



Complementarity of Cycle Tourism in the Tourist Development of Rural-Mountain Areas. Case study: the geographical area of Săcuieu-Răchițele in the Vlădeasa Massif

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Abstract. Encouragement of cycling policies and enhancement of mountain countryside through cycling tourism can be motivating factors leading to the implementation of new cycling strategies and plans for a better use of geographical space, in general, and tourist heritage, in particular, based on the principles of sustainable development. In this regard, our paper aims to identify, systematize, and highlight the main current trends in the field, building on a research study investigating the extent and scope of cycling tourism in some areas belonging to the Vlădeasa Massif (Săcuieu-Răchițele tourist destination), in order to provide recommendations for a more effective use of mountain rural heritage through cycling tourism. Turning these approaches into clear, science-based objectives, with cycling as a connecting and enhancing element, can significantly contribute to the sustainable development of mountainous rural areas, even in less human-friendly places.

Keywords: cycling tourism, rural tourism, sustainable development, local heritage, Vlădeasa Mountains

Résumé. L'encouragement des stratégies de cyclisme et la mise en évidence du paysage de montagne par le cyclotourisme peuvent être des facteurs motivationnels qui conduisent à des nouvelles stratégies et programmes de cyclisme pour une meilleure utilisation de l'espace géographique, généralement, et du patrimoine touristique, en spécial, basés sur le principe du développement durable. Après de longues recherches, on identifie des opportunités de mise en évidence du potentiel touristique de la région montagneuse Săcuieu-Răchițele, située dans le Massif Vlădeasa, du point de vue du cyclotourisme. Autant les informations factuelles obtenues au cours des recherches sur le terrain, que les données obtenues après la consultation des bases de données officielles, ont été finalement transposés dans la matrice TOWS suivant la stratégie

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maximale (SO), décrivant ainsi la mise en œuvre de l'infrastructure du cyclotourisme comme prioritaire. La conversion de ces approches dans des objectifs précis pourrait contribuer plus tard au développement durable des régions montagneuses rurales, même dans les régions souvent considérées moins favorables aux gens. Ensuite, on propose des recommandations pour une utilisation plus efficace du patrimoine rural montagneux par l'intermédiaire du tourisme par le vélo.

Mots-clés: cyclotourisme, tourisme rural, développement durable, patrimoine local, les Montagnes Vlădeasa

Introduction

Although tourism is one of the most significant and influential industries, supporting one in 10 jobs and generating 10.4% of global GDP (Jus & Misrahi, 2021), it faces some significant challenges (overtourism, environmental impact, consumers behavioural changes) that can be partially answered by cycling tourism-based solutions (Cojocaru, 2019).

Focusing on forms of holiday that allow a reduced consumption of natural resources and a connection with the landscape, cycling tourism is the concrete expression of sustainable tourism (Gazzola, Pavione, Grechi, & Ossola, 2018). Cycling becomes more and more popular and contributes significantly to tourism revenue, thus making cyclists ideal for rural development (Poljičak, Segó, & Parisa, 2021). The increase in the number of individuals practising cycling is frequently reported in the literature and is discussed at length throughout this paper.

The growing trend of cycling as a central and emerging theme among researchers is not a novelty, as the economic, social, and environmental impacts of cycling tourism highlight the multiple benefits of promoting and implementing this type of tourism. However, due to several factors such as practitioner behaviour or poor infrastructure design, the findings from the literature also imply that negative forms of impact cycling tourism can encounter on both personal and societal levels. The data collection and analysis section comprises issues related to the research methods and how they are implemented.

Considering that the aim of this research is to analyse a specific area as comprehensively as possible, an important part of the research is the case study of a rural-mountain destination, Săcuieu-Răchițele, located in the Vlădeasa Massif, Romania. The reason behind the choice of such a destination is determined not only by its mosaic of diverse natural landscapes but also by the countless forest roads and paths that are suitable for cycling. A detailed analysis of tourism in general, and in this case, cycling tourism in particular, was carried out to illustrate the destination's characteristics, including a geographical representation of the discussed area, as well as the steps undertaken in the tourism prospecting process.

The authors envisage that the research results will contribute to the compendium of literature and at the same time generate solutions for the valorisation of the

potential of the local rural mountain from the perspective of tourism in general, and cycling tourism in particular.

The aim of this paper is to investigate the opportunity of exploiting the tourism potential of the mountain area, and as main objective we propose to identify feasible means of implementing cycle tourism in the Săcuieu-Răchițele destination in the Vlădeasa Massif.

There are no concrete expectations as to how cycling tourism will develop, but we can easily assume, on the one hand, based on the information revealed in this paper, that the number of tourists who choose to practice this form of tourism will continue to grow, subject to sustained measures and convergent with this goal, and, on the other hand, there is evidence of a growing trend towards outdoor leisure activities. The tourist offer aims to meet these needs by developing a variety of products dedicated to cycling and various related forms of tourism, based on the principles of sustainable development.

Why cycling tourism?

Transport is an integral part of the tourism system in which recreational cycling also plays a role as a convergent element that generates emotions and feelings, thus contributing to a significant improvement of the tourism product. Moreover, cycling is considered a cheap and reliable mode of transport (Möller, Haigh, Hayek, & Veerman, 2020); it has the advantage of being sustainable and environmentally friendly, promoting a healthy lifestyle (Cooper & Leahy, 2017; Nanayakkara, Langenheim, Moser, & White, 2022); bicycles require little parking space and infrastructure (compared to road infrastructure), as well as investment in terms of purchase and maintenance (Oosterhuis, 2016).

Cycling in an exceptional natural setting, as a means of travel, acts as a barometer, identifying the level of quality for tourist experience (Simonsen, Jorgensen, & Robbins, 1998) and guiding tourists in their choice of destination.

Another answer to the question "Why cycling tourism?" is the emergence of this form of tourism alongside other types of tourism associated with sustainability principles. Thus, according to the literature, cycling tourism is an integral part and also the main exponent of sustainable tourism (Bogdanović, Basarić, Ruškić, & Garunović, 2016; Mateu & Sanz, 2021). Combining activities such as cycling or hiking with charity and sporting events has become increasingly popular (Coghlan, 2012). Combinations such as cycling tourism with: sports competitions, leisure tourism activities or cultural tourism are also accessed (Buning & Gibson, 2016). In addition, cycling tourism leads to the implementation of measures to enhance the value of areas that are not visited enough or not at all by tourists (Lugeri & Farabollini, 2018). Schlemmer et al. (2019) consider recreational cycling as part of active mobility (Schlemmer, Blank, Bursa, Mailer, & Schnitzer, 2019) and of major importance for the sustainable mobility. In addition, promoting the benefits of active mobility covers

several dimensions, at both individual and community level, and examples include the positive impact on people's health as well as on climate, economy, environment, and air quality (Pisoni, Christidis, & Cawood, 2021). In this context, another important aspect mentioned in the literature is the relationship between the principles of slow tourism (e. g. cycling, hiking) and cycling/biking infrastructure, through which zones are connected, the dispersed heritage of an area is regenerated, and local assets (natural, human, and cultural) are enhanced (Moscarelli, 2019). This statement is also recently mentioned by Scandiffio (2021), who establishes a connection between cycling tourism, sustainable tourism, and slow tourism, the latter being a real healthy alternative to mass tourism (Scandiffio, 2021). A topical element is that transformative tourism, among other forms of tourism, includes cycling tourism (Rus, Dezsi, Ciascai, & Pop, 2022).

As a means of development, cycling tourism offers a series of opportunities which, when put into practice, lead to a larger number of participants, better collaboration between regions, and a reduction in excessive pollution caused by highly polluting means of transport, thus generating economic and social benefits (Gregoire, 2019).

2. Literature review

2.1. Definition of terms

When undertaking research, the phenomenon under investigation needs to be clearly defined (Lamont, 2009). Therefore, we find it necessary to define some specific and emergent cycling tourism terms that we use frequently in this paper.

Sustrans, a UK-based charity specialising in sustainable transport, which promotes and offers, among other services, cycling routes, defines *cycling tourism* as trips/vacations, of one or more days, away from the tourist's place of residence, which involve recreational cycling as a fundamental and significant part of the trip (Bull, 2006). The Council of Europe's Directorate General for Internal Transport and Tourism Policy defines cycling tourism as "leisure cycling" and "an integral part of the tourist experience" (Lumsdon, et al., 2009).

According to the European institution's report and the charity Sustrans, three main types of cycling tourism can be identified and defined: *cycling holidays*, *holiday cycling* and *cycling day trips*. In *cycling holidays*, cycling is the main motivation and purpose of the holiday and participants are often referred to as the 'enthusiastic cyclists'. *Holiday cycling*, on the other hand, involves travelling by bicycle for leisure purposes; it plays a secondary role and is often combined with other tourist activities at the destination. A *day-trip cycling* lasts one day and involves one or more people travelling by bicycle for leisure purposes from their place of residence or tourist accommodation to a particular destination (Bull, 2006).

A *cycling tourist* is a person of any nationality who, at some point during his or her holiday, uses a bicycle as a means of transport, and cycling is an important part of that holiday, not including short shopping trips to the "corner shop" (Simonsen, Jorgensen, & Robbins, 1998). The same authors indicate that, there are a large number of people who use bicycles to travel, but who are not included in the definition of cycling tourist, such as locals who use bicycles for recreational purposes or cyclists whose main goal is to participate in sports competitions.

Lumsdon et al. (2009) define *long distance cycling routes* as designed to encourage cyclists to travel between locations within a country and between countries. These routes are more than 100 km long, but often stretch more than 500 km, and include signposts, markings, and information boards to guide and provide various useful data.

Slow travel is a term that refers to the use of less polluting means of travel to reach your destination, such as by train or coach. The visitor is encouraged to spend more time enjoying culinary and cultural experiences and to get in touch with the local heritage, preferably on foot, by bicycle or by public transport. This sustainable way of travelling offers a richer experience for the tourist, with less environmental impact (Lumsdon et al., 2009).

The United Nations World Tourism Organisation (UNWTO) defines *rural tourism* as a type of tourism in which the visitor experience is linked to a wide range of products, generally related to nature-based activities such as farming, rural life-style/culture, fishing, and sightseeing. Rural tourism activities take place in non-urban areas with low population density, landscape and land use based on agriculture and forestry, and traditional social structure and lifestyle (UNWTO, 2022).

