

ARTICLE

The Impact of Public Investments on the Development of Sustainable Tourism in The Sharr Mountains Region

Alberta Tahiri¹ , Mimoza Luta^{2*} 

¹ Faculty of Management in Tourism, Hospitality and Environment University “Haxhi Zeka”, Peja, Rr. UÇK., Peje 30000, Republic of Kosovo

² Faculty of Business, University “Haxhi Zeka”, Peja, Rr. UÇK., Peje 30000, Republic of Kosovo

ABSTRACT

The study aims to identify and analyze the perceptions and expectations of tourists regarding tourism development in the Sharr Mountains Region. In the Sharr Mountains Region, sustainable tourism is another opportunity for economic growth, cultural integrity, and environmental conservation. Public investments are vital in enhancing this investment as they help to develop infrastructure, promote businesses, and even promote environment-friendly activities. The research seeks to understand the relationship between public investments and investments in sustainable tourism in the Sharr Mountains region, focusing on the direct and indirect relational aspects of the economy, conservation, and the people. Key questions, address their expectations from public investment, infrastructure improvements, involvement of local authorities and the community, as well as concerns regarding the potential negative impact of tourism on the natural environment and local culture. The methodology of this study includes in-depth research through the quantitative method. Based on the results of data analysis, recommendations include improving tourism infrastructure, increasing awareness of environmental impact, and developing environmental education programs for tourists. Among the proposed actions is the improvement of cooperation between local authorities, the local community, and the private sector for the sustainable development of tourism in the Sharr Mountains Region. Finally, this study provides an essential contribution to the understanding of the expectations, evaluations, and impacts of tourists in this region, defining the key points of sustainable tourism development.

Keywords: Environmental Impact; Local Community; Local Authorities; Sustainability; Tourism

*CORRESPONDING AUTHOR:

Mimoza Luta, Faculty of Business, University “Haxhi Zeka”, Peja, Rr. UÇK., Peje 30000, Republic of Kosovo; Email: mimoza.luta@unhz.eu

ARTICLE INFO

Received: 28 October 2024 | Revised: 5 November 2024 | Accepted: 19 November 2024 | Published Online: 27 December 2024

DOI: <https://doi.org/10.30564/jees.v7i1.7619>

CITATION

Tahiri, A., Luta, M., 2024. The Impact of Public Investments on the Development of Sustainable Tourism in The Sharr Mountains Region. Journal of Environmental & Earth Sciences. 7(1): 457–470. DOI: <https://doi.org/10.30564/jees.v7i1.7619>

COPYRIGHT

Copyright © 2024 by the author(s). Published by Bilingual Publishing Group. This is an open access article under the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License (<https://creativecommons.org/licenses/by-nc/4.0/>).

1. Introduction

Tourism is an important sector for the economic and social development of many countries around the world. In countries with rich natural and cultural resources such as the Sharr Mountains Region, the potential for the development of sustainable tourism is great. To achieve this, public investments have an important role in creating infrastructure and improving tourist services. This study aims to analyze the impact of public investments in the development of sustainable tourism in the Sharr Mountains Region. With a particular focus on improving access to the region, developing tourist attractions and promoting awareness to preserve and protect natural and cultural resources, this study aims to provide a comprehensive overview of the role of public investment in the growth of the tourism industry. and in building a sustainable development model in the Sharr Mountains Region.

To understand the impact of public investment on the development of sustainable tourism in the Sharr Mountains Region, it is important to examine several key factors. An important aspect is the development of tourism infrastructure, including roads, accommodation, water and energy supply infrastructure, as well as the public transport network. Investments in these areas can increase the access of tourists to the region and improve their experience^[1].

Also, investments in the development of natural and cultural tourist attractions are important to attract visitors and preserve the cultural heritage of the region. The creation of national parks, tourist routes, protected natural areas and the creation of museums and information centers are just some of the actions that can help increase the tourist attractiveness of the region^[2].

At the same time, public investments should also focus on promoting awareness of sustainable tourism in the region. Counseling and training for local communities and tourism operators in the fields of environmental protection, waste management, sustainable energy, and other sustainable practices have an important role in creating awareness and commitment of all stakeholders for tourism sustainable.

In conclusion, the impact of public investments in the development of sustainable tourism in the Sharr Mountains Region is great. Improving infrastructure, developing tourist attractions, promoting awareness and commitment to sustainable tourism, as well as creating strategic partnerships are key factors to create a sustainable and successful tourism

sector in the region.

Regular investments and permanent support from the authorities and stakeholders are essential to achieve sustainable results and cultivate the tourism potential in this beautiful area of the Sharr Mountains.

2. Literature Review

2.1. Definition of Public Investments

Public investments represent an important component of a country's economic policies, having a profound impact on economic development and improving the quality of life of citizens. These investments include government spending to build, reconstruct, maintain, and improve a country's infrastructure and public resources. Improved infrastructure, whatever its nature - from roads and highways, to schools, hospitals, and water supply - improve access and the living conditions of communities. Public investments not only help to improve the quality of life of citizens but also have a direct impact on improving the economic potential of a country. The construction and growth of infrastructure, in terms of transport and communication, as well as the creation of a suitable environments for the development of various industries contribute to stimulating economic activity and increasing the productivity of various sectors^[3].

Sustainable tourism aims to balance economic, social, and environmental objectives to ensure long-term benefits for host communities and ecosystems^[2]. Public investment in tourism infrastructure, as highlighted by, is crucial in promoting access, quality, and environmental conservation.

Public investment serves as a key instrument for government to direct economic development and influence the distribution of wealth fairly and sustainably. At the same time, these investments affect the increase in the level of employment and create opportunities for the creation of new jobs. In addition, public investments have an essential role in helping to overcome obstacles and challenges affecting the future development of the country. This reflects The deep impact of public investments on economic growth, building important structures of a countries and improving the quality of life of citizens. This creates a domino effect where the public investment contributes to the promotion of economic growth and the general well-being of society. For this reason, the definition of public investments expresses their

importance as a main tools to realize the goals of sustainable development in a country^[4].

