

Article

Empirical Investigation of the Motivation and Perception of Tourists Visiting the Apuseni Nature Park (Romania) and the Relationship of Tourism and Natural Resources

Tamás Telbisz ^{1,*} , Zoltán Imecs ², András Máthé ² and László Mari ¹ 

¹ Department of Physical Geography, Eötvös Loránd University, Pázmány Péter Sétány 1/C, 1117 Budapest, Hungary

² Department of Geography in Hungarian, Babeş-Bolyai University, Strada Mihail Kogălniceanu, 400347 Cluj Napoca, Romania

* Correspondence: tamas.telbisz@ttk.elte.hu

Abstract: As part of an international project, national parks and nature parks established in karst regions are examined, with a primary focus on how local residents, visitors and influential figures (i.e., park managers, mayors) perceive the advantages and disadvantages of a specific park. The study area in this paper is the Apuseni Nature Park (Romania). The main natural resources of this park are: the karst (morphology and hydrology), the forests and the landscape. In order to explore the perception and motivation of tourists visiting the park, a field survey using a convenience sampling strategy was conducted in 2019 and 2021 at eleven sites in the park. The results show that among the motivations, the “search for relaxation” option is the most frequently selected (43%), but “interest in caves” (34%) and “interest in karst terrains” (29%) were also relatively popular. In terms of public support for potential developments, one positive result of the questionnaire is that developments involving sustainability and nature conservation (visitor centre, education trails and viewpoints) enjoy significantly more support than developments that put a strain on the environment (adventure parks and expansion of entertainment facilities). The awareness of geotourism should be improved, but even at the current level it can be said that geotourists are an important segment of the park’s visitors. A careful development of tourism can be recommended for the park, but it must ensure that the principles of sustainability are taken into account during the developments. Given the environmental and economic challenges, strengthening the organization of the park is suggested in order to better protect the threatened natural resources.

Keywords: nature park; protected area; motivation; questionnaire; geotourism; geoheritage; karst; Apuseni Mountains



Citation: Telbisz, T.; Imecs, Z.; Máthé, A.; Mari, L. Empirical Investigation of the Motivation and Perception of Tourists Visiting the Apuseni Nature Park (Romania) and the Relationship of Tourism and Natural Resources. *Sustainability* **2023**, *15*, 4181. <https://doi.org/10.3390/su15054181>

Academic Editor: Kyle Maurice Woosnam

Received: 21 January 2023

Revised: 16 February 2023

Accepted: 23 February 2023

Published: 25 February 2023



Copyright: © 2023 by the authors. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction

Karst regions have specific natural features and resources that directly or indirectly influence socio-economic development. Karst features are formed by rock dissolution, mostly on limestone, dolomite and gypsum terrain, and are characterized by special landforms and hydrologic characteristics such as dolines, caves or large springs [1]. The first scientific summary of the karst phenomena was published by Jovan Cvijić [2], and therefore, he is considered to be the “father of karst geomorphology” [3]. The availability of water, for example, is limited on karst plateaus (where water collection is only possible via cisterns), so these landscapes are limited in terms of human settlement. On the other hand, karst springs with abundant water offer good opportunities for settlement mainly at piedmont areas. Due to the poor, thin nature of karst soils, tillage opportunities are limited, and thus, karst areas are more suitable for animal husbandry and the preservation of forests. Steep, rocky mountain slopes are obstacles for traffic. Due to these factors, karst regions

are mostly sparsely populated areas. In recent years, a number of articles have quantitatively demonstrated that population density is low in many European karst regions, and that population levels have generally been falling in the last 50–100 years. Examples of this include the Velebit Mountains (Croatia [4]), the Gömör-Torna-karst (Hungary, Slovakia [5]), the Apuseni Mountains (Romania [6]), the Tara Mountains (Serbia [7]) and the wider environment of the Krka National Park (Croatia [8]). In general, rural areas in the mountains are especially prone to depopulation [9–15]. On the other hand, karst areas often exhibit high biodiversity [16]. Furthermore, karsts have special landforms (dolines, collapse sinkholes, caves and gorges). All of the above may contribute to the establishment of protected areas in karst regions and may play a role in the surge in nature-based tourism. Figure 1 summarizes the relationships between the above factors. The factors leading to depopulation cannot be stopped, but the benefits associated with protected areas can somewhat alleviate the problems [13,14,17–20]. Since the 2000s, it has been increasingly emphasized that protected areas should also contribute to the regional socio-economic development [21–23]. Today, this goal is explicitly formulated even in the IUCN recommendations for protected areas [24]. Thus, the relationship between natural resources and socio-economic development is a highly important issue in the case of karst regions.

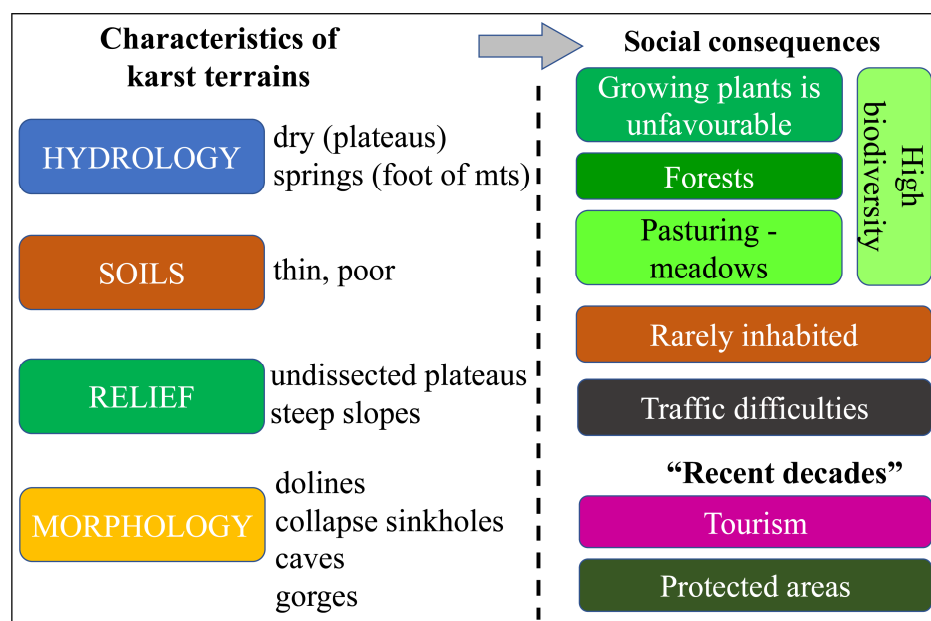


Figure 1. Impact of karst on society.

In recent decades, the number and extent of protected areas has been increasing at the global level [25]. Additionally, tourism in protected areas is becoming more and more important, both globally and in Romania [26]. The relationship between growing tourism and protected areas has both advantages and disadvantages for protected areas [27]. First, one advantage is that incomes from tourism can contribute to the achievement of nature protection goals, provided that these incomes are actually used for this purpose. Another advantage is that tourism can provide job opportunities and income for the local population [21]. Of course, it does matter what proportion of local residents benefits from these revenues. The ecotourism contribution to the local economy and environmental sustainability should not be taken for granted [28]. Furthermore, it must be taken into account that growing tourism also has certain negative consequences: traffic in vulnerable areas increases, more and more waste is generated and new roads and buildings are created, which can take away space from nature. All of these aspects must be considered when thinking about the relationship between tourism and protected areas. In certain cases, the protection of an area is only formal, i.e., the protection of the area appears in a law or a decree, but the state does not create an institution that handles the management

of the protected area. Areas protected on paper but not in practice are called “paper parks” [29,30]. However, in an ideal case, all actors understand and comply with the rules associated with the nature conservation status [31]. Important players in this system are the institution of the protected area and its employees, who mostly (though not everywhere) actually represent the state in the area [32]. Other important actors are local residents, companies operating locally (mainly tourism companies, forestry companies and extraction companies, but also all kinds of industrial and agricultural actors), as well as tourists visiting protected areas.

Tourism can only benefit people if it is sustainable. The concept of sustainable tourism (ST) appeared at the end of the 1980s and is closely related to “green tourism” [33,34]. The sustainability of tourism is especially important considering that tourism is one of the most important sectors in the global economy [34]. In addition, tourism is likely to constitute the most significant commercial use of protected areas [28]. ST can be defined as “meeting the needs of present tourists while protecting and enhancing opportunities for the future” [35], or in other words “seeking a more productive and harmonious relationship between the visitor, the host community and the place (thereby achieving) a situation which can be maintained without depleting the resource, cheating the visitor or exploiting the local population” [36]. In fact, the mainstream tourism of our era is far from being sustainable [37]. The principles of ST are the following: reducing over-consumption and waste, maintaining diversity, integrating tourism into planning, supporting local economies, involving local communities, consulting stakeholders and the public, training staff, marketing tourism responsibly and supporting research [36,38]. Since local communities play a key role in ST, so-called “community-based tourism” (CBT)—which is in fact an older idea—can be thought of as part of ST [39]. Forest ecosystems often form an integral part of ST. Forests provide numerous ecosystem services and have several functions in ST. In addition to providing food and fuel, forests are very important in carbon capture, biodiversity conservation, the protection and controlling of (karst) aquifers, (eco)tourism, recreation, education and cultural enrichment [16,40,41]. Today, there is mounting pressure on protected areas due to the increasing tourism development. In order to mitigate these pressures, nature-based solutions are necessary such as GIS-aided visitor monitoring and management or sustainable financing, among other tools [28]. It is also necessary to better understand visitors’ preferences and motivations [28,42,43].

