THE IMPACT OF TOURISM IN THE MOUNTAIN VILLAGE OF GRINDELWALD: AN ANALYSIS OF THE ECONOMIC, SOCIAL, AND ECOLOGICAL INFLUENCES

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This research investigates the impact of tourism on the mountain village of Grindelwald. The primary goal is to analyse the impact according to the economical, social and eco-logical influences. Through expert interviews the research provides a comprehensive overview of the impacts of tourism in Grindelwald and its current situation as well as its challenges and its future perspectives. Recommendations for action are offered to con-tribute to the development of a sustainable future. This study aims to contribute insights of the impact's tourism can have in a rural area, specifically Grindelwald.

Keywords: Tourism, Rural Tourism, Overtourism, Sustainability, Grindelwald, Economic, Social, Ecologic

1. INTRODUCTION

Humans are naturally characterised by a pronounced curiosity, which often manifests in a desire to explore new places (Freyer, 2015). This desire has made tourism a growing global phenomenon, expressed in diverse forms such as adventure tourism, cultural tourism, mountain tourism, and city tourism (Balaš & Strasdas, 2019). The range of travel offers is broader than ever before, reflecting various motivations and preferences

(World Tourism Organization [UNWTO], 2019). As a result, many regions see tourism not only as a leisure activity but also as a strategic tool for development—especially in economically weaker or rural areas (Neumeiner & Pollermann, 2011).

Rural areas, including remote mountain villages, often lack the structural advantages of urban centres. In such contexts, tourism becomes a promising driver of regional development, offering opportunities to enhance the standard of living and strengthen local economies to (Neumeiner & Pollermann, 2011). However, the increasing volume of tourists can also bring negative effects. Questions emerge about how these regions are affected when visitor numbers rise significantly, potentially exceeding the limits of their infrastructure and social capacity (Peeters et al., 2018).

Grindelwald, a mountain village in the Bernese Oberland region of Switzerland, provides a relevant case study in this regard. The village is often mentioned in headlines such as "Grindelwald records a record number of overnight stays in 2023," "Record profit for the Grindelwald-Männlichen gondola lift," and "Density stress in Grindelwald: the barrel is overflowing." (HotellerieSuisse, 2024;

ISSN: 2809-6819

Tamedia Espace AG, 2024; Winteler, 2024). These headlines suggest not only economic success but also significant strain on the region's infrastructure and community life. The number of overnight stays in 2023 exceeded 1.6 million, in a village with a population of just over 4,000 people—raising concerns about whether such growth is sustainable or if the village is approaching a point of overtourism (Grindelwald Tourism, 2023).

This development is not unique to Grindelwald. The phenomenon of overtourism is becoming more common across the globe. Tourist hotspots like Barcelona, Venice, and Dubrovnik frequently appear in international media, illustrating the tension between high visitor numbers and local quality of life (Peeters et al., 2018). Overtourism occurs when the limits of a region's ecological, social, or psychological capacity are exceeded, resulting in negative consequences for both locals and tourists (Responsible Tourism, n.d.; World Tourism Organization et al., 2018;

Kagermeier & Erdmenger, 2019). In Grindelwald, the question arises: how far-reaching are the effects of increased tourism, and is the village already facing similar pressures?

ISSN: 2809-6819

This paper therefore focuses on the example of Grindelwald and aims to analyse the consequences of tourism in the areas of economy, society, and ecology. The guiding research questions include: What does increased tourism mean for a village like Grindelwald? How far-reaching are the impacts, and what specific effects are observable in the village? Can the current situation be defined as overtourism? And finally, how should tourism development proceed in Grindelwald to ensure that residents continue to experience a good quality of life despite tourism growth?

The aim of this study is to provide a comprehensive overview of tourism's impacts in Grindelwald and derive recommendations for sustainable development in the future. The work is based on two main pillars: literature research and qualitative expert interviews. In total, four interviews were conducted with individuals who are either residents of the village or have close professional or personal ties to Grindelwald. These experts represent different fields, including tourism management, municipal administration. environmental observation, and cultural engagement. Their perspectives offer valuable insights into the current situation, the challenges that arise from growing tourism, and possible future approaches to managing development.