2.2. Interest among authors and publishers in cycling

A search of the Web of Science Core Collection (WoSCC) databases using cycling and bicycle tourism as keywords revealed a growing interest among authors and publishers in cycling as a form of tourism (see Fig. 1). Even if the sharp upward trend for the period 2018-2019 was slowed down by the sanitary crisis generated by COVID 19, a slight revival can be observed in the immediate aftermath.

As illustrated in Figure 1, the quantitative evolution of open-access documents (in blue) follows the same trend as the indicator for all documents (in orange). The increased interest of authors and publishers in cycling and the concept of open access could not be ignored in the literature, which allowed an in-depth approach to the subject and created the appropriate framework for access to documents. Thanks to this opportunity offered to the scientific community, we can develop the following scientometric analysis.

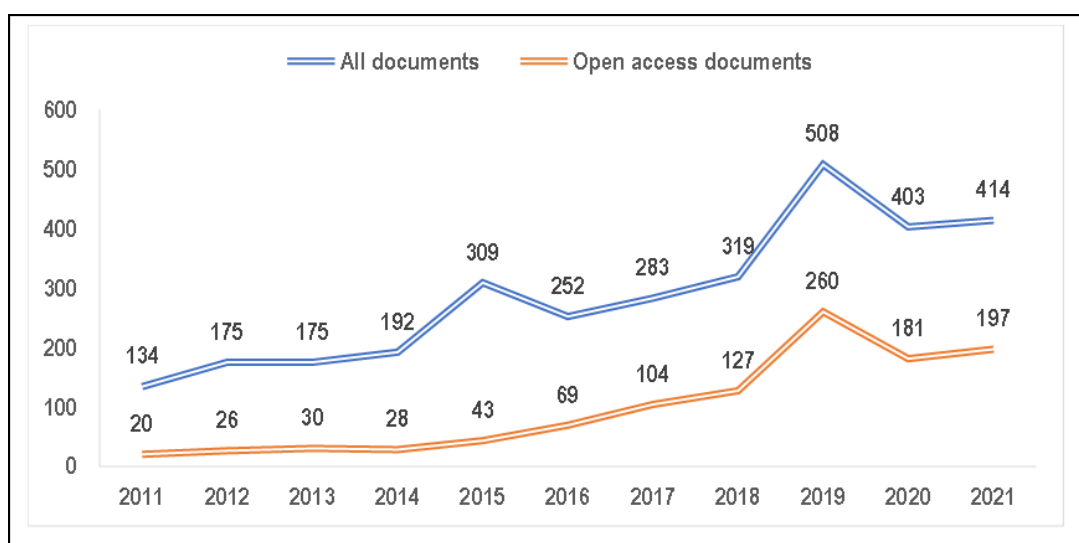


Figure 1. The interest of authors and publishers in cycling tourism and the open access concept

Source: the authors. Data source: WoSCC (2022)

2.3. The impact of cycling tourism on economic, social, and environmental sectors

2.3.1. The economic and social impact

The impact of cycling tourism on the economic and social environment needs to be addressed in a comprehensive way, due to the multiplier effect on areas of activity that ensure the smooth running of the tourism product. Cycling tourism has a direct impact on the cycling industry, which comprises a wide range of economic activities (Farla, Simmonds, Rosemberg, & Rental, 2016).

According to Eurostat, the EU countries produced around 12.2 million bicycles in 2020, an increase of 1.2% compared to 2019; as for the number of bicycles sold, it varies widely among Member States, from around 1,500 bicycles in Denmark to over 2.1 million in Italy and more than 2.6 million in Portugal (Eurostat, 2021). In 2021, from a total of 13.5 million bicycles produced in the EU, indicating a 11% increase compared with 2020, Romania was situated on second place, immediately after Portugal with total of 2.5 million bicycles (Eurostat, 2022).

Cycling tourism acts as an economic lever and contributes over €40 billion to the European economy alone; nowadays, most destinations offer dedicated tourism products to encourage visitors to discover tourist attractions by bike and therefore in a more sustainable way (Cojocaru, 2019).

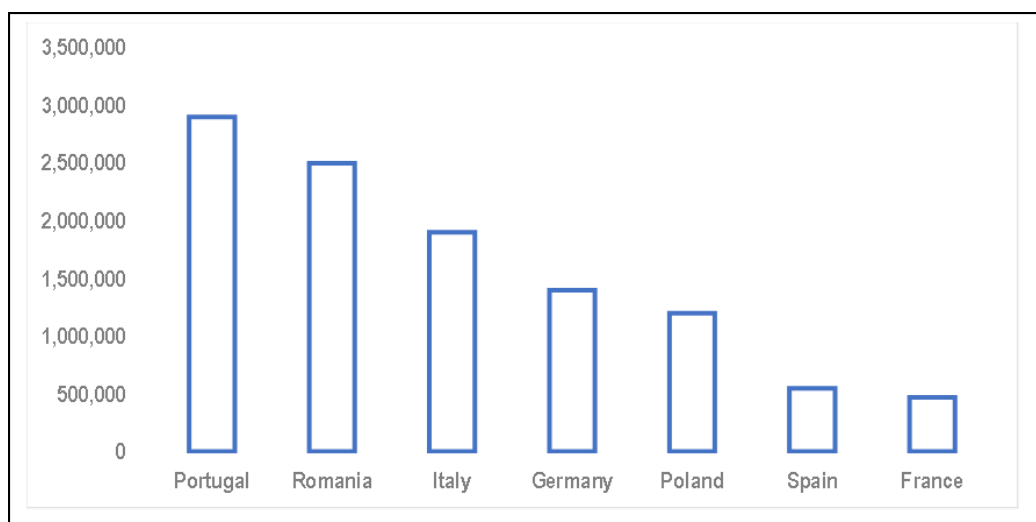


Figure 2. Bicycle production in EU, 2021

Source: Eurostat (2022)

Skinner (2017) states that up to 435,000 additional jobs could be created if 56 large cities followed the same Copenhagen model for cycling action. Moreover, on the one hand, cycling creates new types of jobs and, on the other hand, cycling-related jobs encompass a variety of specialities (from bicycle design and manufacturing to the provision of management and maintenance services) (Skinner, 2017). Moscarelli (2019) argues that cycling tourism generates positive impacts, as every kilometre of cycling infrastructure in Europe has created and maintained between 4 and 5 jobs.

Investment in cycling infrastructure helps to encourage and facilitate cycling tourism, contributing to the development of an environmentally friendly transport culture. Studies have shown that the implementation of new cycling infrastructure increases the flow of people into retail shops, with positive effects on the local economy and nearby recreational areas (Farla, Simmonds, Rosemberg, & Rental, 2016). In Germany, tourism generates revenue of €3.9 billion per year, including what cycling tourists spend on multi-day holidays (around €64 per day on average) and day trips (€16 per day); half of cyclists' spending is on accommodation and food, which contributes to the preservation and development of local businesses (Moscarelli, 2019). Cycling infrastructure attracts large numbers of tourists motivated by its mere existence to visit a particular area, while the positive economic effects are not slow to appear (Farla, Simmonds, Rosemberg, & Rental, 2016). In other words, an original combination of landscape, cycling, tourism, and cycling infrastructure offers new perspectives on the local economy (Lugeri & Farabollini, 2018).

More emphasis should be placed on the health benefits of cycling and the savings to national health budgets (Stasna, Vaishar, & Zepletolova, 2018). Compared to walking or running, cycling puts less stress on leg joints. Studies show a causal rela-

tionship between moderate physical activity and reduced mortality which is due to cardiovascular diseases, high blood pressure, obesity, diabetes, respiratory diseases, mental illnesses, certain types of cancer, and musculoskeletal diseases (Stasna, Vaishar, & Zepletolova, 2018). Physical activity is associated with a 30% reduction in mortality and contributes 20-40% to maintaining energy balance, functional health and metabolic balance (Farla, Simmonds, Rosemberg, & Rental, 2016). Cycling every day for at least 30 minutes has been associated with a significant reduction in the risk of developing type 2 diabetes, a lower rate of obesity, a protective effect against the development of coronary heart diseases, and a reduced risk of developing colon cancer (Swift, Green, Hillage, & Nafilyan, 2016).

2.3.2. The impact on natural environment

The literature provides a generous compendium of analyses of the multi-level impacts of recreational and everyday cycling. Behaviour change, in terms of transport mode, from individual motorised travel to cycling, covers several dimensions at both community and individual level, including positive impacts on health, safety, climate, economy, environment, and air quality (Pisoni, Christidis, & Cawood, 2021). Moreover, official documents provided by the European Union in The European Green Deal state that a 90% reduction in transport emissions is needed by 2050. This can be achieved by focusing on more affordable, healthier, and less polluting alternatives, such as bicycles and electric bikes, which can make an important contribution to reducing greenhouse gas emissions from road transport (European Commission, 2019).

The economic benefits of cycling are substantial in terms of its impact on the natural environment. Thus, in monetary terms, cycling contributes to reducing fuel consumption (in 2010: €2.7-5.9 billion/year), CO₂ emissions (in 2010: €1.4-3.0 billion/year), air pollution (in 2010: €0.9 billion/year), as well as noise pollution (in 2010: €0.3 billion/year) (Küster & Blondel, 2013).

Cycling is the ideal way to experience nature and preserve it at the same time. You can cycle 40-90 km daily, much more than walking and still have time to enjoy the sights; if you combine cycling with ecotourism products, you actively contribute to the conservation of local flora and fauna (Aschauer, et al., 2021). Cycling, unlike driving, contributes to preserving the natural environment and reducing resource use. In addition, cycling causes almost no noise or air pollution and helps improve physical and mental health, as well as achieve 12 of the 17 Sustainable Development Goals (SDG), as outlined at the COP 21 UN Climate Change Conference in Paris (ECF, 2017).

2.3.3. Negative forms of impact

As cycling and its counterpart, the cycling tourism, are not a panacea, negative effects can be observed and, even if they are on a small scale compared to other forms of tourism, they still exist.

According to Farla et al. (2016), research results show that the impact seems to depend on the feasibility of projects to implement cycle lanes, leading to the finding that some investments have resulted in low tourist flows, even traffic congestion and reduced road safety on certain road segments used jointly by cyclists and drivers (Farla, Simmonds, Rosenberg, & Rental, 2016).

The Transport and Mobility Report (2019) reveals that the number of people seriously injured in the Netherlands has increased over the last 15 years, particularly among cyclists and pedestrians, and that the most vulnerable people are older cyclists (Netherlands, 2016), all this against a backdrop of increasing levels of cycling. In Austria, between 2012 and 2014, an average of around 6,500 mountain biking accidents were reported annually and the total direct and indirect costs caused by mountain biking accidents in 2014 reached € 176.7 million, with an average of about € 25,000 per accident (Haider, Durlacher, Antonschmidt, & Hödl, 2018).

