A thesis submitted to the Department of Environmental Sciences and Policy of
Central European University in part fulfilment of the
Degree of Master of Science

Conservation attitudes of local people: the case of the Măcin Mountains National Park, Romania.

Dragos Vasile MOLDOVAN

July, 2007

Budapest

Notes on copyright and the ownership of intellectual property rights:

Author's declaration

No portion of the work referred to in this thesis has been submitted in support of an application for another degree or qualification of this or any other university or other institute of learning.

Dragos MOLDOVAN

Table of Contents

List of Tables

List of Figures

List of Abbreviations

BSAP	Biodiversity Strategy and Action Plan
CAI	Community Attitude Index
CC	Consultative Committee
CBC	Community Based Conservation
DCA	Damage Causing Animal(s)
DDBR	Danube Delta Biosphere Reserve
EPA	Environmental Protection Agency
EU	European Union
FRMI	Forest Research and Management Institute
ICDP	Integrated Conservation and Development Project(s)
IUCN	World Conservation Union
GD	Governmental Decision
GEF	Global Environmental Facility
LSU	Livestock Size Unit
MESD	Ministry of Environment and Sustainable Development
MEWM	Ministry of Environment and Water Management
MMNP	Măcin Mountains National Park
MMNPA	Măcin Mountains National Park Administration
NFA	National Forestry Administration
PA	Protected Area(s)
RON	Romanian New Leu (1€ = 3.22 RON)
RSY	Romanian Statistical Yearbook
SD	Standard Deviation
SE	Standard Error
SOP ENV	Sectorial Operational Plan for Environment
SPSS	Statistical Package for Social Sciences
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organisation
WS	Weighed Score

PDF-XChange
Click to buy NOW!
http://www.guthcad.com

Acknowledgements

I am grateful to many individuals and institutions for the successful completion of this research project. Firstly I would like to thank my supervisor, Dr. Brandon P. Anthony for the guidance and continuous encouragement. I would like to also thank Adrian Haralambie, Community Relationship Officer for the Măcin Mountains National Park for his belief in me and for his innitiative that started this research. Special thanks to Raluca Perneş, PhD candidate in Sociology at the Babeş-Bolyai University, who was instrumental in the organisation of the field research.

This thesis could not have happened without the financial support of the Central European University, the Măcin Mountains National Park and the Babeş-Bolyai University from Cluj Napoca. I appreciate all the hard work of the sociology students and park volunteers during the field research.

I want to thank Dr. Ruben Mnatsakanian, Head of the Environmental Sciences and Policy Department, for all his patience, understanding and support. Special thanks also go to Dr. Alexios Antypas.

Last but not least, I would like to thank those who supported me, emotionally and in all other ways at their disposal, throughout this undertaking, namely my family and my fiancée, Andrea.

PDF-XChange
Click to buy NOW!
http://www.guthcad.com

THE CENTRAL EUROPEAN UNIVERSITY

ABSTRACT OF THESIS submitted by:
Dragoş MOLDOVAN
for the degree of Master of Science and entitled: Conservation attitudes of local people: the case of the Măcin Mountains National Park, Romania.

Month and Year of submission: July, 2007.

Attitudes and beliefs of people toward protected areas are being more and more regarded as a key factor in conservational efforts. Romania has a defective system of biodiversity protection and is currently struggling to reform it. Involvement of local communities is rarely present in the Romanian conservational discourse. This thesis examines the attitudes of the communities surrounding the Măcin Mountains National Park (MMNP). A representative probabilistic sample, consisting of 374 households, was selected and a questionnaire survey was used as the main tool for assessing the attitudes towards the MMNP. A community attitude index (CAI) was used to aggregate the responses to 7 attitude related question. The CAI was tested for correlations the variables with a potential to influence attitudes. It was found, that in the case of the MMNP, positive attitudes were only correlated with the level of education and with no other socio-economic or demographic characteristics. Most of the attitudes were neutral. Positive attitudes are mostly related with the intrinsic value of nature and its services. Negative attitudes are mostly determined by the perception of fuel wood shortage or higher prices due to the presence of the MMNP or with the introduction of potentially dangerous animals in the area. The results of this research are relevant not only for the future management of the MMNP, but also for a significant number of protected areas in Romania and in other regions, with similar conditions.

