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Residents' Perceptions of Negative Tourism Impacts in Nature-Based Destinations: Evidence from Czechia

Postrzeganie negatywnego wpływu turystyki przez mieszkańców obszarów turystyki
przyrodniczej – dane z Czech

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Abstract: Tourism growth in nature-based destinations increasingly generates environmental pressure, infrastructure congestion, and tensions with local communities, making overtourism a growing concern no longer limited to urban areas. This paper examines residents' perceptions of the negative impacts of tourism in selected nature-based destinations in Czechia. The study draws on questionnaire data collected between July and August 2022 through face-to-face interviews conducted in cooperation with regional destination management organizations in the Giant Mountains, the Bohemian Paradise, and the Orlické Mountains & Podorlicko. A total of 1,200 residents were approached, resulting in a response rate of 83% and a final sample of 1,000 participants. The data were analysed in Atlas.ti using open and axial coding. The findings show that residents perceive a broad range of overtourism-related impacts, with litter (16%), parking problems (15%), and irresponsible tourist behaviour in the summer season (13%) identified as the most frequent concerns. The results also indicate that the perceived intensity and structure of negative impacts vary across destinations. The study contributes to research on overtourism in nature-based destinations and highlights the importance of resident-centred knowledge for sustainable destination management and the protection of local quality of life.

Keywords: overtourism, resident perceptions, negative tourism impacts, nature-based destinations, sustainable destination management, local communities, Czechia, SDG 11 – Sustainable Cities and Communities, SDG 15 – Life on Land

Streszczenie: Rozwój turystyki w destynacjach przyrodniczych wywiera coraz większą presję na środowisko, przeciążenie infrastruktury i napięcia w obrębie lokalnych społeczności, przez co problem nadmiernej turystyki przestaje dotyczyć wyłącznie obszarów miejskich. Niniejszy artykuł analizuje postrzeganie przez mieszkańców negatywnego wpływu turystyki w wybranych destynacjach przyrodniczych w Czechach. Badanie opiera się na danych z ankiet zebranych w okresie od lipca do sierpnia 2022 r. w trakcie wywiadów bezpośrednich przeprowadzonych we współpracy z regionalnymi organizacjami zarządzania destynacjami w Karkonoszach, Czeskim Raju oraz Górach Orlickich i Podorlicku. W badaniu uczestniczyło 1200 mieszkańców, przy wskaźniku odpowiedzi wynoszącym 83%, co ostatecznie pozwoliło uzyskać próbę 1000 respondentów. Dane przeanalizowano w serwisie Atlas.ti z wykorzystaniem kodowania otwartego i osiowego. Wyniki pokazują, że mieszkańcy dostrzegają szeroki zakres skutków związanych z nadmierną turystyką, a wśród najczęstszych obaw wymieniono zaśmiecanie (16%), problemy z parkowaniem (15%) i nieodpowiedzialne zachowania turystów w sezonie letnim (13%).

Wyniki wskazują również, że odczuwana intensywność i struktura negatywnych oddziaływań różnią się w zależności od destynacji. Artykuł stanowi wkład w badania nad nadmierną turystyką w destynacjach przyrodniczych oraz podkreśla znaczenie perspektywy mieszkańców dla zrównoważonego zarządzania destynacją i ochrony jakości życia lokalnych społeczności.

Słowa kluczowe: nadmierna turystyka, percepcje mieszkańców, negatywny wpływ turystyki, destynacje przyrodnicze, zrównoważone zarządzanie destynacjami, społeczności lokalne, Czechy, SDG 11 – Zrównoważone miasta i społeczności, SDG 15 – Życie na lądzie

Introduction

Unbalanced tourism with predominantly negative impacts, often referred to as overtourism, has become one of the critical issues in tourism destination management in the last decade (Peeters 2018). While the positive economic impact of tourism on destinations cannot be underestimated, overtourism leads to adverse economic, social, and environmental problems. Tourism in Czechia has undergone extensive changes in the last three decades. A national tourism development concept has been created, and regional destination management companies have been established. European funds have started to be used to build new tourist resorts. Due to a lack of experience and a lack of real studies on tourism's impact on residents' quality of life, various mistakes were made (Deichmann 2002; Dumbrowska 2017). After a successful take-off, some tourist destinations started to experience negative impacts of tourism in the later stages of their development. There was a deterioration of the environment, traffic, and safety, as well as an increase in the cost of living for residents at the destination (Roncak 2019).