Based on the above points, two general issues are studied in the framework of an international project [44]: (1) Whether protected areas are really for the benefit of local inhabitants; and (2) What the impact of tourism on the natural resources of protected areas is. In this project, these issues are examined for some selected national parks and nature parks in karst regions in Eastern Central Europe and South East Europe.

This paper studies the Apuseni Nature Park (hereinafter: ANP) in Romania. In Romania, natural parks are the most significant type of protected areas, as 55% of protected areas fall into this category [45]. Previously, using questionnaires, it was investigated how local residents relate to ANP [46]. In another article, certain aspects of forest management were examined within the area of ANP because many people (local people and visitors alike) stated that serious deforestation occurs in this area [47]. Using satellite imagery, it was demonstrated that while it was true that the total forest area showed a slight downward trend in recent decades, the buffer areas around the park exhibited a much faster decline. Thus, the nature park is able to slow down deforestation. This article examines another element of the park–forestry–local population–tourism system: the relationship between tourists and the nature park. The main questions are:

- What are tourists’ motivations to visit ANP?
- Which information sources do tourists use to obtain information on ANP?
- What knowledge do tourists have about the concepts of “karst” and “geotourism”?
- What do tourists think about the various development opportunities?

The general goals of nature parks are the protection of biological values, protection of geoheritage, protection of the landscape, protection of cultural heritage, scientific research,

education and the promotion of tourism [24,48]. Regarding these goals, the following question is asked:

- How do ANP's visitors assess the various goals that are generally associated with nature parks?

The questions above have been studied in several protected areas around the world using questionnaire surveys [43,46,49–59]. Thus, we also decided to use this methodology, i.e., to conduct a questionnaire survey to explore these questions in the case of ANP.

Based on the empirical investigation, and taking into account other opinions from interviews and literature, the dominant natural resources of ANP are also briefly analysed. Thereafter, it is presented how the motivation and perception of tourists affect the sustainability of tourism, and finally, the main threats to natural resources are discussed.

2. Materials and Methods

2.1. Study Area

ANP is located in the western part of Romania (Figure 2). The 767 km² area of the nature park includes only a relatively small, west-central portion of the entire Apuseni Mountains. Karst terrains can be found in about half of the ANP area [6]. The larger part of the ANP karst terrains are fluviokarst, which is very important from a human viewpoint as the availability of water in these areas is much better than in holokarst terrains; thus, fluviokarst generally offers more favourable conditions for human settlement. Furthermore, fluviokarst enables the development of a more varied morphology than holokarst. In addition to karst rocks (mainly limestone), other sedimentary (sandstone and conglomerate), metamorphic and igneous rocks increase the geodiversity of the area [60]. Topographically, the territory of ANP belongs to mid-mountains (the average elevation is 1120 m asl). A total of 70% of its area is covered by pine and deciduous forests, while the rest is covered by pastures, grasslands and, to a lesser extent, built-up areas [47]. ANP is an exceptionally rainy area: the amount of precipitation can exceed 1400 mm per year [60]. The settlements have typically a dispersed structure, and a total of about 10,000 people live within the boundaries of ANP. Of the 53 settlements within the area, 43 have a population of less than 300 people [46].

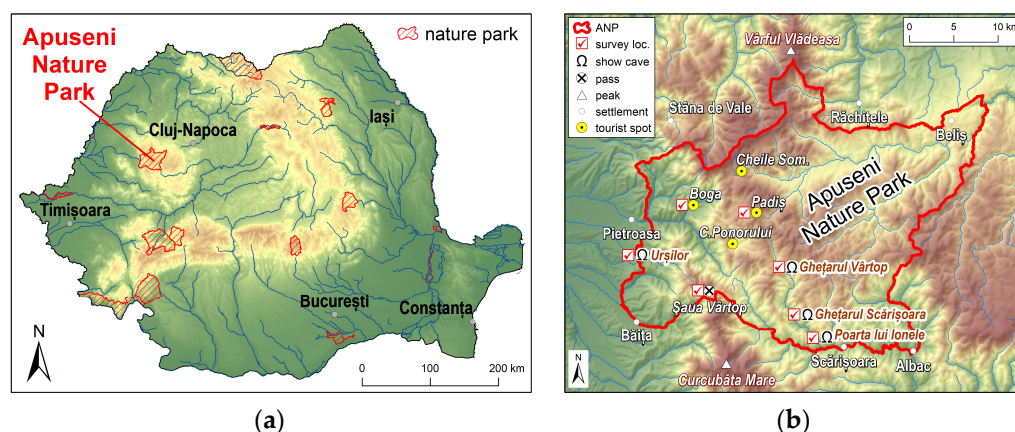


Figure 2. (a) Location of Apuseni Nature Park in Romania; (b) survey locations, popular tourist sites and show caves in Apuseni Nature Park.

Using GIS-based demographic analysis, Telbisz et al. [6] demonstrated for the entire Apuseni Mountains that until the middle of the 20th century, the population grew extensively, and the growing population gradually inhabited higher and higher mountain areas. The turning point came in 1941, and since then, the population has been decreasing, at an accelerating rate since the 1990s. This process is clearly observable in the gradual depopulation of higher-lying settlements, where aging and outmigration are very typical. The remaining population in these small settlements earns income through traditional

mountain farming and animal husbandry [61]. It is noted that today these activities are supported by the EU. Forest management is also an outstanding issue for these mountain settlements. It was found that people have significantly influenced the forests in these mountains since the Middle Ages [62,63]. Today, the dominant player in this sector is the National Forestry Administration (ROMSILVA, [61]). It is a quite special situation that ANP, which is a nature protection organization, is subordinated to ROMSILVA [60].

Tourism is also an increasingly important source of income [61]. Tourism started here in the 19th century and gained even more popularity in the 20th century [64–66]. The reason for this is primarily the karst terrain, which features extremely spectacular surface and subsurface landforms. The most important of these attractions are: *Cetățile Ponorului*—a giant collapse sinkhole with a cave system; *Ghețarul Scărișoara*—a large ice cave; *Bear Cave (Peștera Urșilor)*—a show cave with speleothems and fossils; *Padis Plateau* as a whole; and several gorges. The geotouristic significance of these forms was emphasized by Cocean and Cocean [67]. They also highlighted the importance of related geotourism evaluations. The number of tourism facilities—pensions, restaurants and shops—has been continuously rising in recent decades [66,68,69]. The park area is not closed off and there is no entry ticket; thus, there are no precise data on the number of tourists entering ANP, except for the show caves. In the past decade, there were 128,000 annual visitors of the four show caves of the area on average, taking into consideration all four caves (data from ANP Administration). According to National Statistical Institute data, there are 114 accommodation facilities in the municipalities intersected by the park, with a capacity of more than 2500 beds. Tourist overnights spent in these municipalities amount to more than 110,000 a year [69]. It is presumed that the real number of tourists is significantly higher, as not all of them are officially registered [46]. Moreover, there are also some free camping areas within ANP, where the number of tourists is not registered. Altogether, the park administration estimates that the number of visitors is around 500,000 a year. In addition to cave visits, hiking-type tourism is also very popular. In a study examining the profile of ecotourists visiting ANP, the following percentages were attributed to the different activities: hiking—92%; caving—21%; alpinism—12%; horseback riding—8%; and cycling—4% [70]. Cultural values are also significant, primarily because of the mountain people who live here, the “Moți”, whose traditional lifestyle and ethnographic characteristics also represent important heritage [60,71,72]. The above conditions contribute to a high potential for agritourism in the Apuseni Mountains that is discussed in detail in [73].

The protection of the area also has a long history and has undergone several stages of development. As early as the 1920s, it was proposed to create a national park there [61]. The first protected elements inside the park were certain caves, the *Scărișoara ice cave* in 1938 and *Cetățile Ponorului* in 1955. The first scientific documentation considering the nature protection of a larger area was published in the 1970s. In 1990, the area was declared a “national park” [61]; however, this declaration was not followed by the establishment of an actually functioning administration, and so it became a “paper park” [74]. In 2000, as part of the National Spatial Planning Plan, Section III on protected areas, it was transformed into a “nature park”, which corresponds to IUCN Category V, Protected Landscape. In fact, the park administration was only established in 2004 [74]. At present, the park area includes three Natura 2000 sites, and another 55 protected areas, mainly nature reserves and natural monuments, of which 41 are of karstic origin. Based on the questionnaire survey of local residents [46], the perception of the nature park is not clearly positive as only slightly less than half of the local respondents (46.2%) stated that the nature park is rather good (or very good) for them. This is consistent with [65], stating that “rural communities are very much against the idea of integral protection, which doesn’t seem to be in line with their development strategies”. At the same time, the vast majority of local residents agree with the development of tourism, which is proven by the fact that 91.2% of the local respondents said that “more tourists would be better” [46].

