

Attitudes and Perceptions of Local Residents and Tourists toward the Protected Area of Retezat National Park, Romania

Andrea B. Szell

GIS/Health and Hazards Lab
Department of Geography
Kent State University
USA

Lucius F. Hallett IV

Department of Geography
Western Michigan University
1903 West Michigan Ave
Kalamazoo, MI 49008-5424
USA

Abstract

Despite the fact that there has been a significant increase in interest in the sustainable management of protected areas, many still fail to meet conservation goals. Considering that the availability of adequate financial resources and the general public's interest toward environmental conservation both play such an important role in the successful performance of protected areas, it is of great importance to investigate local residents' and tourist' attitudes and perceptions regarding protected areas. This will help gain knowledge of the level of financial and social support they would be willing to give to environmental protection and biodiversity conservation in protected areas. To elicit attitudes and perceptions of local residents and visitors regarding protected areas, as well as their willingness to pay (WTP) for environmental protection, a survey was carried out in and near Retezat National Park, Romania. Results indicated that tourists have higher awareness of the importance of the protected area, exhibit greater appreciation of the existence of the park and are willing to pay higher entrance fees to support conservation efforts when compared to local residents. Although considerable differences do exist between local residents and tourists more successful functioning and management of protected areas can be achieved by understanding both tourists' and local residents' attitudes and perceptions of nature conservation and by integrating them into future conservation policies.

Key words: National Parks, perception, management, attitudes, Romania

1. Introduction

Although Romania has a long tradition in conservation - it was one of the first countries to use scientific actions for the protection of its natural forests - the status of nature conservation and protection is not suitable to meet present needs (Oszlanyi et al. 2004). Retezat National Park (RNP) is one of Romania's oldest national parks, legally established in 1935. Although the park is a publicly funded Romanian protected area, all indicators point to a decrease in public funding due to the exacerbating effects of the global economic downturn on the economies of developing countries. This makes self-sufficiency an essential component in the sustainability of the protected area.

Increasing anthropogenic pressure, due to continuously expanding human developments and increasing demands for timber and non-timber forest products, is the main reason why relatively large forested areas have been subjected to over-exploitation, degradation and destruction. Newly enforced conservation measures could generate additional restrictions regarding the use of natural resources within the protected area. Recently a shift in the priorities of the management of the protected area has emerged and increased emphasis was placed on biodiversity conservation.

Local residents' habitual use of park resources has been significantly affected by the implementation of modern conservation policies. As a result, these new conservation strategies contributed to negative conservation attitudes among local residents toward the protected area. Similarly, the results of the present study showed that local residents have low levels of awareness and concern, and hold negative perceptions of conservation within RNP due to restrictions imposed on access to natural resources. The results prove that local residents' low level of awareness and their limited knowledge of the importance of the protected area negatively influence perceptions.

Tourists are also impacted by reforms in conservation policies. These policies imposed additional restrictions on tourist activities within the protected area. Although negative attitudes on the part of tourists resulted from the previously mentioned restrictions, considering the different background of tourists, we show that tourists are more environmentally aware and will favor conservation to a higher degree than local residents. Thus, these strategies could potentially enforce unruliness or resistance as a general human attitude toward conservation within the protected area. Instead, cooperation is more easily attained by gaining a deeper understanding of people's views and increasing their acceptance of new strategies by including them in future conservation policies. Often, conservationists are faced with finding solutions that cater to the conflicting demands of today's society - conserve natural resources for future generations while allowing current generations to benefit from the use of natural resources.

As more emphasis is being placed on the effectiveness of protected areas in conserving valuable forest and non-forest ecosystems and awareness of potential human impact on protected areas is increasing, more research has been focused on exploring conservation management strategies involving human perceptions. The failure to include both local residents and tourists in future protected area management and conservation policies contributes to limited conservation benefits and furthers conflict between people and protected areas. The majority of previous perception analyses and economic valuations of environmental goods have focused on investigating either local communities or tourists' attitudes and perception of protected areas. By doing so, these studies failed to recognize the differences between the interactions of the two groups of people with the protected area. As a result, recommendations for future improvements of conservation efforts will not only favor one group of people over the other, but benefits in terms of increased social support will also be reduced to a single source. The perception differences between local residents and tourists are the ones least reflected by current conservation policies and it is significant to include the perceptions of both categories because conservation effectiveness is highly dependent on resident and tourist support for conservation.

This paper chronicles the research that investigates local community residents and tourist attitudes and perceptions regarding nature conservation in Retezat National Park. It uses multiple survey data to identify factors that influence peoples' attitudes towards those protected areas, estimates the willingness to pay (WTP) to support preservation in Retezat National Park, and explores benefits from the implementation of new strategies that include attitudes, perceptions and WTPs.

2. Study Area

Romania is an Eastern European country recently liberated from communist dominance (since 1989). Thus, until recently, communistic views prevailed in the field of conservation (Sorani, Biro & Moldovan 2000). These communistic views were manifested through the higher value placed on benefits from exploiting natural resources than those on conservation. Conservation measures were often disregarded and the country's protected areas were doomed by their "paper" (Ioja et al. 2010) existence, without having any considerable "real world" impact. The number of forested areas included in the protected areas network has increased significantly over the past 20 years, evolving from "paper parks" before 1990 to scarcely funded parks between 1990 and 2006. Previous park management strategies have not involved any potential human support and have often focused on imposing strict rules regarding access to the protected area and the use of natural resources from the protected areas' territory. As a result, local residents and tourists developed negative perceptions of conservation efforts within the protected area (Weladji, Moe & Vedeld 2003; Vodouhe et al. 2010). Considering that both local resident and tourist compliance and support is crucial for a favorable outcome of conservation efforts, understanding their perceptions of the importance of protected areas and knowing how much support they would be willing to offer for nature conservation, is critical for an improved protected area-people relationship (Weladji, Moe & Vedeld 2003). Currently there are 18 national parks, natural parks and biosphere reserves, and more than 800 regional and local protected areas (Stanciu 2003).

Despite the fact that the number and the size of protected areas has increased since the 1990s and that Romania has a long tradition in environmental protection and biodiversity conservation, some of the protected areas frequently fail to accomplish the intended conservation objectives. As Romania is one of the European Union's poorest countries, some of its protected areas are under-funded, especially nature parks, national parks and reserves.

At present, the protected areas in Romania cover 19.29% of the country's territory (Figure 1). This is considerably larger than the 4.1% before 1989 (Ioja et al. 2010). According to the Environmental Protection Administration of Romania, these protected areas have been classified as national parks, natural parks, natural reserves of special values, scientific reserves, landscape reserves and nature monuments (Sorani, Biro & Moldovan 2000; Oszlanyi et al. 2004) with the largest number and most well preserved natural areas situated in forested areas (Puscariu et al. 1973).