Keywords: attitudes, perceptions, values, park-people relationship, protected areas, conservation, Măcin Mountains National Park, Romania

---

Chapter 1 Introduction

This thesis seeks to examine the attitudes towards nature conservation of the communities neighbouring the Măcin Mountains National Park (MMNP). The history of the protection of nature in Romania is set against an ambiguous legacy. For the past seventeen, Romania has been trying to leave behind its communist heritage, which, in the field of biodiversity protection meant moving from declarative conservation and towards an effective modern protected area (PA) system. Romania is at the moment trying to define its approach to nature conservation and, thus, at this crossroads, it needs to consider all possible directions.

The thesis tackles one of the topics rarely discussed or approached in the Romanian conservational effort and even less in the emerging Romanian conservation literature, namely the link between conservation and local communities. Perceptions and attitudes of local people towards a national park will be explored in the larger context of relationships between PAs and communities living in their neighbourhoods. Although focused on the MMNP, a small protected area in Romania, the findings of the present research have implications and relevance for other PAs in the country, but also beyond its borders.

Another area approached in which this research represents a pioneering attempt is the perception of the Consultative Committee (CC) by the inhabitants of the MMNP's peripheral area.

The main aim of this thesis is to provide a clear image upon the use of natural resources and attitudes of communities neighbouring the MMNP, by answering the following research questions:

- What is the socio-economic and demographic profile of the study area?
- What are the needs of the local communities and how do they use the most important natural resources of the area?
- What is the perception of the local population towards nature protection and the MMNP and what are the factors influencing it?
- What is the perception of the local communities regarding the Consultative Committee?

The present thesis is structured in six chapters, each of them having a different role, each of them focusing on a different aspect of the research.

Chapter One, the 'Introduction', states the research problem, together with a short justification and an outline of the thesis.

Chapter Two, the 'Literature review', positions the present thesis in the larger academic context, by sketching the current "state of play" in the field of conservation. This section also provides a detailed information about the status of nature protection in Romania, MMNP establishment and current situation in the area.

Chapter Three, the 'Methodology', explains how was the research designed, what were the methods used to answer the research questions and what are the main limitations of the methods used.

Chapter Four, the 'Research results', presents the results of the research, in an impartial manner, without providing any interpretation.

Chapter Five, the 'Discussion', interprets the research findings and discusses each of the research questions individually.

Chapter Six, the 'Conclusions', presents a short summary of the main findings of the research, together with identifying possible implications of the results.

It must be noted that the research is not exclusively an academic undertaking, but also having a strong practical dimension, as it was made possible also due interest from the MMNP[1] administration. As a consequence, the final result is an outcome of the common work of three institutions: the MMNP Administration, the Babeş-Bolyai University and the Central European University.

[1] The MMNP administration also provided financial support for the field operators, especially during the data collection stage of the research and some support also for the research staff, through the UNDP-GEF project No. 00047111 .

Chapter 2 Literature review

2.1 Introduction

The aim of this chapter is to lay down the theoretical foundation and conceptual framework upon which the research is based.

Local communities in the vicinity of PAs have occupied different positions in the conservational effort, shifting under the influence of the dominating conservation paradigm[2]. One of the objectives of this literature review is to give a historical perspective on the notion of community in conservation. Another would be to identify gaps in research that are still to be addressed. These gaps, translated into several questions and corresponding hypotheses, represent the basis of the research.

2.2 Community based conservation: elements for a deconstruction and a reconstruction.

Biodiversity, as a natural resource, is important and, as underlined by Anthony (2006) its role in human welfare has been well determined. The rapid rate of biological diversity loss occurring especially in developing countries has arisen increased concern[3]. One of responses was to try to conserve nature 'hotspots' in the form of protected areas. The effectiveness of efforts to combat the loss of natural resources and species has been the focus of debates during the past decades (e.g. Wells *et al.* 1992; Barrett and Arcese 1995; Gibson and Marks 1995; Alpert 1996; Furze *et al.* 1996; Sibanda and Omwega 1996 ; Brandon 1997; Larson *et al.* 1998; Kellert *et al.* 2000; Newmark and Hough 2000). In the attempt to find solutions, different directions of conservation have been taken, such as imposing strict barriers and isolating the PAs from the surrounding communities or trying to link conservation with local development.