It should be emphasized that there is no "one-size-fits-all" solution to the phenomenon of overtourism (Koens et al. 2018; Milano et al. 2019; Weber 2017). Koens et al. (2018) argue that overtourism is not only caused by tourism development but also by destination management. Successful management strategies involve the collaboration of all tourism stakeholders, including residents. Understanding the negative impacts of tourism could help destination leaders better understand residents' concerns

and manage the destination in a more sustainable way. Gursoy et al. (2002) mention that the success of any tourism project is in danger of being lost if the development is planned and created without sufficient knowledge and support from residents. To avoid further deterioration of the situation in some tourist destinations and the escalation of tensions between residents and tourists, it is desirable to conduct detailed investigations into the impacts of tourism on residents especially in nature-based destinations. It is necessary to develop a comprehensive knowledge base of the impacts of tourism on individual tourist destinations in Czechia.

Although overtourism is mainly associated with urban destinations, the negative impacts of tourism have been felt much earlier in mountain and nature areas. The criticism of mass tourism was quite similar to what is now called overtourism, a reaction to the massive development of tourism in the Alps. Natural and mountain destinations have much in common, as most mountain destinations are also natural destinations. Characteristic features in many mountain and natural destinations are high vulnerability (biophysical and socio-cultural), high dependence on tourism, excessive number of day visitors, and lack of organizational structures. Weber & Egli (2023) include among the leading general causes of overtourism in natural and mountain destinations nature itself as an attractive environment for active forms of tourism, the increased accessibility of destinations due to the expansion of mobility, the massive increase in privately rented

accommodation through platforms such as Airbnb or Booking.com and the intensive communication through social networks. As nature is the main attraction in most natural and mountainous areas, these destinations often have fragile and sensitive ecosystems. The most commonly observed consequences are ecological, such as traffic, water, and waste problems as well as issues related to landscape, biodiversity, and wildlife. The main socio-economic impacts include pressure and congestion on infrastructure, overcrowding, low added value related to visitor numbers, and undesirable visitor behaviour. Ultimately, these impacts are reflected in reduced quality of life for residents and deteriorated visitor experience (Weber et al. 2019).

In natural destinations, the impacts of overtourism can be as severe as in urban destinations (Butler 2019), although there are critical differences in the dynamics of overtourism. Some areas can cope with high tourist arrivals, while in other destinations, even small increases in tourist numbers can cause significant negative impacts. Although the absolute number of tourists is often lower than in urban destinations, negative impacts can also be felt in natural areas, especially if the number of tourists increases significantly over a relatively short period (Butler 2019). Overcrowding is a central problem (Leung et al., 2018). It is a matter not only of visitor numbers or density, but also of undesirable tourist behaviour (e.g., noise and littering). In natural areas, overcrowding may be perceived as a decline in the quality of outdoor recreation and tourism experiences (Strasdas et al. 2022).

Brebbia & Pineda (2006) investigated alpine tourism trends in mountain destinations with a focus on outdoor activities and summarized their impacts into three categories: (1) impacts of overexploitation and overuse of land and other natural resources, as well as damage to sensitive alpine ecosystems by active forms of tourism and related activities, (2) structural problems that are directly related to tourism supply

and its nature, (3) loss of functions that lie outside the business economy. In this context, they mention the overall change of the Alpine landscape. In mountain tourism, skiing is one of the most popular winter activities. As a result, top-rated ski resorts can be affected by excessive tourism over time. Pikkemaat et al. (2020) investigated the impact of overcrowding on skiers' experiences. They concluded that overcrowding at critical locations in ski resorts (e.g., valley stations, slopes, and dining facilities) contributes to an overall increased perception of crowding and negatively affects visitor satisfaction. The authors emphasized the importance of optimizing visitor management at ski resorts to reduce crowding at individual sites. While some popular Alpine ski destinations are experiencing overtourism, remote valleys, in particular, also suffer from a lack or decline in economic activity, as described by Barker (1982) several decades ago.

Monitoring tourist traffic is not straightforward as it has its own specific characteristics. Rogowski et al. (2025) conducted research focused on Polish mountain national parks. Despite progress in tourist traffic monitoring, comprehensive and comparable daily data on visitor numbers are still lacking. Therefore, in another research, Rogowski (2025) applied a new, original approach – the Method of Overtourism Optimization – to investigate overtourism. Any measures should be based on the involvement of all stakeholders.

In Czechia, overtourism in nature-based destinations is addressed by the following authors. Drápela et al. (2025) state that excessive tourism in the Bohemian Paradise is concentrated in specific locations. At the same time, they point out that there is significant potential for sustainable tourism development in the surrounding, less-visited yet naturally attractive areas. Bobáková et al. (2025) argue that overtourism in the Jeseníky Protected Landscape Area creates economic opportunities but also poses significant environmental and social risks. The most critical

challenge lies in the inadequate supporting infrastructure, particularly limited parking capacity, poor condition of access roads, and unsatisfactory sanitary facilities. The authors therefore recommend the development of new parking areas in suitable locations, integrated with feeder transport systems or environmentally sustainable modes of transport to tourist attractions.