2.2. Methods

In order to answer the questions formulated in the introduction, a field questionnaire survey was conducted at some popular tourist locations (hiking trailheads and cave entrances) in ANP in the summer and autumn of 2019, as well as the summer of 2021. The survey locations (Boga, Ghețarul Vârtop, Ghețarul Scărișoara, Padiș, Peștera Urșilor, Peștera Poarta lui Ionele and Șaua Vârtop,) are shown in Figure 2b. Questionnaires were completed in the field, with direct, face-to-face questioning. The method of convenience sampling was used. Thus, the results are not strictly representative in the statistical sense, but they are nevertheless suitable for the evaluation and analysis of characteristic proportions in the views and attitudes of visitors. Most of the visitors are domestic, but many come from Hungary, as well as from other countries. Therefore, the questionnaires were prepared in three languages: Romanian, Hungarian and English. As a significant number of people of Hungarian ethnicity live in Romania, some of the visitors who live in Romania but are of Hungarian ethnicity filled out the questionnaire in Hungarian. Among those filling in the questionnaire in Romanian, there are Romanians living abroad. Therefore, in the following, where certain answers are classified by language, it always means the language of completion, which is not always the same as the country of residence of the actual respondent. The questionnaires were basically the same in each language, but compared to the Romanian-language questionnaire (hereinafter: RO), there were some slight differences in the Hungarian (HU) and English (EN) versions. The latter two were identical to each other. The Romanian questionnaire contained 28 questions, while the Hungarian and English 24 each, mainly closed-ended questions, but there were also some open-ended questions, as well as some Likert-type evaluations. The questions covered the following topics: basic demographic data; means and aims of tourism; awareness about karst and geotourism; motivation to visit ANP; source of information about ANP; satisfaction rate with local services; attitude towards development opportunities; evaluation of nature protection goals. The answers were evaluated using descriptive statistics in MS Excel. The results, where not otherwise specified, are given as a percentage of the total number of respondents to the given question.

In addition, the results of the questionnaire survey that examined the views and opinions of local residents are also referenced in some places [46]. That questionnaire survey was conducted in the summer of 2019 and in the summer and autumn of 2021. Questionnaires with locals were conducted at eleven locations, at the entrances to major tourist caves and other busy tourist sites or in villages situated near the park. Questionnaires were completed in the field, with direct, face-to-face questioning.

The preparation of the questionnaires, the results and several other issues related to the nature park were discussed with the director of Apuseni Nature Park.

3. Results

A total of 418 people completed the questionnaire: 227 in Romanian, 131 in English and 60 in Hungarian. The gender ratio is equal (51% women and 49% men). By age, the young middle-age (31–50 years: 37%) and young adult (19–30 years: 33%) categories dominate. In terms of education, those with a higher education are in the majority (61%), while those with a secondary education make up roughly one third (35%), and those with a primary education account for only 4% (Figure 3). In similar nature-protection-related questionnaires, a high proportion of respondents with higher education is quite typical [52,55,75].

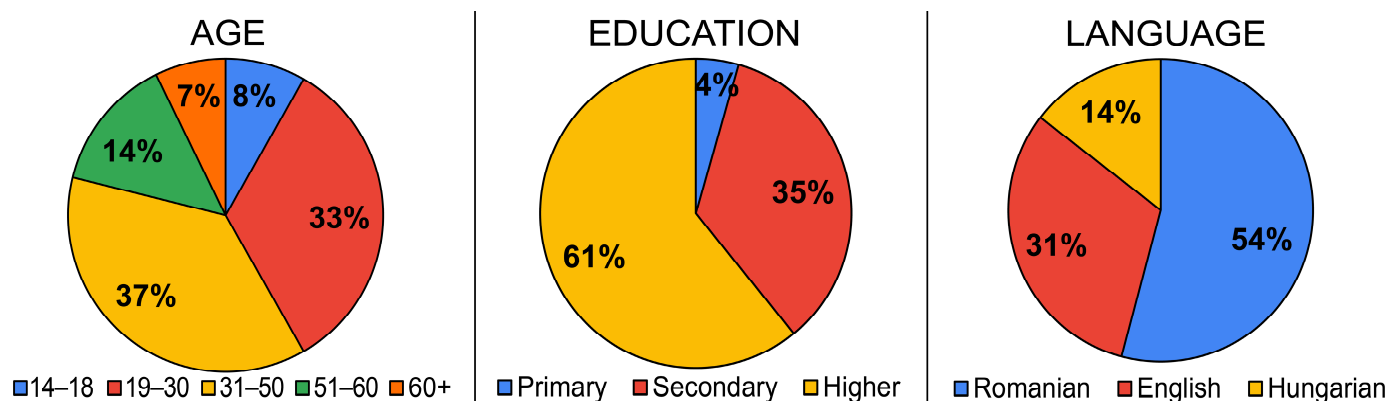


Figure 3. Respondents by age, education and language.

As for the transport mean of tourists, the automobile is extremely important (RO: 89%; HU: 73%; EN: 81%), which is not favourable in terms of environmental impact. Regarding the group structure of the visitors, the “family” option is the first among those completing the questionnaire in RO (56%), while among those completing the questionnaire in HU, the “family” and “independent group” options have the same weight (35 and 34%, respectively), while in the case of those completing the questionnaire in EN, the “independent group” is the majority (55%). This indicates that foreign tourists arrive here in a different arrangement than domestic tourists, and that organized groups are quite rare. The small number of organized groups is also partly influenced by the fact that in 2021, due to the COVID pandemic, organized groups generally represented a much lower proportion in tourism than in the years before COVID-19 (cf. [8]). Most of the visitors come to ANP for several days (RO: 84%; HU: 65%; EN: 54%), which indicates that there are plenty of attractions and hiking opportunities there. Moreover, from the point of view of tourism, one favourable characteristic is that most visitors come to the park for several days, while single-day, transiting tourists are less common. As for accommodation, it can be considered relatively special, in an international comparison, that the role of “sleeping in tent” is quite high (RO: 27%; HU: 43%, EN: 40%) among different accommodation possibilities. Most of the rest of the respondents sleep in small lodgings and only a relatively small portion stays in higher category hotels. The high number of recurring tourists (RO: 65%; HU: 54%; EN: 22%) is also favourable because recurring tourists are (in principle) more interested in how they leave the environment, as they plan to return to the area. In accordance with the characteristics of the karst area, the majority of tourists visit the show caves, as well as some freely visitable caves, and they also take surface hikes.

The question about motivation contained slightly different options in the RO language version than in the HU and EN versions. The results (Figure 4) show that the most important answer is “looking for relaxation”, while the second is “I like to visit parts of my country”. These can be considered as very general motivations. Among foreigners (HU, EN), the option that this is a “remote, rural land” is very important as well. It is reasonable because this type of rural land with the traditional way of life can be found really rarely in other parts of Europe, and so it is logical that this motivation is mentioned by many foreign visitors. In addition to the above general motivations, the desire to learn about “caves” and “karst areas” is less typical, though the main attractions are in fact closely related to karst.

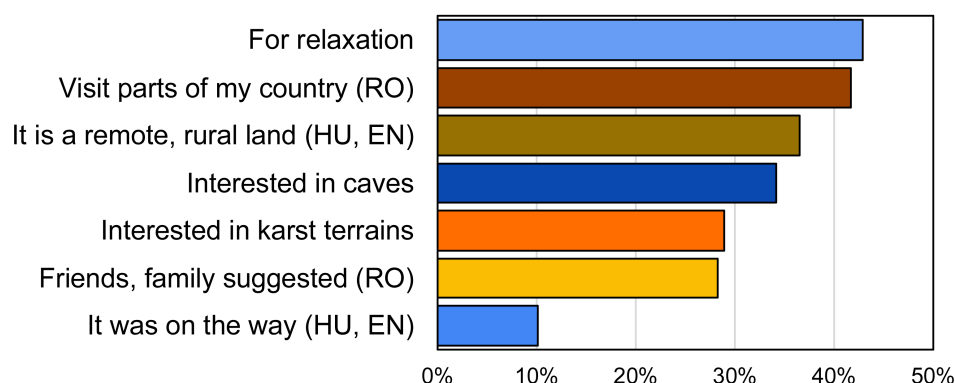


Figure 4. Motivations to visit ANP.