Unsafe travel is often cited by potential bicycle users as the most important deterrent to cycling (Jarry & Apparicio, 2021). On the one hand, cycle paths are used on certain road segments by both cyclists and drivers. On the other hand, some stretches of pavements are shared between cyclists and pedestrians, and inadequate delineation of bicycle lanes and carelessness on either side can lead to accidents (Jarry & Apparicio, 2021).

In this context, another aspect that needs to be highlighted is the deep seasonality of cycling tourism, with repercussions on the revenues of suppliers at the destination, which may create a certain reluctance to invest in dedicated infrastructure and services (Simonsen, Jorgensen, & Robbins, 1998).

Simonsen et al. (1998) argue that this category of tourists spends a relatively small amount of money on daily needs compared to coastal tourists and thus the idea of undesirability of cycling tourism may be induced among potentially interested entrepreneurs. Under no circumstances should we jump to conclusions that cyclists are part of the disadvantaged and low-income social category.

3. Methodology

To achieve the purpose and objective proposed in this research, a case study on a rural-mountain area was conducted. The reason behind the choice is that this approach allows the usage of several data collection methods (Merriam & Nilsson, 1994) thus creating a holistic manner (Yin, 2009) to thoroughly explore an area, especially since the main objective of the research is to conduct a tourism prospecting

analysis for identifying feasible means of implementing sustainable types of tourism, such as cycling tourism.

Our research proceeds through a literature review with the aim of outlining not only the interest in the topic, but also the main guidelines on cycling tourism, determining both its positive and negative impacts on the environment and society. Moreover, this section intends to establish the criteria and components for further consideration in the analysis of the research area. Therefore, to comprehensively review the literature, the Web of Science Core Collection (WoSCC) database was first considered, as it is acknowledged to be one of the most reputable databases in the world, used by researchers globally (Li, Rollins, & Yan, 2018). Keyword groupings such as "cycling tourism," and "bicycle tourism" were thus introduced into the database. For a more coherent analysis, some articles were acquired by accessing the EBSCO Discovery Service database. Interest in the research topic in the WoSCC database was quantified and transposed into a graph. Within the literature section, other related data were also retrieved from statistical databases, such as Eurostat, in relation to the number of bicycle productions around Europe.

Within the section assigned to the case study, a wide range of data emerged, thus revealing: (a) the geographical representation of the area; (b) the tourism prospecting analysis, which also included destination resources, demographic and economic analysis, tourism offer, and other related analyses regarding the impact of tourism structures on the environment, service quality (food and accommodation), and tourism services in general. Data were collected using the statistical databases of Romania, the National Institute of Statistics (INS), and the Ministry of Tourism and Entrepreneurship (MTA).

A website analysis was further deployed to complement destination image with information found on platforms such as tourist accommodation facilities, tourist information centres (TICs), and tourism promotion associations within or around the destination. Moreover, to correlate the information gathered from the literature as well as from online sources (in the form of statistical data or platforms of third parties involved in the tourism phenomenon) fieldwork was initiated. Factual information on possible cycling tourism routes (forest roads, paths, village roads, and low-traffic road infrastructure), vernacular buildings, and households suitable for tourism activities (including accommodation) was acquired through on-site presence and investigation. A longitudinal research based on a survey was carried out to further analyse tourism demand and tourist profile of cycling tourists, administered on weekends during the months of July-August 2018 and 2020. A total of 46 questionnaires were completed by cyclists in situ and 23 online, using Google Forms. Weekends are deemed the most suitable period for conducting the survey, as the number of weekday cyclists is usually very low. The practice has shown that when cycling, it is almost impossible to stop and have a conversation. Thus, questionnaires were distrib-

uted for filling at rest stops (Cabana Vlădeasa), viewpoints (Pietrele Albe), and several accommodation centres. Furthermore, discussions were held at the Tourist Information Centre in Săcuieu, a favourable parking spot for cars. In addition, several factors that influence the development of the area, such as accessibility, competition, effectiveness of geographical positioning, seasonality and so forth, were considered.

Furthermore, in order to identify cycling tourism routes within the destination, an exploratory analysis was conducted using several methods, as followed: (1) mapping the user experience (self-representation of a cyclist, geographical and visual representation of the cyclist's experience with a particular route); (2) storytelling sessions from everyday life, that include information on cycling experiences and opinions about cycling or practising cycling tourism; and (3) heuristic evaluation (examination of a cycling route or path to assess its compliance with recognised or recommended principles of use).

Given that it is an excellent starting point for hypotheses, the case study revealed several aspects within the area under analysis, which were subsequently converted into a TOWS matrix. The role of this matrix is to define directions and plan strategies (Wehrich, 1982), considering the strengths, weaknesses, opportunities, and threats encountered within a destination. In this context, strengths and opportunities were selected, thus utilising the maxi-maxi strategy (Wehrich, 1982), from which several strategic directions emerged.

Ultimately, according to the aforementioned strategies and all the information gathered from the case study on the destination and its potential, two proposals for regional cycling tourism routes were presented, as well as several local routes aimed at connecting regional routes and tourist attractions within the destination. The necessity of implementing a Bike Tourism Centre (BTC) to play a coordinating role within the area is also discussed.

4. Case study: the geographical area of Săcuieu-Răchițele

The complex process of planning and tourist development of the Săcuieu-Răchițele mountain area involves the inclusion of existing attractive natural and anthropogenic resources in the tourism network, as well as the development of new objectives/infrastructures with attraction potential. To this end, priority should be given to preserving local architecture, conserving existing buildings restoring them where necessary, and making use of the housing surplus that some resident families can provide.

4.1. Geographical features

Location

From a geographical perspective, the Săcuieu-Răchițele tourist destination under analysis is grafted on territories located in the eastern part of the Vlădeasa Massif. In

administrative and territorial terms, we refer to certain areas belonging to the communes of Săcuieu and Mărgău in Cluj County.

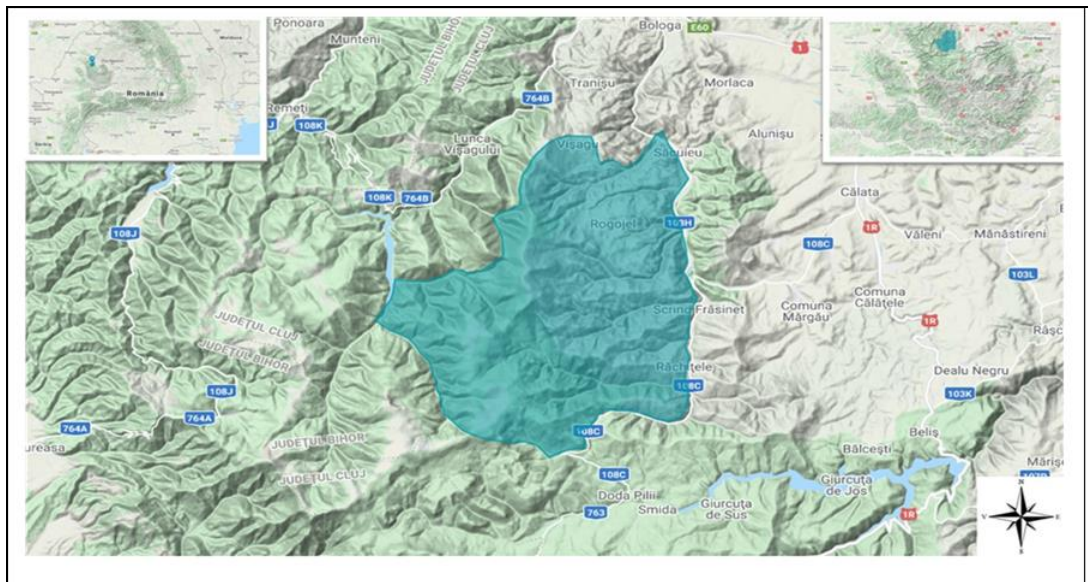


Figure 3. Geographical location of the tourist destination at national, regional, and local level

Source: the authors

The area under consideration is bounded to the north by the Ordâncușa Valley and the village of Vișagu, and to the west by the Drăganului Valley and Floroiu Lake. The southern boundary is marked by the alignment of the Nimăiasa Valley, Nimăiasa Peak, Muncelu Mare Peak, and the Prislop Pass. To the east and south-east, the area is bordered by the Săcuieului Valley and the Răchițele Valley or DJ 108C and DJ 103H. The delimitation of the area is relative, as it is not strictly linked to the geographical boundaries drawn within the above-mentioned perimeter; the delineation is subject to derogations within certain limits or possible extensions due to the involvement of stakeholders from neighbouring communes in the project.

4.2. Tourism prospecting in the area under analysis

Tourism prospecting is essential to any initiative to exploit all attractive resources, whether natural or anthropogenic. The objective to be developed and included in tourism networks has its own internal structure, characteristics (physical or chemical), and interferences with the surrounding landscape. Lack of knowledge in this respect means taking an enormous risk for both the objective itself, which may be irreparably damaged, and the person promoting the approach in question, with no certainty of recovering the investment (Cocan & Dezi, 2005).

4.2.1. Natural and anthropogenic tourism resources

The eastern ridge of the Vlădeasa Massif is flanked by a wide inlet, between Valea Drăganului, Săcuieu, and Răchițele, respectively, where scattered rural settlements typical for this area have developed (Ciangă & Vescan, 2007). Towards the west, in the upper part of the village of Rogojel, we identified a typical mountain landscape, with flat, wide platforms and alpine hollows. An important point of interest for mountain hikers and experienced cycling tourists alike is Vlădeasa Peak at 1,836 m. In the southern part of the area analysed, it is worth mentioning, for its attractive scenery, the Pietrele Albe Massif made up of limestone with steep walls. In the south-eastern part, the Stanciului Valley, with the impressive Stanciului Valley Gorge, is characterized by a varied and spectacular landscape. Further analysing the area in question, we emphasize that the morpho-hydrographic component with the greatest landscape and tourist impact is the Răchițele Waterfall (Bleahu & Bordea, 1967), a tourist attraction that generates significant flows of cycling tourists. In this context, it is important to underline the presence of petrographic formations identified near Vișagu (Piatra Bănișorului) and on the Cetății Valley (Pietroiu cu Cruce). The predominance of hard rock provides a rolling surface suitable for cycling even in rainy conditions on most of the route.