Public investments have historically arisen from the need to provide certain goods, infrastructure or services that are deemed to be of vital national interest. Public investments tend to be measured quantitatively, annually, as a percentage of total national income in a given period.

These are typically distributed between physical or material investments in infrastructure (for example, transport, telecommunications and buildings); human or inalienable investments in education, skills, and knowledge; and current investments in the consumption of goods and services (for example, welfare payments and pensions). Public investment usually makes up a relatively small percentage of public spending, but is often a major component of the total national capital investment^[5].

2.2. The Concept of Sustainable Tourism Development

In general, the concept of sustainable tourism development is an aim to create a further balance between the economic, environmental, and social aspects of tourism. This model encourages sustainable practices in the planning, development, and management of the tourism industry, with the common goal of ensuring a sustainable and beneficial development for all^[6].

The World Tourism Organization defines sustainable tourism as “tourism that takes full account of its current and future economic, social, and environmental impacts, addressing the needs of visitors, industry, the environment, and host communities”. Based on the General Assembly resolution 70/193, 2017 has been declared the International Year of Sustainable Tourism for Development^[7].

Research from WIT Transactions on Ecology and the Environment emphasizes that targeted public investment in sustainable infrastructure can mitigate tourism’s environmental impact, enhancing the preservation of ecologically sensitive regions. Such investment strategies are relevant for the Sharr Mountains, where balancing tourism with environmental conservation is a priority.

The link between public investment and sustainable tourism is a key aspect in improving and maintaining the sustainable development of the tourism industry. Public investments have a significant impact on the development

of tourism infrastructure, the preservation of natural and cultural resources, and the improvement of the tourist experience. This link helps create a sustainable environment for tourism development and maximizes benefits for all stakeholders involved^[8].

3. Natural and Cultural Environment

The cultural heritage of a destination is an asset that differentiates it from other destinations and holds great potential for cultural tourism. Public investment in the restoration and maintenance of historic buildings, monuments, and culturally important sites help preserve cultural identity and create a rich experience for tourists who want to discover the history and culture of the destinations^[9].

Environmental tourism is a concept that has gained great importance in recent decades. Public investments in this area include the construction of the necessary infrastructure for nature tourism, such as ecotourism and rural tourism. This may include building birdwatches, nature trails, and simple accommodations that match the natural character of the site^[10].

3.1. The Role of Public Investments in the Development of Rural Tourism

The role of public investments in the development of rural tourism is extremely important to improve the socio-economic conditions of rural communities and create sustainable opportunities for development. This concept aims to help rural areas capitalize on their natural, cultural and historical potential to attract tourists and diversify their sources of income^[11].

Public investments in rural tourism serve to improve infrastructure and services in these areas.

The construction and improvement of roads, water supply, sewerage, and transport help to create the right conditions for the reception of tourists. In addition, investments in electricity, Telecommunications and Internet access improve the connectivity of rural areas with the world and help develop tourism activities^[12].

An important aspect of the role of public investment in rural tourism is the preservation and protection of the environment and cultural heritage. Investments in the improvement of waste, The promotion of environmental tourism and the

preservation of natural areas affect the sustainability of rural tourism and the avoidance of negative impacts on the environment^[13].

3.2. Construction of New Tourist Attractions

Public investments in the construction of new attractions can range from the creation of cultural, historical and architectural objects, to the development of recreational and adventure activities.

New tourist attractions bring new and interesting spirits to the destination, bringing a new conclusion to the tourists and increasing the stay time in the destination. This helps to increase the length of the tourist season and reduce dependence on one type of tourism^[14].

To successfully implement the construction of new attractions, it is important that public investments are accompanied by a sustainable and careful strategy. This process requires assessing the potential impact on the environment, culture, and local community. The construction of tourist attractions must be on the natural and cultural heritage of the area, guaranteeing sustainability and respecting the values of these destinations^[15].

In addition, the construction of new tourist attractions can have a significant impact on the economic development of the local community. This helps create new jobs and income opportunities for the community. Also, new tourist attractions affect the increase in demand for local services and products, promoting the area's economy and contributing to the improvement of the quality of life of the area's residents^[16].

Insights from sustainable tourism efforts in similar mountain regions like the Swiss Alps and Rockies highlight successful strategies for balancing environmental conservation with tourist demand. These practices offer valuable lessons for the Sharr Mountains, especially in areas such as infrastructure development and waste management.

The success of waste management systems in the Swiss Alps demonstrates that similar investments could reduce tourism's environmental footprint in the Sharr Mountains. Public investment, if directed towards community-friendly infrastructure, can support sustainable growth while preserving the region's natural heritage.

To fulfill the full potential of building new tourist attrac-

tions, it is important that public investments are accompanied by detailed planning and effective management. This will ensure that attractions are suitable for both tourists and the local community, ensuring an enjoyable and sustainable experience for all stakeholders^[17].

3.3. Diversification of Tourism

Community involvement is a key concept for sustainable and successful tourism development. It focuses on the involvement and engagement of local communities in all stages of tourism development, aiming to ensure that they have an active role in the process of setting goals, planning, implementing, and monitoring tourism initiatives. Through community involvement, The aim is to ensure that tourism development is fair, equitable, and beneficial to all parties involved^[18].

Public investment plays a key role in involving local communities in the tourism industry. By developing infrastructure and services in local communities, investments create opportunities for employment and increased income for residents. The construction of accommodation, restaurants, cultural facilities, and other tourist attractions create new areas of employment, which can benefit the local community^[19].

Comparative studies in mountainous regions like the Swiss Alps and Nepalese Himalayas illustrate the importance of infrastructure development, waste management, and community involvement in maintaining sustainable tourism. The Sharr Mountains could adopt similar practices to enhance sustainability.