1. Materials and Methods

The aim of this paper is to analyse resident perceptions of the negative impacts of tourism in selected nature-based destinations in Czechia. Concerning the objective, the research question was set: What negative impacts of tourism are most commonly perceived by residents in nature-based destinations in Czechia?

The criteria for selecting destinations were based on the recommendations of the EU study "Unbalanced Tourism Growth on Destination Level" (Strasdas et al. 2022), which responded to the shift of overtourism issues to natural and mountain destinations. For this reason, we have selected, as one of the criteria, destinations that are considered natural (the Bohemian Paradise/Český ráj, $n=350$), mountain (the Giant Mountains/Krkonoše, $n=284$), and at the boundary between natural and mountain (the Orlické Mountains & Podorlicko/Orlické hory & Podorlicko, $n=366$).

A total of 1,200 participants were contacted, and the return rate of the questionnaire was 83%, so the research sample consisted of 1,000 participants (men=385, women=615). Participants were residents living in the mentioned tourist areas (Figure 1).

In this study, a non-probability sampling method, quota sampling, was used. We acknowledge that it is not possible to precisely estimate the sampling error, which may affect the generalizability of the results to the entire population. On the other hand, it is a quick and practical way of collecting data, especially when time or resources are limited, and it also ensures that smaller but key groups are not underrepresented in

the sample. The sample design was a miniature of the baseline sample. The composition of the sample was representative of the population in each destination, with an even distribution across gender, age groups, education, birthplace, length of stay in the tourist destination, and employment in the tourism sector (table 1).

The research was conducted from July to August 2022 in the form of a questionnaire survey carried out by personal interviews in cooperation with regional destination tourism companies among residents of the Giant Mountains, the Bohemian Paradise and the Orlické Mountains & Podorlicko. The selected participants were contacted by e-mail and subsequently by telephone. The research project, its purpose, time requirements, and the benefits of participation for the destination's sustainable development were explained to them. Participants were asked to consent to the use of their data for publication and for the development of a sustainable tourism strategy in their destinations.

The interviews were conducted in each destination by interviewers commissioned by the regional destination tourism companies who had experience with similar surveys. Individual interviewers were given the numbers of people to be selected and quotas, i.e., the desired composition of the group of people they selected in terms of quota characteristics. Two translators translated the questionnaire, and the development of the pilot Czech version was discussed in individual interviews with Czech and foreign experts. Based on the recommendations of experts, pilot data collection in natural sites of the Hradec Králové Region and subsequent implementation of focus groups consisting of 5 representatives of public administration (municipality, microregion, region) and five experts from the business sector, the language and content of the questionnaire was revised (Ramos & Prideaux 2014). The questionnaire's content was revised only to refine the wording,



Figure 1. Map of the selected study destinations in Czechia: the Giant Mountains, the Bohemian Paradise, and the Orlické Mountains & Podorlicko
Source: Randuška (2025).

Table 1. Structure of the participants

This table presents the sociodemographic structure of the research sample across the three study destinations. It compares the distribution of respondents by gender, age, education, and employment in the tourism sector, showing that the sample was composed to reflect the resident population in each area.

		Tourist area		
		Bohemian Paradise	Giant Mountains	Orlické Mountains & Podorlicko
Gender (%)	Men	38.6	32	43.4
	Women	61.4	68	56.6
Age (%)	Less than 18 years	0	1	0.3
	18–34 years	23.7	30	21
	35–49 years	46.3	36	40.4
	50–65 years	21.4	25	26.5
	Over 65 years	8.6	8	11.8
Education completed (%)	Primary school	0.6	1.1	1.4
	Grammar school	57.1	49	51.5
	University	40.3	48.2	45.9
	Other	2	1.7	1.2
Working in the tourism industry (%)	Yes	14.9	31.3	23.2
	No	85.1	68.7	76.8

improve the clarity of the terminology, and facilitate participants' understanding.

Data processing was done using the Atlas.ti software and open and axial coding was used. From a total of 48 codes, a total of 14 categories were subsequently created using axial coding, corresponding to meaning

units related to the negative impacts of tourism in these destinations (increased amount of garbage, parking problems, irresponsible tourist behaviour in summer, road problems, too many tourists, increased property prices, irresponsible tourist behaviour in winter, negative environmental impacts,

noise, disruption to residents' daily lives, uncontrolled construction, increased prices in shops, deterioration of forest roads and no negative impacts). Based on the survey results, the identification of negative issues, and residents' recommendations, strategic areas for development were identified that destinations should pursue in order to promote sustainable tourism development and mitigate overtourism.