Forest roads along the main valleys: the Stanciului Valley (in the south), the Răcad Valley (located in the relatively central area), the Cetății Valley, and the Ordâncușa Valley facilitate, due to the relatively low gradient on many sections, the access of cycling tourists upstream. The in-situ research revealed several forest roads connecting tourist areas, as well as numerous trails suitable for mountain biking.

Geographically, the area under study falls into the category of medium-altitude mountains (below 2,000 m), where there is a succession of three levels of forest vegetation, culminating at the top (above 1,600 m) with alpine vegetation, thus enriching the mountain landscape with a particular pastel, especially during the flowering period (Ciangă & Vescan, 2007).

The tourism potential of the natural setting is enhanced by grafting certain territories of the area under analysis on the Apuseni Natural Park. This is a key issue for the opportunity to implement green tourism products, as cycling tourism is an integral part of this product category.

In the vicinity of the study area there are important ancient Roman remains. *Castrum Resculum* was an important strategic point on the road to *Porolissum*, the northern border of the Roman Empire. The feudal fortress of Bologa, a vestige of the Middle Ages, is strategically located at the confluence of the Crișul Repede and the Săcuieu Valley. Legend has it that Vlad Țepeș grew up in this fortress. The water mill is a more recent artefact, built in the 19th century and in need of extensive restoration. There are also important religious sights of tourist interest, including churches and monasteries.

The tourist experience can be significantly enhanced by the tourist's contact with the destination's traditional intangible and cultural heritage. In this sense, the geographical area of Bologa-Săcuieu-Răchițele is an integral part of the folklore zone of the Apuseni Mountains (the Țara Călatei subarea).

4.2.2. Demographic analysis

Demographic analysis highlights population dynamics in terms of size, structure, distribution, and changes over time. The need to use these data derives from the importance of studying the opportunity of implementing tourism development projects. The existence and characteristics of the labour force in terms of numbers, training, and ageing are key factors in establishing development strategies in any field of activity.

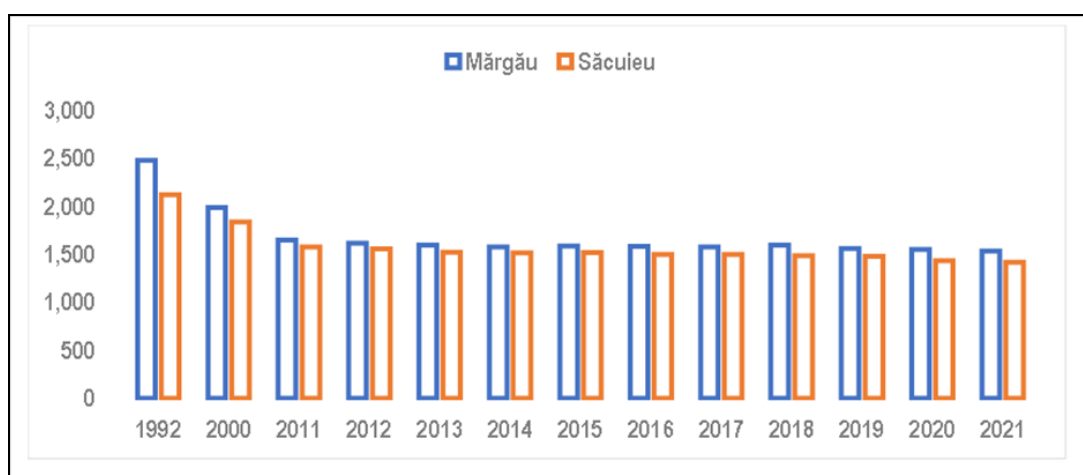


Figure 4. Population changes by residence over the period 1992-2021

Source: the authors. Data source: INS (2022)

Figure 4 shows a decrease in the population, by residence, of the two communes, especially until 2011 (2,120 persons in 1992 vs. 1,578 persons in 2011), after which there is a certain stability until 2018 (1,478 persons in 2018), followed by a slight decrease (1,415 persons in 2021) (INS Tempo Online, 2022).

According to INS Tempo Online (Figure 5), apart from some one-off cases, such as the increase in the 50-59 age group from 2011 to 2022, and just relatively decelerating trends, (40-49 age group), the downward trend have been observed in all age groups since 1992. This can further lead to a shortage of labour in tourism (INS Tempo Online, 2022).

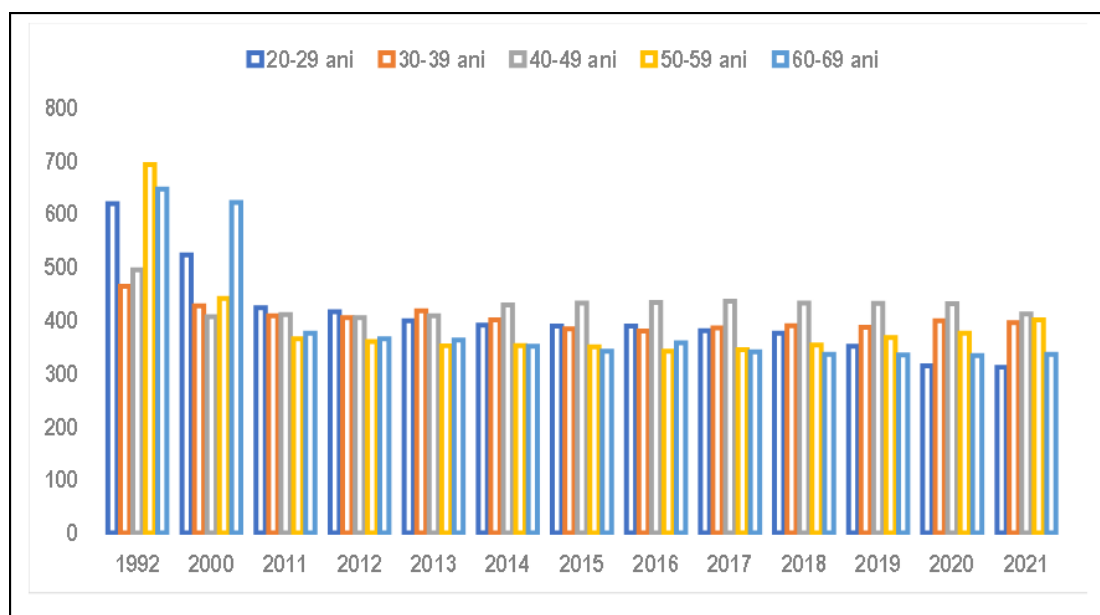


Figure 5. Population changes by age group 1992-2021

Source: the authors. Data source: NSI (2022)

4.2.3. Economic analysis

The main economic activities in the area under analysis are livestock farming and forestry (logging and primary wood processing). In recent years, tourism has played an important role, as evidenced by the increase in the number of tourist accommodation establishments.

Agriculture, through livestock farming, is the most widespread activity among the local community. There are a few families who own more than 10 cows and have obtained organic milk certification, which results in a better price per litre of milk sold. However, the valorisation of milk within households is inferior to that of processed milk, resulting in quality dairy products at a lower price. Nevertheless, there are some local private entrepreneurs who have managed to make various types of cheese from cow's and goat's milk, which are much appreciated by tourists. Fish farming has developed over the last ten years, with fishponds along the Săcuieu and Răcad valleys, but is underexploited compared to the hydrographical potential existing in the area.

Another occupation of locals at least as old as the previous one is wood cutting and crafting. In the past, wood was used for making barrels, window frames, doors, etc., but nowadays only timber is produced or logs are sold.

The opportunity to buy local food and handicrafts at destination is rather limited. As berries are abundant in these parts, a popular local product category among tourists is blueberry and raspberry jam. Handicraft products are sold in several locations in the village of Răchițele, along the access path to the Răchițele waterfall, as

well as in the vicinity of this tourist attraction. An important aspect is that at the end of 2022, according to data provided by the Mărișel Mountain Development Office, there were no authorised local food outlets in the area under analysis.

4.2.4. Analysis of tourism offer

In terms of quality, the vast majority of tourist accommodation facilities at the destination is classified as belonging to one- and three-star categories. As for the number of tourist accommodation units, most are located in the village of Răchițele, in the southern part of the destination.

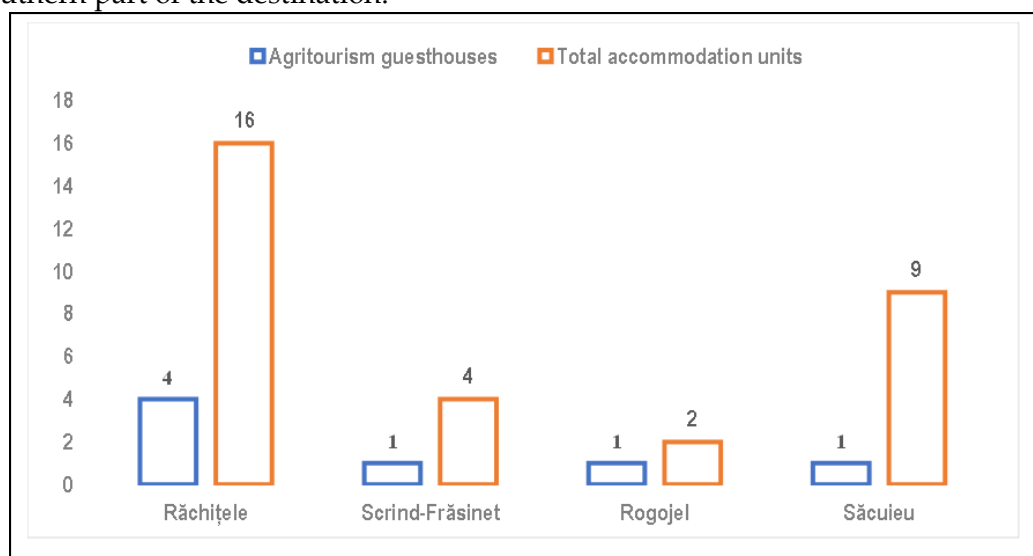


Figure 6. Number of tourist accommodation facilities at the destination

Source: MTA (2022)

Figure 6 shows the reduced number of authorised agritourism guesthouses and the absence of agritourism farms at the end of 2022 (MTA, 2022).

The environmental impact of tourist accommodation structures is determined, on the one hand, by the lack of sewage systems in the area where they are located (Stanciului and Ordâncușa valleys, villages of Scind and Rogojel) and, on the other hand, by the lack of a selective collection system for solid waste. All these aspects lead to increased pollution and, over time, can cause major imbalances in the preservation of very fragile ecosystems.

