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RESIDENTS' PERCEPTIONS OF OVERTOURISM IN NATURE-BASED DESTINATIONS: EVIDENCE FROM CZECHIA

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ABSTRACT: This study aims to examine how residents' perceptions of overtourism differ across nature-based destinations with respect to selected sociodemographic factors. A questionnaire survey was conducted among 1,000 residents across three Czech nature-based destinations to explore their perceptions of this issue. Findings confirmed that detailed knowledge of the residents' perceptions of overtourism according to socio-demographic factors such as employment in tourism, gender, and length of life in the destination would be a key aspect of sustainable tourism development. The presented findings have practical implications for local municipalities and DMOs. The study's results provided specific data enabling the optimisation of residents' dissatisfaction and ensuring sustainable tourism development in the studied destinations. These results have already been incorporated into the current Strategy of the Hradec Králové Regional Tourism Authority and applied within individual destination management frameworks.

KEYWORDS: residents' perceptions, tourism impacts, socio-demographic factors, tourism support, sustainable tourism

Introduction

Overtourism is a complex issue that cannot be attributed to tourism alone.. According to Koens et al. (2018), what is currently called overtourism is only the accumulation of negative impacts and their perceptions, perceptions of tourists' behaviour and their interactions with residents and other actors, as well as social changes and economic and physical environments. Subjective perception is one of the key aspects of overtourism, summarising the different feelings of stakeholders about how overtourism impacts their quality of life and the quality of the tourist experience.

Before the outbreak of the COVID-19 pandemic, overtourism was mainly associated with urban destinations (Roncak & Hobza, 2022; Gossling et al., 2020; Koens et al., 2018). The pandemic has dramatically changed this picture.

Due to the closure of urban attractions and a preference for open-air environments, nature reserves and mountain destinations saw an influx of visitors. Overtourism had shifted from cities to nature and nearby mountain destinations (McGinlay et al., 2020; Strasdas et al., 2022).

Tourism generates a range of both beneficial and adverse impacts. Among the positive effects are the creation of employment opportunities, stimulation of local entrepreneurship, enhancement of transport infrastructure, and the expansion of social and cultural engagement within host communities (Andereck & Nyaupane, 2011). On the other hand, tourism has negative impacts on the host community. It leads to increased traffic and demand for public places and services, increased drug and alcohol use and related problems, and causes environmental damage. In some destinations, tourism activities increase the cost of living (Frauman & Banks, 2011). In the context of Czechia, the limited experience with managing tourism development and the scarcity of empirical research on its effects on residents' quality of life have led to several planning and policy shortcomings (Roncak et al., 2023; Dumbrovská, 2017). To mitigate the risk of further deterioration in resident-tourist relations and to avoid exacerbating overtourism-related tensions, there is a pressing need for systematic and context-specific investigations into the impacts of active forms of tourism on local communities... Numerous studies have examined residents' attitudes toward the impact of overtourism before the COVID-19 pandemic (Knezevic et al., 2018; Namberger et al., 2019; Roncak, 2019). The aforementioned impact of overtourism has yet to be sufficiently scientifically investigated in Czechia from the perspective of active forms of tourism after the COVID-19 pandemic. This paper is organised as follows: (1) reviews the relevant literature, highlighting empowerment and socio-demographic factors; (2) outlines the methodology and data; (3) presents the results, followed by a discussion; (4) concludes with practical implications for managers of destination management organisations and local governments in Czechia. Results will serve as practice-oriented recommendations for optimising the interrelationship between the sustainable development of tourism and residents living in the areas.

An overview of the literature

The post-COVID period has seen an increasingly significant contribution of residents to the development of tourism in a destination. Residents have become partners in tourism development, contributing economically, socially, and organizationally to destination resilience and sustainability. Erul et al. (2024) state that residents' knowledge of COVID impacts and perceptions of tourism's benefits strongly predicted their attitudes and active involvement/support in tourism once pandemic restrictions eased. Positive perceptions of tourism's value lead to greater participation and support by residents, reinforcing their role in post-pandemic tourism planning (Jiang et al., 2023). According to Vinerean et al. (2021), residents were more likely to support and actively back sustainable tourism development. Residents are no longer passive hosts. Varolgüneş et al. (2022) emphasised that residents themselves converted traditional homes into guesthouses, launched festivals, and leveraged agricultural practices to actively shape and develop tourism.

