



Marian GÚČIK • Matúš MARCIŠ

SUSTAINABLE TOURISM DEVELOPMENT IN THE TATRA NATIONAL PARK

Marian **Gúčík**, Prof. Ing., PhD • Matúš **Marciš**, Ing., PhD student – *Matej Bel University in Banská Bystrica*

Correspondence address:
Ekonomická Fakulta
975 90 Banská Bystrica, Tajovského 10, Slovakia
e-mail: marian.gucik@umb.sk

ABSTRACT: Tourism is mostly concentrated in protected areas. The highest level of protection of nature and landscape represents national parks, which are important biosphere reserves. Tourism in national parks has to be developed with a thoughtful and considerate approach to the environment and in accordance with sustainable development values, which are based on economic, social and environmental principles. The object of the study is the Tatra National Park, whose task is to preserve and protect the original conditions of the natural environment in the protected landscape and utilise its potential for recreational, medical and sport purposes. In the last decade, the territory of the national park has been undergoing major innovations associated with the construction and improvement of tourism facilities. The aim of the article is to examine the sustainability of tourism in the Tatra National Park based on indicators developed by UNWTO (2004) in terms of visitors with an emphasis on social and environmental aspects.

KEY WORDS: Tatra National Park, Tourism, Slovakia, Sustainable development

Introduction

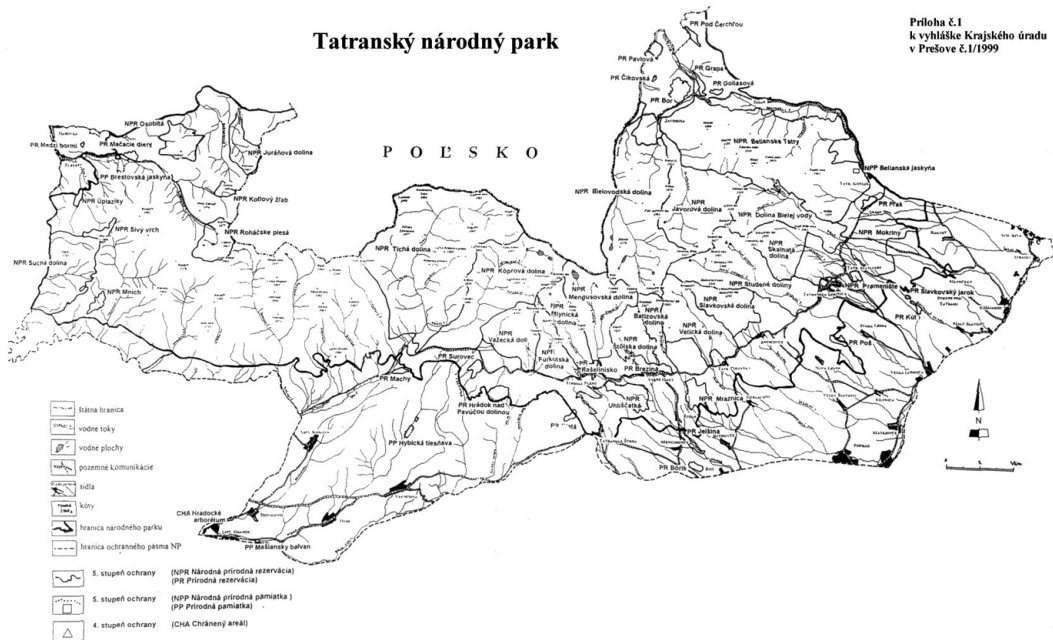
Tourism development in protected areas cannot be without issues. There are conflicts between the protection of natural and cultural heritage and tourism development. Nature protection pursues conservation of important ecosystems of national and often global importance. In Slovakia, the protected areas consist of many endemic species whose biotopes require the preservation and protection of living conditions, but on the other hand their natural and cultural potential enables tourism development. Development of the tourism potential in the protected areas could have positive, but also negative effects. The positive effects of tourism are reflected mostly in the creation of new job opportunities, tourism also affects the local businesses' incomes and public budget revenues. The negative impact of tourism on the environment is mainly noticeable in high visit rate which exceeds the capacity limits of area and affect the vegetation, produce waste, noise and scar wildlife, etc. The subjects of promoting sustainable tourism in protected areas should not only be the organization of nature and landscape, but also tourism management organizations which applies the principle of cooperative (destination) management. Cooperation between the organizations should be reflected in the planning and development of the tourism product and its consumption in terms of nature and landscape, which is a prerequisite for maintaining the attractiveness of the territory, its visit motivation and market competitiveness.