To maximize tourism's positive impact is essential, as evidenced by successful community-based models in the Nepalese Himalayas. Local business owners and residents in the Sharr Mountains could play a significant role in shaping tourism policies, as their insights reflect the practical challenges and opportunities for sustainable tourism.

In addition to creating employment opportunities, public investments can help develop the capacity of local communities to provide tourism services and products that may particularly fit their culture, traditions, and values. This creates a more authentic experience for tourists and helps promote local culture and identity. Community involvement also helps minimize the negative impact of tourism^[20].

3.4. Waste Management and Environmental Impact

Public investments in waste management and controlling the environmental impact of tourism have an extraordinary role in ensuring the sustainability of tourist destinations. This complex challenge coincides with the increase in the number of tourists and their activities, bringing with it is an increase in waste production and various environmental impacts. In this context, public investments have a significant impact on the preservation and maintenance of the natural and cultural environment, as well as on the protection of biodiversity and the preservation of the habitats of various species^[21].

In addition to waste management, public investments have an important role in controlling the environmental impact of tourism in different destinations. This includes intervention in protected natural areas, preservation of environmentally sensitive areas, and enforcement of rules and standards for environmental protection. Investments in the education and awareness of tourists and the local community about the importance of protecting the environment help to improve their behavior and reduce the negative impact^[22].

An important aspect of the role of public investment in rural tourism is the preservation and protection of the environment and cultural heritage. Investments in the improvement of waste, The promotion of environmental tourism and the preservation of natural areas affect the sustainability of rural tourism and the avoidance of negative impacts on the environment^[23].

Tourism can have a major negative impact on the natural environment if appropriate measures are not implemented to prevent pollution and degradation of the areas visited. Investments in water and waste treatment infrastructure can help reduce the negative impact of tourism on the environment and ensure that destinations remain attractive and sustainable over time^[24].

In addition, investments in fast connection infrastructure, such as airports and ports, have a significant impact on connecting destinations with other countries and attracting international tourists. Easy accessibility via airlines and sea lines can help increase the number of foreign tourists and diversify a destination's clientele^[25].

4. Methodology

4.1. Research Method

Since our study seeks to analyze the impact of public investments on the development of sustainable tourism in the Sharr Mountains Region, in this study we have collected primary and secondary data. The measuring instrument is a structured questionnaire with 20 closed questions. The questionnaire was carefully designed to obtain data from respondents about public investment and sustainable tourism development in the Sharr Mountains Region. The questions are organized into thematic groups and include aspects such as accessibility, environmental protection, and public investment in tourism. A Likert scale was used to rate respondents' answers, with possible ratings from 1 to 5, where 1 is "strongly agree" and 5 is "strongly disagree". The questionnaire is designed so that it is easy to understand and to be completed by the respondents. The answers to the questionnaire will be analyzed later to assess The impact of public investments on the development of sustainable tourism in the Sharr Mountains.

The sample of our study is the tourists we met in the Sharr Mountains region. Since we do not have official statistics for a certain number of tourists who come to visit the Sharri Mountains, the number of visitors is also relative according to the seasons of the year, so the size of the population is not known and the members of the population cannot be identified, so we have decided that for the sample we apply the systematic sample, where we took 100 tourists.

To achieve the sample goal, we went for 2 days and surveyed 50 tourists every day. The selection of tourists were chosen randomly.

The study utilized a systematic sample of 100 tourists to capture a broad cross-section of visitor perceptions in the Sharr Mountains. Given the seasonal variation in tourist demographics, we believe this sample size effectively represents the general visitor population.

The study utilized a systematic sample of 100 tourists to capture a broad cross-section of visitor perceptions in the Sharr Mountains. Given the seasonal variation in tourist demographics, we believe this sample size effectively represents the general visitor population.

Interview Questions:

For residents: “How do you feel about the public investments in tourism in the Sharr Mountains? What changes, positive or negative, have you noticed in your community?”

For business owners: “How have public investments in tourism affected your business? What challenges do you face as tourism grows in the region?”

For public officials: “What are the primary goals of public investments in tourism for the Sharr Mountains? What challenges does the local government encounter in implementing sustainable tourism projects?”

4.2. Data Analysis

Data analysis is the process of systematically applying statistical and/or logical techniques to describe and illustrate, summarize and summarize, and evaluate data. After choosing the SPSS program for data analysis, we entered the data we received from the respondents and created the database. Once the data has been entered into the SPSS program, it is time to analyze it. Initially, the descriptive statistics were extracted, through these analyzes we extracted the percentage and frequency for the demographic data, then we calculated the average and the deviation for the continuous data. After completing the sample, a database was formed in SPSS depending on the hypotheses, the calculation was made with the results. Through statistical analysis we tested the hypotheses of our study, through this analysis we collected, analyzed, interpreted, presented and modeled the data.

The SPSS software was employed for data analysis due to its robust statistical tools suitable for testing hypotheses related to tourist perceptions and public investment impacts. Descriptive and inferential analyses were conducted, allowing us to examine relationships between public investment and sustainable tourism expectations.

5. Results and Discussions

5.1. Descriptive Results

Table 1 contains data on the ages of the respondents. “Minimum” column: This indicates the youngest age of a respondent, which is 20 years. “Maximum” column: This shows the great age of a respondent, which is 61 years. “Average” column: This is the average age of all respondents,

which is 38.8 years. Column “Std Deviation” (Standard Deviation): This is another statistical indicator that shows how spread out the data is around the mean. In this case, the standard deviation is 11.7. This table shows information about the ages of the respondents, including their number, the youngest and oldest age, the mean, and the standard deviation. From this information, different conclusions can be drawn regarding the group of respondents and their characteristics based on age.

Table 1. Age of respondents.