People are also often influenced in their travel decision by well-known “labels”, such as World Heritage listing or a “national park” in general [76]. A “label” like this is often thought of as a kind of guarantee that the traveller will see something really interesting or spectacular. In this case, as ANP is a nature park, people were asked about how important the label “nature park” was for them in choosing ANP as a travel destination. With this question, according to the language of the questionnaire, there were quite different answers (Figure 5): for about half of the HU respondents (46%) it was “not important at all”, while for almost half of the RO and EN respondents (47% and 50%, respectively) it was “very important”.

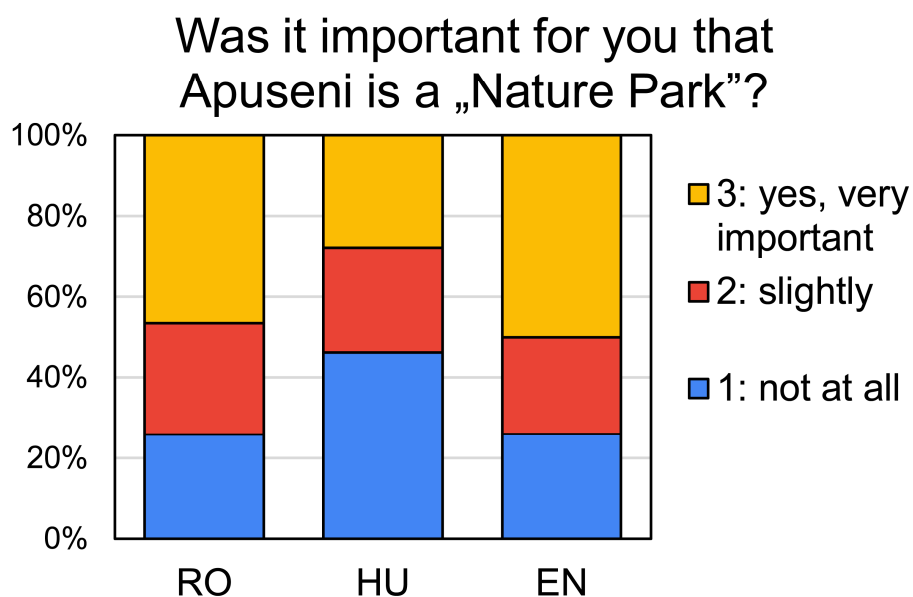


Figure 5. Importance of the “nature park” label in choosing ANP.

Travel motivations and the travel decision are also significantly influenced by the information available on the target area, so it was also important for us to examine how people obtain information about ANP. The evaluation of these answers (Figure 6) shows that not surprisingly, for those coming from further afield (the EN respondents), the “internet” is the most important source of information. On the other hand, for RO and HU respondents, “personal information” proved to be the most significant response.

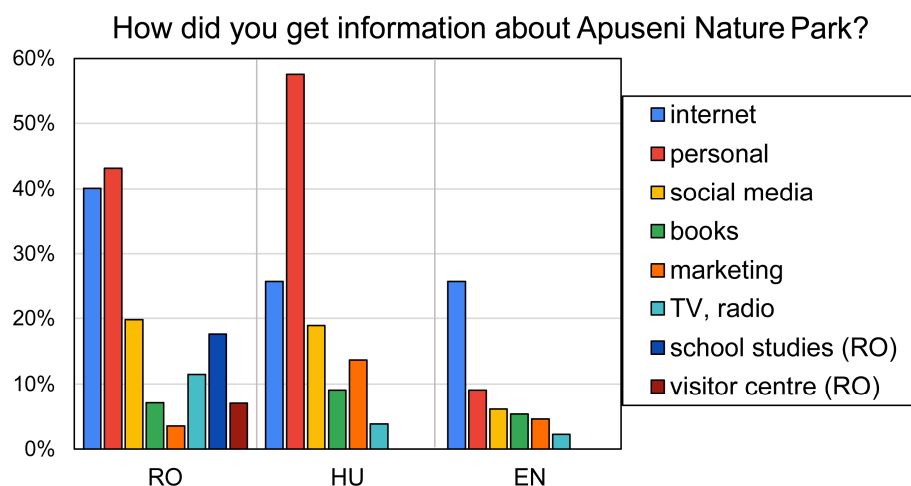


Figure 6. Source of information about ANP.

It is also interesting to explore the knowledge of visitors about the term “karst” in an area where karst landforms have an outstanding importance among the attractions. Similar surveys show that people generally have a relatively low level of knowledge about “karst”, although the situation is somewhat better for countries where there is a high proportion of karst [8,50]. In the first part of the question, people could answer with Yes/No whether they know the word “karst”, while in the second part, the respondents were asked to briefly describe what this word means. Thereafter, the answers were categorized as follows: “incorrect” (if the respondent did not write any meaningful information about the karst); “somewhat correct” (if the respondent mentioned one or two karst forms such as caves); “correct” (if limestone was included in the answer); “perfect” (if “dissolution of rocks” or a list of both surface and subsurface karst landforms was mentioned in the answer). Of course, these are simplistic categories from the point of view of a karst researcher, but they are suitable to provide a concise overview of the answers. In fact, only a smaller proportion of the people answered the second part of the question (RO: 45%; HU: 46%; EN: 24%), and of those who answered it, only some of them could give a correct or perfect answer (Figure 7).

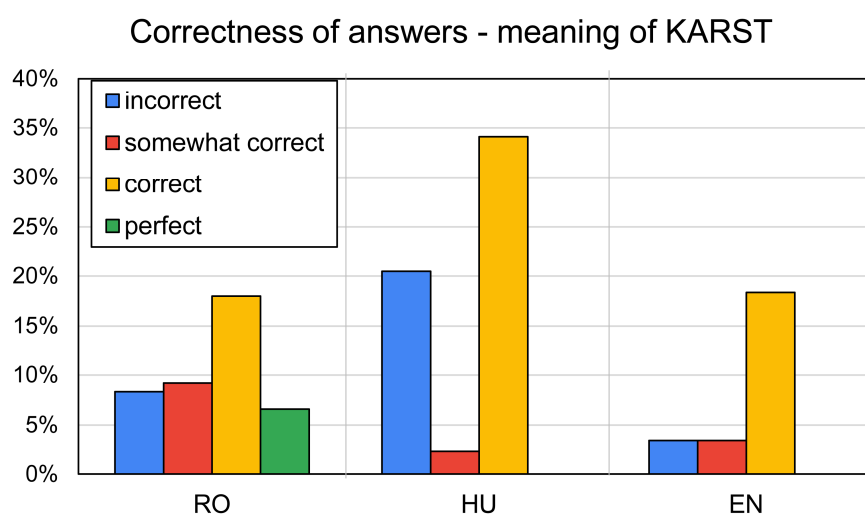


Figure 7. Visitors’ knowledge about the meaning of “karst”.

While “karst” is a word describing a range of natural phenomena, “geotourism” is a social phenomenon, a specific tourist concept, which has only been used in this form for a decade or two, even though the phenomenon, i.e., visiting geological values for tourist purposes, has been around for a long time [77]. Definitely, the importance of geotourism

has been increasing lately, and the growing awareness of geotourism can play an important role in the organization and marketing of tourism in areas rich in geoheritage. Therefore, it is a meaningful question whether people know the concept of geotourism at all and whether they consider themselves geotourists. Of course, this latter question is not that simple because the literature distinguishes several types of geotourists [78,79]. However, it is not possible to precisely outline who is which type of geotourist based on a questionnaire that contains many other questions as well, and thus, the number of questions related to geotourism is minimised. Eventually, the following questions were formulated in the questionnaire: “Have you ever heard the expression: ‘geotourism’?”, and “Are you to some extent a geotourist?” The second question focussed on the proportion of *sensu lato* geotourists. As for the first question, about half of the respondents (RO: 51%; HU: 54%; EN: 49%) claimed to be familiar with the concept of geotourism. Nonetheless, this may be a higher percentage than in reality, since some people do not like to admit that they do not know the meaning of a word. In any case, these answers show a significantly higher proportion than the result of the survey conducted among local residents, in which 19% of the respondents claimed to know this term [46]. As for the second question, slightly less than one-third of visitors declared themselves to be geotourists “to a certain extent” (RO: 29%; HU: 28%; EN: 31%), which is a relatively high proportion compared to other similar surveys [50,51].

In connection with developments related to tourism, five ideas were raised, which visitors could evaluate on a 1–4 grade Likert scale (1: I’m absolutely against it; 2: I’d rather not support it; 3: I’d rather support it; 4: I’d find it desirable; x: I have no opinion). These development ideas included the following options: construction of new visitor centres; new educational and hiking trails; new panorama points; new adventure parks; new entertainment facilities. The results (Figure 8) indicate that support for the first three points, which are more consistent with nature conservation, are significantly more supported than the last two. This implies that the majority of tourists think that the goals of nature conservation should also be taken into account during development that is in agreement with ST goals.