2. Results and Discussion

The most pressing problems (Table 2) are perceived to be the rise in litter (16%) as illustrated by an example from Bohemian Paradise, where this issue is particularly acute: "The thing that bothers me the most is the growth of litter everywhere..." (R30). This is followed by parking problems (15%), which represent the primary negative manifestation of overtourism in the Orlické Mountains & Podorlicko region. "Parking, disrespect for the local environment – tourists feel they can do anything everywhere; they do not respect the ban on entry or parking restrictions" (R723). The third most frequently mentioned issue is irresponsible behaviour of tourists during the summer season (13%), which is evident across all destinations.

In the Giant Mountains, unlike the Orlické Mountains and Bohemian Paradise, the most significant perceived negative impact of tourism is the increase in real estate prices, e.g., "Real estate prices (apartments and developers are driving out residents; thus, traditions and local culture are disappearing, especially in the off-season months when the villages are empty)...The biggest problem I see is the boom in development projects that concentrate people in one place, disregard traditional architecture, and damage nature." (R420). The perceived importance of the individual problems differs across the three study destinations. The absolute values are presented in Figure 2.

In the Bohemian Paradise (table 3), the most frequently perceived negative impact of tourism is the increase in

litter (22%). Respondents noted: "During the Covid-19 pandemic people 'stormed' Drábské světničky, leaving an incredible mess in the forest. On every walk, we collected bags full of plastic bottles and waste" (R33), or "There are too many tourists; the pressure on nature is excessive. The amount of rubbish left behind in the forest is infuriating" (R35).

Another major concern is parking (19%): "Cars are parked everywhere... very inappropriate and unsafe" (R55), or "Too many cars require excessive parking space, and visitors do not respect private property" (R77). Residents also express strong concerns about irresponsible behaviour of tourists during the summer (13%), for example: "Unruly tourists who do not know how to behave in nature or respect it" (R85).

Residents often mentioned multiple issues simultaneously in their responses, e.g., "Litter, parking problems, road traffic, irresponsible behaviour of tourists, too many tourists" (R63), or "Litter everywhere—in forests, on roads. Cars do not belong in the heart of the Bohemian Paradise; this should be penalised" (R177).

There are also specific comments focusing on the behaviour of tourists engaged in active forms of tourism: "From spring to autumn, Malá Skála is full of tourists—hikers, cyclists, scooter riders, cars, motorbikes... A quiet walk through the village is no longer possible... Today, business activities such as boat and scooter rentals or a campsite in the village centre bring profit to a few but harm the area overall" (R115). Similarly, "Increased movement of people, littering, and failure to respect traffic rules—cyclists often leave designated paths" (R213). Absolute values are illustrated in Figure 3.

For residents of the Giant Mountains (Table 4), the most significant issue is the increase in real estate prices (16%): "Prices are highly inflated due to the sharing economy and investment apartments; mountain towns are no longer suitable for permanent living..." (R450). Another respondent noted the lack of regulatory

Table 2. Negative impacts of tourism – overall view of all destinations (relative values)

This table summarises the relative frequency of negative tourism-related impacts reported by residents across all three destinations combined. It shows which problems were mentioned most often and groups them from high-frequency to very low-frequency impacts.

High-frequency impacts	Medium-frequency impacts	Low-frequency impacts	Very low-frequency impacts
• Increase in litter, disorder (16%) • Parking problems (15%) • Irresponsible behaviour of tourists in the summer (13%) • Increased difficulties with road transport (11%)	• Too many tourists (7%) • Increase in real estate prices (6%) • Irresponsible behaviour of tourists in the winter (6%) • Environment (5%) • Noise (5%)	• Disruption to residents' daily lives (4%) • Uncontrolled construction (3%) • No negative impacts (3%) • More expensive prices in shops and services (3%) • Deterioration of forest paths and roads (2%)	• Other (lack of food shops, services, infrastructure) (1%) • Impact on other infrastructure (0.2%) • Overtourism-driven displacement of local residents (0.2%) • Holding large events (0.1%)