The "fines and fences" represents the traditional approach to nature conservation and protected areas (PAs) management, being centred on isolating pockets of "pristine" landscape – PAs – from any external

[2] I will use the term paradigm as coined by Thomas Kuhn is his book, *The Structure of Scientific Revolutions* (1962).

influences. Sometimes it meant even resettling the local people from these areas (Michaelidou *et al.* 200

This stems from a rather technical functional and positivist approach, embedded in a "realistic" view of environmental risk based on a double perception of nature (ontological and epistemic) (Burchell 1998). Firstly, ontologically, the nature is out-there, is external to our existence, distinct from our society and culture and the environmental risk is measurable, the product of society's impact on nature. This leads to the "realistic" epistemic assumption that human knowledge about nature and therefore about environmental risk is neutral and objective. A consequence of this approach is to empty all environmental risk of their cultural and social significance and to treat them merely from a technical management perspective. Under this "top-down" and centralized approach to nature conservation the local people were the ones generally bearing high costs (Furze *et al.* 1996). Most notably among these costs were the alteration of the everyday life, by the denied or restricted access to natural resources within the perimeter of the park and wildlife damage – coupled with lack of adequate compensation for it, to which local people have no form of response due to existing conservation laws (Mehta & Kellert 1998; Ghimire and Pimbert 1997; Wells *et al.* 1992; West and Brechin 1991). One of the results, was that negative attitudes were exacerbated among the local people and, therefore, the relationship of the PAs with surrounding communities was further altered, which impacted negatively on long-term conservation goals. Although sometimes successful, the "traditional" conservation approach reached a moment of crisis[4], as underlined by (Agrawal & Gibson 1999 pp. 632) "The past several decades of planned development and top-down conservation practices have made one fact amply clear: the capacity of states to coerce their citizens into unpopular development and conservation programs is limited."

It is in this context that the idea of coupling nature conservation and community development has arisen (Barrett and Arcese 1995; Clay 1991; Furze *et al.* 1996; Gurung 1995; Michaelidou *et al.* 2002). Community-based conservation (CBC) was one of the possible responses to emerge from the failure of the coercive 'fines and fences' paradigm. In CBC 'development' does not exclude 'conservation' and *vice*

[3] A survey conducted by New York's American Museum of Natural History, on 400 biologists, indicates that most biologists (70%) believe that the Earth is currently experiencing currently the of a wide-spread, mass, human-caused extinction, known as the Sixth Extinction or the Holocene extinction event. (American Museum of Natural History 1998).
[4] If we understand the evolution of sciences through the Kuhnian model.

versa, but rather recognizes and tries to meet both the needs of the wildlife and those of the local population, by incorporating the neighbouring communities in conservation policies and programmes.

The integration of ecosystem conservation and community development has become part of the conventional rhetoric, but it starts to be regarded with more and more scepticism as the effectiveness of CBC project and programmes is seriously questioned (Holmes 2003; Michaelidou *et al.* 2002; Wilshusen *et al.* 2002). Although CBC seems to rally quite a few scientists under its flag (Alpert 1996; Furze *et al.* 1996; Larson *et al.* 1998) it is facing increasing criticism. The radical critics believe that community-based conservation schemes are not likely to be successful due to incompatibility between the economic aspirations of local people and the sustainable use of natural resources. More moderate criticism focuses on the lack of effectiveness of CBC initiatives due to failures in understanding the resource use interests of the local communities. Based upon this, some analysts advocate a rebirth of the "strict protection through authoritarian practices" (Wilshusen *et al.* 2002, p.18).

Before we can dismiss the idea of community-based conservation there is a question that needs answering, "Does the perceived failure of people-oriented approaches to conservation such as integrated conservation and development projects (ICDPs) mean that we should throw them out altogether?" (Brechin *et al.* 2002, p.42).

I consider that CBC should not be abandoned, but rather reformed. People-oriented approaches have marked a rupture from the preservationist approach to conservation, but, unfortunately, they have not managed to leave the entire legacy behind. They are still very much focused on the discovery of the universally-valid laws or solutions of nature conservation and, thus, CBC approaches are still tributary to a positivist model of science (von Wright 1971) centred on explanation and, therefore, on the identification of generally valid causal relationships, which imply the reduction of the complex social world to a few elements and incorporating them into a standard explanatory model. This is often due to the presence of a bias towards natural sciences. Even if community was introduced in the equation of nature conservation, which is nowadays often the case, it is, usually, a pre-constructed, stereotypical image, not so much based on reality, but mostly on scientific tradition (Agrawal & Gibson 1999). We need to abandon the romantic

image of the "Ecologically Noble Savage" (Redford, 1990) and to critically assess communities a people-oriented approaches to nature conservation. The focus needs to be on particular and specific solutions, based upon a thorough understanding of the complex social, economical, cultural and political forces that determine and condition the local reality. The effectiveness of CBC projects lies in the ability of PA managers to understand and deal with this complexity.