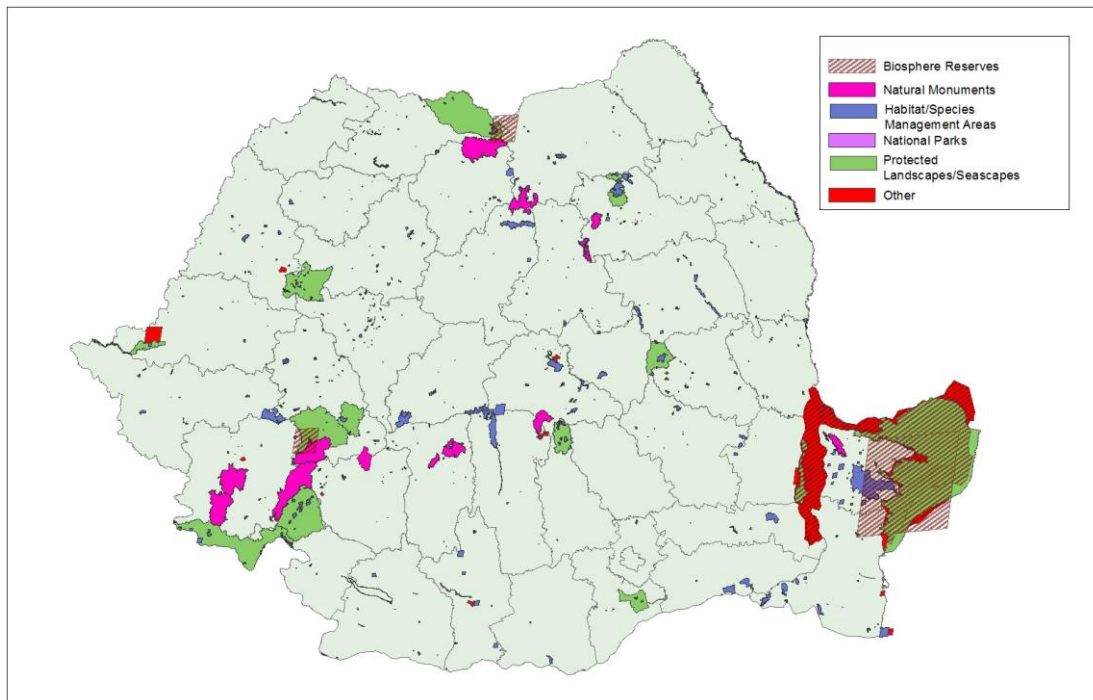


Figure 1. Protected Areas in Romania

Retezat National Park is located in the western part of the Southern Carpathian Mountains between 650 and 2509 meters (Figure 2). Initially the park covered a forested area of 10,000 ha, but it was reestablished in 2000 and its area expanded to 38,048 ha (www.pronatura.ro, 2010). Forest expansion occurred again in 2006 when the national park area was increased to its current 38,138 ha.

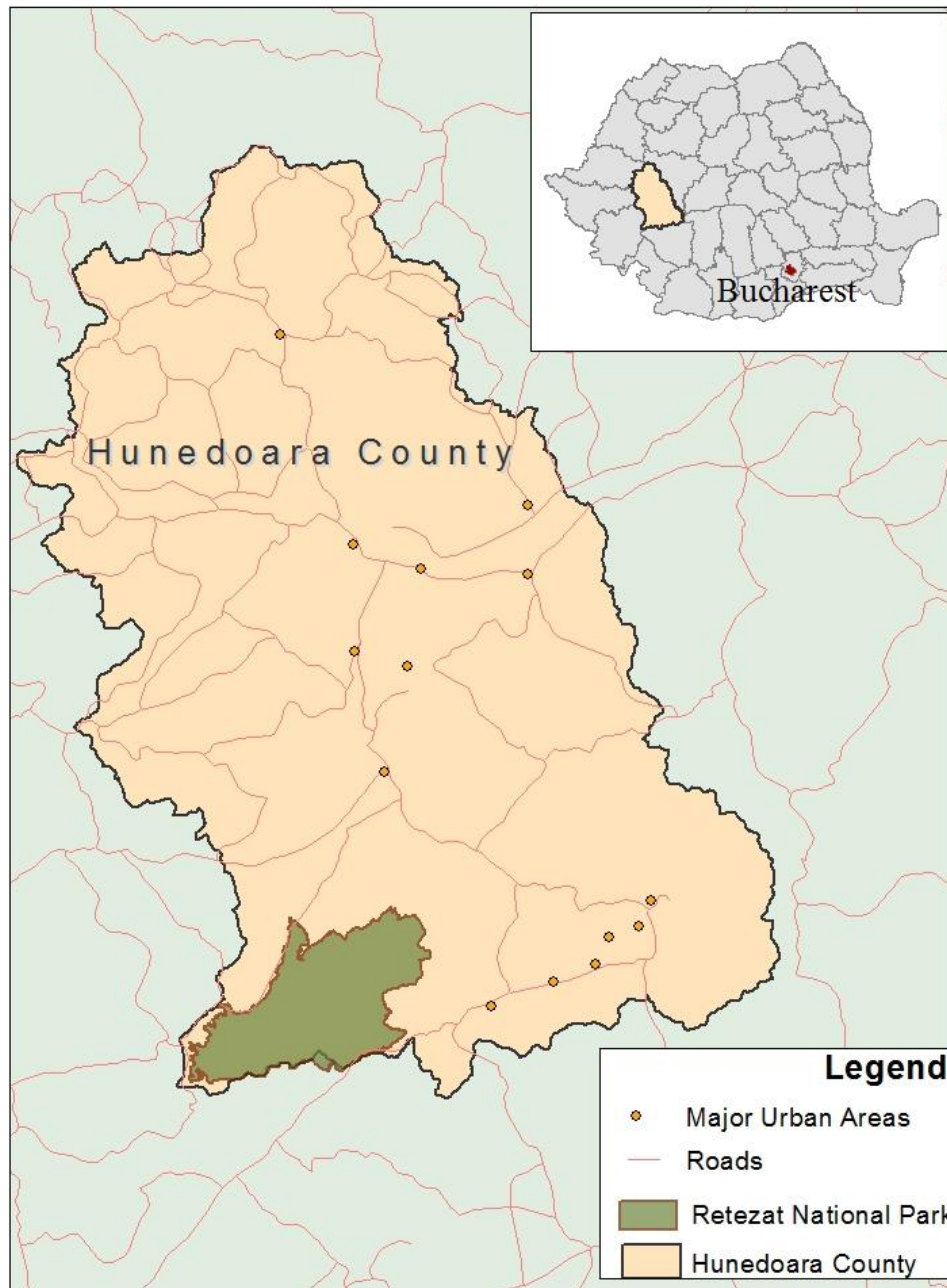


Figure 2. Location of Retezat Nation Park in Hunedoara County.

Of the 38,138 ha occupied by the protected area, 1800 ha are a strictly protected area. The sole purpose of “Gemenele Scientific Research Area” is for scientific research and is currently under the administration of the Romanian Academy (Stanciu 2003). Due to its high environmental value, the park has been included in the international network of Biosphere Reserves by The Man and Biodiversity Program, of the United Nations Education, Scientific and Cultural Organization (UNESCO) (Cogalniceanu et al. 2004) and in the ecological network of protected areas in the European Union territory by the Natura 2000.

2.1 Rural Areas

In this research, three rural areas located outside the northern boundary of the protected area have also been included as part of the study area. The three villages, part of commune (lowest administration level in Romania) Salasu de Sus, from north to south along the main access road leading to the national park are Salasu de Sus, Nucsoara and Carnic (Figure 3). These areas were selected as being part of the research area based on the spatial and relational characteristics of the villages.