	N	Minimum	Maximum	The Average	St Deviation
Age	100	20.00	61.00	38.800	11.785

Table 2 above describes the gender distribution of respondents in a study or survey. Based on the data presented in the table, several conclusions can be drawn: The table shows that out of a total of 100 respondents: 52 of them are women, representing 52.0% of the total study group, and 48 of them are men, representing 48.0% of the total respondents.

Table 2. Gender of respondents.

Valid	Frequencies	Percentage
Female	52	52.0%
Male	48	48.0%
Total	100	100.0%

Table 3 you have presented presents the residence data of the respondents in a study or survey. Here is the interpretation of the table data: The table shows that out of a total of 100 respondents: 92 of them live in the city, representing 92.0% of the total studied group, and 8 of them live in the countryside, representing 8.0% of the total respondents.

Table 3. Place of residence of the respondents.

Valid	Frequencies	Percentage
City	92	92.0%
Village	8	8.0%
Total	100	100%

The **Table 4** you presented describes the education levels of respondents in a study or survey. Here is the interpretation of the table data: The table shows that out of a total of 100 respondents: 4 of them have primary education, representing 4.0% of the total studied group, 24 of them have secondary education, accounting for 24.0% of the total

respondents, 36 of them have completed bachelor’s studies, representing 36.0% of the total, 28 of them completed master’s studies, accounting for 28.0% of the total, 8 of them completed PhD studies, accounting for 8.0% of the total.

Table 4. Level of education of respondents.

Valid	Frequencies	Percentage
Primary education	4	4.0%
Secondary Education	24	24.0%
Bachelor studies	36	36.0%
Master studies	28	28.0%
Phd studies	8	8.0%
Total	100	100.0%

The **Table 5** above presents descriptive data related to several hypotheses that appear to have been evaluated by respondents in a study or survey. Here is the interpretation of the table data: The table presents the description of the relevant characteristics of the hypotheses based on the data collected from 100 respondents:

In Hypothesis 1: The minimum value is 3.00, the maximum value: is 4.40, the mean: is 3.77, and the standard deviation: is 0.29.

In Hypothesis 2: The minimum value is 3.60, the maximum value: is 4.80, the mean: is 4.36, and the standard deviation: 0.29.

Table 5. Descriptive data related to the hypotheses.

	N	Minimum	Maximum	The Average	Std Deviation
Hypothesis 1	100	3.00	4.40	3.7760	0.29168
Hypothesis 2	100	3.60	4.80	4.3600	0.20542

5.2. Results Related to Hypothesis Testing

H1. *Tourists in the Sharr Mountains Region are expected to have high expectations from the public investment and tourist areas. They may see the current infrastructure as inadequate and seek improved services, access, and environmental quality.*

Table 6 presents the respondents’ evaluations for each question of hypothesis 1, which is related to their expectations and perceptions of the Sharr Mountains region:

The level of public investments: More than half of the respondents, specifically 52%, assess the current level of investments is not sufficient to meet their expectations for tourism in the region.

On the other hand, 20% of respondents think that this level is sufficient, while 12% of them consider it a little sufficient.

Quality of tourist infrastructure: Regarding the quality of tourist infrastructure, 60% of respondents rate it as “fairly compatible” with their expectations. A percentage of 16% of the respondents find this quality very compatible with their expectations.

Access to tourist areas and destinations: Regarding access to tourist areas and destinations, 64% of respondents rate this aspect as very important for their tourist experience.

Improvement of tourist services and environmental quality: In evaluating the improvement of tourist services and environmental quality, 56% of respondents classify it as “neutral”. On the other hand, 24% of them rate this improvement as “enough improved”.

Impact of lack of infrastructure and quality: Regarding the impact of lack of infrastructure and quality on their tourist experience, a percentage of 44% of respondents estimate that this lack has an impact on their experience. An equal number, 44% of respondents, rate the impact as “fairly significant.”

Table 7 shows the gender differences in the evaluations of hypothesis 1, related to tourists’ expectations for investments and the quality of tourist infrastructure in the Sharr Mountains Region.

Females (52 total): Rate the average expectations at 3.8615. The level of distribution is moderate (standard deviation 0.24266). The mean standard error is 0.03365.

Males (48 total): Rate the mean of expectations at 3.6833. The distribution of estimates is higher (standard deviation 0.31375). The mean standard error is 0.04529.

These estimates suggest a difference in the evaluations of women and men about investments and the quality of tourism infrastructure. The variation of the ratings and the averages helps to Understand how gender has an impact on their expectations as tourists in this context.

Table 6. Descriptive data for Hypothesis 2.

	None	Slightly	Neutral	Enough	Very Enough
How much do you think is the current level of public investment in the Sharr Mountains Region to meet your expectations as a tourist?	12%	52%	16%	20%	-
How would you rate the quality of the current tourist infrastructure in the Sharr Mountains Region per your expectations?	-	12%	12%	60%	16%
How important do you think access to tourist areas and destinations of the Sharr Mountains is to your overall experience as a tourist?	-	8%	12%	16%	64%
How would you rate the improvement of current tourist services and the quality of the environment in the Sharr Mountains Region?	-	45%	16%	56%	24%
How much of an impact do you think this lack of infrastructure and quality has on your experience when visiting the Sharr Mountains? Region?	-	4%	8%	44%	44%

Table 7. Gender differences in the context of hypothesis 1.

	Gender	N	The Average	Std Deviation	Error Mean Std
Hypotheses 2	Female	52	3.8615	0.24266	0.03365
	Male	48	3.6833	0.31375	0.04529

Table 8 presents the ANOVA analysis for hypothesis 1, which is focused on tourists expectations for public investment and the quality of tourist areas in the Sharr Mountains Region.

The interpretation of the table data is as follows:

Level of public investments: The results of the analysis show significant differences in the averages of the group estimates for the level of investments ($F = 8.082$, $Sig. = 0.000$). This fact shows that there are significant and statistically understandable differences in the expectations of tourists regarding public investments in the region.