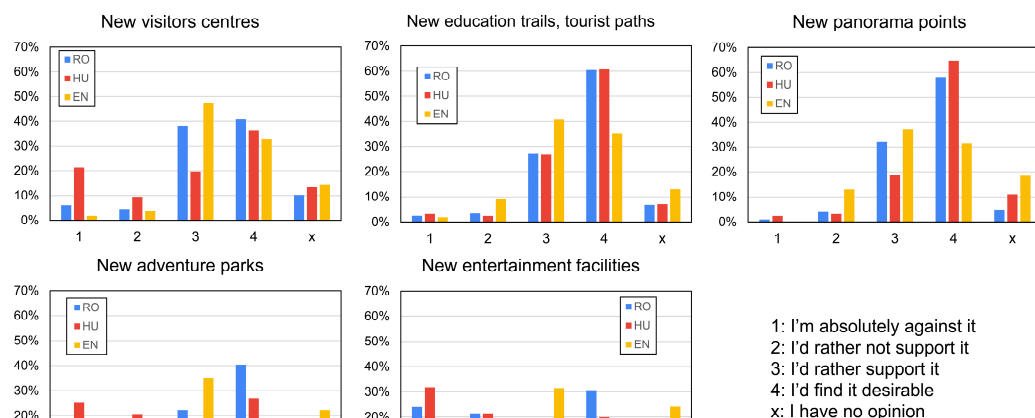


Figure 8. Support for various development ideas.

Finally, the last set of questions concerned how important the various goals of the nature park are according to visitors. These goals are: preservation of biological values (BIO), preservation of geological values (GEO), preservation of landscape (LAND), preservation of cultural heritage (CULT), scientific research (SCI), education (EDU), and tourism management (TOUR). Respondents could rate these goals on a scale of 1–5 (1: not important at all; 5: one of the most important). Figure 9 shows the average values of the responses. In this figure, the results of the questionnaires with local residents are also shown for comparison (data from [46]). This figure shows that tourists put the protection

of the landscape, and geological and biological values in first place with a similarly high priority, with a very small difference. As in many other similar surveys, education and scientific research are given lower priority by tourists. Tourists themselves consider the management of tourism to be of secondary importance, presumably because they think that tourism management does not necessarily belong to the tasks of the nature park but to other actors. Since ANP has basically a natural character and has few cultural monuments, the protection of cultural heritage received a lower evaluation. However, overall, according to the visitors, the average value of each goal is above 4.4 on a scale of 5.

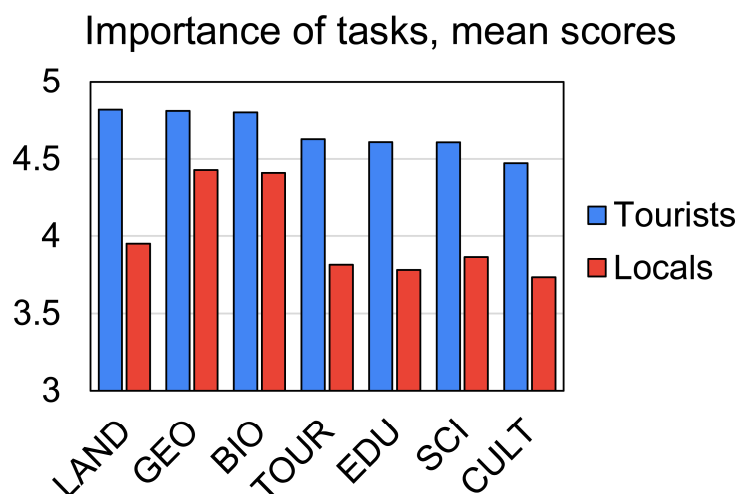


Figure 9. Importance of nature park goals on a 1–5 Likert scale according to visitors and local residents. LAND: preservation of landscape; GEO: preservation of geoheritage; BIO: preservation of biological values; TOUR: tourism management; EDU: education; SCI: science; CULT: preservation of cultural heritage.

In general, local residents gave slightly lower scores, which indicates that the attitude of local residents towards nature protection is somewhat less positive than that of visitors. In addition to the absolute differences, one can also see relative differences in the evaluation of nature park goals in two cases. One of these goals is the “protection of the landscape”, to which the local residents attach significantly less importance. This is a somewhat surprising result, perhaps indicating that the landscape is too “abstract” a concept for local residents, so they may feel that its protection is not a tangible goal for the nature park. The other goal with a relatively lower value is the “promotion of tourism”. This may indicate that the people living here do not expect the management of tourism from the nature park, but rather from other organizations. This is also a surprising result because in several other surveys [50,51] it is shown that the local residents gave particularly high scores for the promotion of tourism among national park goals. It means that in those parks, local people strongly expect the park to play an initiating and supporting role in tourism management.

4. Discussion—Threatened Natural Resources

In this section, our results are first compared with other similar empirical studies on the motivation of tourists visiting protected areas and discussed in an ST context. Thereafter, certain problems and conflicts are highlighted based on our field experiences and the questionnaire survey conducted in ANP.

Pachrová et al. [59] studied the Moravian Karst Protected Landscape Area in the Czech Republic and concluded that “protected areas are exploited mainly by educated people expecting an experience full of interesting information and things to do”. Similar results were reported by [80,81]. This is in line with the results presented above for ANP, which show a high proportion of people with tertiary education among the questionnaire respondents. Another similarity with the ANP survey is that the Moravian Karst study also reported a very high proportion of returning tourists (70%), which is also positively

assessed. Furthermore, the authors of the Moravian Karst study statistically demonstrated that “there is a significant difference between the main reason for visiting the destination among first-time visitors and among visitors repeatedly coming back. For repeat visitors the predominant reason is the desire for active leisure in the beautiful natural environment, whether for relaxing walks, hiking, or biking” [59]. These motivations are quite typical for ANP visitors as well. Our results also suggest that the protected status of the area has a variable influence on visitors’ choice. The fact that Apuseni is a nature park was “very important” in the decision of half of the respondents according to the RO and EN language questionnaires, but this option was selected by only a quarter of the respondents in the HU language questionnaires. Interestingly, a similar dichotomy can be observed for Aggtelek National Park (Hungary) and Slovak Karst National Park (Slovakia) [51], with 22% selecting “very important” in the former area, whereas 72% choosing “very important” for the latter. This shows that attitudes on protected areas vary considerably between countries, which is a topic worthy of further study.

As caves are an important part of ANP’s attractions, it is interesting to compare our results with studies that explicitly outline the profile of cave visitors. Kim et al. [42] investigated visitors of Hwansun Cave in South Korea using questionnaires and found the following motivational factors based on cluster analysis: escape-seeking group, knowledge- and novelty-seeking group, novelty-seeking group and socialization group. Although the questions in our study were somewhat different, the most frequent answer in the ANP questionnaires, “looking for relaxation”, can be paralleled with the “escape-seeking group”. Furthermore, the second most frequent answer, “visit parts of my country”, can be paralleled with the “knowledge- and novelty-seeking group”. Thus, the results of the Hwansun Cave study and the ANP survey show similarities in this respect. In a complex survey targeting Serbian cave visitors, Antić et al. [82] highlight that both natural and cultural values play a role in the motivations of show cave visitors. Furthermore, the latter authors also point out the constraints limiting cave visits. In addition to the general reasons that also hinder other forms of tourism, such as time, money, health and social constraints, there are also cave-specific constraints such as fear of the dark (nyctophobia) and closed spaces (claustrophobia).

Examining the sources from which visitors obtain information on protected areas, Pachrová et al. found that the internet is the most important medium (31%) and the second most important factor (27%) is personal information [59]. Similarly, for ANP, these information sources are the two most important factors, but in reverse order.

In the case of ANP, it has been found that around 30% of visitors can be considered geotourists in a broad sense. This is important because, as Vasiljevic et al. note [83], geotourists are mostly “local-community-oriented” and “environmentally aware”, characteristics that are particularly important for ST. Naturally, these characteristics are not limited to geotourists.

The management of protected areas in mountain landscapes is an extremely complex task [41]. Part of this task is ST development, which requires that the protected area authority, tourism operators and local residents work together, while taking into account the characteristics and diversity of tourists [28]. Sustainable visitor management is an important element of ST development. It focuses at a basic level on minimising the negative impacts of tourism on the area, for which various restrictions and limitations can be introduced. However, it is also possible to positively motivate visitors to act in accordance with the principles of sustainability [81]. In a study on the Moravian karst, it was found that the majority of visitors do not feel constrained by conservation measures [59]. Our survey in ANP did not contain direct questions on this aspect, but the results in relation to development plans suggest that visitors tend to favour measures that are compatible with environmental protection. However, if ANP is planning to introduce special conservation measures related to tourism, it is recommended to conduct a survey specifically focussing on this issue. Another study carried out in some national parks in Italy found that hiking guides can play a key role in communicating conservation messages and local, low-impact

economic practices to tourists [84]. Limiting the ecological footprint of tourism was identified as the main challenge in the above study. Certification schemes were also recognized as an important tool to encourage ecologically responsible tourism. The introduction of such schemes could be a good direction for ANP.