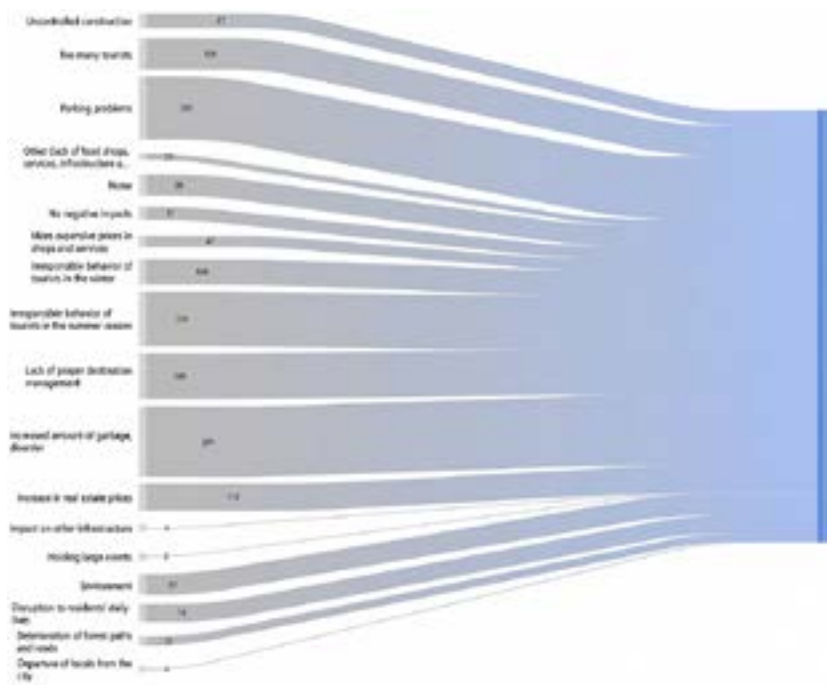


Figure 2. Absolute frequencies of negative tourism-related impacts reported by residents across all three destinations

capacity: “Municipalities cannot effectively regulate the construction of new accommodation, leading to high housing costs, congestion, and environmental degradation” (R473). Other negative impacts include irresponsible behaviour of tourists in summer (12%), e.g., “Many tourists violate national park rules and behave recklessly towards nature...”

(R478), and “Tourists do not respect coexistence with locals...” (R497). Similarly to the Bohemian Paradise, increased litter (11%) is also a major issue: “Nature cannot cope with the number of tourists, resulting in excessive waste” (R530). (R530) or “Tourists do not respect nature, they throw rubbish in the forest, it looks like a rubbish dump here...” (R577).

Table 3. Absolute frequencies of negative tourism-related impacts reported by residents in the Bohemian Paradise

This table presents the relative distribution of negative tourism-related impacts reported by residents of the Bohemian Paradise. It highlights litter, parking problems, and irresponsible tourist behaviour in summer as the most frequently perceived issues in this destination.

High-frequency impacts	Medium-frequency impacts	Low-frequency impacts	Very low-frequency impacts
• Increase in litter, disorder (22%) • Parking problems (19%) • Irresponsible behaviour of tourists in the summer (13%) • Too many tourists (11%)	• Increased difficulties with road transport (10%) • Noise (7%) • Environment (5%)	• Deterioration of forest paths and roads (3%) • Disruption to residents' daily lives (3%) • No negative impacts (2%)	• Increase in real estate prices (1%) • More expensive prices in shops and services (1%) • Other (lack of food shops, services, infrastructure) (0.6%) • Uncontrolled construction (0.3%) • Holding large events (0.32%)

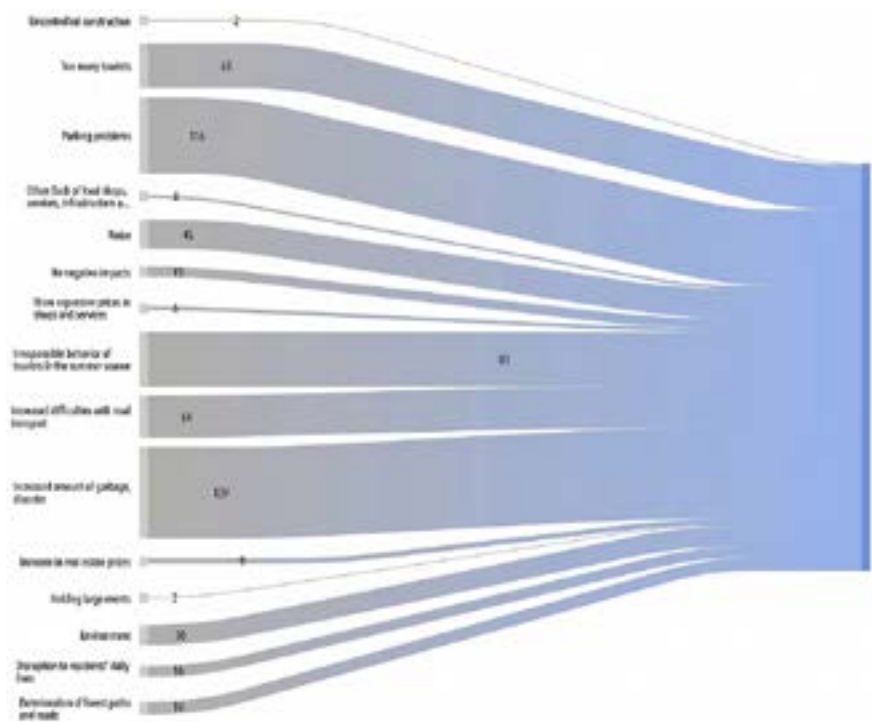


Figure 3. Absolute frequencies of negative tourism-related impacts reported by residents in the Bohemian Paradise

Another concern is that economic benefits from tourism do not sufficiently contribute to local development, as profits often leave the region: “Hoteliers operating here are based elsewhere, and revenues do not sufficiently contribute to local development...” (R581). At the same time, residents express nostalgia for the past – “good old Giant Mountains,”: “I could write maybe an essay or even a report about all the negatives or how life has changed throughout

my life. I remember when there were almost no tourists... they were respectful towards locals...The schools and the media wiped out the beautiful Giant Mountains dialect, and the common Czech language prevailed...” (R583). The absolute values can be seen in Figure 4.