Local residents from these three rural areas, as well as other communities located outside the Retezat National Park boundaries, rely to a varying degree on resources located in park territory. Many of the people who live on the edges of the park preserve the traditional lifestyle of the area and practice traditional agricultural activities adding substantial value to the landscape and biodiversity of the area (Stanciu 2003). However, some of these activities represent major threats to the park. Traditional activities practiced by local communities, such as livestock grazing, timber harvesting, hunting and fishing have the potential to degrade the park's environmental value.

3. Issues in Romanian Environmental Conservation

Despite the considerable increase in number and size of protected areas, the extent of forested areas kept diminishing. As summarized by Soran, Biro& Moldovan (2000: 1190), "...throughout history changes in outlook have been a very slow process. This is why many communist ideas, even in the field of nature and environmental protection, are still alive in Romania." When faced with their potential economic benefits, protected areas have most often been sacrificed.

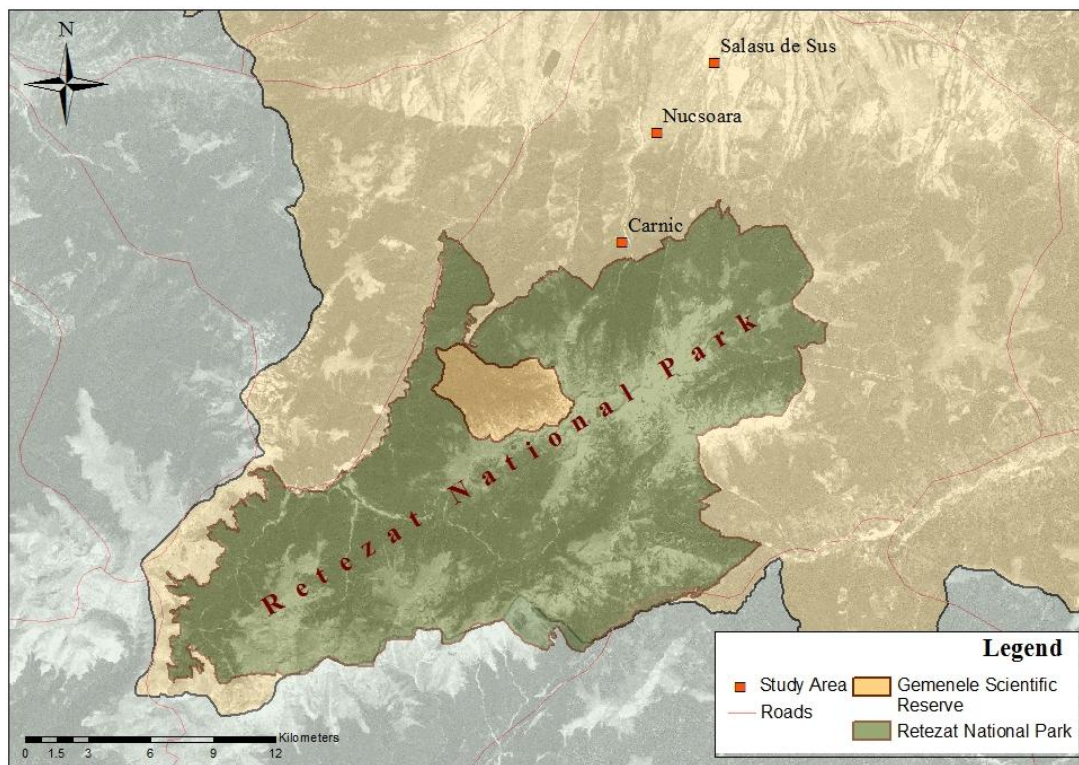


Figure 3. Main Access Points to Retezat National Park and the Three Rural Areas.

A large number of protected areas are faced with another critical issue: self-sufficiency or otherwise stated financial sustainability. Financial sustainability is defined as "the ability to secure sufficient, stable and long term financial resources, and to allocate them in a timely manner and in appropriate form, to cover the full costs of protected areas' to ensure that protected areas are managed effectively and efficiently with respect to conservation and other objectives" (Emmert, Bishop & Thomas 2006: 15). This means that, due to scarce funding resources, protected areas often fail to meet either conservation or developmental purposes.

Although some fraction of the unsuccessfulness of protected areas is attributable to financial difficulties faced by administration and managing institutions, another critical aspect that deserves careful consideration is the social aspect of the area. To ensure the success of forest conservation and management programs it is crucial to understand the interaction between humans and the natural environment. Considering individual preferences when designing protected area management programs and policies has been proven to be of critical importance in increasing public acceptance for conservation programs (Barrio and Loureiro 2010).

Previous park management strategies failed to recognize the importance of peoples' potential support in the conservation planning and management process. Strategies, which involved the enforcement of strict rules regarding access and natural resource use, have focused on keeping tourists as well as local residents from being involved. As a result, these strategies usually led people to hold negative perceptions concerning conservation within the boundaries of the protected area (Weladji, Moe & Vedeld 2003; Vodouhe et al. 2010).

4. Attitudes, Perceptions and Willingness to Pay

4.1 Local Communities' Attitudes and Perceptions

Oftentimes, when local communities outside the boundaries of protected areas are not included in the conservation planning process, conflicts between conservation goals and community wants and needs arise (Dimitrakopoulos et al. 2010). These conflicts result from constraints imposed by the protected area management on land use and natural resource extraction. Restrictions regarding access to the protected area, agricultural activities, timber extraction, hunting or other such activities, are just some of the most frequent sources of protected area-local community conflicts in the existing literature (Brandon et al. 2005).

This ultimately causes people to hold negative perceptions toward the protected area (Hulme and Murphree 2001). Most often damages result from rural population pressure and the financial inadequacy to maintain proper protection of these natural areas. In addition, Ozturk et al. (2010) argue that damaging effects of local rural population pressure are exacerbated by the fact that most of these people are generally the poorest section of the rural population and the common belief is that natural forest resources are free to the benefit of everyone.

New strategies have been developed in response to the general belief of many conservationists that protected areas are condemned to failure unless local communities are to some extent involved in conservation efforts (Hulme and Murphree 2001; Yeo-Chang 2009). These strategies are referred to as "community conservation" (Infield and Namara 2001; McClanahan, Davies and Maina 2005) or "participatory management" (Dimitrakopoulos et al. 2010). According to Vodouhe et al. (2010), this approach strives to reconcile differences between local residents and protected area needs, to advance their participation in resource management, and to improve their level of economic comfort.

4.2 Tourists' Attitudes and Perceptions

Often, due to the dual nature of conservation, protected areas management is faced with challenges that arise from meeting both conservation requirements and visitors' expectations (Suckall et al. 2009). Previous research has focused on evaluating visitors' perceptions from different viewpoints to identify factors that significantly influence existing perceptions. Awareness levels regarding environmental issues and the protected areas' importance in biodiversity conservation with proximity to the protected area (Petrosillo et al. 2007), social class and ethnicity (Suckall et al. 2009), social and institutional trust (Jones et al. 2011) as well as various other social and economic factors have been identified as important factors which shape individual perceptions of environmental goods. Perception studies conducted by Petrosillo et al. (2007), Suckall et al. (2009) and Jones et al. (2011), although they are from different viewpoints, share similarities in their findings. Their results enforce previous findings in that they identify a positive relationship between the above-mentioned variables. The higher visitors' levels of awareness, satisfaction, social and institutional trust, social class as well as many economic variables, the higher the perception indicator will move on the positive side of the spectrum.