Nevertheless, residents are often insufficiently involved in tourism development (Weber et al., 2017), which reinforces the "power imbalance between stakeholders" (Dodds & Butler, 2019). Residents need to be empowered to use their voices to influence the sustainable development of tourism in a destination and achieve SDGs (Scheyvens & Cheer, 2022). Resident involvement in decision-making is identified by Rasoolimanesh and Seyfi (2021) as a vital component of a successful tourist

destination. Similarly, Elshaer et al. (2021) state that the basis for successful long-term sustainable development of tourism in a destination is the involvement and support of residents. According to Gursoy et al. (2002), any tourism project is at risk of extinction if the development is planned and created without sufficient knowledge and support from residents. Knowledge of residents' satisfaction allows assessing the level of direction of sustainable tourism development, residents' perceptions and attitudes towards tourism impacts and ensuring their support for tourism development (Ribeiro et al., 2017; Wang et al., 2014; Alam & Paramati, 2016). Satisfied residents perceive tourism impacts more positively. Similarly, dissatisfied residents are more likely to perceive its negative impacts (Vargas-Sanchez et al., 2008; Shen & Cottrell, 2008). Most studies have addressed empowerment's psychological, social, political, economic, and environmental dimensions (Li et al., 2023; Wassler et al., 2021; Ramos & Prideaux, 2014). Many studies have examined political empowerment (Cole, 2006; Moswete & Lacey, 2014; Nunkoo & Ramkisson, 2012; Strzelecka, 2015). According to Cole (2006), the participation of residents in the decision-making process is a key aspect of a thriving tourist destination, "ensuring their support and acceptance of tourism development projects".

Psychological empowerment represents the pride and self-esteem of residents in their local heritage, culture, and traditions (Ramos & Prideaux, 2014; Wassler et al., 2021). The stronger the residents perceive their psychological empowerment, the more they can support tourism development (Boley et al., 2014).

Social empowerment helps to positively strengthen cohesion and "community spirit" within the local community (Scheyvens, 1999; Yeager et al., 2020). Tourism can unite residents to sustain the development of a destination further. However, regarding the negative impacts and inequalities between individual tourism actors, views on tourism development in a destination can be divided.

The economic dependence of a destination on tourism is one of the primary factors in assessing the impact of tourism on residents of tourist destinations. This indicator was first introduced in their research by Perdue et al. (1990) with the phrase, "I would benefit from greater tourism development in our destination." While some researchers accept tourism benefit as an important indicator of tourism support in a destination, previously used scales have lacked reliability and validity. This variable has been chiefly used only as a single-item indicator of "perceived tourism benefit," as mentioned in Perdue et al. (1990), or as a two-item construct (Rodríguez et al., 2008; McGehee & Andereck, 2004). Rodríguez et al. (2008) found that the two-item measure is reliable, with Cronbach's Alpha of 0.71, 0.68, and 0.55 for her three samples. Furthermore, while the construct was initially designed to assess all potential benefits from tourism, there has been recent confusion regarding the notion that "personal benefit" is synonymous with "perception of economic benefit" (Nunkoo & Ramkissoon, 2009; Woosnam et al., 2009). Scheyvens (1999) emphasised the importance of economic empowerment, not just economic benefits from tourism. She suggested that economic empowerment is a more valuable indicator of destination success. Boley et al. (2014) responded to this debate by including a new subcategory in the Resident empowerment through tourism scale (RETS) called "perception of personal economic benefit from tourism."

Ramos and Prideaux (2014) outlined the importance of environmental empowerment, which helps local communities realise the benefits of sustainable development and empowers them to develop and manage tourism businesses that respect the cultural and natural environment. Several theories have been proposed to explain residents' perceptions and attitudes towards the impacts of tourism. Social Exchange Theory (SET) provides an umbrella theoretical perspective on this phenomenon. SET has been widely used to explain and understand residents' perceptions of tourism development. It is also considered a suitable framework for explaining negative and positive perceptions (Látková & Vogt, 2012; Boley et al., 2017). According to SET, residents evaluate an exchange based on the resulting benefits and costs of this exchange (Pham & Kayat, 2011).

The level of development of a tourist destination plays a significant role in the attitudes and perceptions of residents. Residents' perspectives on developing a tourist destination may differ (Cecil et al., 2010; Uysal et al., 2012). Other studies have shown that residents' awareness of the impact of tourism on the community (Alim et al., 2021), the type of tourist (Weaver & Lawton, 2001), and the social relationship between residents and tourists (Juric et al., 2021) are also important factors that have a significant impact on residents' perception of tourism development in a given destination.