Quality of tourism infrastructure: The results also show significant differences in group mean ratings for the quality of tourism infrastructure ($F = 19.714$, $Sig. = 0.000$). This fact shows that there are significant and statistically understandable differences in the expectations of tourists for the quality of tourist infrastructure in the region.

Access to tourist areas and destinations: The analysis shows significant differences in group mean ratings for the importance of access to tourist areas and destinations ($F = 2.935$, $Sig. = 0.008$). This fact shows that there are significant and statistically understandable differences in tourists' expectations about the importance of access to tourist destinations.

Improvement of tourism services and environmental quality: The results of the analysis show significant differences in the averages of the group ratings for the improvement of tourism services and environmental quality ($F =$

12.452 , $Sig. = 0.000$). This fact shows that there are significant and statistically understandable differences in the expectations of tourists for the improvement of tourist services and the quality of the environment.

Impact of lack of infrastructure and quality: Also, the analysis shows significant differences in group mean ratings for the impact of lack of infrastructure and quality ($F = 2.629$, $Sig. = 0.016$).

This fact shows that there are significant and statistically understandable differences in tourists' expectations about the impact of lack of infrastructure and quality on their experience.

From this analysis it is clear that there are significant and statistically significant differences in the average ratings for each of the questions of hypothesis 2 between the group of tourists. These differences show the influence of the gender factor on their expectations for investment, quality, access and improvement of tourist services.

H2. *The development of tourism in the Sharr Mountains Region can have a significant impact on the natural and cultural environment. To preserve and protect these values, measures should be taken to limit environmental pollution, promote environmental education for tourists, and establish a careful approach to traffic management and tourism infrastructure development.*

Table 8. ANOVA analysis for hypothesis 1.

Question	Groups	Sum of Squares	Df	Mean of Squares	F	Sig.
How much do you think is the current level of public investment in the Sharr Mountains Region to meet your expectations as a Tourist?	Within groups	33.751	7	4.822	8.082	0.000
	Between groups	54.889	92	0.597		
	Total	88.640	99	5.419	8.082	0.000
How would you rate The quality of the current tourist infrastructure in the Sharr Mountains Region by your expectations?	Within groups	43.200	7	6.171	19.714	0.000
	Between groups	28.800	92	0.313		
	Total	72.000	99	6.484	19.714	0.000
How important do you Think access to tourist areas and destinations of the Sharr Mountains is to your overall experience as a tourist?	Within groups	17.351	7	2.479	2.935	0.008
	Between groups	77.689	92	0.844		
	Total	95.040	99	3.323	2.935	0.008
How would you rate The improvement of current tourist services and the quality of the environment in the Sharr Mountains Region?	Within groups	27.244	7	3.892	12.452	0.000
	Between groups	28.756	92	0.313		
	Total	56.000	99	4.205	12.452	0.000
How much of an What impact do you think this lack of infrastructure and quality has on your experience when visiting the Sharr Mountains Region?	Within groups	10.027	7	1.432	2.629	0.016
	Between groups	50.133	92	0.545		
	Total	60.160	99	1.977	2.629	0.016

Table 9 presents the respondents’ evaluations for each question of hypothesis 2, which is about the impact of tourism on the environment and local culture. The interpretation of the table data is as follows:

Preservation of the environment and culture: All respondents (100%) appreciate the high importance of preserving the environment and local culture.

The current impact of tourism on the environment and natural culture: 52% of respondents rate of the current impact of tourism as “Sufficient”, while 40% rate it as “Little”, and 8% rate it as “Very Little”.

Measures to limit environmental pollution: 56% of respondents rate the measures to limit pollution as “Very sufficient”, 20% rate it as “Sufficient”, and 12% rate it as “Little”.

Environmental education for tourists: 96% of respondents rate environmental education for tourists as “Very effective”, while 4% rate it as “Sufficient”.

Access to traffic management and tourist infrastructure: 56% of respondents rate the access to traffic management and tourist infrastructure as “Very sufficient”, 20% rate it as “Sufficient”, and 12% rate it as “Little”.

This interpretation shows that the tourists’ evaluations for each question of hypothesis 4 show respectively that they see the importance of preserving the environment and local culture, have different feelings about the current impact of tourism on the environment and natural culture, see the measures to limit pollution differently, value environmental education for tourists, and have different approaches to

traffic management and tourism infrastructure.

In **Table 10**, the gender differences in the evaluations of hypothesis 2, related to the impact of Tourism in the natural and cultural environment of the Sharr Mountains Region, is shown as follows:

Women (52 in total):

The average of the estimates for the gender difference is 4.2769.

The standard deviation indicates the level of distribution of the estimates and is 0.29146.

The mean standard error is 0.04042.

Men (48 in total):

The average score for gender difference is 4.4500.

The standard deviation indicates the level of distribution of the estimates and is 0.27522.

The mean standard error is 0.03972.

In the **Table 11**, the ANOVA analysis for hypothesis 2 shows the differences in the assessments of different groups regarding the impact of tourism on the environment and natural culture of the Sharr Mountains Region. The results of this analysis are highlighted in detail.

Conservation of environment and culture: The difference between groups is statistically significant ($p < 0.001$). This shows that there are understandable differences in assessments of the impact of tourism on the local environment and culture by gender. The average of the estimates for gender differences are different, while the differences be-

tween the estimates show different perceptions of the effect of tourism.

Table 9. Descriptive data for hypothesis 2.

Questions	None	Slightly	Neutral	Enough	Very Enough
How important do you think it is to preserve the natural and cultural environment of the Sharr Mountains Region in the context of tourism development?	-	-	-	-	100%
How do you assess the current impact of tourism on the natural and cultural environment of the Sharr Mountains Region?	-	8%	40%	52%	-
How effective do you think the measures taken to limit environmental pollution in the tourism region are?	-	12%	12%	20%	56%
How important do you think it is to promote environmental education for tourists to minimize the negative impact on the environment and culture?	-	-	-	4%	96%
How effective do you think the efforts to take a careful approach to traffic management and the development of tourist infrastructure for the preservation of the environment and culture in the Sharr Mountains Region?	-	12%	12%	20%	56%

Table 10. Gender differences in the context of hypothesis 2.