The value of perception studies is not only justified in the literature in order to identify factors that influence attitudes and behaviors, but is oftentimes closely connected to economic valuations, such as willingness to pay (Togridou, Hovardas and Pantis 2006; Baral, Stern, and Bhattarai 2008; Baranzini, Faust and Huberman 2010). The understanding of various economic instruments is often viewed as essential in order to develop management policies which would secure more funding and would help the protected area in achieving financial sustainability (Jones et al. 2011).

4.3 Willingness to Pay

Although many natural resources are valued on the market, resources supplied by environmental goods (such as forests) do not usually have an actual monetary value because of the difficulty in evaluating them. But since they do provide a certain utility to individuals, an economic value can and should be attributed to them (Loomis et al. 2000; Baranzini, Faust and Huberman 2010).

Among various valuation measures, individuals' willingness-to-pay (WTP) through the use of a contingent valuation method has been preferred in economic valuations of non-market environmental goods over other valuation techniques (Loomis et al. 2000; Baranzini, Faust and Huberman 2010). A literature analysis by Carson (1996) finds that the majority of WTP estimates pass the test of validity, a test which involves the comparison of WTP values with values deduced from actual behavior methods, such as travel cost and recreation demands.

Most often studies that involve economic valuations estimate individual WTP from the entrance fee viewpoint. Individuals are asked to either state or choose an existing value for the entrance fee they would be willing to pay in order to support conservation within the protected area. The general view is that adjusting entrance fees to a reasonable level results in maximizing revenue and producing much needed funds for the financial sustainability of the protected areas (Baral, Stern and Bhattarai 2008).

Unfortunately, non-market valuations of natural areas in Romania, like in many other Eastern European countries, are not common. As a result, many protected areas have not optimized their revenue from direct park use because they lack economic analyses (Baral, Stern and Bhattarai 2008), thus further decreasing the probability of becoming financially self-sufficient.

5. Methodology

Data collection was accomplished with the implementation of a specially designed questionnaire. In addition to the survey method, individual and group discussions were conducted with local residents. During the first three weeks of August, 2011, residents of Cârnic, Nucșoara and Salașu de Sus, and tourists in Retezat National Park were approached and asked to participate in a questionnaire. Due to the differences between local residents and tourists, in terms of their relationship with the protected area, two versions of the questionnaire were developed. The purpose of these questions was to capture the inherent differences between the two groups and ensure a more appropriate basis for the comparison between local residents and tourists.

Knowledge and awareness questions explored participant's general knowledge of the protected area and awareness regarding the importance of the park. *Attitude and perception* questions focused on various issues related to individual attitudes and perceptions. *Willingness-to-pay* (WTP) was obtained with the use of a dichotomous payment principle question, which asked respondents to state whether they would be willing to pay higher park entry fees to support conservation within RNP.

Next, respondents were provided with a set of statements that had to be rated on a five Likert-style point scale, in terms of the statement's importance in giving a positive answer to the WTP question. The last set of identical questions in both versions of the questionnaire, were the ones pertaining to the respondent's socio-economic and demographic characteristics. Multiple choice and short answer questions asked individuals to provide information regarding their age, gender, education level, occupation, income and area of residence. These profiles not only provided a solid basis for comparison between local residents and tourists, but also served as "tools" for linking the two major types of respondents to their characteristic attitudes, perceptions and WTPs.

Although the majority of the questions were identical in both versions of the questionnaire, certain questions were designed to be answered either by local residents or by tourists. The purpose of these questions was to collect information based on which characteristics and influencing factors of the two investigated groups can be identified. The survey version for local residents included questions referring to their overall attitudes toward the protected area in terms of satisfaction, involvement in park activities and their use of natural resources located on the territory of the protected area (timber and non-timber forest products). The tourist version of the questionnaire contained several questions aimed at gathering information necessary for generating the visitors' profile and visit's characteristics (Togridou, Hovardas and Pantis 2006).

The concluding part of the questionnaire included two open-ended questions. The first question asked tourists to discuss their most positive and most negative experiences related to their visit to RNP, while local residents were required to discuss the most important benefits from the existence of the park. The second question gave respondents the opportunity to express their suggestions for possible changes, which would improve the effectiveness of RNP.

Overall, question types used for developing the two survey versions, fall into the categories of dichotomous questions (Yes/No), multiple choice (one answer from 3 to 9 answer choices), Likert style scale (5 point scale, where 1="Least important/Low and 5="Most important/High), short answer and open-ended questions.

A convenience sampling technique was used to identify potential respondents from the tourist population. First, all respondents must have been 18 years of age or older; second, all participating tourists must have spent at least one day in RNP or the neighboring campgrounds. Local residents were selected by using both the convenience and snowball sampling techniques. All participants were required to be temporary or permanent residents of one of the three rural areas, Cârnic, Nucușoara and Salașu de Sus.

To compare and contrast the two individual samples survey data was organized in five major categories: demographic; knowledge and awareness; attitudes and perceptions; willingness to pay; and profiles of individual groups (local residents and tourists). Within the analysis, individual Samples T-Tests were employed to determine whether there are any differences between the two samples and whether existing differences between the sample means were statistically significant.

6. Results

Of a total of 154 survey participants there were 47 local residents and 107 tourists, representing 30.5% and 69.5%, respectively. The mean age value for the local residents being 52.62 years while mean age of tourist respondents is 32.97 years. While the majority of local residents belong to the age categories of 46 years or older (63.8%), 89.7% of the tourists is represented by individuals of 45 years or younger. The largest proportion of respondents from both samples is found in the two extreme age intervals, locals residents in the 46-59 interval and 60 years or older and tourists in the 18-31 years old categories. While tourists are represented by a relatively equal percentage of male and female respondents, the local resident population is represented by a higher percentage of male (68.1%) than female (31.9%) participants.

6.1 Level of Education

The majority of tourists (71%) attained college degrees or higher levels of education, while from the local resident sample less than 30% participants have some sort of college education (Table 1). Overall, tourists are more highly educated when compared to local residents, the majority of whom have attained high school degrees or lower levels of education.

Table 1. Level of Education

Category	No formal education	Elementary school or less	Some high school, no degree	High school degree or equivalency	Some college no degree	College degree or more
Total	0.60%	5.80%	14.30%	14.90%	6.50%	57.80%
Local residents	2.10%	19.10%	31.90%	12.80%	6.40%	27.70%
Tourists	0%	0%	6.50%	15.90%	6.50%	71.00%

6.2 Employment and Income

A large percentage of local residents are retired (43.5%), 37% are employed, approximately 20% are unemployed and no local residents have student status (Table 2). The majority of tourists either have some sort of employment or are students, the two categories combined representing 93.8% of tourist respondents. Over 50% of local residents have a monthly income between 160 and 319 EUR and 18.4% have income amounts well below the current minimum monthly income in Romania, which is 160 EUR. On the other hand, 31% of tourists have a monthly income of more than 640 EUR. While the proportion of tourists in the lowest income category is relatively similar to that of local residents, tourists are still better represented in higher income categories than local residents are.