Distance from the tourist zone in the perception of tourism impacts has been considered in several studies (Jurowski & Gursoy, 2004; Sharma & Dyer, 2009; Khoshkam et al., 2016). According to

SET, residents living near the tourist area reported a more favourable view of tourism development, as they perceive more direct economic benefits. However, other tourism researchers argue that the closer residents live to the tourist area, the more they perceive negative environmental and social impacts, leading to ambivalence or opposition. This highlights the complexity and context-dependence of residents' attitudes. A range of sociodemographic variables also influences the impacts of tourism on residents' quality of life. Nunkoo and Gursoy (2012) argue that gender is a significant indicator of residents' positive and negative attitudes towards tourism development. Differences in perceptions between women and men were statistically significant regarding perceptions of positive economic impacts. He found that women perceived potential economic benefits less favorably than men. This result is consistent with the findings of Rasoolimanesh et al. (2015).

The length of time residents have lived in a destination also significantly influences their attitude towards tourism development. Bescullides et al. (2002) state that residents with strong roots in the local community tend to be more concerned about the impact of tourism on a given destination. On the contrary, Bhat and Mishra (2021) argue that the length of residence was not found to be a predictor of residents' attitudes towards tourism impacts on the local economy, social life, and environment of a destination. Mustafa and Tayeh (2011) confirm a significant relationship between age and positive perception of the economy, which is inconsistent with the literature. The higher negative perception among young residents may be due to the lack of job opportunities when they expect to benefit economically from tourism. This study focuses on the following theoretical framework: empowerment (psychological, social, economic, environmental), social exchange theory (SET), and key socio-demographic moderators (gender, employment, length of residence). These factors are considered in the empirical analysis that follows.

Research methods

The primary aim of this study is to explore how residents' perceptions of overtourism impacts vary across selected nature-based destinations, taking into account specific sociodemographic factors such as employment in the tourism sector, gender, and length of stay in the destination. To guide the empirical investigation and enhance conceptual clarity, a research question and corresponding hypotheses were formulated. The central research question is: How do residents' perceptions of overtourism impacts vary across selected nature-based destinations with respect to specific socio-demographic characteristics?

H1₀: There is no significant difference in the number of tourists residents consider acceptable across all destinations.

 $H1_A$: non $H1_0$.

H2₀: There is no significant difference among the three destinations in how residents perceive their voices being considered in destination management decision-making.

 $H2_A$: non $H2_0$.

The three destinations were selected for their representativeness of nature-based tourism in Czechia and alignment with criteria defined by 57 regional DMOs, including visitation intensity, level of tourism development, and focus on active forms of tourism.: Krkonoše (mountain), Český ráj (natural), and Orlické hory & Podorlicko (natural mountain). All selected destinations are situated within the territory of Czechia (see Fig. 1). The capacities of mass accommodation facilities and the development of the number of guests and overnight stays are shown in Table 1.

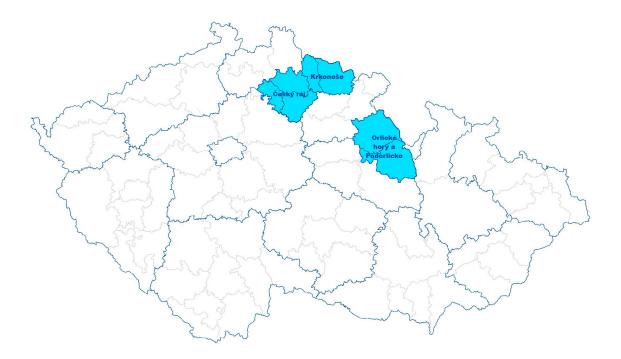


Figure 1. Map with marked surveyed DMOs

Source: Randuška, 2024.

Table 1. Number of collective accommodation facilities (CAF), guests and overnight stays (2019–2022)

tourist area	number of CAF	number of rooms in CAF	number of beds in CAF	number of places for tents and caravans	
Český ráj	87	1,293	4,027	775	
Krkonoše	329	4,610	13,991	65	
Orlické hory & Podorlicko	162	2,086	6,315	212	
number of guests in CAF					
tourist area/years	2019	2020	2021	2022	
Český ráj	121,604	85,356	95,784	119,669	
Krkonoše	766,596	543,509	466,539	286,240	
Orlické hory & Podorlicko	143,898	94,999	91,933	156,328	
number of overnight stays in C	AF				
tourist area/years	2019	2020	2021	2022	
Český ráj	241,490	234,294	221,600	302,087	
Krkonoše	2,760,552	2,062,700	1,648,755	973,088	
Orlické hory & Podorlicko	383,269	290,991	263,202	432,080	

Source: Czech Statistical Office, 2024.