In the Orlické Mountains & Podorlicko (Table 5), the most frequently mentioned problems are parking (16%) and increased litter (15%). For example: “Parking and

Table 4. Negative impacts of tourism – the Giant Mountains (relative values)

This table presents the relative frequency of negative tourism-related impacts identified by residents of the Giant Mountains. It shows that rising real estate prices, irresponsible tourist behaviour in summer, and litter were the most prominent concerns in this destination.

High-frequency impacts	Medium-frequency impacts	Low-frequency impacts	Very low-frequency impacts
• Increase in real estate prices (16%) • Irresponsible behaviour of tourists in the summer season (12%) • Increase in litter, disorder (11%)	• Irresponsible behaviour of tourists in the winter (10%) • Parking problems (8%) • Increased difficulties with road transport (7%) • More expensive prices in shops and services (6%) • Uncontrolled construction (6%) • Too many tourists (6%)	• Environment (4%) • Disruption to residents' daily lives (4%) • Other (lack of food shops, services, infrastructure) (3%) • Noise (3%)	• No negative impacts (1%) • Deterioration of forest paths and roads (1%) • Overtourism-driven displacement of local residents (1%) • Impact on other infrastructure (0.4%)

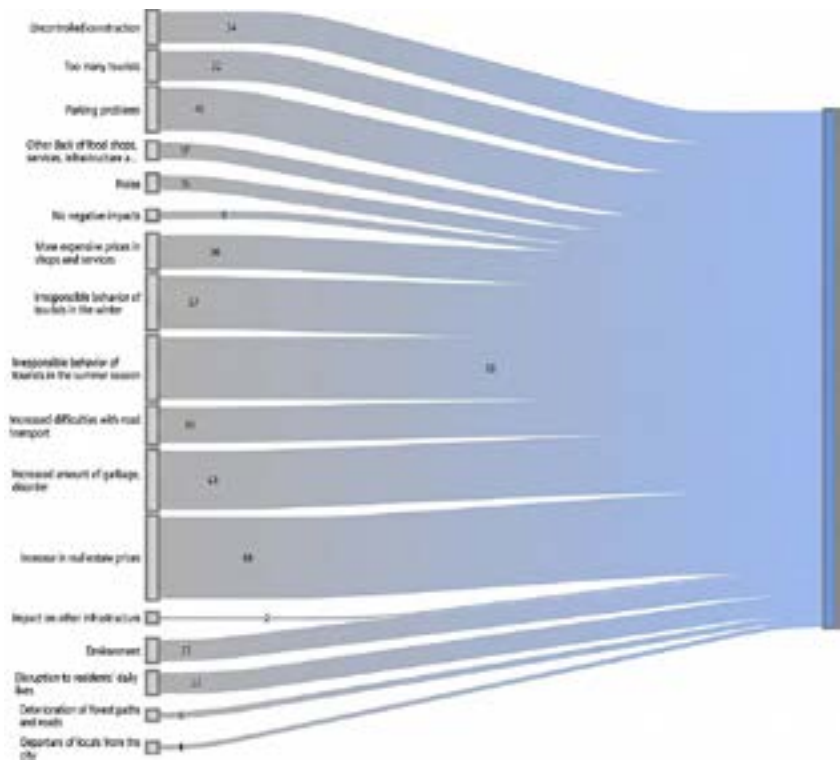


Figure 4. Absolute frequencies of negative tourism-related impacts reported by residents in the Giant Mountains

disrespect for local regulations—tourists behave as if no rules apply” (R723), or “Litter bins are insufficient and not regularly emptied” (R877).

This region also experiences increased traffic congestion (14%): “There are clear traffic and parking issues in the busiest areas...” (R893), or “The number of cars

has increased significantly...access to certain areas like Serlich should be regulated” (R932). Residents also highlight irresponsible behaviour among cyclists: “Cyclists often leave designated paths, contributing to environmental degradation” (R973).

Finally, residents emphasise that tourism benefits are not effectively reinvested

Table 5. Negative impacts of tourism – the Orlické hory & Podorlicko (relative values)

This table shows the relative frequency of negative tourism-related impacts reported by residents of the Orlické hory & Podorlicko area. It indicates that parking problems, litter, and road transport difficulties were the most frequently mentioned issues in this destination.