The quality of food services differs according to the level of classification and the level of training of the staff employed. Some tourist accommodation establishments offer permanent catering services, others only on request. There are also situations where owners rent accommodation without providing food services. In most guesthouses, breakfast is prepared with ingredients from local agricultural producers.

The tourist services offered by tourist accommodation establishments are mainly oriented towards accommodation and catering. The number of guesthouses offering ancillary services, such as bike and ATV rental, horse riding, mountain or cultural tourist guiding, is small, but the trend towards diversification of tourist products is increasing. On the other hand, there is a lack of auxiliary facilities for winter sports and cycling tourists, such as special rooms for storing skis, snowboards, and bikes or corner services.

4.2.5. Analysis of tourism demand

The numerous local tourist attractions and their diversity arouse the interest of tourists for the natural heritage, generating important tourist flows, with priority to the Vlădeasa Peak and Vălul Miresei Waterfall.

Even under the restrictive travel conditions (caused by COVID 19) imposed by authorities, the number of overnight stays has increased significantly in tourist accommodation facilities at the destination (from 1,665 overnight stays in 2011 to 10,465 in 2022) (INS Tempo Online, 2022).

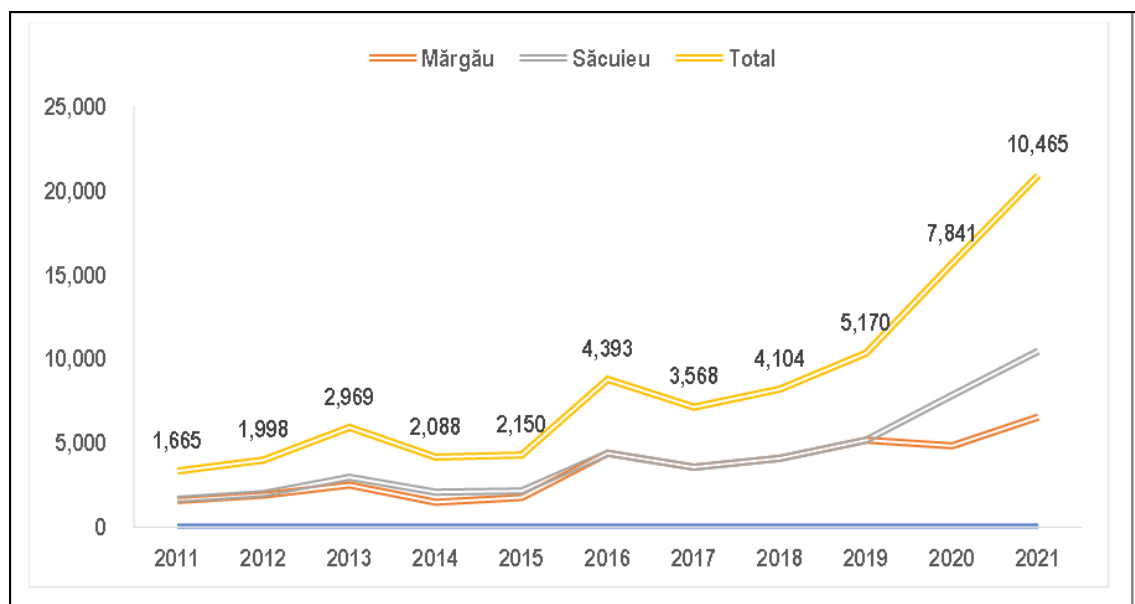


Figure 7. Evolution of overnight stays in tourist accommodation at the destination between 2011 and 2021

Source: INS (2022)

The main sources of tourists are the cities of Cluj-Napoca, Oradea, and Zalău. Also, important flows of tourists, usually in organised groups, are generated by the Hungary's cities adjacent to the border with Romania.

The profile of cycling tourists resulting from the survey conducted as part of the research study in the area under analysis revealed the following: 82.6% of the surveyed cycling tourists are men and 17.4% are women; 99.3% of the surveyed cycling tourists are employed and only 0.7% unemployed; the majority of respondents cycle between 41-60 km/day and 73% are aged between 30 and 49 (see Figure 8). The profile of the cyclist is also complemented by the orientation options used in the field, which are strongly expressed in favour of using digital maps via smartphone apps and other mobile devices, rather than printed maps.

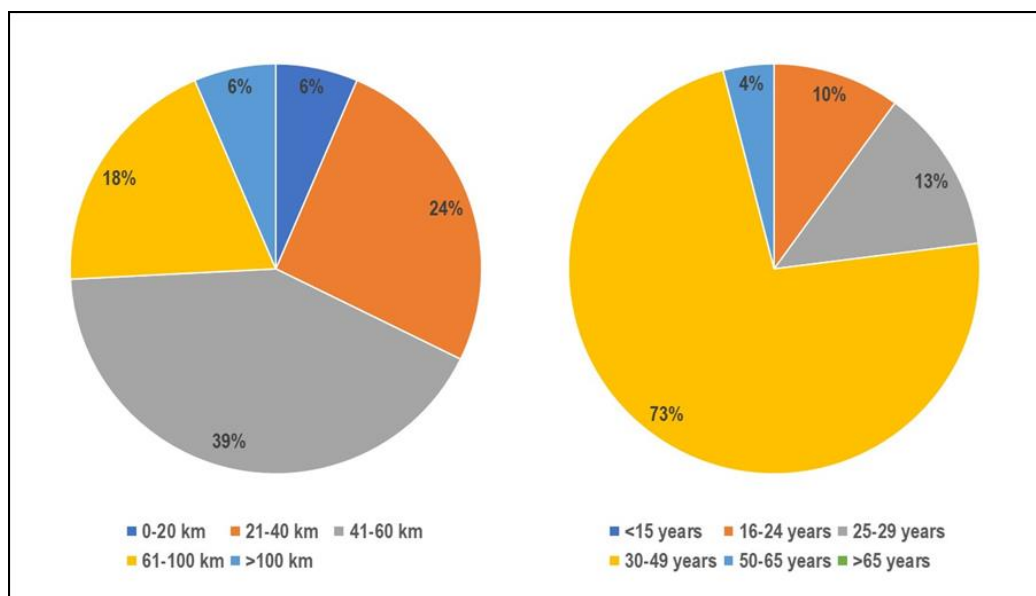


Figure 8. Number of kilometres cycled in one day of a cycling holiday and age distribution of cycle tourists

Source: the authors

In terms of eating habits, the behaviour of cyclists visiting the destination shows some homogeneity, with 54 respondents usually preferring to buy their food from local shops, 51 generally bringing their food from home, while 42 eating at local restaurants. Cyclists usually prefer to stay in guesthouses (63 respondents). On the other hand, those who want to be as close to nature as possible are in favour of staying in tents (36 respondents). The two main reasons for choosing a cycling holiday at the destination were for outdoor exercise (63 respondents) and relaxation (60 respondents) (see Figure 9).

It is worth noting that some survey questions gave respondents the opportunity to express more than one option.

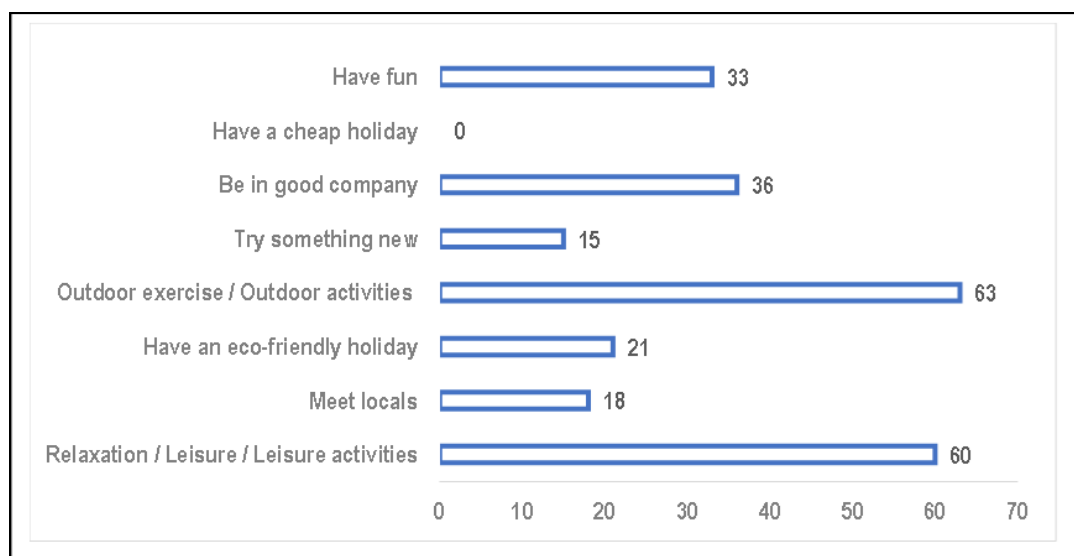


Figure 9. Main reasons for choosing a cycling tourism holiday/weekend

Source: the authors

4.2.6. Factors influencing area development

The accessibility of the destination is improved and facilitated by the national access roads, the railway infrastructure in Bologa and, last but not least, by the airports in the cities of Cluj-Napoca and Oradea, as the main sources of tourists.

The characteristics of competing tourist sites require a comparative study of the destination under analysis with the neighbouring ones in terms of tourist services and number of overnight stays. Proximity to other tourist destinations is a potential advantage in respect of diversity of services and creation of a real competitive environment.

Drăganului Valley is a destination with a much larger number of tourist accommodation establishments and therefore a much higher tourist flow compared to the destination under analysis. Thanks to the development of the Mărișel skiing area, the Beliș-Fântânele destination manages to attract a significant number of tourists during the winter season. Water sports on the Beliș-Fântânele Lake, as well as the downhill MTB, coupled with the cable transport infrastructure, complete the range of tourist services offered in this location. Another favourite destination, especially for tourists coming from Hungary, is the village of Sâncraiu. The results of the comparative analysis between Săcuieu-Răchițele and neighbouring destinations, in terms of number of overnight stays, are shown in Figure 10 (INS Tempo Online, 2022).