Table 2. Employment and Income

		Total	Local residents	Tourists
What is your occupation?	Employed	65.50%	37.00%	79.20%
	Unemployed	9.90%	19.60%	5.20%
	Retired	14.80%	43.50%	1.00%
	Student	9.90%	0.00%	14.60%
What is your approximate net monthly income?	Less than 159 EUR	17.00%	18.40%	16.50%
	Between 160 and 319 EUR	34.70%	57.90%	26.20%
	Between 320 and 479 EUR	17.70%	7.90%	21.40%
	Between 480 and 639 EUR	4.90%	5.30%	4.90%
	More than 640 EUR	25.50%	10.50%	31.10%

6.3 Demographic Profile of Respondents

Local residents were found to be represented by male individuals, of 46 years old or older, generally having attained between low (elementary) and medium (high school) education levels, are currently retired and earning monthly incomes between 240 and 319 EUR interval. Tourists are represented by male respondents younger than 45 years, having attained a higher level of education (college degree or more), are currently employed and earn a monthly income of 720 EUR or more.

6.4 Knowledge and Awareness

The first survey question asked respondents to state if they knew what the main purpose of Retezat National Park is. Although a large proportion of both respondent types answered nature conservation, the percentage of local residents in the "Tourism" and "Don't know" answer categories is larger than that of tourists (Table 3). Local residents appeared more prone to associate the existence of the protected area with tourism than conservation purposes.

Table 3. The Main Purpose of Retezat National Park

		Total	Local residents	Tourists
What do you believe is the main purpose of Retezat National Park?	Tourism	11.70%	12.80%	11.20%
	Nature protection/ Biodiversity conservation	85.10%	78.70%	87.90%
	Don't know	3.20%	8.50%	0.90%

In terms of awareness of the importance of Retezat National Park in nature conservation, respondents were asked to rate their awareness levels on a five point Likert type scale (1="Low" and 5="High"; Figure 4). Although the majority of respondents from both categories stated that their awareness of the importance of the protected area in nature conservation is relatively high or high, there are differences between the distribution of local residents and tourists among the five answer choices. While a larger proportion of tourists than local residents rated their awareness levels as relatively high and high, the proportion of local residents who rated their awareness levels as low, relatively low or neutral exceeded the proportion of tourists in those categories.

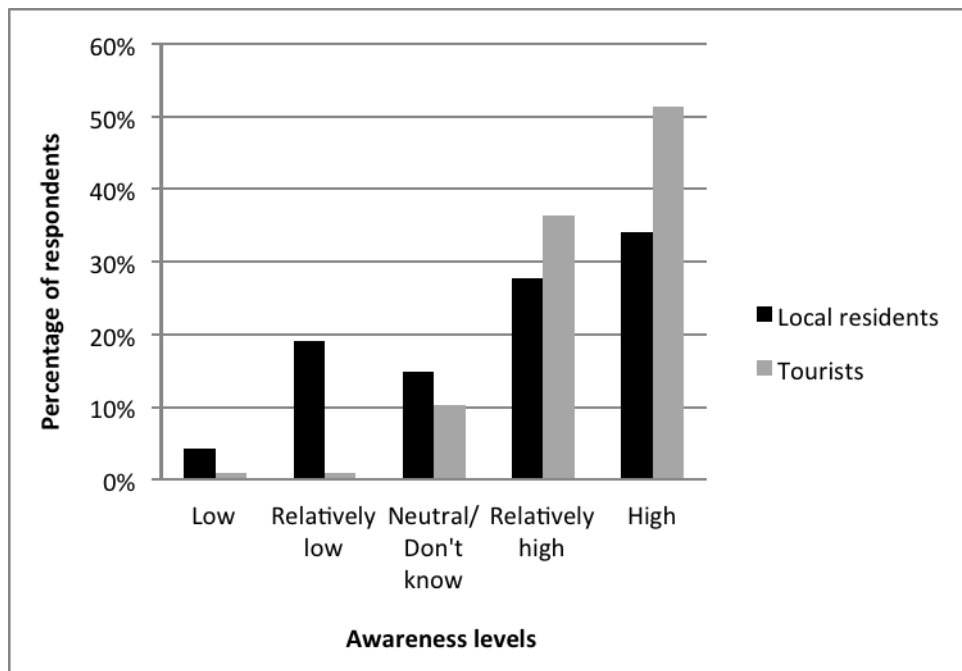


Figure 4. Awareness Levels Regarding Importance of Retezat National Park.

Results of the Independent Samples T-test showed that the difference between the mean awareness values characteristic of the two individual samples is significant at the 95% confidence interval (p value of 0.001; Table 4). On a five point scale, tourists’ mean level of awareness of 4.36 is significantly higher than the local resident’s mean of 3.68. To gain a better understanding of local residents’ and tourists’ knowledge and awareness, respondents rated their level of concern with environmental issues in general (Figure 5). Approximately 90% of tourists rated their concern levels as high and relatively high, and no tourists rated their concern levels as low. Although a majority of local residents rated their concern levels as relatively high or high, a significant proportion, approximately 30% of locals is not really or not at all concerned with environmental issues, rating their awareness levels as relatively low or low, respectively.

Table 4. Awareness and Concern Levels – Individual Samples T Test

	Mean scores		T	df	Sig. (2-tailed)	Mean Difference
	Local residents	Tourists				
Awareness of the importance of RNP in nature conservation	3.68	4.36	3.457	62.288	0.001	0.684
Concern regarding environmental issues in general	3.53	4.33	3.525	55.701	0.001	0.795

The Individual Samples T-test showed that there is a significant difference between the mean concern levels of local residents and tourists at the 95% confidence interval (p value of 0.001; Table 4). On average, tourists are significantly more concerned with environmental issues than local residents. Although local residents living in the proximity of the protected area have a much wider knowledge of the area’s natural features and resources, they do not seem to be as aware of the importance of RNP in nature conservation and are not as concerned with environmental issues as tourists are.

The next question, indirectly soliciting knowledge of the protected area and awareness of the importance of conservation, required respondents to state individual opinions regarding the possibility of allowing access to the Gemele Scientific Reserve (Figure 6).

The purpose of this question was to detect any potential differences between the two samples regarding their opinion on allowing the general public’s access to the scientific reserve (directly) and thus their knowledge and awareness (indirectly).