2.3 Attitudes towards conservation

As pointed out by Veech (2003) and underlined by Anthony (2006), the management of a PA should rely both on data about the biodiversity in the area and on knowledge regarding local stakeholders. Conservation attitudes of people residing in areas neighbouring PAs determine their long-term fate (Richards 1996; Baral 2005) and, as a consequence, for the management of a certain PA, it is important to know what are the attitudes neighbouring people towards it and also understand which are the factors influencing them. Independent of the geographical context, it has been shown that variables such as gender, age, education, occupational status, income, ethnicity and years of residence in the area are often among the determinants of conservation attitudes (Sah & Heinen 2001; Mehta & Kellert 1998; Fiallo & Jacobson 1995). Data obtained through from attitude surveys is indispensable and, at the same time, increasingly popular among PA managers. However, also due to increase in use, one must accept and understand the limitations of opinion / attitude surveys. Such surveys never record actual behaviour. However, social psychologists (Stoetzel 1963; Rokeach 1973; Radu and Iluț 1994) regard attitudes as good predictors of behaviour, therefore, positive attitudes / opinions are most likely to determine positive conservational behaviour.

Social actors construct attitudes also taking into account the perceived costs and benefits entailed upon them by the establishment of PAs. They tend to have positive attitudes if they consider the PA beneficial for them (most often if their access natural resources is not restricted) (Newmark *et al.* 1993) and negative when costs exceed the benefits (usually when access to natural resources is restricted) (Heinen

1993, Gillingham & Lee 1999). The issue of distribution of benefits is therefore important, both at community and household level.

In conclusion, people's attitudes are instrumental in achieving conservation goals, however, it must be understood that they are not reflecting accurately behaviour, as they can be contextually influenced. Nevertheless, management of PAs should consider their social impact and use attitude surveys as one of the most important tools in their arsenal.

2.4 Biodiversity conservation in Romania – history and current trends

Romania is a country rich in biodiversity, covering a series of habitats[5], ranging from coastal and wet to forest and rocky. The Ministry of Environment and Sustainable Development (MESD) (2007) estimates in its *Sectorial Operational Plan*[6] *for Environment* (SOP ENV) that natural and semi-natural ecosystems still account for 47% of the country's surface and that, among European Union members states, Romania in one of the countries with the highest number of threatened species[7]. The main threats for biodiversity are represented by the fragmentation of habitats and excessive exploitation of natural resources, both coupled with rapid economic development (MESD 2007). The struggle to couple development and protection of natural areas has, therefore, much relevance for Romania. This section aims to provide a short historical account of the evolution of biodiversity conservation in Romania.

[5] According to studies under the European (EU) financed CORINE Biotopes Project, 783 types of habitats have been identified on the territory of Romania (13 coastal, 89 wetland, 196 grassland, 206 forest, 54 swamp, 90 rock / sand and 135 agricultural habitats) in 261 areas analyzed on the territory of Romania.(MESD 2007)

[6] An Operational Programme is a document approved by the European Commission for the implementation of the sectorial and (or) regional priorities, identified in the National Development Plan, which will be financed through the Community Support Framework for Romania. The SOP Environment refers to the environmental sector in Romania.

[7] For example, as pointed out by Ioras (2003), Bulgaria has 170 endemic and sub-endemic species (Ministry of Environment and Waters 2000), Hungary has 11 (Simon 1992) and Romania 228 (Institute for Forest Research and Management 1996).

2.4.1 The Pioneering years

Different tentatives aiming to protect nature can be seen in as far as the 19th century in Romania, most in the form of recreational and hunting reserves (Pop and Sălăgeanu 1965, Ioras 2003). Golescu (1912) in an article published in *Revista Pădurilor* makes one of the first arguments in favour of the protection of the forest environment.