Therefore, it is necessary to pay attention to the sustainable development of tourism in protected areas to ensure not only the protection of ecosystems, but also the long-term usage of resources (attractions) in the tourism area.

Theoretical backgrounds

The object of the study is sustainable tourism in the Tatra National Park.

Tatra National Park. A substantial part of tourism in Slovakia is concentrated in protected areas with the highest level of security, i.e. in national parks. Twenty-three percent of the land area in Slovakia is currently under some form of protection (Švajda, Fenichel, 2011). There are 9 national parks, from which the Tatra National Park (TANAP) is the oldest. It was established in 1949 with an area of 73 800 hectares, further the buffer zone consists of 30 703 hectares and together forms area of 104 503 hectares. The 42% of the TANAP territory belongs to the fifth-highest level of natural protection. Since 1993, TANAP is together with the Polish Tatra National Park (Tatranski Park Narodowy) part of a UNESCO Biosphere Reserve (figure 1).



Source: TANAP, 2016.

In 2004, TANAP was affected by natural calamity, which resulted in the destruction of 40% of its forests. The administration of the national park has ever since been focused on the revitalization of the destroyed forests. In the prepared zonation of the Tatras, more than half the territory of TANAP (Zámer..., 2010) has to belong to the highest level of protection. The purpose of the national park is to keep the original state of the natural environment with protective and consistent guidance for the utilization of the mountain ranges for recreational, medical and sports purposes. According to the park rules (1999) the movement of visitors is allowed only on public roads and marked hiking trails with respecting time and space constraints.

Tatra National Park covers a substantial part of the mountain range with the same name which consists of 15 sections (along The path of freedom from Podbanské in the Tatranská Kotlina), together constituting the town of Vysoké Tatry, founded in 1947. The town of Vysoké Tatry is part of the Tatra region of tourism (Regionalizácia..., 2005) with an international importance. In 2013, in the town of Vysoké Tatry lived 4 146 residents and in 2010 it was 4 416 residents. This region is one of the most attractive tourist destinations in Slovakia with good infrastructure and besides the Bratislava region is the second most visited region in domestic and foreign incoming tourism. The Tatra National Park, besides getting to know the natural and cultural herit-

age, allows summer and winter vacations in the mountains with the possibility of skiing, snowboarding, cross-country skiing, ski tourism (ski trips, alpine skiing), paragliding, rock climbing, hiking (640 km of marked hiking trails) and biking along dedicated routes. The most important centres of tourism in the national park are Štrbské Pleso, Starý Smokovec and Tatranska Lomnica.

In recent years the building of tourism infrastructure in the national park is regarded with a critical view. Opinions of the residents in the territory of TANAP regarding the development of the tourism are varied. A significant part of the residents, comprised of small and medium entrepreneurs who provides services to tourism visitors, see it as a source of income. The biggest investor in tourism in the area is the company Tatry Mountain Resorts, which establishes most of the infrastructure (cable-ways, lifts, trails, accommodation, catering and additional services) for solvent clients and declares *that they desire to avoid mass tourism and try to help to promote sustainable development*.

Sustainable development is a paradigm of today's society and trend of progression. The sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Our Common Future, 1987). The European Union declares that the sustainable development is a factor for the well-being of future generations. According to the National Strategy for Sustainable Development of the Slovak Republic (2001), sustainable development means "a targeted, long-term (continual), comprehensive and synergistic process, affecting conditions and all aspects of life (cultural, social, economic, environmental and institutional)".

The sustainability of tourism was pointed out by the Manila Declaration on World Tourism (1981) and later was included in the Global Code of Ethics for Tourism (1999), which sets the framework for responsible and sustainable tourism in the world and to minimizing its negative effects on the environment and cultural heritage while maximizing the benefits for local destinations populations (Gúčik et al., 2014). A document which refers to the environmentally sustainable tourism development is the Agenda 2030 for Sustainable Development¹.

