polluting and destroying nature. Those responsible for the protection of national parks and tourism, such as the Ministry of Environmental Protection and the Ministry of Trade, Tourism and Telecommunications, should formulate and implement a development plan that will include the adoption and implementation of measures that will enable the development of sustainable tourism in protected areas without compromising the quality of the protected area in terms of biodiversity, geodiversity and cultural and historical values. Also, another measure is to inform and educate tourists in an adequate way to see the need to protect national parks, as well as monitor and sanction all actions of tourists that can endanger nature in any way.

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