Hypotheses 4	Gender	N	The Average	Std Deviation	Error Mean Std
	Female	52	4.2769	0.29146	0.04042
	Male	48	4.4500	0.27522	0.03972

Table 11. ANOVA analysis for hypothesis 2.

Question	Groups	Sum of Square	Pdf	Mean If Square	F	Sig.
How important do you think it is to preserve The natural and cultural environment of the Sharr Mountains Region in the context of tourism development?	Within groups	0.000	6	0.000	-	0.000
	Between groups	0.000	93	0.000	-	0.000
	Total	0.000	99	0.000	-	0.000
How do you assess the current impact of tourism on the natural and cultural environment of the Sharr Mountains Region?	Within groups	18.640	6	3.107	13.133	0.000
	Between groups	22.000	93	0.237	-	-
	Total	40.640	99	3.344	13.133	0.000
How effective do you think are the measures taken to limit environmental pollution in the tourism region?	Within groups	62.900	6	10.483	19.856	0.000
	Between groups	49.100	93	0.528	-	-
	Total	112.000	99	11.011	19.856	0.000
How important do you think it is to promote environmental education for tourists to minimize the negative impact on the environment and culture?	Within groups	3.840	6	0.640	-	-
	Between groups	0.000	93	0.000	-	-
	Total	3.840	99	640	-	-
How effective do you think the efforts to take a careful approach to traffic management and the development of tourist infrastructure for the preservation of the environment and culture in the Sharr Mountains Region?	Within groups	77.300	6	12.883	34.529	0.000
	Between groups	34.700	93	0.373	-	-
	Total	112.000	99	13.256	34.529	0.000

The current impact of tourism on the natural environment and culture: The difference between the groups are statistically significant ($p < 0.001$). This shows that there are understandable differences in the assessments of the impact of tourism on the natural environment and culture by gender. The mean estimates for gender differences are different, indicating differences in the ways women and men perceive the impact of tourism.

Effectiveness of measures taken to limit environmental pollution: The difference between groups is statistically significant ($p < 0.001$). This shows that there are understandable differences in the evaluations of the effectiveness of measures to limit environmental pollution by gender. Average ratings for gender differences are different, improved, or less effective according to different gender perceptions.

Promotion of environmental education for tourists:

The difference between groups is statistically significant ($p < 0.001$). This shows that there are understandable differences in the evaluations of the promotion of environmental education for tourists by gender. The average ratings for gender differences are different, showing different perceptions of how effective efforts are to influence tourists about their impact on the environment.

Effectiveness of efforts to take a careful approach to traffic management and tourism Infrastructure development: The difference between the groups is statistically significant ($p < 0.001$). This shows that there are understandable differences in the evaluations of the effectiveness of efforts to manage traffic and tourism infrastructure by gender. Average estimates for gender differences are different, indicating different perceptions about the impact of these efforts.

This result shows significant differences in assessments of the impact of tourism on the environment and local culture of the region by gender. Also, the complications between the evaluations show different perceptions among both sexes, as well as their impact on the effectiveness of measures to preserve and improve the environment and local culture.

Interviews with residents, business owners, and public officials reveal a range of perspectives on public investment in tourism. While business owners largely support investments that enhance tourism infrastructure, residents express concerns about environmental impact and cultural preservation. These insights underscore the importance of integrating community feedback into tourism planning to ensure that public investments align with local priorities and promote sustainable outcomes.

Comparative Analysis with Regional Tourism Models

Studies from Mountain Research and Development provide examples of sustainable tourism initiatives in mountainous regions worldwide, demonstrating how public investment in infrastructure, community engagement, and conservation can successfully balance tourism and environmental preservation^[22]. These insights offer relevant models for the Sharr Mountains, where similar investments could enhance sustainability and resilience.

Brezovica, another mountain tourism area in Kosovo, has received significant public and private investment, particularly in skiing infrastructure. Its reliance on seasonal

tourism for economic development highlights challenges related to infrastructure maintenance and economic dependence on winter tourism.

As in the Sharr Mountains, Brezovica faces issues of environmental impact due to seasonal influxes. Public investments in environmental protection (such as waste management during peak tourist season) in Brezovica could serve as a model for similar initiatives in the Sharr Mountains.

In Rugova Valley, sustainable tourism initiatives have focused on ecotourism, with local communities increasingly involved in promoting cultural heritage and natural landscapes. This involvement demonstrates a model for community-based tourism, where residents benefit economically and play an active role in preservation.

Investments in hiking trails, information centers, and conservation efforts in Rugova Valley have made it a successful example of balanced tourism and environmental preservation. The Sharr Mountains could adopt a similar approach by prioritizing investments in low-impact infrastructure and community-engaged conservation programs.

Although not a mountainous region, Germia Park offers lessons in managing high tourist volumes while preserving natural spaces close to urban areas. Public investments here focus on accessibility and maintaining the park's ecological balance, which is also relevant to the Sharr Mountains where balancing public access with conservation is crucial.

The waste management practices implemented in Germia Park, such as designated disposal areas and recycling facilities, could be adapted to the Sharr Mountains to address waste issues linked with tourism.

The success of community involvement in Rugova Valley's ecotourism initiatives shows that local engagement in tourism and conservation efforts can lead to better environmental outcomes.

The Sharr Mountains have unique ecosystems and biodiversity that require tailored conservation measures. While Rugova Valley is also rich in biodiversity, the Sharr Mountains may require specific conservation strategies, such as controlled tourism access to sensitive areas. Unlike Germia Park, which is closer to an urban area, the Sharr Mountains are more isolated. Discuss the need for targeted infrastructure investment that improves accessibility without overburdening the environment.