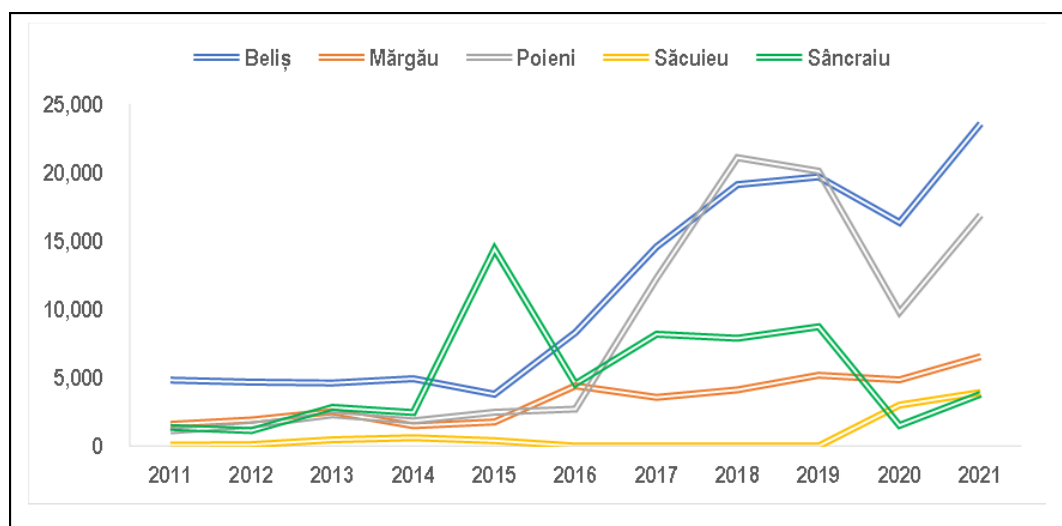


Figure 10. Overnight stays in accommodation facilities at the destination and neighbouring destinations

Source: INS

From the point of view of *positioning effectiveness*, the destination has the advantage, on the one hand, of being located at a relatively short distance from European road infrastructures (approximately one hour and twenty minutes from Cluj-Napoca and, respectively, one hour and 40 minutes from Oradea) and, on the other hand, of being situated in a mountain area with a real tourism potential. As far as the *managerial skills of local tourism business* owners are concerned, there is a shortage of people qualified in business administration, with only a small proportion of them taking specialised courses in tourism and guesthouse management. Another issue highlighted in this context is the insufficient use of IT techniques by local owners, both in terms of business management and the use of online booking systems. *The level of professional competence in tourism*, both of owners and employees, is low, which can partly be explained by the reduced level of tourism activities in the destination. However, the negative effects caused by the use of unskilled labour are mitigated to some extent by the hospitality of the locals towards tourists. *The hospitality of the locals* towards tourists has positive aspects, mainly due to the relatively low degree of tourism in the destination.

The seasonality of tourism is an indicator that reveals, on the one hand, the degree of tourism development of the destination and, on the other hand, the level of quality and diversity of tourism products. Following an INS Tempo Online databases query, the number of overnight stays in the warm season is significantly higher (at destination level in July 2021, 758 overnight stays; July 2022, 844 overnight stays) than in the winter season (January 2021, 230 overnight stays; January 2022, 396 overnight stays), information presented in Figure 11.

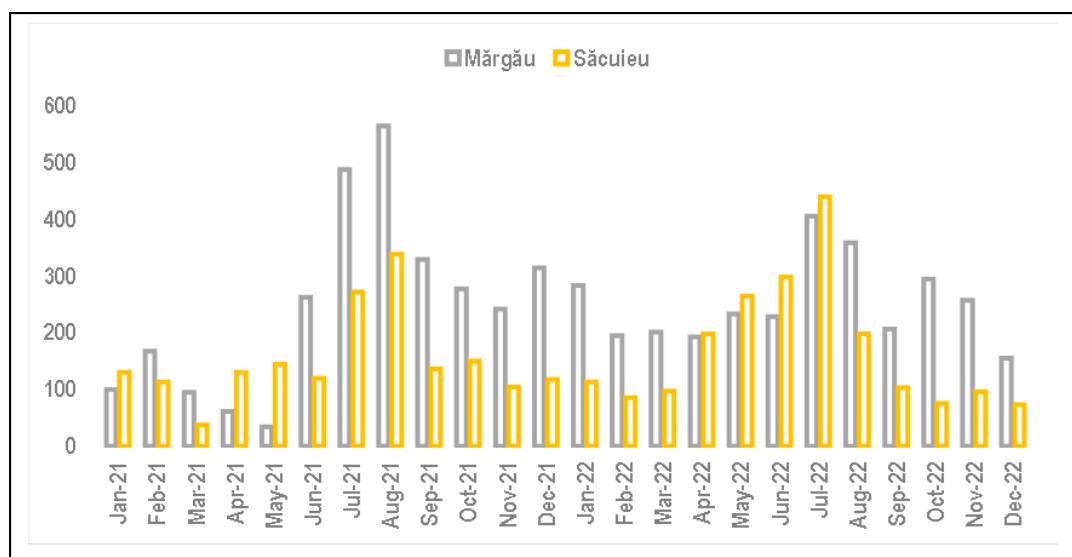


Figure 11. Overnight stays in tourist accommodation facilities at the destination by month and year 2021 and 2022

Source: INS

5. Results and discussion

Tourism prospecting analysis provides an overview of several strengths (S), opportunities (O), weaknesses (W), and threats (T). In the context of constraints in terms of article length composition, the present research concentrates mainly on S and O elements. Thus, S and O elements could be further harnessed through the implementation of low-impact types of active tourism, as well as exhibiting a significant role in generating benefits for the local community, both in accordance with sustainability principles.

The maxi-maxi strategy, within the TOWS matrix, has been applied by combining the main elements of S and O as follows: valorisation of forest roads, trails, and farm roads with multiple purposes, mainly through the presence of protected areas and their ecotourism potential; valorisation of significant tourism potential by accessing financial resources available through National Recovery and Resilience Plan (NRRP), all of which are represented in Figure 12.

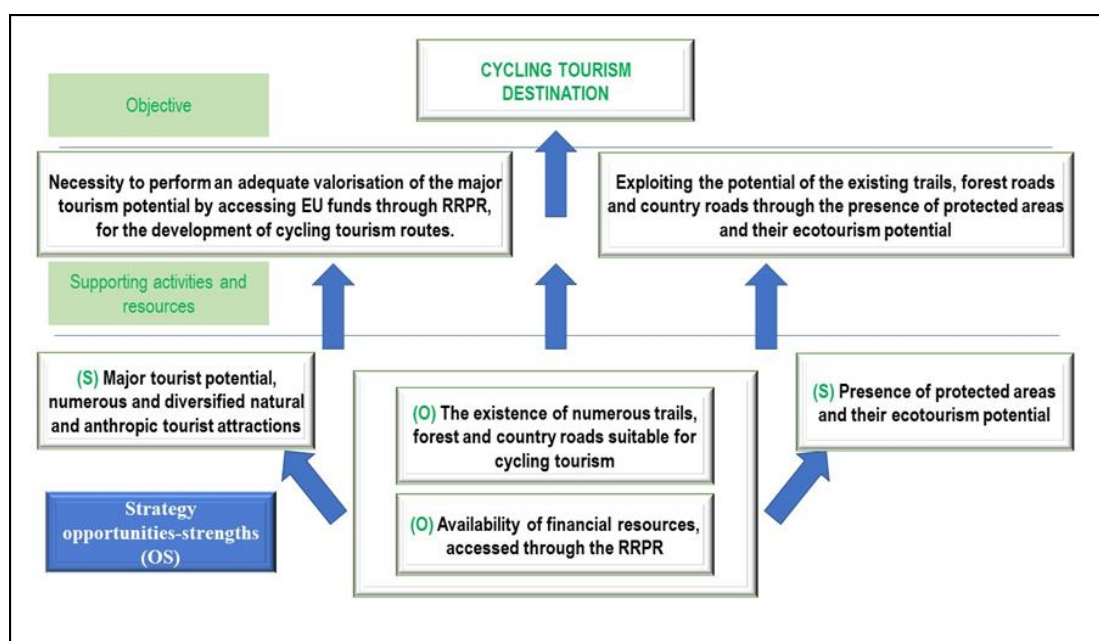


Figure 12. The Opportunities-Strengths (OS) strategy approach of the tourist cycling destination

Source: the authors

The increased popularity of cycling as a means of recreational travel, either for short or longer distances, alongside the benefits to the local community resulting from such activities, could become the foundation of cycling tourism in the tourism development strategy of Săcuieu and Mărgău communes.

The tourist development approach could become the starting point for the consistent implementation of cycling tourism routes in the geographical area of Săcuieu-Răchițele. Thus, the aim of the study revolves, among other objectives, around the idea of identifying and taking steps towards the implementation of such cycling tourism routes and paths in the future. The development of cycling tourism infrastructure could lead to an increase in tourist demand, an extension of the length of stay, and advancements in the development and promotion of poorly known and scarcely populated areas.

In this respect, the authors propose two important regional cycling tourism routes to connect the destination under analysis with its neighbouring (more touristically developed) destinations. Furthermore, connecting the regional routes with the main tourist attractions of the destination through local and thematic cycling tourism routes becomes a *sine qua non*. Last but not least, the Bike Tourism Centre (BTC) plays an important role within this context, having both a coordinating and promotional role, but also a complementary function as an intermediary between cyclists and tourist service providers.

5.1. Proposed regional cycling routes

In light of the recommendations and instructions developed by the ECF, along with in situ research and detailed inspection of several maps of the area, the analysis proceeded with the identification of possible future long-distance routes throughout the intended destination.

The first step consisted in outlining the main tourist areas in the proximity with possible interconnections with Săcuieu-Răchițele destination in terms of cycling infrastructure such as Calata Valley (localities within Huedin basin), Beliș-Mărișel, Padiș, Stâna de Vale and Remeți. In addition to these, secondary tourist areas (based on their geographical location) were distinguished, such as Ghețari and Gârda Seacă Valley, Criș Repede gorge and its adjacencies (Șuncuius, Vadu Crișului, etc.).

The follow-up section is dedicated to an analysis of the connections between these areas of tourist interest and the destination under analysis. It should be noted that long-distance route design requires special care in order to avoid heavy traffic and high-speed vehicles. Thus, the following transit corridors have been identified: Huedin-Remeți (with connectivity to Stâna de Vale resort and Bratca locality); Padiș-Doda Pili-Răchițele-Bologa (connected to both Smida-Poiana Horea Mărișel, as well as Ghețari - by taking the northern turn before Ic Ponor - via Poiana Călineasa. Our analysis is not intended to be exhaustive in nature, but to focus on the routes already mentioned; thus, some other possible regional routes identified during the research have not been detailed in this article.

5.1.1. Regional cycling tourism route Huedin-Remeți

The main localities along this regional cycling route consist of Huedin, Sâncraiu, Săcuieu, Vișag, Lunca Vușagului, and Remeți.