However, the idea of protecting nature entered, formally, the Romanian science environment during the Romanian Naturalists' Congress, held in 1928 in Cluj Napoca, when, at Emil Racoviță[8]'s proposal, a decision regarding the imperative necessity to develop a legal framework for the protection of nature was adopted. As a consequence, in July 1930, the first law[9] regarding the protection of environment is drafted. One year later, the Commission for the Protection of Natural Monuments is founded, which is still functioning today under the patronage of the Romanian Academy. In 1931 the first monuments of nature were declared (the edelweiss *Leontopodium alpinum* and the thermal water lily *Nymphaea lotus var. thermalis*). The first forest reservation was established in 1932 (Domogled-Băile Herculane), followed by the establishment of the first national park in 1935 – the Retezat National Park (Oarcea 1984). In the period between 1932 and 1943, 48 natural monuments and 55 nature reserves were set up (Ioras 2003).

The efforts during this early stage were centred on the development of a legislative and institutional framework and the establishment of a limited number of protected areas, with no focus on their administration (Cristea *et al.* 1996).

2.4.2 The Communist Period

The year 1944 marks the instalment of the communist regime in Romania, which lasted until 1989. During the communist period, the measures for nature protection were mostly based on the pre-war institutional efforts, undertaken by scientists like Alexandru Borza or Emil Racoviță (Pop 1982). In 1972

[8] "Emil Racoviță (November 15, 1868—November 17, 1947) was a Romanian biologist, zoologist, speleologist and explorer of Antarctica. Together with Grigore Antipa, he was one of the most noted promoters of natural sciences in Romania. Racoviță was the first Romanian to have gone on a scientific research expedition to the Antarctic, more than 100 years ago, as well as an influential professor, scholar and researcher."(Popovici *et al*. 1975, p.358)

Romania had 190 protected areas totalling 100,000 ha, representing 0.0042% of the country's surface. The measures were limited to setting up protected areas, but nothing being done for their management (Cristea *et al.* 1996). More initiatives arose to declare other large PAs, but none were realized. From a legislative point of view, 1973 marks the adoption of the Environmental Law[10] which includes provisions for the protection of nature reserves and natural monuments, as well as procedures for the establishment of protected areas (Oarcea 1999). In 1979 the Retezat and Pietrosul Rodnei peaks were declared UNESCO Biosphere Reserves – Man and Biosphere programme, but still they were left without administration.

2.4.3 Nature protection in post-communist Romania

After 1989, with the end of the communist period came expectations of increased opening and efficiency in the establishment of a PA national network that covered the entire ecosystems diversity of the country together with concrete legislative and institutional measures to create an efficient management of the PAs.

As a first measure, in 1990, the Ministry of Waters, Forests and Environmental Protection issued Order No.7, regarding the establishment of 13 national parks, among which the Retezat National Park, which had been established long before. The order caused confusion as it was referring only to forestry fund surfaces incorporated in the national parks, and made no clear specifications about the PAs that contained alpine zones. Largely contested it was never put in practice due to large surfaces of forestry fund included.

In 1991 the Danube Delta was designated as a Ramsar[11] site and as World Natural Patrimony for 50% of its surface. In 1992 it became a Biosphere Reserve under UNESCO's Man and Biosphere programme, the paradox being that the Danube Delta was an international level protected area, without any

[9] Law No. 213/1930 – The Law for the Protection of Natural Monuments
[10] Law No.9/1973
[11] The Ramsar Convention or "The Convention on Wetlands, signed in Ramsar, Iran, in 1971, is an intergovernmental treaty which provides the framework for national action and international cooperation for the conservation and wise use of wetlands and their resources. There are presently 155 Contracting Parties to the Convention, with 1675 wetland sites, totaling 150 million hectares, designated for inclusion in the Ramsar List of Wetlands of International Importance." (Source: http://www.ramsar.org/ [consulted on July 21, 2007])

national recognition. In 1994 it is declared as Biosphere Reserve[12] and a Global Environmental Facility (GEF) project is launched for the development of the administration and the management plan. For many years it remained the only protected area with its own administration in the country.

In 1995 the Environmental Law[13] was adopted which contains provisions related to nature conservation and protected areas and recognizes all previously declared PAs.

In 1997 the Directorate for Biodiversity Conservation was created, within the Ministry of Waters, Forests and Environmental Protection, with the declared purpose of planning and coordinating all activities related with nature conservation in PAs.