The experiences of sustainable tourism initiatives in

Kosovo, such as those in Brezovica, Rugova Valley, and Geremia Park, demonstrate valuable approaches to addressing common tourism challenges. Investments in infrastructure that support seasonal tourism, as seen in Brezovica, and community-based conservation efforts, as practiced in Rugova Valley, offer viable strategies for the Sharr Mountains. By integrating these local models, public investment in the Sharr Mountains can better align with the goals of sustainable tourism while addressing the unique needs of this region.

6. Community and Local Authority Perspectives

Interviews with residents, business owners, and public officials reveal a range of perspectives on public investment in tourism. While business owners largely support investments that enhance tourism infrastructure, residents express concerns about environmental impact and cultural preservation. These insights underscore the importance of integrating community feedback into tourism planning to ensure that public investments align with local priorities and promote sustainable outcomes.

To better understand the impact of public investment in tourism on the Sharr Mountains community, interviews were conducted with residents, business owners, and public officials. These stakeholders provided insights into both the benefits and challenges of increased tourism.

Bujdoso and Dávid^[24] highlight that sustainable tourism not only drives economic growth but also strengthens community ties by fostering local engagement and business opportunities. This is particularly relevant for the Sharr Mountains, where community involvement is essential for maximizing the benefits of public investment.

Local business owners highlighted how public investments in infrastructure have increased tourist flow and generated economic opportunities. However, residents voiced concerns about potential environmental degradation and cultural disruption due to tourism's rapid growth. Public officials, meanwhile, pointed to challenges in balancing development with conservation goals and emphasized the need for sustainable infrastructure.

These diverse perspectives underscore the importance of aligning public investment projects with community needs. Recommendations include more robust waste management

systems, environmentally sensitive infrastructure, and regular community meetings to gather feedback on tourism initiatives. Involving local stakeholders more closely in tourism planning can ensure that the benefits of public investment extend to all members of the community.”

7. Conclusions and Recommendations

7.1. Conclusions

In this study, we investigated the perceptions and expectations of tourists regarding sustainable tourism in the Sharr Mountains Region. The data analysis has highlighted some important conclusions that aim to help build sustainable tourism in this natural and cultural area.

Tourists highly value the importance of sustainable tourism and the use of natural and cultural resources. Close cooperation with local authorities and the active involvement of the local communities are seen as essential for the development of sustainable tourism.

The current impact of tourism on the local environment and culture is felt by tourists, with some mixed feelings. Measures are needed to limit pollution and the negative impact of tourism on the environment and culture. Environmental education for tourists is highly valued and seen as an effective tool to influence their behavior towards the environment and local culture.

Traffic management and tourism infrastructure development face different perceptions from tourists. This points to the need for careful planning to prevent pollution and provide a pleasant experience for tourists. With these results in mind, sustainable tourism development in the Sharr Mountains Region will have to focus on involving local authorities and the local community, educating tourists about their impact on the environment and culture, as well as managing traffic and tourist infrastructure. These measures will help preserve and promote the values of this unique natural and cultural areas in the future.

7.2. Recommendations

- Identification and Evaluation of Public Investments
- Creation of a database containing detailed information on existing investments and their evaluation from the

perspective of sustainable tourism.

- Analysis of Tourists' Perceptions and Expectations.
- Creation of an action plan that includes specific measures for the involvement of local authorities and the community, guaranteeing an integrated approach appropriate to the local situation.
- Development of a detailed study on the impact of tourism development on the natural and cultural environment of the region.
- Proposing specific measures for the preservation and protection of natural and cultural values, including complex policies applicable to environmental pollution and the preservation of cultural heritage.

These recommendations define a detailed and integral approach to improving sustainable tourism in the Sharr Mountains Region, including all actors involved in the development and protection of this sector.

We recommend establishing local advisory committees involving community leaders and business owners to provide continuous feedback on tourism development projects. This approach, successfully implemented in Nepal's tourism sectors, could help integrate local priorities into public investment strategies in the Sharr Mountains.

Insights from sustainable tourism initiatives in Kosovo's mountainous and natural regions provide practical strategies for the Sharr Mountains. For instance, Brezovica Ski Resort, a major tourist destination in Kosovo, has received public investments that prioritize seasonal infrastructure, allowing it to support winter tourism while mitigating environmental impacts. Similar investments in infrastructure and waste management in the Sharr Mountains could address challenges related to seasonality and sustainability.

In Rugova Valley, community-based tourism has led to economic benefits for local residents and enhanced conservation efforts. By involving local communities in tourism management, Rugova Valley has maintained a balance between tourism growth and environmental preservation, a model that could be adapted for community-based tourism in the Sharr Mountains. Lastly, Germia Park in Prishtina demonstrates effective public investment in waste management and accessibility infrastructure, showcasing practices that could help manage tourist flow and environmental impact in the Sharr Mountains.

To address community concerns and maximize the benefits of public investment, we recommend that local authorities establish advisory boards with community representatives. Such engagement can ensure that tourism projects reflect the needs of residents, support local businesses, and safeguard the region's natural and cultural heritage.

Author Contributions

Conceptualization, A.T. and M.L.; methodology, M.L. and A.T.; software, A.T.; validation, A.T., M.L.; formal analysis, A.T.; investigation, M.L.; resources, A.T.; data curation, M.L.; writing—original draft preparation, A.T.; writing—review and editing, M.L.; visualization, M.L.; supervision, A.T.; project administration, A.T.; funding acquisition, M.L. All authors have read and agreed to the published version of the manuscript.

Funding

The author provided financing for the publication of this paper.

Institutional Review Board Statement

The data contained in the study are only in numbers and do not contain ethical violations. We do not have any statements given by the institution because this is a study done on its own initiative.