Considering the main natural resources of ANP from the point of view of tourism, three factors can be highlighted, which are of course not independent of each other. The *karst* (including morphology and hydrology), the *forests*, and the relatively unspoiled natural *landscape*. Of these, the karst morphology itself is perhaps less threatened by tourism. However, the formations of the freely accessible caves are exposed to vandalism. In addition, hiking paths are damaged from time to time, and rock wall failures occasionally occur, and the latter can pose a danger to tourists [67]. Today, there are lots of new GIS-aided tools to monitor the flow of visitors and to help replanning the hiking network [28]. Nonetheless, the hydrological features of the karst are more threatened. These include ice caves, in which the amount of ice decreases primarily due to global warming [85], but the presence of tourists in these caves also contributes to local warming and the melting of ice. The water of the surface and underground streams is directly threatened by the pollution present due to tourism. According to field experience, the collection of solid waste is not at an adequate level given the high number of tourists, especially in the overcrowded summer periods. Wastewater treatment is also not resolved (cf. [65]). The quality of the road network is also an important aspect from the viewpoint of tourism and natural resources. Previously, the road network, with the exception of the main road crossing the area, was of very poor quality, which made the access of some tourist destinations very difficult [86]. In recent years, however, there has been a significant improvement in the condition of roads, which has a dual effect. On the one hand, easier access increases the number of tourists, which increases the burden on natural resources [65]. On the other hand, the specific load caused by a single vehicle decreases if the road quality is better and if detours are not necessary to reach certain areas. Forests are also endangered, but the primary threat to forests is not tourists, but rather inadequate forest management [87]. Another threat related to tourism is the appearance of businesses interested only in maximising their profit. They already have a serious impact on the area, and this may further grow through large investments (hotels, ski slopes, etc. [65]). These investments damage the forests, harm the relatively unspoiled nature of the landscape and significantly increase the environmental burden.

The financial means of protected areas are often limited. Part of their budget is provided by the state, but in many places there is a growing expectation that they should be as self-financing as possible, which they can best achieve through tourism development [8,28]. However, protected area management must be careful of the development of for-profit tourism conflicting with the original objectives of the protected area, i.e., the preservation of natural values. This problem also arises in the case of ANP, where efforts must be made to ensure that the conservation goals are met. The protection of biological, geological and landscape values is the statutory objective of the protected area, and as the survey clearly demonstrated, visitors also overwhelmingly support these goals.

5. Conclusions

Based on the empirical investigation presented in this study, it is concluded that a favourable factor from the point of view of tourism is that the majority of tourists come to the ANP area for several days and that the proportion of recurring tourists is high.

Among the motivation of visitors, general motivations (namely: “relaxation”; “visit the countryside”; or in case of foreign tourists, “visit remote, rural land”) dominate, and thus, the values related to these must be preserved and taken into consideration in further developments. It is noted that the opinions and motivations of domestic and foreign tourists differ in some points, such as the importance of the “nature park” title. Among the natural attractions, the importance of karst formations is decisive, but the level of awareness about “karst” is relatively low, and thus, it is definitely worth improving knowledge about karst landforms and processes among the park’s visitors. Regarding support for different

development ideas, one positive result of the questionnaire is that developments in line with sustainability and nature conservation goals (e.g., creating visitor centre, education trails, viewpoints) enjoy significantly more support than developments that put a strain on the environment (such as adventure parks or the expansion of entertainment facilities). The awareness of “geotourism” can also be improved, but even at the current level, it can be said that geotourists represent an important segment among visitors of ANP.

The natural resources that form the basis of tourism are not threatened to an equal degree by the growth of tourism. Furthermore, tourism is not the only threat to these resources. The tasks of the nature park in relation to tourism can be formulated as follows: careful development of tourism is recommended, but the revenues from this must be returned to investments that promote sustainability. Firstly, to improve knowledge dissemination in order to increase ecological awareness. Secondly, for the proper management of solid and liquid waste. In addition, the nature park also has important regulatory tasks in relation to tourism, and thus, for example, it may be necessary to introduce occasional restrictions on the number of people in certain places and periods. Forest management, infrastructure development and other major investments in tourism and the mining industry are connected to strong political and economic interests that are extremely challenging for nature protection organizations. However, the nature park must pay particular attention to these matters. Given these challenges, it would be highly desirable to significantly strengthen the organization of ANP in order to better protect the threatened natural resources. Furthermore, the management of the nature park should also work hard to make the local residents better understand and accept its goals, including the sustainable use of natural resources, because only in this case can they cooperate effectively to achieve these goals.

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

Funding: This research was supported by the National Research, Development and Innovation Office Hungary (NKFIH) K124497 project.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: Data is contained within the article.

Conflicts of Interest: The authors declare no conflict of interest. The funders had no role in the design of the study; in the collection, analyses, or interpretation of data; in the writing of the manuscript; or in the decision to publish the results.

References

1. Ford, D.; Williams, P.D. *Karst Hydrogeology and Geomorphology*; John Wiley & Sons: Hoboken, NJ, USA, 2013.
2. Cvijić, J. Das Karstphänomen. *Vers. Einer Morphol. Monogr.* **1893**, *5*, 218–329.
3. Ford, D. Jovan Cvijić and the Founding of Karst Geomorphology. *Environ. Geol.* **2007**, *51*, 675–684. [[CrossRef](#)]
4. Pejnović, D.; Husanović-Pejnović, D. Causes and Consequences of Demographic Development in the Territory of Velebit Nature Park, 1857–2001. *Period. Biol.* **2008**, *110*, 195–204.
5. Telbisz, T.; Bottlik, Z.; Mari, L.; Petrvalská, A. Exploring Relationships between Karst Terrains and Social Features by the Example of Gömör-Torna Karst (Hungary-Slovakia). *Acta Carsologica* **2015**, *44*, 121–137. [[CrossRef](#)]
6. Telbisz, T.; Imecs, Z.; Mari, L.; Bottlik, Z. Changing Human-Environment Interactions in Medium Mountains: The Apuseni Mts (Romania) as a Case Study. *J. Mt. Sci.* **2016**, *13*, 1675–1687. [[CrossRef](#)]
7. Telbisz, T.; Brankov, J.; Čalić, J. Topographic and Lithologic Controls behind Mountain Depopulation in Zlatibor District (Western Serbia). *J. Mt. Sci.* **2020**, *17*, 271–288. [[CrossRef](#)]
8. Telbisz, T.; Šulc, I.; Mari, L.; Kaufmann, P.R. Attitudes and Preferences of Visitors of Krka National Park, Croatia. *Hung. Geogr. Bull.* **2022**, *71*, 117–132. [[CrossRef](#)]
9. Szymanowski, M.; Latocha, A. Does the Environment Matter? Depopulation in the Sudetes (Case Study of the Kłodzko Region, SW Poland). *Appl. Geogr.* **2021**, *135*, 102535. [[CrossRef](#)]