The data collection took place between July and August 2022 through a questionnaire survey using the PAPI (Pen and Paper Interviewing) method. Personal interviews were conducted in collaboration with regional destination management organisations, including residents of Krkonoše, Český ráj, and Orlické hory & Podorlicko. Participants were selected using a convenience sampling method. A total of 1,200 individuals were contacted, 83% took part in the survey (Table 2). The final research sample consisted of 1,000 participants (385 men and 615 women) residing in the tourist regions of Krkonoše (n = 284), Český ráj (n = 350), and Orlické hory & Podorlicko (n = 366).

Table 2. Structure of respondents

tourist area/gender (%)	men			women				
Český ráj	38.60			61.40				
Krkonoše	32.00			68.00				
Orlické hory & Podorlicko	43.40			56.60				
tourist area/age (%)	less than 18 18–34 35–		-49	50-	-65	over 65		
Český ráj	0.00	23	.70 46.30		21	.40	8.60	
Krkonoše	1.00	30	.00	36	.00	25	.00	8.00
Orlické hory & Podorlicko	0.30	21	.00	40	.40	26	.50	11.80
tourist area/ education completed (%)	primary sch	ool	grammar school		university other		other	
Český ráj	0.60		57	.10	40.30		2.00	
Krkonoše	1.10		49	00 48		3.20		1.70
Orlické hory & Podorlicko	1.40 5		51	.50	45.90		1.20	
tourist area/working in the tourism industry (%)	yes		no					
Český ráj	14.90		85.10					
Krkonoše	31.30		68.70					
Orlické hory & Podorlicko	23.20		76.80					

The participants in the questionnaire survey were contacted individually, and their permanent residence within the respective study areas was duly verified. The data was collected by professionally trained interviewers authorised by regional destination management organisations. These interviewers possessed prior experience with similar types of research, enabling them to offer clarifications in cases of ambiguity, identify incomplete responses, and ensure the accuracy of the collected data. The average duration required to complete the questionnaire was approximately eight minutes. The survey's primary focus was to determine residents' attitudes toward the impacts of tourism, utilising a five-point Likert scale (1 – strongly agree, 5 – strongly disagree). A one-way analysis of variance (ANOVA) was used for statistical analysis. Given a minor deviation from the normality assumption, non-parametric methods were also applied, specifically the Kruskal-Wallis test, accompanied by Dwass-Steel-Critchlow-Fligner pairwise comparisons.

As recommended by studies (Uysal et al., 2016; Bescullides et al., 2002; Gursoy et al., 2002; Haley et al., 2005), these responses were further stratified according to selected sociodemographic factors that influence residents' attitudes toward the impacts of tourism. These sociodemographic factors were gender, employment in tourism, and length of stay in the destination.

Results of the research

In all destinations, an uneven distribution of tourism can be observed. The number of tourists in the future is a factor for the further successful, sustainable development of the destination (χ^2 = 59.27338; df = 2; p < 0.001). In the natural mountain destination of Orlické hory & Podorlicko, where residents were most optimistic about the prevailing positive impacts of tourism over the negative ones and the positive impact of tourism on residents, 51% of residents want the same number of tourists, 25% fewer and 24% more tourists than before. This means they would mainly continue the established tourism development trend, neither increasing nor decreasing the number of tourists. In the natural destination of Český ráj, where less than 40% of residents believed that the positive impacts outweigh the negative ones, 51% want the same number of tourists and continue the given trend of tourism development. However, a relatively large group (41%) believes fewer tourists should

arrive. Concerning the prevailing negative impacts of tourism over the positive ones, the situation is most critical in the mountain destination of the Krkonoše, where more than 9 out of 10 respondents stated that there should be fewer tourists (48%) or the same number (42%). There are statistically significant differences (Table 3) in residents' attitudes (p<0.01) between the destinations of Krkonoše and Orlické hory & Podorlicko, and Český ráj and Orlické hory & Podorlicko. The p-value for Krkonoše and Český ráj (0.349) indicates no statistical significance, while comparisons involving Orlické hory & Podorlicko are statistically significant (p<0.01).