The results of this study are intended to contribute to the discourse on overtourism, particularly in small-scale destinations that are not yet the focus of large-scale academic research. It seeks to highlight the opportunities and risks associated with the continued growth of tourism in Grindelwald. The focus lies not only on the tourism sector but also on the local population, whose daily lives are directly affected by developments in tourism. By contrasting the views of tourism stakeholders with the experiences and concerns of residents, the study attempts to identify areas of tension and possible solutions.

This study is limited in scope due to its nature as a bachelor's thesis. While tourism in Grindelwald affects a wide range of stakeholders, only four expert interviews were conducted. Although they represent different areas of life in Grindelwald, a broader data set would have been required for more comprehensive coverage. Additionally, the qualitative content analysis was conducted by a single researcher, without external validation. This may affect the objectivity and generalisability of the findings. Some themes that emerged—such as

climate change—go beyond the scope of local governance and require global approaches, and are therefore not addressed in detail.

The research was conducted from July 8th to September 2nd, 2024, and was written and completed in Grindelwald, Switzerland. Despite its limitations, the study offers a focused insight into the current effects of tourism in a small mountain village and contributes to the broader discussion of sustainable tourism development.

2. LITERATURE REVIEW

2.1 Tourism

Tourism is one of the fastest-growing economic Sectors in the world, experiencing steady development over the years, except during interruptions such as the COVID-19 pandemic. This growth is closely linked to the increasing diversification of travel offers, which reflects the diverse motivations and needs of modern travellers (Balaš & Strasdas, 2019). As tourism continues to expand, its social, cultural, and economic significance becomes more pronounced.

Freyer defines tourism as the temporary relocation of people from their usual place of residence to another location for a certain period of time, typically involving travel and overnight stays (Freyer, 2015). The World Tourism Organization (UNWTO) defines tourism as the activities of people travelling to and staying in places outside their usual environment for not more than one consecutive year for leisure, business, or other purposes (UNWTO, 2019). UNWTO also describes tourism as a social, cultural, and economic phenomenon involving visitors and their interactions with local residents, businesses, and environments.

Three fundamental elements are often used to characterise tourism: destination, duration, and motivation (Freyer, 2015). These criteria help distinguish tourism from other types of mobility. Freyer also classifies tourism areas into the tourist core area, tourist periphery, and non-tourist area, based on the intensity of tourism development and use. These concepts help to geographically map how tourism affects different regions.

Freyer further illustrates the process of tourism through a basic model of movement between two locations: the tourist's origin and the destination.

The departure point, referred to as "Zu Hause" 2.2 (home), represents the sending region, while "Die Fremde" (the foreign place) refers to the destination. The journey is conceptualised as a two-way process involving an outbound trip (*Hinreise*) and a return trip (*Rückreise*), influenced by surrounding systems such as social, political, legal, economic, and medical factors (Freyer, 2015). (see Figure 1).

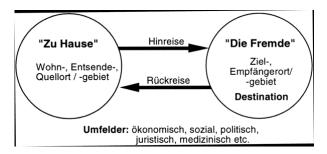


Figure 1. Tourism flow from place of origin ("Zu Hause") to destination ("Die Fremde"). *Source: Freyer (year), translated by the author.*

Tourism offers can be distinguished between the original offer and the derived offer. The original offer refers to elements that are naturally or historically present in a destination—such as landscapes, traditions, or cultural heritage—while the derived offer includes services and facilities created specifically for tourists, such as hotels, restaurants, and leisure infrastructure (Freyer, 2015).

Tourism is often idealised as a "white industry," meaning a clean, service-oriented sector with few negative side effects. However, this view has become increasingly challenged, as tourism can also result in ecological stress, cultural degradation, and social inequality (Balaš & Strasdas, 2019). The growing awareness of these unintended effects has led to critical discussions about the actual sustainability and ethics of tourism development.

In line with the changing dynamics of the sector, tourism forms have evolved beyond traditional categories. Alongside mountain and rural tourism, new types such as "set jetting," "concert hopping," and "destination dupes" have gained attention (Münchener Zeitungs-Verlag GmbH & Co. KG, 2024; Expedia & FeWo-direkt, 2023). These forms reflect a more personalised and media-driven approach to travel, with motivations shaped by trends and social media.

