SUSTAINABILITY OF TOURISM IN THE WINTER CENTERS OF MONTENEGRO

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Abstract

The subject of this paper is to present the potential risks of current investment in the winter centers of Montenegro, as well as recommendations for the best possible development of tourism in the north of Montenegro. We also want to point out the importance of networking the coastal and northern parts of the country in active tourism throughout the year because the line between those two parts of the country is connected by incredible natural beauty. Global warming has shown that even in larger ski centers in Europe there is a very high risk of investing in ski sport because the period of use of the ski resort in the winter months is getting shorter due to the lack of snow and that it is better to invest in sustainable tourism and animate tourists with the extraordinary natural resources that Montenegro possesses through rural and active tourism, as the best form of a longer stay for tourists in the north of Montenegro and Montenegro in global. This type of tourism is very attractive now, especially after the COVID pandemic when tourists are increasingly opting for individual trips in nature.

Key Words: sustainable tourism, climate change, northern Montenegro, winter centers
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Introduction

Sustainability is the key word when it comes to the future of Montenegrin tourism. Namely, for decades in the region of the Montenegrin coast,

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residential units have been built in the area that would be intended for tourism under adequate circumstances, but the aforementioned processes are now also taking place in the north. For example, only between the two censuses (2023 year versus 2011 year) in Montenegro was recorded an increase in the number of housing units of 82,169 apartments (of which 58% refer to the coast, and 31% to the capital Podgorica), while in the same period there was an increase in the number of inhabitants at the national level amounting to 13,129.

Supporting the previously stated thesis that the aforementioned processes also take place in the north, only in two winter centers, in Kolašin and Žabljak, the number of housing units increased by 1,800. It is therefore necessary to recall some basic determinants of sustainability in tourism, as well as in overall development. The entire tourism offer of the country should be based precisely on the attractive properties of the resources at its disposal. Ćorluka (2019).

Muller (2004) states that the connection between spatial planning and tourism is reflected in the exclusion of the construction zone is one of the crucial preconditions for the development of tourism. Forcing the zoning of the construction zone for vacation apartments represents a certain impulse in the generator of tourist growth. The aforementioned leads to a certain satisfaction of needs and prevents the departure of the resident population, but on the other hand, it often leads to the destruction of the environment, inadequate dispersion of capacities and dominant economic dependence on one economic area, which is a tertiary character and depends on the discretionary income of consumers. (p.195)

In line with above mentioned, Galičić & Laškarin (2016) states that: 'The concept of sustainable tourism defines an affirmative relationship between economy and ecology. The sustainable development of tourism proclaims the preservation of both the physical and the sociological environment. Consequently, the business of companies from other industries does not depend directly on preserved nature, while for tourism, natural attractiveness represents the basic resource and the most prominent motive for tourist trips’. (p.197). However, it is not enough to constitute spatial planning favorable to tourism, but precisely as stated by the previous authors, to ensure the implementation of sustainable tourism. Therefore, the model of the maximum carrying capacity of the tourist destination is increasingly being applied, which implies not only the maximum physical reception of tourists, but also the stated quantum of
tourist demand affects the sociological and ecological constituents of the destination. In this direction, in March 2016, the European Commission created a document based on indicators of sustainable tourism and reception capacity, which consists of 27 basic and 40 optional indicators. In the theory of practice, carrying capacity can be viewed through four basic levels, on the basis of which we can analyze its different types:

**Ecological** - which is used to more closely determine the degree of use of touristic resources without environmental degradation  
**Social** - is based on the attitude of the local population towards tourism development, with the aim that it should not be negative, i.e. that the community does not suffer negative effects from tourism  
**Psychological** - it is based on the degree of satisfaction of tourists with the destination itself  
**Economic** - shows the dependence of the local economy on tourism development, where it should be emphasized that it is desirable that it is not too large.

Based on the stated levels of carrying capacity, it is possible to determine the final results of the carrying capacity of the tourist destination, given that all levels of carrying capacity are dependent on each other (Stojanović, 2011). When calculating the carrying capacity of a tourist destination, it is necessary to do certain research beforehand, thanks to which we will be able to obtain exact data and define the choice of the specified parameters in accordance with the configuration of the destination itself. Precisely because of the above, it should be emphasized that the carrying capacity of the destination cannot be treated as a purely mathematical category on the basis of which we will obtain certain values. The application of carrying capacity in practice is a somewhat more complex process than the mere understanding of this term represents. Depending on how well the management manages the destination, the number of parameters on the basis of which we calculate the carrying capacity will increase or decrease over time (Dražić, 2009).