Since 1998, under the GEF, three more sites (Retezat National Park, Piatra Craiului National Park and Vânători Neamț National Park) received funding for the creation of administrations and the design of management plans. The SOP ENV (MESD 2007) states these are the only PAs in Romania currently implementing a management plan.

According to the SOP ENV (MESD 2007), Romania has 13 National Parks, 13 Natural Parks and the Danube Delta Biosphere Reserve (DDBR), covering a total surface of 1,687,512 ha (including 121,779 ha marine surface), which represents 7% of the area of the country. Besides the national and natural parks, Romania has approximately 935 scientific reserves, natural monuments and nature reserves totalling 180,000 ha. Therefore, the total terrestrial surface of the natural protected areas represents around 8% of the total terrestrial country surface at the end of 2005. The goal is to increase this to 15% by 2013. The division of the surface covered by PAs in Romania is presented in Figure 2.1.

[12] Governmental Decision No. 246/1994
[13] Law No.137/1995

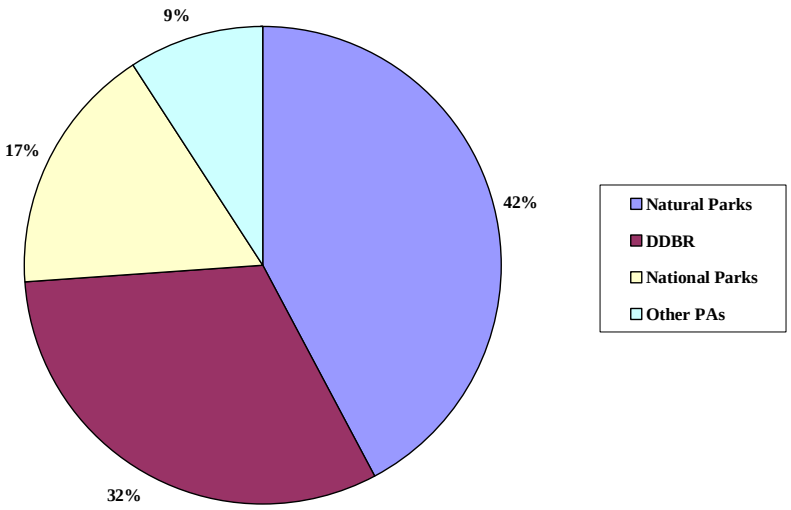


Figure 2.1 – Pie chart presenting the distribution of protected areas in Romania (Source: MESD 2007)

Most of the Romanian conservationists, as pointed out by Ioras (2003), have argued in favour of a series of small surface protected areas. This is believed to be the main reason (Oarcea 1999, Ioras 2003) behind the high percentage of protected areas (56.2%) included in IUCN 1 category (Table 2.1 presents the IUCN categories of protected areas), which have a surface of less than 5 ha.

Table 2.1 – IUCN Management Categories of Protected Areas (Anthony 2006, IUCN 1994).

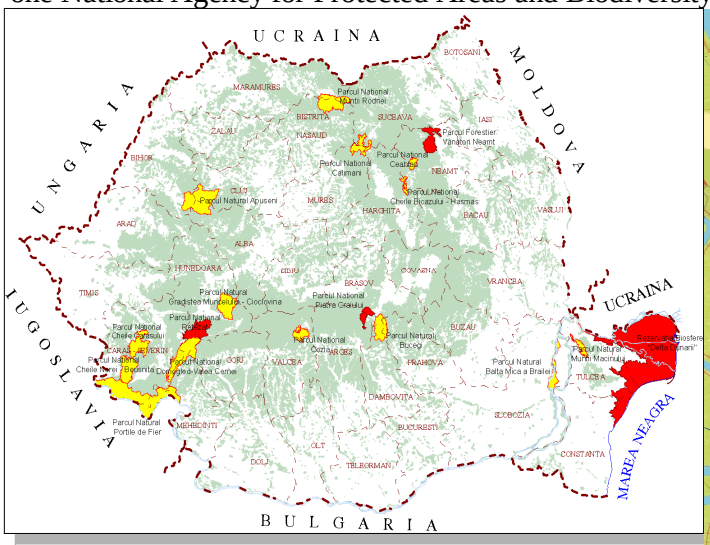
Category	Description
1a	*Strict Nature Reserve*: Protected area managed mainly for science.
1b	*Wilderness Area*: Protected area managed mainly for wilderness protection.
2	*National Park*: Protected area managed mainly for ecosystem protection and recreation
3	*Natural Monument*: Protected area managed mainly for conservation of specific natural features.
4	*Habitat / Species Management Area*: Protected area mainly for conservation through management intervention
5	*Protected Landscape / Seascape*: Protected area managed mainly for landscape / seascape conservation and recreation.
6	*Managed Resource Protected Area*: Protected area managed mainly for the sustainable use of natural ecosystems.