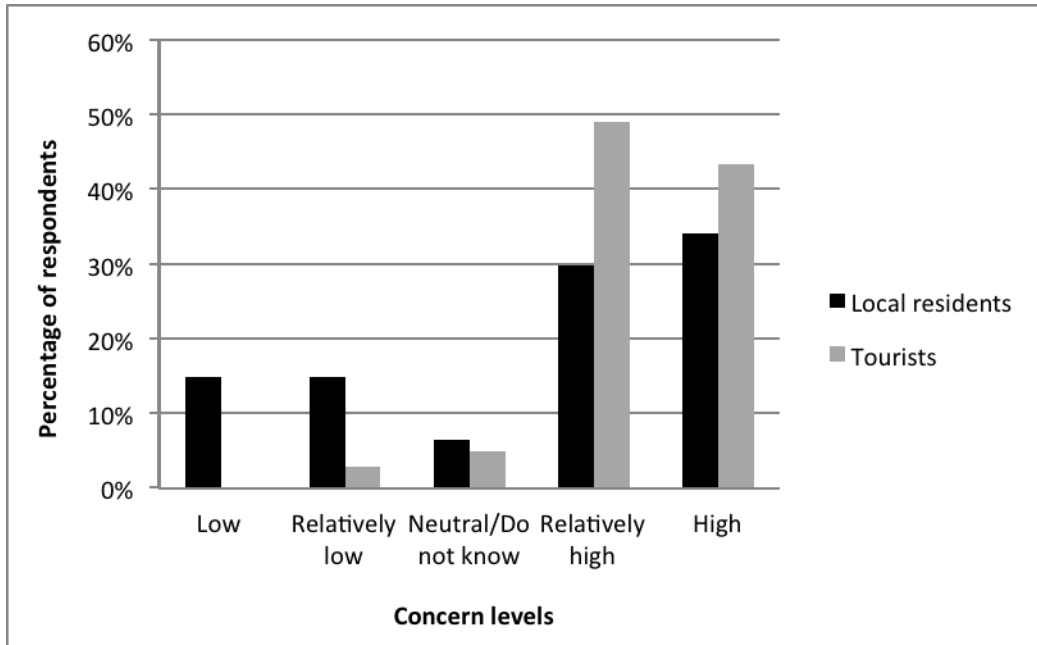


Figure 5. Concern Levels Regarding Environmental Issues.

The proportion of local residents in most of the response categories is slightly less than the proportion of tourists, with the only exception being the “Allow without any restrictions” answer choice, favored entirely by local residents (19.1%). Not understanding the real value of the park’s features and resources, and not being aware of the importance of conservation, caused a considerable percentage of local residents to decide on allowing the general public’s access to the scientific reserve without any restrictions.

Despite the fact that locals have a geographically stronger relationship with Retezat National Park, both in terms of their proximity to the protected area and interaction with the natural environment, their knowledge, awareness and concern levels are lower than that of tourists.

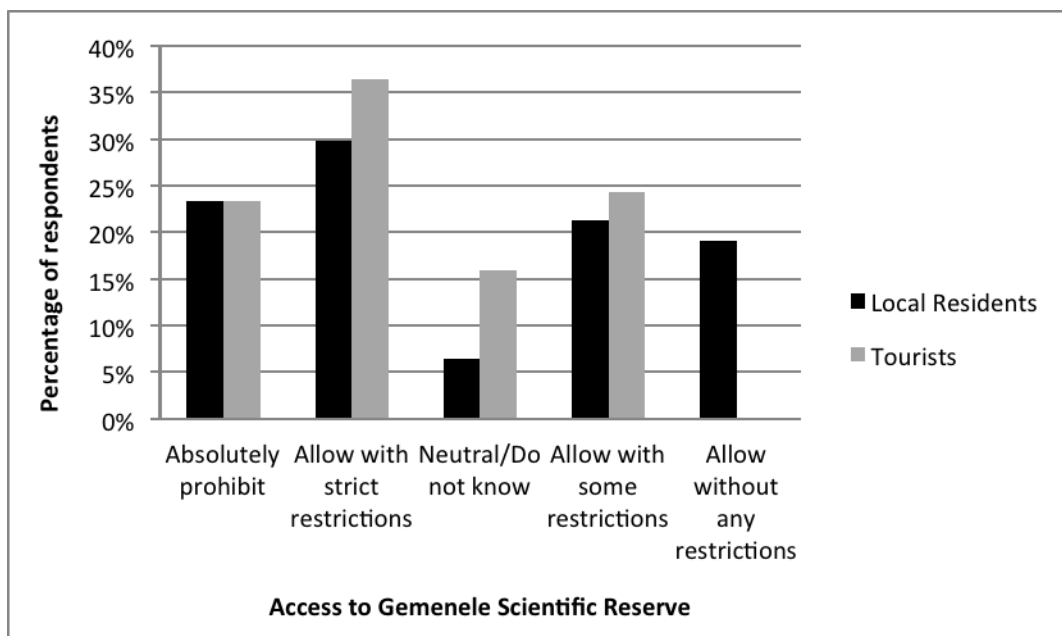


Figure 6. Opinions on Allowing Access to Gemenele Scientific Reserve.

Previously presented results show that, although local residents' overall knowledge of the protected area is not significantly lower than that of tourists', local residents' awareness of the importance of Retezat National Park and concern with environmental issues is considerably lower. Individual's concern with environmental issues was found to be in positive correlation with awareness levels (correlation coefficient of 0.545 significant at the 0.01 confidence level). As a result, respondents who are more concerned with environmental issues are more aware of the importance of the protected area in conserving nature. No significant correlation between demographic variables such as age, gender and income and respondent's knowledge and awareness has been found (correlation coefficients clustering around 0). The level of education is the only demographic variable found in a positive correlation with individual's awareness (Pearson's r value of 0.3 significant at the 0.01 confidence level). Respondents from both investigated samples who have attained higher levels of education, appeared to be more aware of the importance of conservation efforts within Retezat National Park.

Although the proportion of local residents somewhat satisfied with the protected area is similar to the proportion of tourists, 42.6% and 43% respectively, the distribution of local residents and tourists in response categories reflecting extreme satisfaction or dissatisfaction with RNP is different for the two samples (Figure 7). While 44.9% of tourists said that they are very satisfied with Retezat National Park, only 25.5% of local residents shared the same level of satisfaction. Moreover, 19.1% of local residents have said that they are not at all satisfied with the protected area while no tourists have manifested such low level of dissatisfaction.

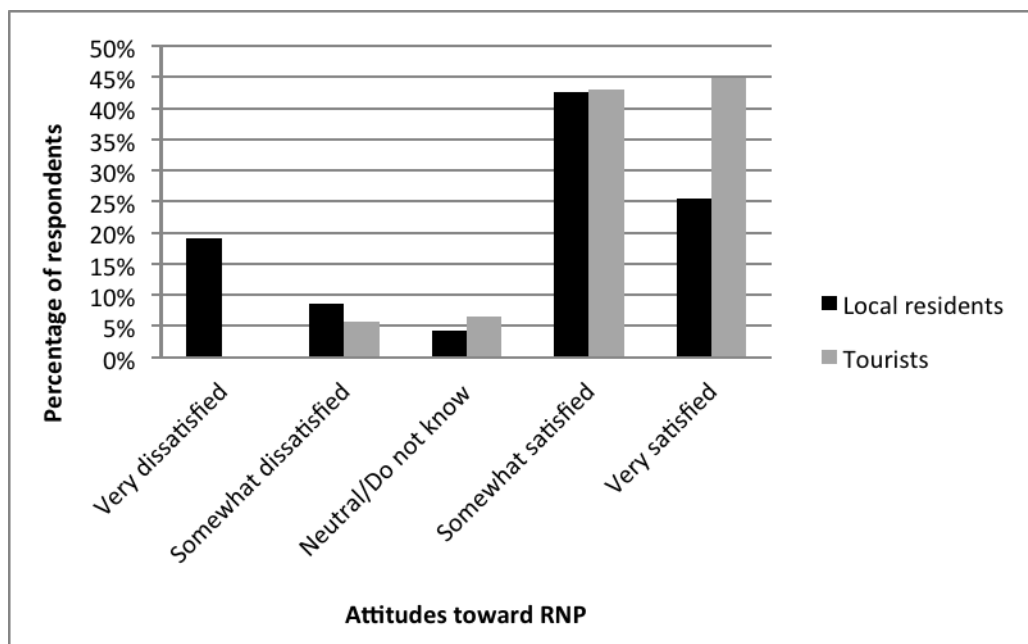


Figure 7. Attitudes Regarding the Existence of Retezat National Park.