Tourism in Rural Areas Tourism in rural areas has a long-standing tradition, dating back to the 19th century. In Switzerland, it began with early forms of spa and mountain tourism, which evolved through local initiatives, private investments, and the growing interest in health and nature (Rein & Zeppenfeld, 2019). After the Second World War, rural tourism developed more intensively, with increased public interest in nature experiences and wellness.

UNWTO identifies two key forms of rural tourism. The first focuses on the authenticity and cultural uniqueness of rural life. It is based on local dialects, customs, and traditional lifestyles, offering tourists experiences such as farm holidays, participation in village festivals, and regional cuisine (World Tourism Organization, 2004, as cited in Rein & Zeppenfeld, 2019). The second form prioritises nature and activity-based offers, such as hiking, skiing, and wellness. In this model, the rural village primarily functions as a service provider for the surrounding natural attractions (Rein Zeppenfeld, 2019).

Tourism in rural areas can bring considerable benefits, including income generation, employment, preservation of traditions, and infrastructure improvements. However, it also causes structural changes. Traditional buildings may be converted into tourist accommodations, pushing local residents to the outskirts due to rising property prices (Rein & Zeppenfeld, 2019). Long-term residents may find themselves displaced or marginalised, and control over village affairs often shifts from agricultural stakeholders to hotel and tourism entrepreneurs.

The strengths of rural tourism include peace, clean air, authenticity, and closeness to nature. At the same time, rural destinations frequently struggle with poor public transport, weak healthcare services, limited off-season attractions, and underdeveloped hospitality professionalism (Rein & Schuler, 2012). Social tensions may also arise between residents who benefit from tourism and those who do not.

Furthermore, broader changes—such as demographic shifts, climate change, and evolving guest expectations—affect the future of rural tourism. Increasing environmental awareness influences travel behaviour, including a trend towards avoiding long-distance travel. At the same time, the demand for nature-based and sustainable

ISSN: 2809-6819

experiences remains strong, particularly among urban populations (BTE, 2024; BMUV, 2022).

2.3 Overtourism

Overtourism refers to the negative consequences 2.4 that occur when the number of tourists exceeds a destination's capacity to absorb them without harmful effects (Peeters et al., 2018). The concept is closely related to the carrying capacity of a place, which the UNWTO defines as the maximum number of people who can visit a destination without causing destruction to its environment or diminishing visitor and resident satisfaction (UNWTO et al., 2018)...

Since being popularised by Skift in 2016, the term "overtourism" has become widely used in public discourse and research (Ali, 2018). The European Union describes overtourism as the point at which tourism exceeds a destination's ecological, social, or psychological thresholds (Peeters et al., 2018). The Responsible Tourism Partnership adds that it is when residents or visitors feel that the destination's character, environment, or infrastructure is being negatively affected by tourism (Responsible Tourism, n.d.).

Common symptoms of overtourism include overcrowding, increased traffic, noise, waste, infrastructure strain, displacement of locals, rising prices, and loss of local identity (Kagermeier & Erdmenger, 2019). These effects can lead to frustration among residents and dissatisfaction among tourists. A widely cited example is Venice, where cruise ships and mass tourism have caused environmental damage and social tension.

One way to measure overtourism is by calculating tourism intensity—i.e., the number of overnight stays divided by the local population (European Union, 2021). In Grindelwald, the tourism intensity reached over 400 overnight stays per resident in 2023 (Grindelwald Tourism, 2023). While this figure signals pressure on infrastructure and housing, it excludes day tourists, whose impact can be equally significant.

Perceptions of overtourism vary by stakeholder group. Residents may feel alienated or priced out, while tourism providers may prioritise economic gain. Visitors themselves may feel overwhelmed by crowds. Overtourism can lead to both direct effects (such as congestion and noise) and indirect effects (such as changing housing markets and shifting community values) (Vagena, 2021).

Addressing overtourism requires participatory planning, regulation, and strategies for managing tourism flows.

Sustainable Tourism Development Sustainable tourism development aims to maintain the long-term viability of tourism while protecting the social, ecological, and economic foundations of the destination. Particularly in rural regions, where natural beauty and cultural identity are often the key attractions, it is essential to ensure that tourism does not compromise these core values.