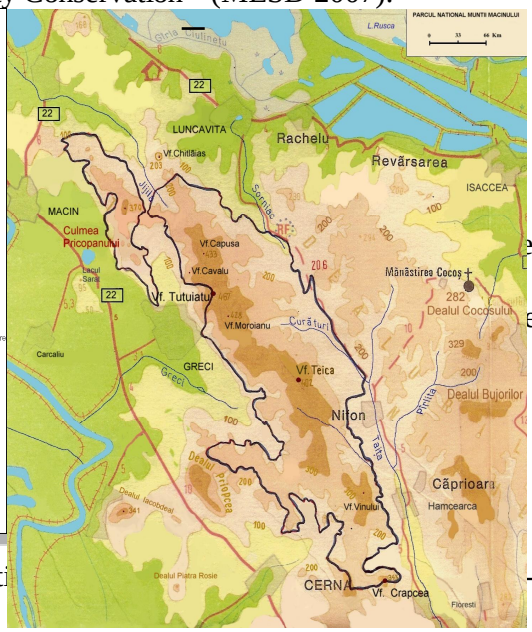
Most of the surface of the PAs is state property (approx 78%), but important areas are privately owned (11%) or belong to local authorities (11%) (MESD 2007). The property regime is changing, especially due to forest retrocession which will pose increasing challenges to the management of these PAs. In the current phase, estimates predict (Ioras 2003) that around 50% of the forest land is going to be

estituted back to the rightful owners, including, but not limited to, local authorities, different churches a religious cults, the army and minority organisations. Individuals are also expected to receive back up to 30 ha of forest.

Conservation is made difficult in Romania, due to the diversity of bodies interested in PA, like the Romanian Academy, the Forestry Research Institute and the Biology Research Institute and National Forestry Administration[14] (NFA), all holding different views regarding issues of PA management.

Most of the large PAs with established administration[15] are managed by Romsilva. Most of the times, this means that the focus is not so much on protection as it is on wood production (Ioras 2003), which makes it difficult to reach conservation objectives. Such aspects have great potential to create conflicts between national parks' administration and NFA. A reform, aiming to increase the efficiency and effectiveness of PA management, will subordinate all administrations of PAs' of national importance under one National Agency for Protected Areas and Biodiversity Conservation[16] (MESD 2007).





ems are

erritory

As shown in Figure 2.2, the Măcin Mountains Nati -east of Romania, in the north-west of the historical province of Dobrudja, in the Tulcea County, between 28º07´ and 28º27´ eastern longitude and 45º01´ and 45º21´ northern latitude, covering an area of 11,149.15 ha. The MMNP is the only (MMNP 2006) protected area in Europe where ecosystems typical for the Pontic-

[14] Autonomous agency in charge with the management of national forests.
[15] Out of a total of 26 National (13) and Natural Parks (13), 22 are managed by NFA – Romsilva, 2 by local authorities and 1 by a university (MESD 2007).
[16] The National Agency for Protected Areas and Biodiversity Conservation was supposed to be established at the end of 2006, according to the SOP ENV (MESD 2007) and is also referred to in the Urgency Governmental Decision No. 57 / 29 June 2007

Sarmatian steppe, submediteranean and Balkan forests, together with numerous endangered species, can be found in Herminie Mountains, the oldest in Romania and some of the earliest in Europe.