10. André, M.-F. Depopulation, Land-Use Change and Landscape Transformation in the French Massif Central. *Ambio* **1998**, *27*, 351–353.
11. Bätzing, W.; Perlik, M.; Dekleva, M. Urbanization and Depopulation in the Alps. *Mt. Res. Dev.* **1996**, *16*, 335–350. [[CrossRef](#)]
12. Collantes, F.; Pinilla, V. Extreme Depopulation in the Spanish Rural Mountain Areas: A Case Study of Aragon in the Nineteenth and Twentieth Centuries. *Rural Hist.* **2004**, *15*, 149–166. [[CrossRef](#)]
13. Grau, H.R.; Aide, T.M. Are Rural–Urban Migration and Sustainable Development Compatible in Mountain Systems? *Mt. Res. Dev.* **2007**, *27*, 119–124. [[CrossRef](#)]
14. Kohler, T.; Elizbarashvili, N.; Meladze, G.; Svanadze, D.; Meessen, H. The Demogeographic Crisis in Racha, Georgia: Depopulation in the Central Caucasus Mountains. *Mt. Res. Dev.* **2017**, *37*, 415–425. [[CrossRef](#)]
15. MacDonald, D.; Crabtree, J.R.; Wiesinger, G.; Dax, T.; Stamou, N.; Fleury, P.; Gutierrez Lazpita, J.; Gibon, A. Agricultural Abandonment in Mountain Areas of Europe: Environmental Consequences and Policy Response. *J. Environ. Manag.* **2000**, *59*, 47–69. [[CrossRef](#)]
16. Gorjanc, S.; Simončič, T.; Poljanec, A.; Kuslits, B.; Arany, I.; Tanács, E.; Vári, Á.; Aszalós, R.; Drasovean, A.; Mos, A.; et al. A New Ecosystem Services Approach to Enable Identification of Pro-Biodiversity Businesses of Protected Karst Areas in Central and South-Eastern Europe. *Hung. Geogr. Bull.* **2022**, *71*, 181–195. [[CrossRef](#)]
17. Romano, B. National Parks Policy and Mountain Depopulation: A Case Study in the Abruzzo Region of the Central Apennines, Italy. *Mt. Res. Dev.* **1995**, *15*, 121–132. [[CrossRef](#)]
18. Farsani, N.T.; Coelho, C.; Costa, C. Geotourism and Geoparks as Novel Strategies for Socio-Economic Development in Rural Areas. *Int. J. Tour. Res.* **2011**, *13*, 68–81. [[CrossRef](#)]
19. Gretter, A.; Machold, I.; Membretti, A.; Dax, T. Pathways of Immigration in the Alps and Carpathians: Social Innovation and the Creation of a Welcoming Culture. *Mred* **2017**, *37*, 396–405. [[CrossRef](#)]
20. Henriques, M.H.; Brilha, J. UNESCO Global Geoparks: A Strategy towards Global Understanding and Sustainability. *Episodes* **2017**, *40*, 349–354. [[CrossRef](#)]
21. Mose, I. *Protected Areas and Regional Development in Europe: Towards a New Model for the 21st Century*; Ashgate Publishing Ltd.: Aldershot, UK, 2007; ISBN 978-0-7546-4801-7.
22. Ezebilo, E.E.; Mattsson, L. Socio-Economic Benefits of Protected Areas as Perceived by Local People around Cross River National Park, Nigeria. *Forest Policy Econ.* **2010**, *12*, 189–193. [[CrossRef](#)]
23. Getzner, M. Impacts of Protected Areas on Regional Sustainable Development: The Case of the Hohe Tauern National Park (Austria). *Int. J. Sustain. Econ.* **2010**, *2*, 419–441. [[CrossRef](#)]
24. Dudley, N. (Ed.) *Guidelines for Applying Protected Area Management Categories*; IUCN: Gland, Switzerland, 2008; ISBN 978-2-8317-1086-0.
25. Watson, J.E.M.; Dudley, N.; Segan, D.B.; Hockings, M. The Performance and Potential of Protected Areas. *Nature* **2014**, *515*, 67–73. [[CrossRef](#)]
26. Balmford, A.; Beresford, J.; Green, J.; Naidoo, R.; Walpole, M.; Manica, A. A Global Perspective on Trends in Nature-Based Tourism. *PLoS Biol.* **2009**, *7*, e1000144. [[CrossRef](#)]
27. Williams, P.W.; Fennell, D.A. Creating A Sustainable Equilibrium Between Mountain Communities And Tourism Development. *Tour. Recreat. Res.* **2002**, *27*, 5–8. [[CrossRef](#)]
28. Mandić, A. Nature-Based Solutions for Sustainable Tourism Development in Protected Natural Areas: A Review. *Environ. Syst. Decis.* **2019**, *39*, 249–268. [[CrossRef](#)]
29. Blackman, A.; Pfaff, A.; Robalino, J. Paper Park Performance: Mexico’s Natural Protected Areas in the 1990s. *Glob. Environ. Chang.* **2015**, *31*, 50–61. [[CrossRef](#)]
30. Greve, M.; Svenning, J.-C. A Paper Park—As Seen from the Air. *J. Nat. Conserv.* **2011**, *19*, 368–369. [[CrossRef](#)]
31. Jamal, T.; Stronza, A. Collaboration Theory and Tourism Practice in Protected Areas: Stakeholders, Structuring and Sustainability. *J. Sustain. Tour.* **2009**, *17*, 169–189. [[CrossRef](#)]
32. Kőszegi, M.; Gessert, A.; Nestorová-Dická, J.; Gruber, P.; Bottlik, Z. Social Assessment of National Parks through the Example of the Aggtelek National Park. *Hung. Geogr. Bull.* **2022**, *71*, 149–162. [[CrossRef](#)]
33. Hunter, C.J. On the Need to Re-conceptualise Sustainable Tourism Development. *J. Sustain. Tour.* **1995**, *3*, 155–165. [[CrossRef](#)]
34. Niñerola, A.; Sánchez-Rebull, M.-V.; Hernández-Lara, A.-B. Tourism Research on Sustainability: A Bibliometric Analysis. *Sustainability* **2019**, *11*, 1377. [[CrossRef](#)]
35. Baros, Z.; Dávid, L. A Possible Use of Indicators for Sustainable Development in Tourism. *Anatolia* **2007**, *18*, 349–355. [[CrossRef](#)]
36. Garrod, B.; Fyall, A. Beyond the Rhetoric of Sustainable Tourism? *Tour. Manag.* **1998**, *19*, 199–212. [[CrossRef](#)]
37. Buckley, R. Sustainable Tourism: Research and Reality. *Ann. Tour. Res.* **2012**, *39*, 528–546. [[CrossRef](#)]
38. Dávid, L.; Bujdosó, Z.; Tóth, G. Tourism Planning in the Hajdú-Bihar–Bihar Euroregion. In *Neighbours and partners: On the Two Sides of the Border*; Süli-Zakar, I., Ed.; Kossuth Egyetemi Kiadó: Debrecen, Hungary, 2008; pp. 323–332. ISBN 963-473-170-8.
39. Priatmoko, S.; Kabil, M.; Purwoko, Y.; Dávid, L.D. Rethinking Sustainable Community-Based Tourism: A Villager’s Point of View and Case Study in Pampang Village, Indonesia. *Sustainability* **2021**, *13*, 3245. [[CrossRef](#)]
40. Balloffet, N.; Deal, R.; Hines, S.; Larry, B.; Smith, N. Ecosystem Services and Climate Change. U.S. Department of Agriculture, Forest Service, Climate Change Resource Center. Available online: <https://www.fs.usda.gov/ccrc/topics/ecosystem-services> (accessed on 6 February 2023).

