Notes on the impact of cycling infrastructure on tourist destination management

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ABSTRACT
There has been a large support given to building of cycling routes in Slovakia for last few years at all levels and many aspects. Not just legislative, strategic and technical point of view but also financial support is necessary to take in account. According to this big effort is necessary to be more focused on a question of evaluation of impacts on local communities. This article deals with analysis of cycling infrastructure impact on destination performance.

Keywords: cycle tourism, tourist destination, impact

INTRODUCTION
Cycling is a topic that has been said lately a lot and has been even more expected. Often it does not say as a form but as a phenomenon that brings the opportunity to move cycling to the level of economic activity with respect to the environment. The popularity of cycling as a recreational activity continues to grow. Along with an interest in sustainable tourism, health and the environment the cycling is suitable for the unique type of holiday activities, which has all the prerequisites to fulfil the conditions for the sustainable development of tourist destinations.

CYCLING TOURISM AND ITS IMPACTS IN COMMON TERM
According to the World Tourism Organization in 2017, tourism represented 10% of the world's gross product, 30% was on the export of services and 1 of 10 people were employed in tourism. The global measure also showed that up to 57% had travelled by plane (in the year 2016 it was 55%), and 37% had used for its transportation to holiday destination a car (in the year 2016 it was 39%). There were 672 million of foreign arrivals to Europe in the year 2017 and earnings from tourism reached 451 billion Euros.

The figures underline the fact that tourism is an area that has the ability to affect the lives of communities, whether in a positive or negative way. And therefore, it is important to monitor its effects and search for solutions that will lead to sustainable development.

One of the possible forms of sustainable tourism seems to be cycling tourism. Accurate statistical data on the performance of the cycle tourism in Europe are not available. The economic importance of selected routes in Europe was estimated for the European Parliament, through a "Cycle route Demand Forecast Model“, which was laid out by Lumsdon at al. (2009) and redefined by Weston at al. (2012). The average expenditure for the one-day bicycle trip has been estimated at 15, 39 Euros. Expenditure per trip of average length of holiday 7.7 days has been 439 Euros. The estimated number of cycling trips with overnight stays has been 20.36 million and a one-day cycling trip has been 2.274 billion. According to these figures the estimated direct revenue of cycling tourism...
in Europe has been almost 44 billion Euros per year. Cycle tourism can be developed in a variety of forms. As cycle tourists we can consider long-distance bikers, tourists, who come to discover the destination by bike but also those who are searching for a specific cycling infrastructure or take a part in various events. Cycle tourism is taking an active part in different types of destinations. The highest potential of its development has been recorded in a rural environment and also in an environment with an attractive geographical nature.

Several studies have been done on the impact of cycling on local communities and they have confirmed that each of the forms of cycling has the ability to influence social, environmental and economic relationships in the destination. According to the results of the different studies, we can generalize the fundamental benefits of cycling tourism:

**Social area**
- cycling improves the mental and physical health of people,
- taking part in cycling activities can be reasonably cheap,
- cycling tourism is suitable for all age groups, like individual tourists, families, etc.,
- encourages people to have a healthier life style,
- connect communities - people and places.

**Environmental area**
- can be an environmentally friendly as alternative transport
- does not cause noise and visual pollution,
- encourages people to behave ecologically and transfer this behaviour into everyday life,
- brings to tourists the ability to "experience" the natural and cultural environment and transport possibility to remote part of destination,
- promotes the protection of natural resources and the cultural heritage,

**Economic area**
- direct benefits through tourism services - accommodation, food, transportation and other expenses in the destinations,
- can be developed in areas where another industries are receding,
- stimulates new business opportunities (rental, transport and guide services, shops)
- can bring a large investment,
- creates new job positions, and not only in services but also for the maintenance of the bicycle infrastructure.

Cycling tourism can also create negative impacts especially in the environmental field
- poor planning can cause negative interference into the structure of the landscape,
- if there is low quality technical performance of cycle paths, especially in the case of mountain bike tourism, this may cause soil erosion, fauna disturbance and also may damage vegetation.