¹ Transforming our world: The Agenda 2030 for Sustainable Development is a plan adopted in September 2015 by all 193 member states of the United Nations. The agenda declares 17 sustainable development goals with a 169 associated targets which are integrated and indivisible. The agenda promotes sustained, inclusive and sustainable economic growth, full and productive employment. This includes also devising and implementation of policies to promote sustainable tourism that creates jobs and promotes local culture and products.

Based on the foregoing, the sustainable tourism should have focused on to satisfy the needs of current visitors in tourism and visited regions, but also to protect and preserve these opportunities for the future. It should lead to a management of all resources in such a way that economic, social, and aesthetic needs can be fulfilled while maintaining cultural integrity, essential ecological processes, biological diversity, and life support systems (UNWTO). The products of sustainable tourism should be compatible with the local environment, society and culture. Therefore, the environment, society and culture will be profitable from tourism and will avoid becoming a victim of tourism development.

The sustainability of tourism is based on three pillars – economic, social and ecological, which are designed to ensure adequate fulfilment of the tourism needs for present and future generations. On behalf of that, it is essential that the subjects involved in tourism development in the tourism destination will cooperate, coordinate their actions, and create organizational structures which make better conditions for innovation and gain a competitive advantage (Gúčík, 2012).

Aim, material and methodology

The aim of the article is to examine the sustainability of tourism in the Tatra National Park based on the indicators developed by UNWTO (2004) in terms of visitors with an emphasis on social and environmental aspects.

We have conducted qualitative primary survey of visitor's opinions in selected tourism centres with facilities for sports and recreational activities in the Tatra National Park to achieve this aim. We have conducted data collection method with interview using a questionnaire, with the possibility of marking the weight factor for the Likert scale (1 – strongly agree, 2 – agree, 3 – undecided, 4 – disagree, 5 – strongly disagree). We have compiled the questionnaire based on selected 17 indicators of sustainable development of tourist centres in protected areas (UNWTO, 2004, p. 492). We received 527 questionnaires in the summer 2015 and winter 2015/2016 and we included into the processing 375 responses with the completed questionnaires. The selection of respondents was random and it consisted of 59% men and 41% women.

We processed the obtained data by selecting methods of descriptive statistics using the SPSS software (frequency, weighted average, standard deviation to express deviations from the mean and coefficient of variation, which is considered normal when the figure ranges from 5% to 44%, a large variability if it is in the range 45% to 64% and very large if the range is from 65% to 84%). We obtained the secondary data on capacities and tourism infra-

structure from the Statistical Office of the Slovak Republic and we processed selected data with methods of descriptive statistics.

Research results

Tourism infrastructure in the Tatra National Park

The tourism infrastructure consists of different types of establishments from which for the residential tourism are most important accommodation, sports and recreational facilities. Capacity and performances of tourism accommodation facilities capture Table 1.

Table 1. Capacity and performances of tourism accommodation facilities in Tatra National Park

| Indicator/Year | 2005 | 2010 | 2015 | Index 2015/05 |
|---|--------|--------|--------|---------------|
| Number of accommodation facilities | 255 | 291 | 398 | 1,561 |
| Number of beds | 13 711 | 15 615 | 18 032 | 1,315 |
| The utilization of accommodation capacities [%] | 31,1 | 34,0 | 37,0 | x |
| Size of accommodation facilities (beds) | 53,8 | 53,7 | 45,3 | 0,842 |
| The number of the guests in thousands | 399 | 381 | 608 | 1,524 |
| The number of overnight stays in 1000 | 1 340 | 1 281 | 1 779 | 1,328 |
| Average length of stay | 3,4 | 3,4 | 2,9 | x |

Source: Processed by the Statistical Office of the Slovak Republic, 2016.

Between the 2005 and 2015, the number of accommodation facilities has increased by 1,5 times and number of beds has increased by 1,3 times. The utilization of accommodation capacities was low (37%) in 2015 and in ten years the utilization of accommodation capacities has increased only by 6%. The average size of accommodation facilities was 45 beds in 2015 and for ten years, it has decreased by 8.5 beds. This indicates an increase of small accommodation facilities-which provide a reduced amount of services as the hotels, then they have lower costs and can offer lower prices for their services.