The concept of sustainability is often explained using a triangular model, which emphasises the balance between ecological, economic, and social pillars (The Federal Government, 2012; Rein & Strasdas, 2017). Germany's federal sustainability strategy defines sustainability as shaping human life in such a way that the interests of the economy, the environment, and society remain permanently balanced (German Bundestag, 1998, as cited in Rein & Strasdas, 2017).

In tourism, sustainable development can strengthen local identity, support the conservation of landscapes, and increase awareness of environmental issues. It also contributes to economic growth through job creation and regional income (Federal Ministry of Labour and Economic Affairs, 2022). At the same time, tourism must be carefully planned to avoid irreversible damage to nature, infrastructure, or communities.

Various tools are available to support sustainable tourism, including legal frameworks (e.g., zoning laws), financial instruments (e.g., tourist taxes), and planning instruments (e.g., visitor flow management) (Balaš & Strasdas, 2019). These can be further categorised into "hard" instruments—such as binding laws—and "soft" instruments, such as voluntary guidelines and codes of conduct. Infrastructure development, especially in transport and waste management, plays a crucial role in implementing sustainability goals.

Ultimately, the goal of sustainable tourism is to preserve the original offer of the destination and to manage the derived offer in a way that benefits both current and future generations of residents and visitors.

3. METHODOLOGY

This study adopts a qualitative research design with an explorative approach. The primary objective is to gain insights into the economic, social, and ecological impacts of tourism in Grindelwald, Switzerland. The research is designed as a case study, focusing on a single rural tourist destination to examine how rising visitor numbers are perceived and managed by local stakeholders (Mayring, 2010; Rein & Strasdas, 2017).

Data was collected through semi-structured expert interviews, conducted with four individuals who either reside in Grindelwald or have professional or personal ties to the village. These experts were selected based on their knowledge and active involvement in tourism-related fields. Each interview lasted between 30 and 60 minutes and was held in German. In-person interviews were conducted on-site in Grindelwald, while one was held via video call due to scheduling constraints. All interviews were recorded with the consent of the participants and later transcribed for analysis (Helfferich, 2009).

The interview guideline consisted of open-ended questions designed to explore key themes such as changes in visitor patterns, infrastructure stress, environmental impact, and the overall quality of life in the village. The questions were informed by the literature review and tailored to each interviewee's expertise. To protect privacy, the interviewees are referred to anonymously and identified only by their area of involvement, such as local administration, tourism management, or cultural engagement.

The data was analysed using qualitative content analysis, following the summarising model proposed by Mayring. After transcription, relevant content was extracted and grouped thematically based on recurring patterns. These themes were then assigned to overarching categories reflecting the study's focus areas: economic effects, social dynamics, ecological concerns, and local perspectives on overtourism (Larcher, 2010; Jenker, 2007).

The analysis was conducted manually by the author to ensure direct engagement with the material and consistency in interpretation. Given the scope of this research as part of a bachelor's thesis, only a small number of interviews could be conducted. Nevertheless, the diverse backgrounds of the interviewees provided valuable insights and

enabled the identification of key themes relevant to tourism development in Grindelwald.

4. RESULT

4.1 Grindelwald

Grindelwald is a mountain village located in the Bernese Oberland region of Switzerland, forming part of the Jungfrau Region. The area is recognized for its scenic backdrop featuring the Eiger, Mönch, and Jungfrau mountains, with the north face of the Eiger serving as a particularly iconic landmark. In 2001, the region was declared part of the UNESCO World Heritage Site "Swiss Alps Jungfrau-Aletsch," covering an area of 824 square kilometers (Balaš & Strasdas, 2019).

As of January 1, 2024, Grindelwald had 4,159 residents, including 2,752 Swiss citizens and 1,295 foreigners. Its strategic location and alpine infrastructure have made it one of the most hospitable towns in the world, according to Booking.com ratings (Expedia & FeWo-direkt, 2023).