High-frequency impacts	Medium-frequency impacts	Low-frequency impacts	Very low-frequency impacts
• Parking problems (16%) • Increase in litter, disorder (15%) • Increased difficulties with road transport (14%) • Irresponsible behaviour of tourists in the summer season (12%)	• Irresponsible behaviour of tourists in the winter (7%) • Disruption to residents' daily lives (6%) • Environment (6%) • No negative impacts (5%) • Too many tourists (5%)	• Uncontrolled construction (4%) • Noise (4%) • Increase in real estate prices (2%) • Deterioration of forest paths (2%)	• More expensive prices in shops and services (0.8%) • Other (lack of food shops, services, infrastructure) (0.3%) • Impact on other infrastructure (0.3%)

into local communities: “The municipality cannot adequately use tourism to improve residents’ quality of life” (R977), or “We are no longer talking about tourism, but about the heavy tourism industry, which has irreversibly damaged nature and the landscape in many places. Often, unfortunately, with the support of the region, when the only consideration was the profit” (R981).

At the same time, socio-cultural impacts are evident, as traditionally quiet areas are losing their character and adapting to tourism demands: “Orlické Záhoří has always been a nice and quiet village. Now it is impossible to cross the road because of traffic, and apartment boarding houses have been built between the old cottages, where there is a lot of mess and noise all day and night on weekends. Everything is already ruined. It is a pity, as there was always beautiful nature. We appreciated the quiet here.” (R987). Absolute values are presented in Figure 5.

The impact of overtourism varies from destination to destination. For the mountain type of destination, the Giant Mountains, residents cite the main problem as an increase in property prices due to uncontrolled apartment construction, which contributes to imbalances in the local economy and fully confirms the survey results (Jordan et al. 2018; Postma et al. 2018). This development then leads to the “degradation of commercial infrastructure and resident-specific activities” (Peeters et al. 2018) and potential

commercial gentrification. At the same time, this is entirely in line with the results of the investigation by Brebbia and Pineda (2006), which focused on changes in mountain landscape type due to the development of active forms of tourism, using the Alps as an example. Another problem in the Giant Mountains, confirmed by our study and by Weber et al. (2019) for other mountain destinations, is irresponsible tourist behaviour. As in Lalilic’s study (2020), residents experience existential melancholy due to the abandonment of a beloved home environment associated with the place in the past. The original Giant Mountains have been transformed into a place wholly adapted to tourists’ needs. Our study confirms that, as in Dodds & Butler (2019), there is competition for social space and displacement of the local population (Peeters et al. 2018).

For the natural destination – the Bohemian Paradise – the most frequent problems mentioned were increase in litter, which confirms the results of the study (Andereck et al. 2005; Coccossis et al. 2002) as one of the main problems of negative impacts of tourism in natural destinations. Educational marketing could be a suitable solution, explaining how tourists should behave in nature and what is the impact of their irresponsible behaviour.

At the same time, the Bohemian Paradise, similar to the survey (Butler 2019), faces limited infrastructure, which causes problems with traffic and parking. It also confirms

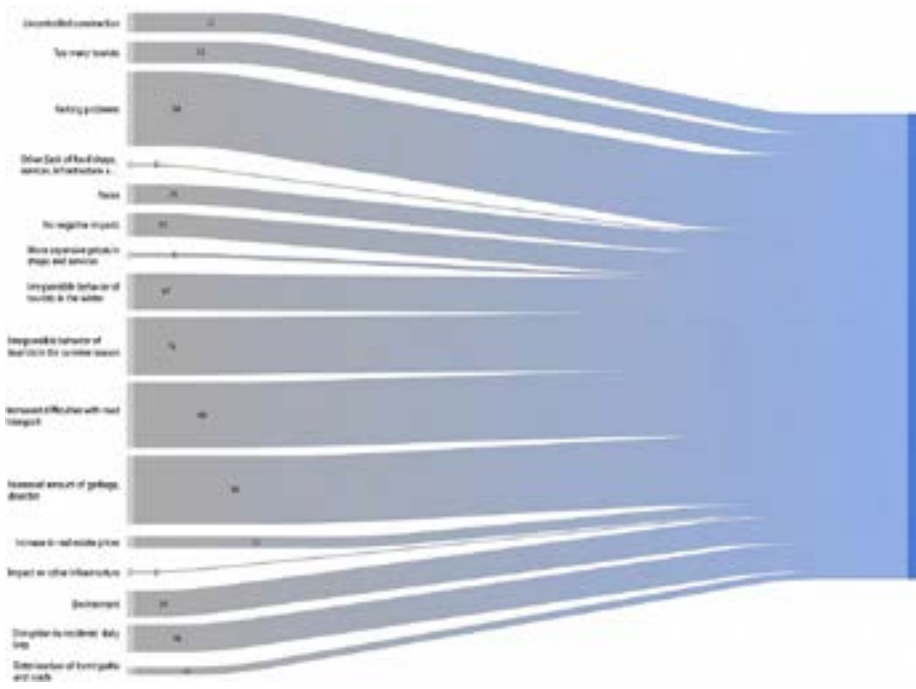


Figure 5. Absolute frequencies of negative tourism-related impacts reported by residents in the Orlické hory & Podorlicko area