The number of guests has increased by 1,5 times, but the number of overnight stays has increased only by 1,3 times. The increase in the number of beds in accommodation facilities is similar. Decrease in the average number of overnight stays from 3,4 in 2005 to 2,9 indicates that the average length of guest's stay in the attractive environment of the national park has become shorter. A low rate utilization of the accommodation capacities and the average number of overnight stays are a consequence of, among other things, the price policy of accommodation facilities. A significant part of the cost sensi-

ble national park visitors more often stay in the local villages and travels daily by private or public transport to the national park.

The utilization of accommodation capacities is similar to the average for the Slovakia. For instance, the annual average utilization of accommodation capacities in Bratislava is 35%, while in spa centres as Trenčianske Teplice is 52% and in Piešťany is 41%. A low rate utilization of the accommodation capacities in the Tatra region, likewise, in Bratislava indicates a surplus of the accommodation capacities in excess of the existing demand.

Increase of the accommodation capacities is accompanied by the further development of tourism infrastructure and has both positive and negative economic, social and environmental effects. Besides the accommodation facilities' guests is necessary to take into account the visitors, whose stay in the national park is limited to only a few hours a day.

The passenger transport in the area of the Tatra National Park is provided by electric railway and 1st class road from Podbanského to Tatranská Kotlina. In the winter season the passenger transport is provided by the free ski buses. There is a developed network of the vertical transport facilities with a 10 all year-running cable-ways (4 cabin, 6 chairs) and 10 ski lifts for winter season. Other services are provided by four tourist information centres, mountain rescue service, voluntary rescue service and guide services are provided by Association of Mountain Guides and independent certified mountain guides.

Opinions of the visitors regarding the sustainability of tourism in the Tatra National Park

Opinions of the visitors to the sustainability of tourism in the Tatra National Park captures Table 2, which is based on a 17 statements, focusing on environmental and social aspects of tourism sustainability.

From an ecological perspective, the respondents expressed their dissatisfaction with a noise in the visited resort (4,05), local pollution (3,38), disturbed natural environment (3,33), excessive number of visitors (3,25) and the absence of containers for garbage (3,20). In those cases, the opinions of the visitors indicate the minimum variance, though the coefficient of variation is within the range from 5 to 44% of variability.

The opinions of visitors are different in the case of the divided architectural character (2,93) and the excess of urban constructions in the environment (2,88), where the coefficient of variation is in the range 45-64%.

Table 2. Opinions of the visitors regarding the sustainability of tourism in Tatra National Park

| In tourism destinations | Visitors together | Standard deviation | Coefficient of variation [%] |
|--|-------------------|--------------------|------------------------------|
| 1. There is a sufficient amount of a natural, cultural and historical attractions | 1,93 | 1,19 | 61,56 |
| 2. There is a sufficient equipment for social, entertainment and other leisure-time activities | 2,33 | 1,25 | 53,69 |
| 3. Natural environment in the resorts is not damaged | 3,30 | 1,22 | 37,08 |
| 4. The attractions are being maintained | 2,20 | 0,91 | 41,43 |
| 5. The resorts are easily accessible | 1,68 | 1,05 | 62,52 |
| 6. The attractions are easily accessible | 1,86 | 1,00 | 59,53 |
| 7. There is an appropriate amount of containers for garbage | 3,20 | 1,36 | 42,58 |
| 8. The air quality is good | 1,63 | 0,87 | 53,41 |
| 9. The quality of water is good | 1,50 | 0,88 | 58,47 |
| 10. The noise was unpleasant | 4,05 | 1,24 | 30,60 |
| 11. The local pollution was unpleasant | 3,38 | 1,31 | 38,94 |
| 12. There is an excessive number of visitors | 3,25 | 1,43 | 43,93 |
| 13. The architecture has the unified character | 2,93 | 1,35 | 46,06 |
| 14. The environment is adequately urbanized | 2,88 | 1,30 | 45,38 |
| 15. There are sufficient parking possibilities in the reserved parking slots | 1,93 | 1,23 | 63,77 |
| 16. The residents actively help visitors | 2,10 | 1,08 | 51,49 |
| 17. The overall impression of the visit is good | 1,68 | 0,73 | 43,57 |

Source: Processed based on the results of the survey, 2016.