Tourism is a complex, diverse and multi-faceted sector; every company and destination will face different sustainability challenges as well as opportunities. Whilst admirable progress has been made in the past decade, there is still a need to accelerate the use of sustainable tourism practices and address gaps in action, especially in the light of the climate emergency (The European Travel Commission, 2021).
Sustainability of tourism in Montenegro

Montenegro is a small country (current population: 633,158, areas: 13,812 km²), with landscapes of extraordinary beauty - faithfully described by the slogan 'Wild Beauty' - and diversity that can hardly be surpassed: high mountains and deep canyons, wide plains, fast rivers, Lake Skadar and the picturesque coast others. And the vegetation is rich in species, depending on the altitude. The north of Montenegro is a part of Montenegro that has not been valorized for tourism purposes to the extent it should, and the largest percentage of investment is in the construction of ski slopes and cable cars, and there are no other investments. From all of the above, it is clear that very few ski resorts will survive due to global warming, and those that succeed will survive in countries with a strong economy and which can allocate very large funds for snowmaking ski slopes and start new methods of artificial snowmaking of snow formation. Montenegro has only one apparatus for artificial snowmaking. The best conditions for winter tourism offer Durmitor and Bjelasica, but also Prokletije. Both on the coast (Budva, Ulcinj) as well as in the most favorite locations in the mountainous region (Durmitor, Njeguši) land resources are limited. Despite this, they are often inadequately used, such as for the construction of weekend apartments and holiday homes rarely in accordance with local tradition and do not fit into the environment (Ministry of Tourism and Environmental Protection. of Montenegro, 2021).

Tourism is a cross-cutting activity that fits into a value chain across multiple sectors: agriculture, transport, urban planning, environmental protection, waste management, water and energy, jobs and social policies. The notion of sustainability in tourism cannot be understood in isolation from its impact on other sectors. (Marti & Duran, 2019). That is why it is important to make municipal urban plans as soon as possible based on the latest knowledge about economic development and sustainability. For the tourism industry, beyond acting as a responsible citizen, sustainability is the only way to keep the viability of its business in the long term, because any damage to the natural, cultural, or social assets of a destination can lead to the eventual destruction or loss of tourist products. Mladinić (2020)

Montenegrin Master Plan in tourism realization

Montenegro, in cooperation with DEG - German Society for Investments and Development, made a Master Plan for the development of Montenegro's tourism from 2001 to 2020, which envisaged several clusters
that would define the offer of our tourism by region. We will only pick out the clusters that are related to the topic:

Cluster 5 -Bjelasica and Komovi Prokletije – Plav -Tourism in nature, sports tourism, concentrations, wellness

**Advantages** - Good accessibility by road and rail from the coast and from Serbia, hotel „Bianca“, a potential of nature that includes the mountains Sinjajevina and Prokletije, with Plavi and Gusinje. National Park Biogradska gora. An important monastery Morača. The concept of hiking and mountain biking, which has already been applied, and within which a Guide for Hikers in four languages has been published. Kayaking tour potentials as a complement to rafting on Tara and Lim.

**Objectives of the new positioning** -Construction of a medium to high quality rest area. The focus of activities: rest, family atmosphere, experiences of culture. The goal of the stage and the center (in the Montenegrin network) of trails for international hikers / pedestrians and cyclists (Ministry of Tourism and Environmental Protection. of Montenegro, 2008a).

_The real situation today: It started with the construction of an ethno village, more and more families are visiting this cluster and it is becoming recognizable by rural tourism in its infancy. There are also hiking/hiking and biking trails._

Cluster 6- Durmitor-Sinjajevina Žabljak-Plužine-Boan- Savnik -Nature tourism, sports and family tourism

**Advantages** - Mountain area and forests: Tara canyon and rafting, opportunities for hiking and hiking, as well as several cultural aspects: monasteries Piva, Dobrilovina and Pljevlja, and the mosque there, as well as yet undiscovered attractions: caves, katuns.

**Objectives of the new positioning** -Development of a mountain product that will encompass the entire cluster and be based on active tourism in nature for families, nature lovers and mountains. Winter sport, based on extreme tracks, in addition to the already existing tracks of lighter level. Arranging the National Park with programs related to nature itself, the experience of the same and various other activities. The development of a special type of hotel - in view of the club hotel industry - architecturally timeless, and which will directly attract the aforementioned target groups. (Ministry of Tourism and Environmental Protection. of Montenegro, 2008b)
The real situation today: It started with the construction of an ethno village, more and more families are visiting this cluster and it is becoming recognizable by rural tourism in its infancy. There are also hiking/hiking and biking trails. Also began large investments in skiers, but unfortunately, there is a shorter number of days under the snow in this cluster.