**CYCLING INFRASTRUCTURE**

An essential tool for the development of cycling tourism is cycling infrastructure. This type of infrastructure requires besides the high initial cost also expenditure for regular maintenance. In the case of the concept of the international EuroVelo network (after completion this European cycling network will be long 70 000 km), the European Cycling Federation is predicted expenditure on construction and maintenance for the period 2012-2020 at a height of 1.5-2.5 billion . The expected annual economic benefit from this network is estimated at 5 billion a year once when is complete.

Well-planned, built and maintained infrastructure, which provides security and comfort to cyclists, has the ability to attract more bikers and increase the expected
benefits. When cycling infrastructure is designed, it is recommended to take into account in particular, the safety of the route, straightness, network interconnection, comfort and attractiveness of the route. These attributes are valid for all types of cycling infrastructure, whether they are cycling paths with a solid surface, unpaved or specific types of routes as single-track routes. An important factor is the existing services or the potential for initiating new tourism services along the route.

CYCLING TOURISM IN THE SLOVAK REPUBLIC

The history of cycling routes in Slovakia dates back to 1994, when various interest groups started to mark cycling routes by using existing infrastructure (road, local and service roads). There are currently registered 15,263 km of cycling routes in Slovakia according to the data of the Slovak Cycle Club, which administers the National Cycle Route Register. For cycle routes conditions are responsible their management organizations - administrators, which task is to ensure maintenance of their routes, including the renewal of the marking. The administrators of these cycling routes can be non-governmental associations or local governments. After the adoption of the law No. 91/2010 Coll. on the promotion of tourism, which enabled the creation and funding of tourism organisations (DMOs), they have begun to enter more actively into the process of implementation of the cycle routes and link them to services for bikers.

Due to the high legislative and financial difficulties of building cycling infrastructure, especially cycling paths with a hard surface, as we know from abroad, the greatest burden in their realization remains on local governments. According to previous implemented cycling project in Slovakia expenditure per 1 km of cycle trail with asphalt surface has reached 130 000 Euros and more. In the case of cycle recreational routes running on the different types of roads and marked by cycle signalization, the setup costs are significantly lower (300 € per 1 km).

Despite the high cost of building and maintenance, existing network in Slovakia is continuously improved. A comprehensive evaluation of the impact of this segment on the development of the tourist destinations in Slovakia has not been realized so far. The intensity of cyclists, cycle services and the erosion of the trails are partially monitored.

The benefit can be seen through an increasing number of cyclists and growing services in tourist areas. For example, we can mention the project "Bajkom k Tajchom – Štiavnica biking trails" in the Štiavnica Mountains, where cyclists can use 150 km of mountain biking trails, there is the rental of electric bicycles and more than 20 accommodation facilities with bicycle facilities are available to the cycle tourists.

Another good example, where the impact of mountain biking is partly monitored, is the National Park of Slovak Paradise. There is a Destination management organisation the Slovak Paradise & SPIŠ in this area; they make an offer for bikers as one of its priority theme. At present, there are permitted 18 cycle routes with a total length of 93.4 kilometres. According to data from the counter of cyclists located in Čingov, was during May till October 2018 recorded 8 940 cyclists, there is 14% growth up when we were comparing data from 2017. According the State Nature Protection organisation cycle trail erosion in the National Park have been identified for the first time in 2008 in the length of 0,5 km. In the year 2015, 3 km of cycle trails were damaged by erosion.

CONCLUSION

It follows that in Slovakia the measurement of the complex impacts of cycling infrastructure on tourist destinations does not yet receive sufficient attention.
Despite the already proven positive and also negative effects, the impacts are, in the most cases addressed through the level of data collection and presentation. In order to achieve a more effective and responsible development of cycling tourism in Slovakia, greater attention of evaluation should be paid not only at the state and regional level, but also at tourism organizations whose task is to create and manage products in tourist sites.

REFERENCES


Košice Self-governing Region (2018), Data from Counter of cyclists in National Park Slovak Paradise, Cingov, available at author