4.2.3 Tourism Figures

Grindelwald has experienced steady growth in tourism, with statistical data supporting its increasing popularity as a year-round destination. In 2023,

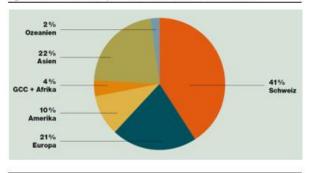
00	ttenau	slastung Schweiz 2	2023				
		ngebot und Nachfrage ch Gemeinde	der geöffneten				
Rar	nk / BFS	-Nr. I	lettonsuslastung in %				
1	576	Grindelwald	71.46	11	584	Lauterbrunnen	58.30
2	6300	Zermatt	70.97	12	5407	Leyein	58.23
3	1059	Kriens.	70.75	13	6630	Meyrin	58.1
4	581	Interlaken	68.26	14	942	Thun	57.93
5	938	Signised	66.44	15	1061	Luzem	57.54
8	593	Unterseen	64.95	16	5091	Ascona	56.97
7	6295	Täsch	64.38	17	3901	Chur	56.6
8	3789	Sits im Engadin/Segl	61.08	18	768	Spiez	56.51
9	261	Zürich	58.90	19	351	Bern	55.43
		Morschach	58.62	20	843	Saanen	547

the village recorded a total of 1,616,580 overnight stays, which equates to approximately 404 overnight stays per inhabitant. This marks a significant increase compared to 2022, when there were 1,415,607 overnight stays. One of the key indicators of this upward trend is the bed occupancy rate, which reached a record high of 71.46% in 2023, as presented in Figure 5. This made Grindelwald the leader in bed occupancy across Switzerland, up from 62% in the previous year (Grindelwald Tourism, 2023b).

The composition of visitors further highlights the strength and resilience of Grindelwald's tourism

industry. As shown in Figure 6, guests come from a wide range of countries,

Figure 6: Cumulative country statistics for all forms of accommodation



including Switzerland, various parts of Europe, Asia, Oceania, the Americas, and Africa. This diversification has helped the destination remain stable even during periods of international uncertainty (Peeters et al., 2018).

A deeper breakdown of accommodation preferences is illustrated in Figures 7 and 8. Figure 7 presents the number of overnight stays in hotels,

Figure 7: Country statistics in hotels

Hotels	Logiernächte	Zu-/Abnahme Vorjahi			
	2023	2022	Absolut	96	
Belgien	7'061	7799	-738	-9.46	
Doutschland	48'646	49'186	-540	-1.10	
Frankroich	11784	13960	-2'176	-16.60	
Grossbritannion/Irland	53'138	52'591	547	1.04	
Italien	3.838	3'896	-58	-1.49	
Luxemburg	3'372	4181	-809	-19.35	
Nederlande	16'956	20701	-4'245	-21.01	
Osterreich	2759	3'086	-327	-10.60	
Russland	809	631	178	28.21	
Skandinavien	7226	8564	-1'338	-15.60	
Spanier/Portugal	5'168	4'590	578	12.50	
Israel	5'350	6'316	-966	-15.29	
Übriges Europa	13 156	15'534	-2'378	-15.31	
Europa Total	178'263	190'535	-12'272	-6.4	
USA/Kanada	99'500	61519	37'901	61.74	
Obriges Amerika	9'843	6'944	2'899	41.75	
Amerika Total	109'343	68'463	40'880	59.7	
GCC und Afrika Total	38'295	49'837	-11'542	-23.1	
China inkl. Hongkong	39'249	9911	29'338	296.0	
Indien	11'098	7'601	3'497	46.01	
Japan	16'563	3'549	13'014	366.69	
Korea	108754	33'421	75'333	225.41	
Tarwan	26'351	2356	23'995	1018.46	
Obriges Asien	50'007	37'512	12'495	33.31	
Asien Total	252'022	94350	157'672	167.1	
Australien/Ozeanien	17720	7017	10703	162.5	
Ausland Total	595'643	410'202	185'441	45.2	
Schweiz/FL	207'147	241'209	-34'062	-14.1	
Gesamttotal	802790	651'411	151'379	23.2	

sorted by guest origin. Similarly, Figure 8 details the overnight stay data for holiday flats (UNWTO, 2019).