Cluster 7 - Connectivity belt from Littoral to Durmitor
Advantages - Between the coast, i.e. the airport, and Durmitor there are extremely beautiful, fascinating, partially unknown areas with corresponding cultural and historical features.
Objectives of the new positioning- Connecting Montenegro into one common product and a common brand of destination under the motto „Wild Beauty“ . Development of the continental part of the country in small and medium-sized initiatives of various types with a network of roads and trails as well as in the region of the destination. (Ministry of Tourism and Environmental Protection. of Montenegro, 2008c)

Real situation today: Very poorly promoted, the local population in most cases individually familiar with this type of getting to know our country. I think this is one of the clusters that should be very developed and therefore revive all clusters.

Cluster 8 - Connecting belt from the littoral towards Bjelasica and Komovi
Advantages - Between the coast, i.e. airports, and Bjelasica there are fascinating areas of Skadar Lake, Morača canyon as well as the beautiful road Podgorica-Mateševo with various sights: Lesendro, Podgorica, National Park Skadar Lake.
Objectives of the new Positioning- Connecting Montenegro into one common product and a common brand of destination by motto „Wild Beauty“ . The development of the continental part of the country as small and medium-sized initiatives of various types with a network of roads and paths, as well as in the region of the destination.
Vision: Montenegro becomes a leading country in the field of mountain tourism and nature tourism in the Mediterranean region and across these belts i.e. rail, builds other offers/niches, i.e. programs and offers such as health tourism, wellness, MICE, culture, etc. (Ministry of Tourism and Environmental Protection. of Montenegro, 2008d)
**Real situation today:** Very poorly promoted, the local population in most cases individually familiar with this type of getting to know our country. I think this is also one of the clusters that should be very developed and therefore revive all clusters.

**Investing in winter centers and climate change**

In 2017, Montenegro established its own company Ski resorts of Montenegro, which manages ski slopes. According to the data obtained from the Public Works Directorate, over 70 million euros have been invested through the Capital Budget since 2015 in the following development projects in the North of Montenegro: Ski Center „Kolašin 1600“ – EUR 22,910,409.43, Ski Center „Cmiljača“ – EUR 16,774,130.09, Ski Center „Žarski“ – EUR 10,618,301.11, Ski Center „Savin Kuk“ – EUR 9,035,244.06 and „Dalovića pećina“ – EUR 11,626,003. Viewed by types of revenues and representation of individual types of income in total revenues, the largest share in revenues are revenues generated on the basis of transfers from the Budget and account for 78.97% of revenues, followed by revenues from catering with 7.5%, advertising revenues with 6.91%, revenues from the sale of goods and services with 5.15% and all other revenues with a share in total revenues of 1.46%.

From the 2021 financial report, it can be seen that the Net Comprehensive Score was EUR 15825. While in the previous year 2020 it was 279,686 euros. The report at this point is still not finished for the previous 2022 net result for business last year.

Data from the Report of Ski resorts of Montenegro DOO Mojkovac (2021) on business results in the period 01.01 - 31.12.2020. year, Ski Resorts of Montenegro DOO Mojkovac: The winter tourist season 2019/2020 began on 14.12.2019 and ended on 15.03.2020. It lasted a total of 93 days. In that period, Ski Resorts of Montenegro DOO Mojkovac, March 2021, it was recorded that the Troglava cable car was in operation for 90 days for the purpose of tourist panoramic driving, a total of 30 ski days were recorded when the infrastructure of the ski resort operated with limited or full capacity for the purpose of skiing, while three days the infrastructure of the ski resort was not in operation due to poor weather. The first ski day was recorded on 07.02.2020., when one ski slope Vranjak, 1700m long, was put into operation. The weather conditions during the winter tourist season 2019/2020 were extremely unfavorable, unprecedented for the winter.
period in mountain centers, both in our country and around the world. During the winter season, 40 days with temperatures greater than 0 degrees and 50 days with a temperature of less than 0 degrees and 50 days with a temperature of less than 0 degrees were recorded at the locality of the Kolašin 1600 ski center. Further, 53 days without snow cover and 37 days with snow cover were recorded, with the height of the snow cover between 10 and 35 cm. Therefore, the air temperature was extremely high for the winter period, with 70% of the snow-free days during the winter season, with no ski day recorded in December 2019 and January 2020. As an extremely unfavorable, and at the same time the basic condition for achieving optimal results at the ski resort during the winter season, these weather conditions have determined the success of both the season and the Company's business throughout the business year. The company remained deprived of the most significant part of total revenues at the level of the business year. The emergence of the coronavirus pandemic has additionally affected the results of the winter season, given its occurrence in Europe and the Balkans already from the second half of February 2020. Furthermore, the fact is that the Kolašin1600 ski center does not have a system for artificial snowing of ski slopes. However, in the fact that during the season there were 40 days with temperatures above 0 degrees, all and if we had the artificial snow system, it would not have worked in those days. This winter season 2023/2024 has not yet been a single ski day.