The respondents considered the quality of water (1,50) and the quality of air (1,63) as decent and the variation of their responses is relatively large.

From a social perspective, the respondents consider the amount of social, entertainment and other leisure-time facilities (2,33) as average as well as the maintenance of local tourist attractions (2,20) and the willingness of local people to help to visitors (2,10). While in the case of the maintenance of local tourist attractions is the variation of opinions minimal, then the coefficient of variation of the amount of social, entertainment and other leisure-time facilities in the area is relatively high. The respondents were satisfied with the amount of natural, cultural and historical attractions (1,93) and with the parking possibilities in reserved parking areas (1,93).

Interestingly, the respondents were satisfied with the transport accessibility of tourist resorts (1,69) as well as with the accessibility of tourist attractions (1,86). Nevertheless, in the national park is the capacity of public parking slots and fee for parking considered as a long-standing problem.

The respondents have overall a good impression of the visit in the Tatra National Park and the average value of this factor was 1,68 points. For the protection of nature and landscape in the national park is necessary to know also the views of others involved in tourism development such as authorities of nature protection, local governments, the operators of tourism facilities and residents.

We have confronted our research results with the findings acquired by Maráková (2013). The residents perceive the presence of the visitors positively and consider them as a sign of recovery of tourism after the global economic crisis in 2008 and its drop in traffic. The investment activities are associated with product innovation, development of organized events focused on leisure activities for visitors and residents. The increase in the number of visitors is likewise connected with their higher concentration in the national park and tourist centres as well as with the disruption of the residents' privacy. According to Maráková (2013) 44% of residents consider the investment activities in the national park as an excessive and 40% of residents recognize the investment activities as a disruption of the environment. It is necessary to remind that residents are not sufficiently informed about planned investments and eco-innovation in tourist centres in the national park.

Conclusion

The aim of the sustainable tourism development in the tourism destination is to preserve and increase the experience of travelling, support the integrity of the destination, the conservation and protection of its resources, the respect local culture and traditions, promotion of the quality and not quantity, and in that way increase of the well-being of residents (Kučerová, 2015). The aim of the article was to examine the sustainability of tourism in the Tatra National Park based on the indicators developed by UNWTO (2004) in terms of visitors with an emphasis on social and environmental aspects.

The survey reveals that from an environmental point of view in the concern of sustainable tourism, it is essential that the subjects interested in tourism development have to pay the attention to the environmental protection, in particular the elimination of the deficiencies associated with the pollution and absence of containers for garbage in public places.

The most frequent form of tourism in the national park is a one-day visit, when the visitors focused mostly on tourist attractions as their primary motive of the visit and they do not pay adequate attention to the natural environment. The high number of the visitors exceeds the capacity limit of the tourist destination and has an impact on noise, which is also result of individual transportation. From an ecological perspective, it is necessary to deal with the tourist parking and redirect the visitors to a public environmentally friendly transport.

The visitors in the national park consider the ecology deficiencies in terms of inadequate urban construction and in the case of the divided architectural character in a tourist destination. The further construction activity

has to respect the appearance of the neighbouring buildings in inhabited areas in order to create a unique, livable and sustainable environment. This includes the unity of architectural design, compliance with the standard height of buildings, their appearance and the used of materials. The architecture has to follow the character of specific locations and to respect the genius loci (Norberg-Schulz, 2016). Therefore, it is desirable that the existing constructions should be reconstructed in its original style and within the respect of the traditions and with the use of modern technologies and materials.

Aesthetics of the environment have an impacts on the expanding experience of the visit in a national park and it is also the social aspects of sustainable tourism. From a social perspective, the respondents have positive evaluation. There are many natural, cultural and historical attractions which are the main motive of the visit and which satisfied their needs and desires.

The sustainable development of the tourism in the Tatra National Park is a theme of discussion between public and private sector. The solution is considered with a negative acceptance of the new zoning of the national park (2010), which does not visualize a further expansion of the area for tourism. It is necessary to respect the views of residents because tourism affects not only the environment but also life. Further development of tourism in the national park is conditional on the coordination of the interests of those who are involved in tourism and the implementation of strategies of sustainable development in conditions of a limited nature and landscape protection.

The contribution of the authors

Marian Gúčik – 70%

Matúš Marciš – 30%

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