Table 3. Dwass-Steel-Critchlow-Fligner pairwise comparisons (number of tourists in future)

tourist area		W	р
Krkonoše	Orlické hory & Podorlicko	9.61236	< 0.001
Krkonoše	Český ráj	1.95833	0.349
Orlické hory & Podorlicko	Český ráj	-8.78559	< 0.001

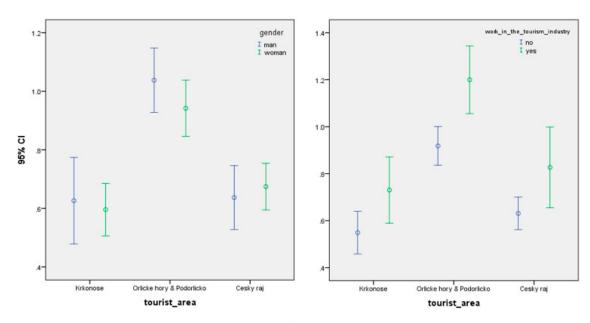


Figure 2 and 3. Differences between destinations (gender) & (employment)

On the contrary, men and women in Krkonoše and Český ráj are relatively sceptical about the arrival of tourists. Men are significantly more optimistic than women in Orlické Hory & Podorlicko. Even in Krkonoše, men respond slightly more positively, while in Český ráj, women are more favourable (Figure 2). Those employed in tourism want tourists to continue to come, and their answers to this question differ significantly from those who do not profit from tourism. Those employed in tourism in Orlické hory & Podorlicko, where the negative impacts of tourism are not yet evident, want significantly more tourists. On the other hand, residents in Krkonoše without ties to tourism, who do not profit from tourism and, on the contrary, experience only negative impacts, have the least positive attitude toward the arrival of more tourists (Figure 3). In terms of life expectancy in the destination, the most positive are residents living for more than 15 years in Orlické hory & Podorlicko, while the least positive are residents of Český Ráj and Krkonoše, with the same length of life in the destination, which again confirms the long-term negative experiences with overtourism in these destinations.

For the further sustainable development of the destination, cooperation between all tourism stakeholders is essential, including the involvement of residents and entrepreneurs (Walas et al., 2024). The possibility of having a voice in the decision-making process of tourism development in the destination will be key to the successful functioning of the destination. Residents in all three destinations, natural, natural mountain, and mountain, believe they need more empowerment in deciding further tourism development ($\chi^2 = 19.51054$; df = 2; p < 0.001). The best assessment is made in the natural mountain destinations of Orlické hory & Podorlicko (25%), where the impacts of tourism are

also relatively positive. On the contrary, the more negative impacts affect residents, the more they believe their voice is not considered in decision-making. Only 23% of men and women in Český ráj believe this, and only 17% of respondents in Krkonoše. There are statistically significant differences in the issue of "empowerment" between the destinations of the Krkonoše and Orlické hory & Podorlicko and Krkonoše and Český ráj. There is a statistically significant difference between the destinations Krkonoše and Orlické hory and Podorlicko (p < 0.01) and Krkonoše and Český ráj (0.002). On the other hand, the difference between the destinations Orlické hory and Podorlicko and Český ráj (0.599) is not statistically significant (Table 4).

Table 4. Dwass-Steel-Critchlow-Fligner pairwise comparisons (influence the development of tourism in the destination)

tourist area		W	p
Krkonoše	Orlické hory & Podorlicko	5.97382	< .001
Krkonoše	Český ráj	4.75854	0.002
Orlické hory & Podorlicko	Český ráj	-1.36633	0.599

The example of the natural destination of the Český ráj documents that gender can be a significant indicator of a positive or negative attitude and perception of the impacts of tourism. While women in the Český ráj have the impression that they have the most opportunity to influence the development of tourism in the destination with their voice, men in the same destination, together with men in Krkonoše, are the most sceptical (Figure 4). Regarding employment, entrepreneurs in Orlické Hory & Podorlicko and Český Ráj believe they have the most significant opportunity to co-manage tourism in the destination. On the other hand, residents from Krkonoše who do not work in tourism are the least optimistic (Figure 5).