**The current situation with the climate in Montenegro and how it is planned in the coming years to change the climate**

Based on the projections given in the Third National Communication adopted by the Government in June 2021, Montenegro expects an annual temperature increase of 1.5 to 2 °C by 2040 throughout the country it is expected that the increase in temperature during the winter months December - January -February (DJF) will be between 2 and 2.5 °C, and in the summer months June-July - August (JJA) on average about 2 °C. For the period 2041–2070, the deviations of the mean annual temperature are from 2.5 to 3 °C. The projected warming in the winter and summer seasons is on average the same, with a more pronounced increase in the north in the winter season and in the south in the summer season. For the period 2017-2100, the deviation of the mean annual temperature overmost of the territory is about 5.5 °C. During the winter season, according to projections, the temperature increase is expected to exceed 6 °C in the northern mountainous areas, and during the summer season will be higher than 6 °C in the southern coastal area with lower altitudes. It is expected
that the projected increase in temperature during the winter months will lead to a decrease in the total accumulation of snow, but also to a decrease in the number of days with snowfall on the territory of Montenegro.

Climate projections show an overall decrease in snowfall over the next few decades:
- For the period 2011-2040, deviation of medium annual snow accumulations for both seasons - In relation to the reference period, it ranges from the north of the country to the central parts. The number of days with snow is expected to decrease by the same percentage, from -30% to -80%.
- For the period 2041-2070, the expected changes in snowfall range from -50% in the north to a change of more than -90% in the central parts. At the same time, the number of days with snow is expected to decrease from -50% to over -70%.
- In the period 2071-2100, almost the entire territory except the northernmost part can expect a change in snowfall of more than -90%. The number of days with snowfall is expected to decrease by over -70% compared to the reference period (Ministry of Economic Development of Montenegro, 2019). From the previous it is concluded that snowfall will be less and less and that in the near future skiing will only be possible with a large investment in the expert witness of snowing or possibly the construction of closed ski resorts.

**Investing in winter centers and economic citizenship**

Another very big problem for the devastation of nature and non-compliance with the sustainability of tourism is the construction of accommodation intended for foreigners to acquire economic citizenship. It was for this purpose that the construction of huge settlements at the foot of the ski slopes in Kolašin began. In the document Information on the implementation of the special program (economic citizenship), the dominant form of investment in development projects is through the purchase of one of the accommodation units in the hotel, in accordance with Articles 95 and 96 of the Law on Tourism and Hospitality (kondo and mixed model) (Ministry of Internal Affairs, 2022). This financial investment model enables a faster return on funds invested in the construction of the project, and in its first phase the dominant economic activity related to such investments is related to the construction sector and sector real-estates. The risk of this model of financing the program is that the expected revenue from the sale of units is associated with the
success of the application for citizenship of the buyer / investor in the development project. The construction of such buildings on Žabljak has not yet begun, but one can also take into account the low attendance on Žabljak, i.e. the stay, because the guests are mostly on a daily basis. From the above it is clear that the construction is intended exclusively for acquiring citizenship and investing money in that unit that is being purchased, and not for the purpose of tourism, because it is not a facility that will operate as hotels therefore provide additional services to guests as well as employment of the local population for the purpose of tourism.

Conclusion

Bearing in mind that climate change will greatly affect the now started investments in the north of Montenegro, from this comes the fact that we did not adhere to the clusters that we mention, we think that the risk of such an investment is very large, and the gain is not realistic if tourism in winter centers is based only on ski tourism. Tourism is also associated with potentially negative impacts on ecosystems, such as pollution and biodiversity loss, as well as on the social and cultural fabric of mountain communities.

Climate change is one of the biggest challenges in mountain destinations, with impacts that include reducing the period of snow cover and increasing the risk of extreme weather events. The fragility of natural, social and cultural heritage inherent in mountainous regions determines the competitiveness and quality of tourism initiatives offered in the mountains. Therefore, a sustainable approach to mountain tourism in all countries is imperative, in order to promote long-term growth, while maintaining a balanced use of resources.

It is necessary to design, predict, prevent situations that can occur in tourism. Climate change, pandemics and everything else that awaits us from the potential risks to the development of tourism and in general, we must anticipate, be ready to react, invest wisely and respond to the best extent to such a challenge. This can only be done with a well-thought-out approach to crisis and risk management at the state level.

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