A recommended route from Huedin to Săcuieu follows the recently built cycling path situated within the Huedin-Sâncraiu section. From Sâncraiu, the cycling tourism route will follow county road 103 J through Alunișu up until Săcuieu, where there is low traffic (on 103 J) with good quality riding surface due to the road rehabilitation that occurred in 2020. Following up the cycling route on road 103 J to communal road 130 through Vișag towards Traniș (this section is characterized by an unpaved yet suitable road for cycling) and then towards Lunca Vușagului. From this point, roads 764B and 108 K are to be followed towards Remeți. An alternative and parallel route is recommended for the 10 km stretch between Lunca Vușagului and the uphill road that leads to Cota 1000 along the left bank of Drăganului Valley (as an increase in the traffic between Remeți and Drăganului Valley is to be expected after the completion of road rehabilitation). The Huedin-Remeți cycling tourism route is surrounded by rural settlements brimming with authenticity such as Sâncraiu, Vișag, and Traniș, that complement the already existing numerous sights and tourist attractions found in this area.



Figure 13. Geographical location of the Huedin-Remeți regional cycling tourism route
Source: the authors

5.1.2. Regional cycling tourism route Padiș-Bologa

The regional cycling route is intended to cross the main villages such as Padiș, Ic Ponor, Doda Pili, Răchițele, Săcuieu, and Bologa, by following the 763, 108C, and 103H roads. Several route segments could be developed outside the main road infrastructure in both public and private domains. Thus, the distance between Doda Pili and the junction of the Firii Valley with road 108C can be diverted onto a parallel forest road, which is suitable for cycling in terms of surface area and gradient. It is possible to rehabilitate some forest roads from Prislop Pass to Răchițele. Other segments of the route that can be developed parallel to road infrastructure, accounting for approximately 70% of the total distance, are those located between Scind and Bologa. Even though traffic on these routes is relatively light, there is a need for future cycling infrastructure to be separated from public roads.

The Padiș-Bologa cycling tour is dotted with areas that contain a wide spectrum of natural and man-made landscapes, with places steeped in history and millenary traditions. Padiș is known as the focal point of karstic relief in Romania, while Beliș Lake soothes tourists with its vast yet peaceful waters. Typical settlements with houses that still preserve vernacular architecture arise from the mountains, while breathtaking sceneries are highlighted by dense forests that create an edge effect greatly appreciated by tourists, such as the surroundings of Lake Scind. The Roman castles and the Medieval Fortress of Bologa are testimonies of the sturdiness of the people who roam these lands.



Figure 14. Geographical location of the Padiș-Bologa regional cycling tourism route
Source: the authors

5.2. Proposed local cycling tourism routes

The importance of a local cycling tourism route stems from its ability to connect the main tourist attractions and sights with tourist reception facilities, tourist information centers, rail connection points, and car parks.

Field research has identified several possible cycle routes that should be designed according to tourist preferences and ECF standards. Thus, criteria such as an appropriate riding surface, visible and accurate signage, resting places, and accommodations are paramount. The main local cycling routes proposed are directed to tourist attractions such as Răchițele waterfall, TIC Săcuieu to Cabana Vlădeasa, Cabana Vlădeasa to Vlădeasa peak (Șaua între Munți, Pietrele Albe), Cabana Vlădeasa to Pietrele Albe (Rogojanului road), Valea Cetății to Frăsinet (an almost entirely uninhabited village), TIC to Sequoia tree (Dealul Domnului), Vișag village, Rogojel village, Răcadului Valley, etc. Yet, detailing all the proposed cycle routes is beyond the scope of this study, as the main purpose is to highlight the potential of implementation rather than an elaborate presentation of such infrastructure. The above-mentioned aspect is a distinct research issue, especially since at the time of writing, local authorities declared the existence of projects to access funds for the further development of cycling tourism infrastructure (Cabana Vlădeasa-Pietrele Albe).

The route will be classified according to the existing legal rules as well as the addition of our own approach inspired by the practices of some well-developed destinations in terms of cycling tourism products and services.

We consider that a significant aspect is informing tourists not only about the general difficulty level (easy, moderate, difficult, and expert) but also about the route distance, riding surface, physical effort level, and technical preparation required to ride the route, all before accessing the marked cycle-touring trail. In this regard, identifying features of the route (for example, the V letter for Vlădeasa, followed by numbers that express the peak height) should be present, as well as additional classification features of the difficulty level (physical effort, technical preparation, slope discrepancies, covered distance, and types of cycling surfaces).

5.3. Bike Tourism Centre (BTC)

From our standpoint, BTC should be an interesting yet useful location unit for cyclists that encompasses several services, such as solving technical bicycle issues and acquiring spare parts, accessories, and cycling equipment. It should also be able to become a meet-up and regrouping place where cyclists can hydrate with a refreshing drink or energize with good quality coffee while being able to acquire information on points of interest and landmarks within the area or even book accommodation. In addition, BTC can also offer accommodation at a minimum standard, maintenance services (washing and cleaning) for the bikes, and the possibility of washing clothes that are strictly necessary. Services at such sites should not be limited to fixing technical problems. In our opinion, the presence of BTC in a given area can be a good indicator of a destination's development level in terms of cycle tourism.

The locations of such units should be strategic locations along regional routes, within, or close to localities. In the area under analysis, a suitable location for BTC is Săcuieu, which is reinforced by the following reasons: a point of departure and arrival, located at a short distance from the Bologa rail transfer point; the presence of TIC; transit hub, on one side towards Stâna de Vale via Vișag, Tranișu, and Drăganului Valley, and on the other side towards Huedin via Săncraiu. Another favourable location for the BTC is the locality of Răchițele, justified by having the most significant tourist flow within the area, generated by the Răchițele waterfall, as well as being a transit point to several important tourist destinations, namely Lake Beliș (via Dealul Botii and Doda Pili), Padiș (via Doda Pili-Ic Ponor) and the Ocoale-Ghețari karst plateau (via Doda Pili-Ic Ponor-Poiana Călineasa). In addition to the suggested services, BTC creates poles that link future cycle tourism networks.

Conclusions and future research directions

Cycling is a fast-growing outdoor activity that not only yields individual and societal benefits but also contributes to the well-being of local communities and the extension of the tourist season in destinations. While this is not the first attempt to illustrate the value of cycling tourism in Romania, this paper offers a practical approach to harnessing existing potential through this type of tourism. This tourism development

approach of the mountainous area demonstrates the value of cycling tourism for local tourism, whether for recreational purposes or adventure, highlighting opportunities for the expansion and development of the tourism sector at the destination.

The results of the study are consistent with the scientific literature in terms of the benefits to the local community, both societal and environmental. Once again, the need to implement feasible means, resulting from the research, as tools for the regeneration through the cycling tourism of the area under analysis.

Cycling tourism can connect the landscape, cycling activity, tourism, and dedicated infrastructure, thereby providing a sustainable perspective on local communities. The findings of the case study reveal significant tourism potential in the natural setting as well as the flow of cycling tourists to the destination. Tourist accommodation structures are insufficient and therefore certain measures are required to increase the number of accommodation places, particularly the locally managed ones, to improve the income of the residents. The demographic analysis indicates a degree of steadiness in the migration of the resident population in the recent times, but a decline in the population with age groups related specifically to the labour force needed in tourism.

No marked routes or cycling paths were observed in the study area. However, forest roads, footpaths, and farm roads are plentiful and mostly suitable for recreational cycling. In this regard, as a first measure to enhance the potential provided by these routes, local cycling routes have been proposed for implementation, enabling access to main tourist attractions. Furthermore, the two proposed regional routes complement the need to connect the destination with neighbouring tourist destinations and attractions in the area under analysis via local routes.

Exploiting the tourism potential, based on unique resources, through the development of services that promote tourism experiences, such as cycling tourism routes, may be a feasible approach to revitalise the Săcuieu-Răchițele tourist destination, as well as other rural mountain areas with such vocations.

Establishing cycling routes is an essential but insufficient measure to boost tourism. Thus, scientific research directed towards better exploitation of the potential of the Vlădeasa massif from a cycling tourism perspective should be continued. To this end, new research directions, following scientifically based studies, can deepen the strategies of the TOWS matrix: the WO strategy (overcoming W by taking advantage of O), ST strategy (using S to avoid T), and WT strategy (minimising W and avoiding T). These research directions were designed to validate some of the hypotheses formulated in this study.

However, this study has some limitations. For this study that aimed to highlight the potential of cycle tourism in an area, certain routes were highlighted. It is worth mentioning that detailing these routes was not the purpose of the study, but rather to illustrate some of these routes with a greater potential to be materialised in

cycling routes (later on). As mentioned above, a final limitation is that the study only tapped SO strategies in the TOWS matrix, leaving the rest of the strategies to be carried out in future studies.

Disclosure statement

No potential conflict of interest was reported by the authors.

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References

- Aschauer, F., Gauster, J., Hartwig, L., Klementsitz, R., Michael, M., Pfaffenbichler, P., & Unbehaun, W. (2021). Guidelines for sustainable bicycle tourism. EU, Institute for Transport Studies. Vien: Interreg Danube. doi:10.5281/zenodo.4812801
- Bleahu, M., & Bordea, S. (1967). *Munții Apusenii, Bihor -Vlădeasa*. București: Editura Uniunii de Cultură Fizică și Sport. Retrieved 2022 November
- Bogdanović, V., Basarić, V., Ruškić, N., & Garunović, N. (2016). Study of the Establishment of the Regional Cycling Route Srem. *Transportation Research Procedia*, 14, 2334-2343. doi:https://doi.org/10.1016/j.trpro.2016.05.259
- Bull, C. (2006). Racing Cyclists as Sports Tourists: The Experiences and Behaviours of a Case Study Group of Cyclists in East Kent, England. *Journal of Sport & Tourism*, 11, 259-274. doi:10.1080/14775080701400927
- Buning, R., & Gibson, H. (2016). Exploring the Trajectory of Active Sport Event Travel Careers: A Social Worlds Perspective. *Journal of Sport Management*, 30, 265-281. doi:http://dx.doi.org/10.1123/jsm.2015-0213
- Ciangă, N., & Vescan, I. (2007). Valorificarea Ofertei Turistice Munților Mijlocii. Studiu de Caz Masivul Vlădeasa. *Geographia Napocensis*, 32-50. Retrieved December 2022, from http://geographianapocensis.acad-cluj.ro/Revista/volume/nr_1_2_2007/art_ful/Cianga_Vescan.pdf
- Cocean, P., & Dezsai, Ș. (2005). *Prospectare și Geoinformare Turistică*. Cluj Napoca, Cluj: Presa Universitară Clujană. Retrieved December 2022
- Coghlan, A. (2012). An autoethnographic account of a cycling charity challenge event: Exploring manifest and latent aspects of the experience. *Journal of Sport & Tourism*, 17, 105-124. doi:https://doi.org/10.1080/14775085.2012.729899
- Cojocaru, A. (2019, Jun 17). 'Cycle Tourism' Plenary Velo-city 2019. Retrieved November 2022, from ECF: https://ecf.com/news-and-events/news/%E2%80%98cycle-tourism%E2%80%99-plenary
- Cooper, J., & Leahy, T. (2017, January 18). Cycletopia in the sticks: bicycle advocacy beyond the city limits. *Mobilities*, 12, 611-627. doi:https://doi.org/10.1080/17450101.2016.1254898