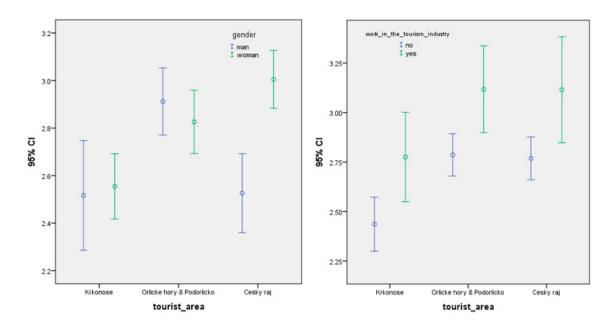


Figure 4 and 5. Differences between destinations (gender) & (employment)

In connection with the length of stay in the destination, the results showed that the possibilities of empowerment to influence tourism development with their voice in different destinations and the same categories could be perceived differently. Despite the perceived positive impacts of tourism, residents of Orlické hory & Podorlicko who have been living in the destination for less than 5 years, expressed that they have the least opportunity to influence tourism development with their voice. Residents in the natural destination of Český Ráj, where the negative impacts of tourism are already more pronounced, who have lived there for less than 5 years, are the most positive. It can be concluded that residents in Orlické hory & Podorlicko who have lived there for less than 5 years have not

yet had the opportunity to participate in the decision-making process and thus benefit from the benefits of tourism.

Discussion

As shown by Perdue et al. (1990) and Szromek et al. (2019), economic dependence is one of the primary factors in assessing the impacts of tourism on residents. Views may differ. Tourism entrepreneurs who profit from tourism development tend to support tourism development more than residents without ties to tourism (Szromek et al., 2019). Our study confirmed this, regardless of whether it was a natural mountain or a mountain destination.

Residents working in tourism are similarly optimistic in a study conducted by Visit Flanders (2016) in the urban destination of Bruges. Almost 3/4 of entrepreneurs wanted more tourists compared to 55% of residents without ties to tourism.

Our research confirmed that the support of entrepreneurs depends on the positive or negative impacts of tourism on the destination. Given that Orlické hory & Podorlicko experience relatively low impacts of overtourism, their residents without ties to tourism responded more positively than entrepreneurs in Český ráj and Krkonoše, where the impacts of overtourism are much more pronounced. At the same time, tourism entrepreneurs in all destinations believed they could influence tourism development more with their votes than those who do not work in tourism. This finding corresponds to the results of Strzelecka et al. (2017) on the example of rural destinations in Poland. In our work, relatively low ratings from tourism employees in Krkonoše can be observed, which are at the same level as among non-profit residents from tourism in Český ráj and Orlické hory & Podorlicko.

Among the important variables we also considered when comparing destinations was the length of life expectancy of residents in the destination. Bescullides et al. (2002) argue that residents with strong roots in the local community tend to be more concerned about the impact of tourism on the destination. Our study did not fully support this claim, similar to the study of Bhat & Mishra (2021). In Český ráj and Krkonoše, where the impacts of tourism are most pronounced, residents living in the destination for more than 15 years want significantly fewer tourists from all groups, while residents living the same length of time in Orlické hory & Podorlicko, where they benefit from a relatively balanced development of tourism, want more tourists and are the most favourable to visitor arrivals from all groups and destinations. As for the possibility of influencing the development of tourism with their voice, groups of residents living in Krkonoše and Český ráj for more than 15 years believe that their voice will not prevent the negative impacts of tourism. Their assessments are the most pessimistic of all the groups in their destinations. This finding is due to bitter disappointment related to the long-term negative impacts of tourism, inadequate destination management, and deteriorating relations between individual tourism actors, which also corresponds to the results of semi-structured interviews, in which poor destination management, insufficient involvement in the tourism development process and conflicts between individual actors are mentioned as one of the leading causes of overtourism, especially in Krkonoše. At the same time, this is in line with the classic study by Doxey (1975) and his Doxey irritation index, where, with unbalanced tourism development, residents' attitudes change from a state of euphoria through apathy, boredom, and even antagonism towards tourists. In Orlické hory & Podorlicko, the situation is slightly different. The group that has lived there for less than 5 years has the lowest authority to influence tourism development with its voice.

We also considered another important socio-demographic factor – gender, which, as Bhat & Mishra (2021) mention, is a significant indicator of residents' attitudes towards tourism development. It was confirmed by our survey on the example of a completely different perception of empowerment to influence tourism development in Český ráj, which also corresponds to the results of the aforementioned Visit Flanders (2016) study and the research of Tepavcevic et al. (2019). Women and men often had different opinions on the impacts of tourism. Of all destinations, men in Orlické hory & Podorlicko want more tourists. In Český ráj, men and women want the same number or fewer tourists. In this regard, women in Krkonoše are the least inclined to tourist arrivals. An interesting finding was the question "whether they can influence tourism development with their voice (empowerment)". The example of Český ráj states that gender can be a significant indicator of positive or