Figure 8: Country statistics in holiday flats

rerienwohnungen	Logiernachte	Zu-/Abnahme Vorjahr			
	2023	2022	Absolut	96	
Belgien	3'880	5'364	-1'484	-27.67	
Deutschland	41'568	45'783	-4'215	-9.21	
Frankreich	6'882	6'801	81	1.19	
Grossbritannien/Irland	17629	17'075	454	2.66	
Italien	2'069	2'000	69	3.45	
Israel	2'082	3'598	-1'516	-42.13	
Luxemburg	1'313	1'450	-137	-9.45	
Niederlande	19'062	22'247	-3'185	-14.32	
Osterreich	587	525	62	11.81	
Russland	244	170	74	43.53	
Skandinavien	2'806	2422	384	15.85	
Spanien/Portugal	2'699	2'820	-121	-4.29	
Obriges Europa	4922	4'354	568	13.05	
Europa Total	105'643	114'609	-8'966	-7.82	
USA/Kanada	38'962	26'036	12'926	49.65	
Obriges Amerika	1'656	1'255	401	31.95	
Amerika Total	40'618	27291	13'327	48.83	
GCC und Afrika Total	21'847	24'950	-3'103	-12.44	
China inkl. Hongkong	6'615	1'803	4'812	266.89	
Indien	7986	5'843	2'143	36.68	
Japan	1'993	1'097	896	81.68	
Korea	50'284	19'647	30'637	155.94	
Singapur	5'513	5'458	55	1.01	
Obriges Asien	8'050	5'633	2'417	42.91	
Asien Total	80'441	39'481	40'960	103.75	
Australien/Ozeanien	7319	3'234	4'085	126.31	
Ausland Total	255'868	209'565	46'303	22.09	
Schweiz/FL	105'132	121'920	-16'788	-13.77	
Gesamttotal	686'085	657'286	28'799	4.38	
Total effektive Logiernächte	361'000	331'485	29'515	8.90	
Pauschalkurtaxen	325'085	325'801	-716	-0.22	

These figures reflect an increase in the use of both types of accommodation and underscore the continued international appeal of Grindelwald across multiple visitor segments.

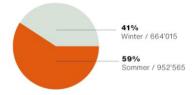
The seasonal distribution of tourism is also noteworthy. Figure 9 shows that in 2022, Grindelwald recorded 624,837 overnight stays during the winter season

Figure 9: Overnight stays in percent for winter & summer 2022



and 790,770 during the summer. In 2023, both numbers increased,

Figure 10: Overnight stays in percent for winter & summer 2023



with 664,015 overnight stays in winter and 952,565 in summer, as depicted in Figure 10. This continued rise in both winter and summer figures confirms Grindelwald's position as a stable, year-round destination.

ISSN: 2809-6819

While these growing numbers represent economic success, they also bring increasing pressure on local infrastructure, housing, and the environment—issues which are further explored in the following analysis of expert interviews.

4.3 Analysing and Interpreting the Interviews 4.3.1 Economic Influences

Tourism serves as the economic backbone of Grindelwald. All experts confirmed that the village would be unsustainable without it (Grindelwald Tourism, 2023b). The tourism sector provides jobs and supports related industries, including agriculture and hospitality (Grindelwald Tourism, 2023b). High-income visitors and property investors have raised the purchasing power of the local economy but also contributed to inflated housing prices, especially for second homes (Rein & Zeppenfeld, 2019; Grindelwald Tourism, 2023b).

The year-round nature of tourism helps stabilize income throughout the seasons (Grindelwald Tourism, 2023b). While some interviewees felt that income growth compensates for rising costs, others noted that some goods and services have become unaffordable for locals (Bucher, 2023).

4.3.2 Social Influences

Housing affordability emerged as a key social concern. Many properties are owned by external investors or used as second homes, pushing prices beyond local means (Grindelwald Tourism, 2023b). Although the Second Homes Act restricts further development, existing second homes remain unaffected, limiting its immediate impact (Grindelwald Tourism, 2023b).

Infrastructure is under pressure, particularly from traffic. Private vehicle use surged after the COVID-19 pandemic, and parking shortages are frequent (Grindelwald Tourism, 2023b). Day visitors—who do not contribute through visitor taxes—often strain resources. Measures like guest cards for free local buses and plans for a suburban train network are being implemented to mitigate traffic-related issues (Grindelwald Tourism, 2023b).

Social dynamics in the village have shifted. Traditional community bonds are weakening, and there is tension between residents and certain tourist groups, especially around traffic behavior and cultural misunderstandings (Bucher, 2023). Weekly summer festivals and educational campaigns aim to bridge these gaps and promote

mutual respect (Grindelwald Tourism, 2023b). Residents have formal opportunities to participate in tourism planning through municipal assemblies, but not all feel their voices are heard (Rein & Zeppenfeld, 2019).