At the 95% confidence interval, the results of the t-test showed a significant difference between the mean satisfaction levels with the overall existence of Retezat National Park of local residents and tourists (Table 5). Overall, tourists' mean satisfaction level with the protected area is significantly higher than that of local residents.

Within the context of significantly different awareness and concern levels for local residents and tourists and strong relationship between attitudes, awareness and concern levels, it is not unusual to discover that tourists have more positive attitudes toward Retezat National Park. Moreover, differences in attitudes exist not only due to differences in awareness and concern but also due to the different use types people associate with the protected area. Residents of these rural areas either have ownership of forested areas included in the park's territory or previously benefited from natural resources found on the protected area's territory. As a result the primary use type they associate with the protected area is a direct, extractive use. Tourists on the other hand, stated their main purpose in visiting Retezat National Park is associated with recreational uses of the protected area. As conservation measures mainly inhibit extractive uses and cater to recreational uses, local residents faced with restrictions developed varying levels of negative attitudes toward Retezat National Park.

Table 5. Overall View of RNP – Individual Samples T Test

	Mean scores		t	df	Sig. (2-tailed)	Mean Difference
	Local residents	Tourists				
What is your overall view of the protected area	3.47	4.27	3.539	59.161	0.001	0.803

When asked whether there are any benefits to local residents from tourism activities due to the existence of the protected area, results showed a significant difference between the two samples. Independent Samples T-test showed that local residents' perception of their economic benefits from the existence of the protected area is significantly lower than tourists', mean scores representing perceptions being 2.38 for tourists and 1.68 for local residents.

Further analysis showed that there is a significant positive correlation between perceptions of benefits to local residents and attitudes toward Retezat National Park (Spearman's r value of 0.282 significant at the 0.01 significance level). Respondents, regardless whether they are from the tourist or local resident sample, who believe that there are economic benefits to local residents due to the existence of the protected area, tend to manifest more positive attitudes toward Retezat National Park than those who do not.

6.5 Willingness to Pay

Although a majority of the total number of respondents state that they would be willing to pay to support conservation, tourists were more willing to pay higher entry fees than local residents. Approximately 75% of tourists stated that they would support conservation within Retezat National Park by paying higher entrance fees, while 64% of local residents stated that they are not in favor of supporting conservation efforts within the protected area. Thus, significant differences between local residents and tourists are evident. Moreover, local residents and tourists who were in favor of supporting conservation within Retezat National Park by paying higher entrance fees stated that they would be willing to pay on average 4.33 EUR and 5.56 EUR per day respectively; both amounts are considerably higher than the currently imposed entrance fee of 1.14 EUR per week.

Table 6. Reasons for WTP Decisions – Individual Samples T Test

Decision	Reason	Tourist or Resident	Mean	Std. Deviation
Yes	To support conservation	Tourists	4.78	0.477
		Residents	4.71	0.686
	To enhance recreational activities in the area	Tourists	3.05	1.319
		Residents	3.47	1.375
	To endow future generations with natural resources	Tourists	4.3	0.986
		Residents	4.53	1.068
I was very satisfied by the visit and it is a way of showing my appreciation	Tourists	4.11	0.891	
	Residents	4.59	0.712	
No	I cannot afford to pay because the overall trip is already too expensive	Tourists	2.37	1.334
		Residents	3.00	1.742
	I don't feel I should contribute to nature conservation	Tourists	1.81	1.145
		Residents	2.17	1.533
	Others (such as the state, non-governmental organizations) should pay	Tourists	3.44	1.625
		Residents	4.83	0.379
The overall visit was not satisfactory	Tourists	1.15	0.456	
	Residents	1.23	0.679	

Results of the Individual Samples T-test show that respondents with a positive answer supported their decision of paying for conservation by ranking such statements highest as “To support nature conservation”, “To endow future generations with natural resources” and “I was very satisfied by the visit and it is a way of showing my appreciation” (Table 6). Respondents who were not in favor of paying higher fees to support conservation reasoned their decision by ranking the statements “Others, such as the state or non-governmental organizations should pay” significantly highest among other reasons provided.

While a certain proportion of both local residents and tourists who were against paying higher entrance fees believe that others should pay for conservation (the state, NGOs), recognize that they contribute to nature conservation, by ranking the statement “I do not feel I should contribute to nature conservation” lowest among other answer choices.

At the 0.01 significance level individual decisions of paying or not to support conservation within Retezat National Park was found to be significantly correlated with demographic variables such as age, educational level and income. Positive correlation was found with the educational level (0.355) and income (0.417) variables. Respondents, who have attained higher levels of education or those with higher monthly incomes, are more likely to be willing to pay for conservation than respondents with lower levels of education or income. A negative correlation was detected between respondent’s age variable and willingness to pay decisions (-0.216). Younger respondents showed a greater tendency toward giving positive answers to the willing to pay question than older respondents.

Previously presented results showed that tourists are more concerned with environmental issues and their level of awareness of the importance of the protected area in nature conservation is higher than that those local residents. This may be one of the main reasons why tourists would favor financially supporting conservation within RNP to a higher degree than local residents would. Moreover, as educational level, income and age was found to be in correlation with individual’s WTP, individual’s demographic profile should also be considered when interpreting differences between the two samples of interest. A greater proportion of tourists are in favor of paying higher fees for conservation within Retezat National Park not only due to their high levels of environmental awareness and concern, but also because tourists are represented by young age categories, have attained high levels of education, the majority are employed and earn relatively high monthly incomes. Local residents are represented by an overall much older population, have attained relatively low levels of education, the majority are retired or unemployed and have low monthly incomes compared to tourists. In addition, according to the current policy enforced by the management of Retezat National Park, residents of rural areas in the proximity of Retezat National Park are exempt from paying entrance fees and there are no financial compensation for locals with limited access to natural resources. This may also be a significant factor influencing local residents in making willingness to pay decisions.