negative attitudes and perceptions of the impacts of tourism. While women in Český ráj feel that they have the most opportunity to influence the development of tourism in the destination with their voice, men in the same destination and men in Krkonoše are the most sceptical of all the destinations surveyed. In the Central European context, in contrast to the pre-pandemic study by Gajdošík et al. (2018), which focused on residents' perception of sustainable tourism development in the mountain destination - Vysoké Tatry in Slovakia, our study showed - especially in Krkonoše - growing dissatisfaction due to overtourism and a perceived lack of influence on tourism planning. The Orlické hory & Podorlicko region stood out for its relatively balanced development, with residents reporting more positive attitudes, especially among those employed in tourism. On the other hand, residents in Vysoké Tatry generally supported tourism development but expressed a desire for greater involvement in governance processes. Compared to Vysoké Tatry, where perceptions were broadly positive yet cautious, the Czech destinations illustrate a more polarised and context-sensitive pattern. Residents in Český ráj and Krkonoše displayed greater concerns over negative impacts such as congestion and rising costs, aligning with advanced phases of Doxey's irritation index. In both studies, empowerment and perceived voice in decision-making emerged as crucial factors. Similar to Gajdošík et al. (2018), long-term tourism sustainability relies on active resident engagement, balanced visitor management, and inclusive governance frameworks. However, our findings emphasise an urgent need for decentralised empowerment and conflict resolution, particularly in overtouristed zones.

Our research, similar to the study by Walas et al. (2024), confirmed that conflicts can occur between individual tourism actors. The results of our research show that the only possible way to minimize conflicts and ensure long-term sustainable development of tourism in the destination is, similar to the study by Almeida-Garcia et al. (2021), more intensive cooperation between all tourism actors, including residents, coordination and exchange of experiences and solutions based on the concept of open innovation (Szromek et al., 2022).

The driving mechanism for the actual performance and sustainable development of a destination in the field of tourism should be intensive cooperation between the public and private sectors, with civic initiatives similar to the study by Vodeb et al. (2021). A common problem of destinations is the lack of communication and the different interests of stakeholders. As part of better destination management, the destinations studied wish for more intensive involvement of residents in the decision-making process on further tourism development and the benefits of tourism, as in the study by Weber et al. (2019). For this reason, one of the main priorities of all the destinations studied must be active cooperation with local communities, their involvement, and apparent communication with residents, including an educational campaign that includes an explanation of the positive impacts of tourism on the quality of life, but also the coordination of their suggestions, comments or complaints. Regarding the tested hypotheses, H1 was rejected as significant differences in residents' attitudes towards the number of tourists were found across destinations. H2 was also rejected due to statistically significant differences in empowerment perception among destinations. These results support the influence of contextual and demographic variables.

Limitations and future research

It is the first study that analyses residents' attitudes toward the impacts of tourism in destinations with predominant active forms of tourism after the COVID-19 pandemic. The above-mentioned impact of overtourism has not yet been sufficiently scientifically investigated in Czechia from the perspective of active forms of tourism after the COVID-19 pandemic. The study's weakness is its regional focus only on the destinations of Krkonoše, Český ráj, and Orlické hory & Podorlicko, which are located in the Hradec Králové Region. There is no comparison with other destinations in Czechia and Europe. Therefore, the results cannot be generalised to Czechia or Europe. We recommend conducting a survey of residents' attitudes towards the impacts of tourism in given destinations regularly, which can reveal changes in the impacts of tourism over time. The weakness is the depth of the responses based on the questionnaire used. For this reason, the residents' responses were supplemented with semi-structured interviews with entrepreneurs. Data triangulation methods were used, consisting of multiple sources, including information from the media and observations.

Conclusions

Our study confirmed that employment in tourism, gender, and length of life in the destination are significant indicators of residents' positive and negative attitudes towards tourism development. They perceive the impacts of tourism best in Orlické hory & Podorlicko, while they perceive them worst in Krkonoše. The positive attitude of residents toward tourism development is important in connection with the successful development, marketing, and implementation of existing and future tourism programs in the destination. It will be crucial for all three destinations to see how tourism and related activities will affect residents' quality of life in tourist areas, especially in the most exposed places to visitors. In the case of residents' dissatisfaction, this will also impact the quality of visitors' experience at the destination. A tourist destination can have the best product, but if visitors have negative experiences interacting with residents, any positive impression is undermined.