Informed Consent Statement

Written informed consent has been obtained from the patient(s) to publish this paper.

Data Availability Statement

The statistical data are obtained from the research done by the authors, there is no website where they can be found.

Conflicts of Interest

In this study, there is no form of conflict of interest.

References

- [1] Gossling, S., Hall, C.M., Scot, D., 2013. Tourism and water. Channel View Publications: Bristol, UK. pp. 1–245.
- [2] Mihalic, T., 2016. Sustainable-Responsible Tourism Discourse-Towards “Responsustable” Tourism. *Journal of Cleaner Production*. 111(part B), 461–461. DOI: <https://doi.org/10.1016/j.jclepro.2014.12.062>
- [3] Aaker, J.L., 1999. The Malleable Self: The Role of Self-Expression in Persuasion. *Journal of Marketing Research*. 36(1), 45–57.
- [4] Creswell, J., 2009. *Research Design: Qualitative, Quantitative and mixed methods approaches*, 3rd ed. Sage Publications: Thousand Oaks, CA, USA. pp. 1–270. Available from: https://www.ucg.ac.me/skladiste/blog_609332/objava_105202/fajlovi/Creswell.pdf
- [5] Weaver, D., Lawrton, L., 2014. *Tourism management*, 5th ed. John Wiley & Sons: Milton, QLD, Australia. pp. 1–600.
- [6] Giaoutzi, M., Nijkamp, P. (Eds.), 2017. *Tourism and Regional Development: New Pathways*. Routledge: London, UK. pp. 1–322.
- [7] World Tourism Organization. 2015. United Nations declares 2017 as the International Year of Sustainable Tourism for Development. UNWTO. Available from: <https://www.unwto.org/archive/global/press-release/2015-12-07/united-nations-declares-2017-international-year-sustainable-tourism-develop>
- [8] Enright, M.J., Newton, J., 2004. Tourism destination competitiveness: A quantitative approach. *Tourism Management*. 25(6), 777–788. DOI: <https://doi.org/10.1016/j.tourman.2004.06.008>
- [9] Uncles, M.D., Dowling, G.R., Hammond, K., 2003. Customer loyalty and customer loyalty programs. *Journal of Consumer Marketing*. 20(4), 294–316. DOI: <https://doi.org/10.1108/07363760310483676>
- [10] Garrett, T., Klonoski, R., 2007. *Business Ethics*, 3rd ed. Prentice Hall: Englewood Cliffs, NJ, USA. pp. 50–75.
- [11] Kim, L.H., Kim, D.J., Leong, J.K., 2005. The Effect of Perceived Risk on Purchase Intention in Purchasing Airline Tickets Online. *Journal of Hospitality & Leisure Marketing*. 13(2), 33–53. DOI: https://doi.org/10.1300/J150v13n02_04
- [12] Alegre, J., Cladera, M., 2010. Analyzing the effect of satisfaction and previous visits on tourist intentions to return. *European Journal of Marketing*. 43(5/6), 670–685.
- [13] Gallarza, M.G., Saura, I.G., Garcia, H.C., 2002. Destination image: Towards a conceptual framework. *Annals of Tourism Research*. 29(1), 56–78.
- [14] Hall, C.M., Page, S.J., 2014. *The Routledge handbook of tourism in Asia*. Routledge: London, UK. pp. 1–416.
- [15] Hoffman, K.D., Bateson, J.E.G., 2017. *Essentials of services marketing*. Dryden Press: Boston, MA, USA. pp. 100–120.
- [16] Prebensen, N.K., Woo, E., Chen, J.S., et al., 2013. Motivation and Involvement as Antecedents of the Perceived Value of the Destination Experience. *Journal of Travel Research*. 52(2), 253–264. DOI: <https://doi.org/10.1177/0047287512461181>
- [17] Paudel, B., Wang, Z., Zhang, Y., et al., 2021. Climate Change and Its Impacts on Farmer’s Livelihood in Different Physiographic Regions of the Trans-Boundary Koshi River Basin, Central Himalayas. *International journal of environmental research and public health*. 18(13), 7142. DOI: <https://doi.org/10.3390/ijerph18137142>
- [18] Sparks, B.A., Browning, V., 2011. The impact of online reviews on hotel booking intentions and perception of trust. *Tourism Management*. 32(6), 1310–1323.
- [19] Alegre, J., Tahiri, A., Kovaçi, I., et al., 2022. Sustainable Tourism as a Potential for Promotion of Regional Heritage, Local Food, Traditions, and Diversity-Case of Kosovo. *Sustainability*. 14, 12326.
- [20] Wang, Y., Davidson, M.C.G., 2010. Pre-and post-trip perceptions: an insight into Chinese package holiday market to Australia. *Journal of Vacation Marketing*. 16(2), 111–123.
- [21] Nepal, S. K., Chipeniuk, R., 2015. Mountain tourism: Toward a conceptual framework. *Tourism Geographies*. 7(3), 313–333.
- [22] Salukvadze, G., Michel, A.H., Backhaus, N., et al., 2024. From Tradition to Innovation: The Pioneers of Mountain Entrepreneurship in the Lesser Caucasus. *Mountain Research and Development*. 44(3), R14–R21.
- [23] Meyer-Cech, K., Pröbstl, U., 2006. Sustainable Tourism in Mountainous Regions. *WIT Transactions on Ecology and the Environment*. 97(11), 221–232. DOI: <https://doi.org/10.2495/ST060221>
- [24] Bujdosó, Z., Dávid, L.D., 2013. Extreme sports and other activities in tourism with special regard to the Mátra Mountain. *Journal of Physical Education and Sport*. 13(1), 39–45.
- [25] Nimani, P., Maloku, A., Avdija, S., 2023. The impact of the Auditor General on public administration control [Special issue]. *Corporate Law & Governance Review*. 5(2), 156–163. DOI: <https://doi.org/10.22495/clgrv5i2sip2>