7. Individual Sample Group Profiles

7.1 Local Residents

Local residents were asked whether they believed that there are benefits to the area from the existence of Retezat National Park. The majority of respondents (85%) stated that local communities do not benefit in any way from the existence of the protected area. Reasons rated highest according to their importance in influencing negative responses to the question whether local communities benefit from the existence of the protected area were “No direct revenues from the management of the protected area” with an average score of 4.72 and “Minimal or no involvement of local residents in the management of the protected area” with a mean score of 4.53 on a 5 point scale. Although the limited nature of local residents’ access to natural resources within the protected area was rated relatively high in comparison to the remaining statements (mean score 3.08), respondents do not view it as an important reason why benefits from the protected area do not exist. These results show that while local residents’ view not having access to natural resources as important, financial incentives or their involvement in the management of the protected area would provide them more valued benefits than resource use activities.

The mean score for “Incomes from tourism” of 2.86 was highest among the other two answer choices. These results show that while a small percentage of local residents do believe that there are benefits to local communities from the existence of the protected area, benefits are viewed as being very low.

Discussions with local residents highlighted the different attitudes and perceptions toward the protected area and toward the management of the protected area. Although local residents generally manifested positive attitudes toward the Retezat National Park, they did not share the same positive feeling toward the management of the protected area with tourists. Their relatively negative attitudes toward the management of the protected area are supported by such statements as “Individuals from the management of RNP should be less interested in their personal gains and invest existing funds solely for improving the effectiveness of RNP and not for other purposes”, “The current management of RNP should be *dissolved*” and “If only it as possible to hire loyal and dedicated individuals for the administration of RNP”. In addition, local residents appeared unsatisfied with currently enforced policies regarding their access to natural resources located on areas that are privately owned, but included in the protected area’s territory. According to these policies, residents are neither allowed to be involved in resource extraction activities, nor do they receive any financial compensations or incentives for supporting the conservation of natural resources. Moreover, local residents feel that there is a certain level of inequality among the benefits received by residents included in the collaborative management program in Retezat National Park. Depending on social status, some residents unfairly benefit from the natural resources of the protected area, causing tensions among local groups of local residents.

7.2 Tourists

To gain a better understanding of tourists’ attitudes, perceptions and WTP, a tourist profile was built based on such information as the location of their origin, travel cost, number of times previously visited RNP, travel organizer, number of people traveling in the group, length of stay and travel budget size.

Bivariate correlations were used to detect how the influence of variables employed in constructing a tourists’ profile influenced individuals’ attitudes, perceptions and willingness to pay. The correlation results showed that the number of times tourists previously visited the protected area before, the length of stay in Retezat National Park and the number of people travelling together was positively correlated with awareness and concern levels, as well as with overall views of the protected area. Tourists who have visited RNP before, travel in large groups and spend longer periods of time in the protected area are more concerned with environmental issues and are more aware of the importance of the protected area in nature conservation. Thus their overall view of the existence of Retezat National Park is more positive than of tourists’ who have never visited the protected area, travel in small groups and spend short periods of time in the protected area.

Although based on survey results a majority of tourists have very positive overall views of Retezat National Park, their attitudes, similar to local residents, are significantly different for the protected area and the management institution of RNP. Attitudes toward the protected area are significantly more positive than those for the management of RNP. Reasons for the differences in their attitudes were generally related to waste management issues, the poor quality of campgrounds and accommodation facilities within the protected area, the lack of tourist information offices at main access points to RNP and the overall poor quality of roads and trails.

Tourists believe that improvement strategies should be focused on improving the general infrastructure such as modernized access roads, optimized accommodations and basic need tourist facilities within the protected area. Strategies viewed by tourists as most appropriate for improving the effectiveness of Retezat National Park in nature conservation would be based on timely and appropriate enforcement of current conservation measures and the establishment of tourist information services regarding lawful and permitted activities. A majority of tourists believe that, although conservation measures do exist, their inappropriate enforcement decreases the effectiveness of Retezat National Park. This was one of the most often mentioned reasons by tourists not being willing to pay to support conservation measures. These tourists believe that increased interest and a better involvement in the managing institution would have a stronger positive impact than increased financial resources designated for improving conservation effectiveness.

8. Conclusion

This research not only confirms differences between local residents and tourists but also help to gain insight into the extent of the differences between the two categories by identifying the proximate causes and driving forces behind existing attitudes, perceptions and willingness to pay. Although both local residents and tourists appear to have the similar levels of knowledge of the importance of the protected area, their overall attitudes toward Retezat National Park are strikingly different.

Tourists have significantly more positive attitudes and would be more willing to pay to support conservation efforts within the protected area when compared with local residents. Existing attitudes toward RNP are strongly influenced by an individual's awareness of the importance of the protected area in nature conservation and by their overall concern with environmental issues. Although both categories queried are aware that the main purpose of Retezat National Park is nature conservation, awareness and concern levels are significantly different for local residents and tourists. Overall tourists are more concerned with environmental issues than local residents, and thus are more aware of the importance of RNP in nature conservation. This translates into more positive attitudes from tourists toward RNP in terms of satisfaction levels with the existence of the protected area.

In addition to awareness and concern levels, the results of this research showed that the perceived level of benefits to the area from the existence of RNP by both local residents and tourists has a considerable impact on overall attitudes. Considering that local residents have a more realistic perception of the benefits to the area than tourists and their livelihood is directly impacted by the existence – or lack thereof – of benefits, the considerably low level of perceived benefits has contributed to unfavorable views regarding Retezat National Park. Although perceived benefits by tourists to the area from the existence of the protected area are low as well, this did not alter their overall views of RNP as their livelihoods are not impacted by any aspects of the local environment.

Results suggest that differences between local residents and tourists are very substantial regarding an individual's willingness to pay to support conservation within Retezat National Park. Local residents are significantly less in their willingness to pay to support conservation efforts than tourists. In addition to the age and income variables, the fact that currently local residents are exempt of paying entrance fees to RNP and that there are no financial compensations or incentives to stimulate local support for conservation, might have influenced local respondents in manifesting resistance toward financially supporting conservation in RNP. While support from local residents is low, the majority of tourists seemed to be in favor of paying significantly higher entrance fees to support conservation. Although the consensus of previous economic valuations based on such welfare measures such as the willingness to pay is that respondents have the tendency to overstate these hypothetical amounts, increasing the entrance fee to a much lower amount than the one suggested by both respondent groups would still generate significantly higher revenue than the current entrance fee.

Although significant differences between local residents and tourists do exist in terms of their attitudes and WTPs, taking into consideration their different viewpoints may generate potential benefits to the protected area and increase its effectiveness in conservation. The results of this research suggest that involving local residents in the management of the protected area and providing financial compensations and incentives has the potential to increase social support for conservation and increase conservation effectiveness. In addition, including tourist's financial support and optimizing entrance fees according to their willingness to pay for supporting conservation, would generate significantly more revenue for RNP, thus increasing the protected area's possibilities of becoming financially sustainable.

Considering that local residents and tourists are not the only groups of people interacting with protected areas, two additional groups of people should be included in future conservation based studies evaluating attitudes and perceptions. Investigating representatives of the protected areas' managing institution as well as local officials of the investigated rural areas would help gain a more thorough understanding of the nature of the relationship people develop with protected areas.

From an economic valuation viewpoint, prior to optimizing access fees to protected areas according to willingness to pay amounts stated by local residents and tourists, further research should investigate whether increase in revenue due to higher park entrance fees would provide the necessary financial support for protected area to approach self-sufficiency.

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