Our research revealed that aspects of overtourism are evident in Český ráj and Krkonoše. In the coming years, destinations and individual municipalities that are part of them must create an ideal balance between economic growth, protection of cultural and natural wealth, quality of life for residents, and experiences for visitors. The aforementioned destinations should develop in a balance of all three aspects: economic, socio-cultural, and environmental. Krkonoše, Český ráj, and Orlické hory & Podorlicko must profile themselves as socially responsible destinations. Otherwise, tourists will avoid some places in their destinations in the future. The goal for the surveyed destinations should be: (1) to try to ensure that the benefits of tourism do not flow away from cities and municipalities, but on the contrary, they are used and serve to improve the quality of life of residents, (2) the benefits of tourism flow not only to people employed in this sector but to everyone who lives in the destination, (3) the profits from tourism are also drawn from locations that were previously less known to tourists (and are prepared for them by infrastructure and support from residents), (4) to relieve highly exposed places, (5) to replace quantity with quality, and (6) to maximize the visitor experience.

The priority is therefore not the maximum number of tourists, but their quality, length of stay, satisfaction with the visit and the likelihood of a repeat visit or recommendation to friends. It is the first study that analyses residents' attitudes towards the impacts of tourism in the context of socioeconomic factors in nature-based destinations in Czechia. Our research confirmed that detailed knowledge of the residents' attitudes according to socio-demographic factors would be a key aspect of future sustainable tourism development of the studied destinations. The presented findings have practical implications for local municipalities and DMOs. The study's results provided specific data enabling the optimisation of sustainable tourism development in the studied destinations, and they have already been used to create the current Strategy of the Hradec Králové Regional Tourism Authority and, in particular, the destinations.

The contribution of the authors

Conceptualisation, M.R., I.L. and P.S.; literature review, M.R.; methodology, M.R., I.L., P.S. and P.V.; formal analysis, P.S. and H.K.; writing, M.R., I.L., P.S. and P.V.; conclusions and discussion, M.R., I.L., P.S. and P.V.

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Appendix 1: Resident Perceptions of Tourism Development - Survey

Please indicate your level of agreement with the following statements on a scale from 1 (strongly disagree) to 5 (strongly agree), unless otherwise specified.

Section 1: Psychological Dimension

- P1. I feel proud to be from Český ráj/Krkonoše/Orlické hory & Podorlicko, as people travel here to experience our natural and cultural heritage.
- P2. I feel that my voice is considered in tourism development decisions, and I have the opportunity to express my concerns about its negative impacts on my quality of life.
- P3. I would like to see more tourists visiting the region in the future.

Section 2: Social Dimension

- S1. Český ráj/Krkonoše/Orlické hory & Podorlicko is a socially responsible destination (i.e., it
 preserves cultural and natural heritage, respects the environment, supports traditional customs,
 favors eco-friendly transport, promotes local producers, and strives to improve residents' quality
 of life).
- S2. I support tourism development and would like it to play a more significant role in the region's progress.
- S3. I appreciate that tourism helps to revitalize previously unused public spaces through cultural, music, or gastronomic festivals and exhibitions.
- S4. Tourism strengthens the social spirit of the community and fosters a sense of belonging with other residents and local authorities.

Section 3: Economic Dimension

- E1. Tourism development benefits residents by improving public infrastructure, boosting the local economy, and increasing leisure opportunities.
- E2. The positive impacts of tourism outweigh the negative ones.
- E3. Tourism contributes to rising prices for services and consumer goods.

Section 4: Environmental Dimension

- N1. An excessive number of tourists negatively affects the everyday life of residents.
- N2. I am concerned about the increase in litter due to growing visitor numbers.
- N3. During the tourist season, I experience problems with parking availability, which is insufficient for both locals and tourists.
- N4. High tourist numbers during peak times cause traffic congestion.

Section 5: Open-ended Questions

- Q1. In your opinion, are the negative effects of tourism (e.g., overcrowding, traffic congestion, parking shortages, disrespect for local residents, irresponsible tourist behavior) more visible now than before the COVID-19 pandemic?
- Q2. What are the most significant negative impacts of tourism in your region? Please specify.
- Q3. What recommendations would you propose to address overtourism in your area?

Section 6: Sociodemographic Information

sec	ction 6: Sociodemographic information
•	Gender: \square Male \square Female \square Other \square Prefer not to say
•	Place of residence:
•	Length of residence in the region (in years):
•	Age group: □ 18–29 □ 30–44 □ 45–59 □ 60+
•	Education level: □ Primary □ Secondary □ Tertiary

Are you employed in the tourism sector? \square Yes \square No