- ECF (2017, June). EU Cycling Strategy. Brussels: European Cyclists' Federation. Retrieved December 2022, from ecf.com: https://ecf.com/system/files/EUCS_full_doc_small_file_0.pdf
- European Commission (2019, December 11). The European Green Deal. Brussels: European Commission. Retrieved December 2022, from European Union: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52019DC0640>
- Eurostat (2021, July 20). Production of bicycles in the EU in 2020. European Union. Eurostat. Retrieved December 2022, from Eurostat: <https://ec.europa.eu/eurostat/en/web/products-eurostat-news/-/ddn-20210720-1>
- Eurostat (2022, September 12). EU produced 13.5 million bicycles in 2021. European Union. Eurostat. Retrieved January 2023, from Eurostat: <https://ec.europa.eu/eurostat/en/web/products-eurostat-news/-/ddn-20220912-2>
- Farla, K., Simmonds, P., Rosemberg, C., & Rental, H. (2016). Evaluating the economic and social impact of cycling infrastructure. Department for Transport. Technopolis. Retrieved November 2022, from <https://www.technopolis-group.com/sv/report/evaluating-the-economic-and-social-impacts-of-cycling-infrastructure-considerations-for-an-evaluation-framework/>
- Gazzola, P., Pavione, E., Grechi, D., & Ossola, P. (2018). Cycle Tourism as a Driver for the Sustainable Development of Little-Known or Remote Territories: The Experience of the Apennine Regions of Northern Italy. *Sustainability*. doi:doi:10.3390/su10061863
- Gregoire, F. (2019, May 17). Cycle Tourism and EuroVelo on Stage at Velo-city. In ECF (Ed.). European Cyclists' Federation. Retrieved October 2022, from European Cyclists' Federation: <https://ecf.com/news-and-events/news/cycle-tourism-and-eurovelo-stage-velo-city>
- Haider, U. P., Durlacher, D. L., Antonschmidt, H., & Hödl, C. (2018). Mountain bike tourism in Austria and the Alpine region – towards a sustainable model for multi-stakeholder product development. *Journal of Sustainable Tourism*, 26(4), 567-582. doi:<https://doi.org/10.1080/09669582.2017.1361428>
- INS Tempo Online. (2022). Retrieved December 2022, from INS: <http://statistici.insse.ro:8077/tempo-online/#/pages/tables/insse-table>
- Jarry, V., & Apparicio, P. (2021). Ride in Peace: How Cycling Infrastructure Types Affect Traffic Conflict Occurrence in Montréal, Canada. *Safety*, 7. doi:<https://doi.org/10.3390/safety7030063>
- Jus, N., & Misrahi, T. (2021). Economic Impact 2021; Global Economic Impact&Trends 2021. World Travel&Tourism Council. Preuat pe February 2022, de pe <https://wttc.org/Research/Economic-Impact>
- Küster, F., & Blondel, B. (2013). Calculating the economic benefits of cycling in EU-27. European Cyclists' Federation. Retrieved November 2022, from https://ecf.com/sites/ecf.com/files/ECF_Economic-benefits-of-cycling-in-EU-27.pdf
- Laima Jesevičiūtė-Ufartienė. (2017). Consumer Social Responsibility: Example of Cycling Service. *Management of Organizations*, 78, 49-60. doi:<https://doi.org/10.1515/mosr-2017-0015>
- Lamont, M. (2009, Apr 27). Reinventing the Wheel: A Definitional Discussion of Bicycle Tourism. *Journal of Sport and Tourism*, 14, 5-23. doi:10.1080/14775080902847363
- Li, K., Rollins, J., & Yan, E. (2018). Web of Science use in published research and review papers 1997–2017: a selective, dynamic, cross-domain, content-based analysis. Springer Link, 1-20.
- Lugeri, F. R., & Farabollini, P. (2018). Discovering the Landscape by Cycling: A Geo-Touristic Experience through Italian Badlands. *Geosciences*, 8. doi:10.3390/geosciences8080291

- Lumsdon, L., Weston, R., McGrath, P., Davies, N., Peeters, P., Eijgelaar, E., & Piket, P. (2009). The European Cycle Route Network EuroVelo. European Parliament, Structural and Cohesion Policies. Brussels: European Parliament. Retrieved December 2022, from <https://www.europarl.europa.eu/studies/>
- Mateu, G., & Sanz, A. (2021). Public Policies to Promote Sustainable Transports: Lessons from Valencia. *Sustainability*, 13. doi:<https://doi.org/10.3390/su13031141>
- Merriam, S., & Nilsson, B. (1994). The case study as a research method. *Studentlitteratur*.
- Möller, H., Haigh, F., Hayek, R., & Veerman, L. (2020). What Is the Best Practice Method for Quantifying the Health and Economic Benefits of Active Transport? *Environmental Research and Public Health*, 17. doi:10.3390/ijerph17176186
- Moscarelli, R. (2019). Slow tourism infrastructure to enhance the value of cultural heritage in inner areas. *Il capitale culturale*, 237-254. doi:<http://dx.doi.org/10.13138/2039-2362/1957>
- MTA (2022). Tourist accommodation establishments with classified accommodation functions. Ministry of Entrepreneurship and Tourism. Retrieved November 2022, from turism.gov.ro/: <https://turism.gov.ro/web/autorizare-turism/>
- Nanayakkara, P. K., Langenheim, N., Moser, I., & White, M. (2022). Do Safe Bike Lanes Really Slow Down Cars? A Simulation-Based Approach to Investigate the Effect of Retrofitting Safe Cycling Lanes on Vehicular Traffic. *Environmental Research and Public Health*. doi:<https://doi.org/10.3390/ijerph19073818>
- Netherlands, S. (2016). *Transport and Mobility. Statistics Netherlands*. Hague: Statistics Netherlands. Retrieved November 2022, from https://www.cbs.nl/-/media/_pdf/2016/38/2016-transport-and-mobility.pdf
- Oosterhuis, H. (2016). Cycling, modernity and national culture. *Social History*, 41, 233-248. doi:<https://doi.org/10.1080/03071022.2016.1180897>
- Pisoni, E., Christidis, P., & Cawood, N. (2021). Active mobility versus motorized transport? User choices and benefits for the society. *Science of the Total Environment*, 806. doi:<https://doi.org/10.1016/j.scitotenv.2021.150627>
- Poljičak, A.-M., Sego, D., & Parisa, T. (2021). Analysis of Cycling Tourism: Case-Study Croatia. *Journal for Traffic & Transport Engineering*. doi:[http://dx.doi.org/10.7708/ijtte2021.11\(3\).08](http://dx.doi.org/10.7708/ijtte2021.11(3).08)
- Rus, K., Dezsai, S., Ciascai, O., & Pop, F. (2022). Calibrating Evolution of Transformative Tourism: A Bibliometric Analysis. *Sustainability*, 14. doi:<https://doi.org/10.3390/su141711027>
- Scandiffio, A. (2021). Parametric Definition of Slow Tourism Itineraries for Experiencing Seasonal Landscapes. Application of Sentinel-2 Imagery to the Rural Paddy-Rice Landscape in Northern Italy. *Sustainability*, 13. doi:<https://doi.org/10.3390/su132313155>
- Schlemmer, P., Blank, C., Bursa, B., Mailer, M., & Schnitzer, M. (2019). Does Health-Oriented Tourism Contribute to Sustainable Mobility. *Sustainability*, 11. doi:10.3390/su11092633
- Simonsen, P. S., Jorgensen, B., & Robbins, D. (1998). Cycling Tourism. Unit of Tourism Research, Research Centre of Bornholm. Bornholm: Unit of Tourism Research. Retrieved January 2022, from https://crt.dk/wp-content/uploads/12_rapport_Cycling_tourism.pdf
- Skinner, I. (2017). Cycling and Green Jobs. Copenhagen: World Health Organization. Retrieved December 2022, from <https://www.unep.org/resources/report/riding-towards-green-economy-cycling-and-green-jobs>
- Stasna, M., Vaishar, A., & Zepletolova, J. (2018). Cycling a benefit for health or just a means of transport? Case study Brno (Czech Republic) and its surroundings. *Transportation Research*, 55, 219-233. doi:<https://doi.org/10.1016/j.trf.2018.02.006>

- Statistica (2022). Number of overnight stays in travel accommodation in the EU. Retrieved December 2022, from statistica.com: <https://www.statista.com/statistics/383389/number-of-nights-spent-in-short-stay-accommodation-in-the-eu/>
- Swift, S., Green, M., Hillage, J., & Nafilyan, V. (2016). Impact of the Cycle to Work Scheme. Institute for Employment Studies. Retrieved November 2022, from <https://www.employment-studies.co.uk/system/files/resources/files/509.pdf>
- UNWTO (2022). Rural Tourism. Retrieved December 2022, from <https://www.unwto.org/rural-tourism>
- Watson, A., Watson, B., & Vallmuur, K. (2015, October). Estimating under-reporting of road crash injuries to police using multiple linked data collections. *Accident Analysis & Prevention*, 83, 18-25. doi:<https://doi.org/10.1016/j.aap.2015.06.011>
- Weihrich, H. (1982). The TOWS matrix — A tool for situational analysis. *Long Range Planning*, 54-66. doi:[https://doi.org/10.1016/0024-6301\(82\)90120-0](https://doi.org/10.1016/0024-6301(82)90120-0)
- WT&TC. (2022). Economic Impact Reports. World Travel & Tourism Council. Retrieved November 2022, from WT&TC: <https://wttc.org/research/economic-impact>
- Yin, R. (2009). *Case study research: Design and methods*. CA: Sage