41. Sgroi, F. Forest Resources and Sustainable Tourism, a Combination for the Resilience of the Landscape and Development of Mountain Areas. *Sci. Total Environ.* **2020**, *736*, 139539. [CrossRef] [PubMed]
42. Kim, S.S.; Kim, M.; Park, J.; Guo, Y. Cave Tourism: Tourists' Characteristics, Motivations to Visit, and the Segmentation of Their Behavior. *Asia Pac. J. Tour. Res.* **2008**, *13*, 299–318. [CrossRef]
43. Trakolis, D. Perceptions, Preferences, and Reactions of Local Inhabitants in Vikos-Aoos National Park, Greece. *Environ. Manag.* **2001**, *28*, 665–676. [CrossRef] [PubMed]
44. Karst and National Parks. Available online: <https://karst.elte.hu/knp/index.php> (accessed on 16 January 2023).
45. Mari, L.; Tábori, Z.; Šulc, I.; Kaufmann, P.R.; Milanović, R.; Gessert, A.; Imecs, Z.; Baricz, A.; Telbisz, T. The System and Spatial Distribution of Protected Areas in Hungary, Slovakia, Romania, Serbia and Croatia. *Hung. Geogr. Bull.* **2022**, *71*, 99–115. [CrossRef]
46. Imecs, Z.; Máthé, A.; Kohán, B. Attitudes of Local People towards Apuseni Nature Park, Romania. *Hung. Geogr. Bull.* **2022**, *71*, 133–148. [CrossRef]
47. Imecs, Z.; Mari, L.; Máthé, A.; Kohán, B.; Telbisz, T. Is There a Conflict between Nature and Nature Park? Perceptions and Facts about Forest Cover Changes over Recent Decades in Apuseni Nature Park—Romania. In *Proceedings of the EUGEO 2021: 8th EUGEO Congress on the Geography of Europe: Book of Abstracts*; Charles University Faculty of Science, Czech Geographical Society: Prague, Czech Republic, 2021; p. 192.
48. Frost, W.; Hall, C.M. *Tourism and National Parks: International Perspectives on Development, Histories and Change*; Routledge: London, UK, 2015; ISBN 978-1-138-86719-2.
49. Nestorová Dická, J.; Gessert, A.; Bryndzová, L.; Telbisz, T. Behavioural Survey of Local Inhabitants' Views and Attitudes about Slovak Karst National Park in Slovakia. *Sustainability* **2020**, *12*, 10029. [CrossRef]
50. Telbisz, T.; Čalić, J.; Kovačević-Majkić, J.; Milanović, R.; Brankov, J.; Micić, J. Karst Geoheritage of Tara National Park (Serbia) and Its Geotouristic Potential. *Geoheritage* **2021**, *13*, 88. [CrossRef]
51. Telbisz, T.; Mari, L.; Gessert, A.; Dická, J.N.; Gruber, P. Attitudes and Perceptions of Local Residents and Tourists—A Comparative Study of the Twin National Parks of Aggtelek (Hungary) and Slovak Karst (Slovakia). *Acta Carsologica* **2022**, *51*, 93–109. [CrossRef]
52. Papageorgiou, K.; Kassioumis, K. The National Park Policy Context in Greece: Park Users' Perspectives of Issues in Park Administration. *J. Nat. Conserv.* **2005**, *13*, 231–246. [CrossRef]
53. Zorc, J.; Udovč, A. Local Inhabitants' Opinion about the Triglav National Park Management. *Sociol. Prost./Sociol. Space* **2009**, *47*, 43–56.
54. Šulc, I.; Valjak, V. Zaštićena Područja u Funkciji Održivog Razvoja Hrvatskog Otočja–Primjer Otoka Mljet. *Croat. Geogr. Bull.* **2012**, *74*, 161–185.
55. Zgłobicki, W.; Baran-Zgłobicka, B. Geomorphological Heritage as a Tourist Attraction. A Case Study in Lubelskie Province, SE Poland. *Geoheritage* **2013**, *5*, 137–149. [CrossRef]
56. Krpina, V. Analysis of the Relation between Visitors and Protected Natural Areas in the Zadar County. *Šumarski List* **2015**, *139*, 535–551.
57. Mika, M.; Zawilińska, B.; Kubal-Czerwińska, M. Exploring the Determinants of Local People's Attitude towards National Parks in Poland. *Folia Geogr.* **2019**, *61*, 5–16.
58. Zawilińska, B. Residents' Attitudes Towards a National Park Under Conditions of Suburbanisation and Tourism Pressure: A Case Study of Ojców National Park (Poland). *Eur. Countrys.* **2020**, *12*, 119–137. [CrossRef]
59. Pachrová, S.; Chalupa, P.; Janoušková, E.; Neckářová, A.Š.; Štefka, L. Monitoring of Visitors as a Tool of Protected Areas Management. *Acad. Tur. Tour. Innov. J.* **2020**, *13*, 67–79. [CrossRef]
60. Moş, A. Apuseni Nature Park—A Park for Nature and People. *An. Univ. Oradea Ser. Geogr.* **2008**, *18*, 21–26.
61. Buza, M.; Dimen, L.; Pop, G.; Turnock, D. Environmental Protection in the Apuseni Mountains: The Role of Environmental Non-Governmental Organisations (ENGOS). *GeoJournal* **2001**, *55*, 631–653. [CrossRef]
62. Jakab, G.; Pál, I.; Silye, L.; Sümegi, P.; Tóth, A.; Sümegi, B.; Frink, J.P.; Magyari, E.K.; Kern, Z.; Benkő, E. Social Context of Late Medieval and Early Modern Deforestation Periods in the Apuseni Mountains (Romania) Based on an Integrated Evaluation of Historical and Paleobotanical Records. *Environ. Archaeol.* **2021**, *1*–22. [CrossRef]
63. Feurdean, A.N.; Willis, K.J.; Astaloş, C. Legacy of the Past Land-Use Changes and Management on the 'Natural' Upland Forest Composition in the Apuseni Natural Park, Romania. *Holocene* **2009**, *19*, 967–981. [CrossRef]
64. Czárán, G. *Kalauz Biharfüredi Kirándulásokra (Guide for Excursions in Biharfüred)*; Süssmann: Belényes, Romania, 1903.
65. Linc, R.; Nistor, S.; Turnock, D. Aspects Regarding the Environmental Impact of Tourism Activities in the Apuseni Natural Park (Romania). *An. Univ. Oradea Ser. Geogr.* **2011**, *21*, 340–353.
66. Vaetisi, S. Rural Tourism in the Apuseni Mountains, Romania. An Anthropological Research on Using Natural and Cultural Resources in Developing Tourism in a Poor Region. In *Tourists and Tourism*; Abhijeet Publications: New Delhi, India, 2006.
67. Cocean, G.; Cocean, P. An Assessment of Gorges for Purposes of Identifying Geomorphosites of Geotourism Value in the Apuseni Mountains (Romania). *Geoheritage* **2017**, *9*, 71–81. [CrossRef]
68. Horváth, G. *Északnyugat-Erdély. A Kárpát-Medence Régiói 4. (Northwestern Transylvania. Regions of the Carpathian Basin 4)*; Magyar Tudományos Akadémia Regionális Kutatások Központja: Budapest, Hungary, 2006; ISBN 978-963-9052-71-0.
69. TEMPO Online. Available online: <http://statistici.insse.ro:8077/tempo-online/#/pages/tables/insse-table> (accessed on 16 January 2023).
70. Bădulescu, A.; Băc, D. Profile of Ecotourists in Apuseni Mountains Natural Park. *GeoJournal Tour. Geosites* **2009**, *3*, 7–16.

71. Abrudan, I.; Turnock, D. A Rural Development Strategy for the Apuseni Mountains, Romania. *GeoJournal* **1998**, *46*, 319–336. [\[CrossRef\]](#)
72. Surd, V.; Turnock, D. Romania's Apuseni Mountains: Safeguarding a Cultural Heritage. *GeoJournal* **2000**, *50*, 285–304. [\[CrossRef\]](#)
73. Ciolac, R.; Adamov, T.; Iancu, T.; Popescu, G.; Lile, R.; Rujescu, C.; Marin, D. Agritourism-A Sustainable Development Factor for Improving the 'Health' of Rural Settlements. Case Study Apuseni Mountains Area. *Sustainability* **2019**, *11*, 1467. [\[CrossRef\]](#)
74. Bleahu, M. *Ariile Protejate și Protecția Naturii (Protected Areas and Nature Protection)*; Paideia Publishing House: București, Romania, 2019; ISBN 978-606-748-236-2.
75. Štrba, L. Analysis of Criteria Affecting Geosite Visits by General Public: A Case of Slovak (Geo)Tourists. *Geoheritage* **2019**, *11*, 291–300. [\[CrossRef\]](#)
76. Reinius, S.W.; Fredman, P. Protected Areas as Attractions. *Ann. Tour. Res.* **2007**, *34*, 839–854. [\[CrossRef\]](#)
77. Dowling, R.K. Geotourism's Global Growth. *Geoheritage* **2011**, *3*, 1–13. [\[CrossRef\]](#)
78. Hose, T.A. Towards a History of Geotourism: Definitions, Antecedents and the Future. *Geol. Soc. Lond. Spec. Publ.* **2008**, *300*, 37–60. [\[CrossRef\]](#)
79. Božić, S.; Tomić, N. Canyons and Gorges as Potential Geotourism Destinations in Serbia: Comparative Analysis from Two Perspectives—General Geotourists' and Pure Geotourists'. *Open Geosci.* **2015**, *7*, 531–546. [\[CrossRef\]](#)
80. Eagles, P. Global Trends Affecting Tourism in Protected Areas. In *Tourism and Protected Areas: Benefits beyond Boundaries*; Rushell, R., Eagles, P., Eds.; CABI: Wallingford, UK, 2007; pp. 27–43. ISBN 978-0-85199-022-4.
81. Newsome, D.; Moore, S. Managing Visitors to the Natural Environment. In *The Routledge Handbook of Tourism and Sustainability*; Hall, C.M., Gössling, S., Scott, D., Eds.; Routledge: London, UK, 2015; pp. 261–269. ISBN 978-0-203-07233-2.
82. Antić, A.; Vujičić, M.D.; Dragović, N.; Cimbaljević, M.; Stankov, U.; Tomić, N. Show Cave Visitors: An Analytical Scale for Visitor Motivation and Travel Constraints. *Geoheritage* **2022**, *14*, 53. [\[CrossRef\]](#)
83. Vasiljević, Đ.A.; Vujičić, M.D.; Božić, S.; Jovanović, T.; Marković, S.B.; Basarin, B.; Lukić, T.; Čarkadžić, J. Trying to Underline Geotourist Profile of National Park Visitors: Case Study of NP Fruška Gora, Serbia (Typology of Potential Geotourists at NP Fruška Gora). *Open Geosci.* **2018**, *10*, 222–233. [\[CrossRef\]](#)
84. Poponi, S.; Palli, J.; Ferrari, S.; Filibeck, G.; Forte, T.; Franceschini, C.; Ruggieri, A.; Piovesan, G. Toward the Development of Sustainable Ecotourism in Italian National Parks of the Apennines: Insights from Hiking Guides. *Ecol. Soc.* **2020**, *25*, 46. [\[CrossRef\]](#)
85. Perșoiu, A.; Buzjak, N.; Onaca, A.; Pennos, C.; Sotiriadis, Y.; Ionita, M.; Zachariadis, S.; Styllas, M.; Kosutnik, J.; Hegyi, A.; et al. Record Summer Rains in 2019 Led to Massive Loss of Surface and Cave Ice in SE Europe. *Cryosphere* **2021**, *15*, 2383–2399. [\[CrossRef\]](#)
86. Drăgan, M.; Cocean, G. Constraints on Tourism Development Caused by the Road Network in the Apuseni Mountains. *Rom. Rev. Reg. Stud.* **2015**, *11*, 85–94.
87. Furtuna, P. Temporal and Spatial Variation of Forest Coverage in Apuseni Natural Park, 2000–2014 Period. *Geogr. Tech.* **2017**, *12*, 46–56. [\[CrossRef\]](#)

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.