Demographic changes are also influencing tourism demands, with an increase in preferences for hiking and tobogganing among older visitors.

4.3.3 Ecological Influences

Tourism's environmental impact is most visible in transport-related emissions. While Grindelwald promotes public transport, many visitors still arrive by car (Grindelwald Tourism, 2023b). The construction of second homes has altered the landscape, and although the village avoids large-scale interventions like ski slope modifications, the cumulative effects are noticeable (Bohren, 2023; Kaufmann, 2023).

Efforts are underway to protect natural areas through visitor management systems and zoning (Grindelwald Tourism, 2023b). Educational trails in cooperation with UNESCO also promote environmental awareness (Grindelwald Tourism, 2023b). Local agriculture plays a role in maintaining open landscapes and preventing erosion, further supporting sustainability (Bohren, 2023).

Interviewees stressed the importance of preserving Grindelwald's natural assets, which they described as the village's "capital" (Bucher, 2023; Grindelwald Tourism, 2023b). They acknowledged the tension between development and conservation but emphasized that sustainable management is essential for the long-term viability of tourism (Bohren, 2023).

5. CONCLUSION

This study set out to investigate the economic, social, and ecological impacts of tourism in the mountain village of Grindelwald. Using qualitative expert interviews supported by statistical data, it sought to understand how increasing visitor numbers affect the local community and infrastructure, and how these developments align with principles of sustainable tourism (Grindelwald Tourism, 2023b).

The results show that tourism continues to be the most important driver of Grindelwald's local economy. It secures employment, supports regional

services, and enhances purchasing power through income from high-spending visitors and holiday flat rentals (Rein & Zeppenfeld, 2019). However, this economic growth has led to rising property prices and increased demand for housing, particularly for second homes and short-term rentals. As a result, affordable housing for locals and seasonal workers is becoming increasingly scarce (Grindelwald Tourism, 2023b).

From a social perspective, the growing number of tourists—especially day visitors—has created pressure on infrastructure and services. Traffic congestion, limited parking, and overcrowded public spaces are common challenges, particularly during the peak seasons (Bucher, 2023). While local authorities have implemented initiatives to intercept vehicle traffic and promote the use of public transport, these measures are sometimes underutilized due to pricing or convenience (Grindelwald Tourism, 2023b). Moreover, there is a noticeable gap in communication between visitors and the local population, often resulting in tensions caused by differences in expectations and behavior (Kaufmann, 2023).

Ecologically, the increase in private vehicle use and continued development of second homes have placed additional strain on the environment (Bohren, 2023). Though large-scale alterations to natural landscapes are limited, the cumulative impact of tourism is still evident. Efforts such as guest zoning, information campaigns, and the preservation of agricultural areas help mitigate these effects, but further measures are required to ensure long-term ecological sustainability (Grindelwald Tourism, 2023b; Kaufmann, 2023).

Based on these findings, several recommendations can be drawn. First, to alleviate housing shortages, the municipality could encourage landlords to prioritize long-term rentals to residents rather than short-term tourist leases. This could be supported through targeted communication strategies or financial incentives (Grindelwald Tourism, 2023b). Second, public transportation must be made more attractive through pricing reforms, such as including rail fares in parking fees at intercept lots, to reduce reliance on private vehicles (Grindelwald Tourism, 2023b).

Third, guest behavior should be addressed through improved communication. Existing information campaigns can be made more visible through roadside signage and clearer instructions when issuing recreational equipment (Grindelwald Tourism, 2023b). Lastly, the introduction of a digital visitor management system would allow the municipality to monitor tourist flows in real time and reduce congestion at popular sites by providing alternative suggestions for activities and locations (Grindelwald Tourism, 2023b).

Although overtourism is not currently evident in Grindelwald, there are clear signs of growing pressure. Without proactive strategies, these pressures may escalate, leading to reduced quality of life for residents and a decline in the visitor experience (Bucher, 2023). Addressing the challenges identified in this study is essential for preserving the balance between tourism growth and local sustainability(Grindelwald Tourism, 2023b).

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