the findings of Strasdas et al. (2022) that natural areas need to create a suitable set of attractions and tourism infrastructure to disperse visitors to create less crowded hotspots around iconic attractions that tourists want to visit. Like the Giant Mountains, the Bohemian Paradise faces irresponsible behaviour of hikers and cyclists who move off the marked routes. At the same time, residents feel, similar to Butler’s (2019) study, that they are being “taken over” by tourists.

Similar problems prevail in the Orlické Mountains & Podorlicko, representing elements of the mountain and natural landscape, as in the Bohemian Paradise. Problems with litter, transport network congestion, and lack of parking spaces dominate. This is also related to the lack of infrastructure. Regarding the quality of infrastructure, the Bohemian Paradise and the Orlické Mountains & Podorlicko have significant shortcomings. If they want to attract tourists, they need to be prepared as regards infrastructure. Unfortunately, problems with

accommodation and transport infrastructure are probably the biggest obstacle to further tourism development. The solution would be to prepare a set of rules and technical parameters for visitor infrastructure.

For all destinations, whether it is a mountain, nature, or nature-mountain destination, litter is an issue; furthermore, a relatively large number of residents mention overcrowding as a critical issue, which corresponds with the study by Leung et al. (2018), who cite overcrowding as one of the biggest problems for these types of destinations. An interest for the destinations under study should be to try to disperse visitors to peripheral areas that are not yet overburdened with tourism, e.g., by using a web application, as Strasdas et al. (2022) state in their study, or by introducing an efficient reservation system as is done for Plitvice Lakes (Turkalj 2022). As far as traffic is concerned, one solution is to regulate traffic, e.g., public transport only or pedestrian or cyclist-only entry. Encourage bigger car

parking areas at the entrances to towns, villages, or natural sites (and shuttle services from them to the main attractions), small parking areas (up to 10 cars) at natural starting points of marked tourist routes, and cultivation or (if necessary) expansion of parking capacity near attractions.

3. Limitations and Future Research

The study contributes to the understanding of overtourism impacts in Central European nature-based destinations, but the findings of this paper must be considered in light of some limitations. Firstly, it is a study focusing on the negative effects in three selected destinations in Czechia. The study was limited to a regional focus on the destinations of the Giant Mountains, the Bohemian Paradise, and the Orlické Mountains & Podorlicko, located in the Hradec Králové Region. There is no comparison with other destinations in Czechia and Europe. Therefore, the results cannot be generalized to Czechia or Europe level. Secondly, it is also a one-off survey from 2022. We recommend that surveys in given destinations are carried out regularly to reveal the impacts of tourism over time. Another weakness is the depth of responses based on the questionnaire used. Given the expected higher sensitivity to overcrowding and higher demands for safety from tourists and residents, overtourism will likely become even more relevant in the future, especially after the experience of the COVID-19 pandemic. Finally, we would like to conduct an in-depth analysis and compare our results with those of neighbouring countries, which we believe would be highly desirable. A possible comparison with, for example, the other destinations in different parts of Europe or the world would also be interesting.

Conclusion

This study aimed to analyse residents' perceptions of the negative impacts of tourism in selected nature-based destinations in Czechia. In line with this objective, the research question addressed which

negative impacts of tourism are most commonly perceived by residents in these nature-based destinations. The findings reveal that residents perceive a broad spectrum of negative impacts associated with overtourism. The major concerns include increase in litter (16%), parking problems (15%), and irresponsible tourist behaviour during the summer season (13%). At the regional level, some differences were identified. In the Bohemian Paradise, the most significant perceived impact was the increase in litter (22%), followed by parking issues (19%) and irresponsible tourist behaviour (13%). In the Giant Mountains, rising real estate prices were identified as the most pressing issue (16%), followed by irresponsible tourist behaviour (12%) and increased litter (11%). Residents also expressed concerns that tourism revenues do not sufficiently contribute to local development, as profits often flow to external businesses. In the Orlické Mountains & Podorlicko, parking problems were reported as the most significant issue (16%), followed by increased litter (15%) and traffic congestion (14%). Residents also noted an increase in irresponsible behaviour among cyclists. Additionally, respondents emphasized that tourism revenues could be utilized more effectively to benefit local communities. Beyond environmental and economic impacts, residents also highlighted socio-cultural changes. Traditionally quiet areas are gradually losing their original character, becoming increasingly oriented toward tourist demands and less suitable for local residents.

Statements

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