Figure 2.2 – Location of the Măcin Mountains National Park in Romania

In comparison with the national parks situated in the Carpathian Mountains, the Măcin Mountains National Park is far lower in altitude, being situated in a unique biogeographical area – one of interference of Asian, Mediterranean and Central-European species. The annual average temperature is comprised between 9 and 10.8° C, with a mean precipitation of 480 mm/year and, thus, can be classified as semi-arid (Anthony 2006). The river catchments are included in the hydrographic basins of the Danube (Jijila, Luncavița, Cerna and Sorniac rivers) and of the Black Sea (Taița). The river flow is reduced, "most of them having a temporary character (with pluvial or vernal regime) often forming waterfalls" (MMNP 2006). According to the MMNP administration (MMNP 2006) four zones and layers of vegetation are present: the steppe zone; Pontico-Balkan marginal type; the silvo-steppe layer with sub-Mediterranean forests; the xeroterm sub-Mediterranean forest layer and the layer of mesophile Balkan forests with broad leafed trees.

Although a current study regarding the entire biodiversity of the Măcin Mountains does not exist[17] (some specifically targeted studies exist, though), it is estimated (UNDP 2005) that around one hundred and fifty species of vertebrates and seventy-two species of plants that fall under national or international protective regimes are present in the Măcin Mountains. Table 2.2 presents a detailed account of biodiversity and its status in the area of the MMNP.

Table 2.2 – Biodiversity in the MMNP (Source: UNDP 2005)

	No. of species recorded	Status of the species	Observation
Mammals	41	11 –protected under the Bern Convention[18]	
Birds	187 sightings	112 – IUCN as "vulnerable", "rare" of "possibly extinct" 2 – protected under the Habitats Directive[19] of the European Union	Eastern Imperial Eagle *Aquila heliaca* Greater Spotted Eagle *Aquila clanga* White-tailed Sea Eagle *Haliaeetus albicilla* Pallid Harrier *Circus macrourus* Red kite *Milvus milvus* Honey buzzard *Pernis apivorus*

regarding the regime of the natural protected areas, the protection of natural habitats, of wild flora and fauna, but, until publication of this thesis, it has not been established yet.

[17] It is one of the proposed aims of the UNDP-GEF project, currently under implementation.

[18] The Convention on the Conservation of European Wildlife and Natural Habitats, also known as the Bern Convention, 1979.

[19] Council Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora

			Short-toed eagle *Circaetus gallicus* Steppe Buzzard *Buteo b. vulpinus* Saker falcon *Falco cherrug* Booted eagle *Hieraetus pennatus* Lesser spotted eagle *Aquila pomarina* Imperial eagle *Aquila heliaca* Long-legged buzzard *Buteo rufinus* Steppe eagle *Aquila nipalensis*
Butterflies (Lepidoptera)	979	14 new species for Romania + 3 new species for science	*Chersotis laeta* *Chirsotis fimbriata*
Amphibians	7	All strictly protected under the Bern Convention	
Fish	36	3 endemic + 3 rare	
Reptiles	11	Strictly protected under the Bern Convention	Dobrodjan turtle *Testudo graeca ibera* Romanian dragon snake *Elaphe quatrolineata sauromates*
Plants	1911	72 threatened 27 endemic species	Romania Bell *Campanula romanica*

2.5.2 Establishment and organization of the Măcin Mountains National Park

Being set up in 1998, the MMNP is among the newest national parks established in Romania. The administration of the MMNP is attributed, through the contract 742/MEWM/22.05.2004, to the NFA – Romsilva. Table 2.3 presents the legislation governing the establishment of the MMNP.

Table 2.3 – Legislative framework regarding the establishment of the MMNP

Law	Provision
Order of Minister of Waters and Environmental Protection No. 68 / 26 January 1998	Setting up of the MMNP
Law No.5 / 2000 regarding the approval of the National territory improvement plan – Section 3 – protected areas	Specifies a 11,321 ha surface, entirely within the borders of the Tulcea County, on position P, as a protected area of national interest, under the name of Măcin Mountains
Governmental Decision No.230/2003 regarding the delimitation of the biosphere reserves, of the national and natural parks and the establishment of their administration	Classifies the Măcin Mountains protected area as a national park and sets its limits in Annex 1, according to which, after adding the surfaces mentioned in the Decision, the MMNP covers a surface of 11,227.11ha
Governmental Decision No.1529/2006 for the modification of Annex 1 of the GD No.230/2003	77.96ha belonging to the Măcin Local Council, corresponding to the Greci – Piatra Îmbulzită stone quarry, are removed from the national park, resulting in a total surface of the MMNP of 11,149.15ha.

Nowadays, the MMNP covers an area of 11,149.15 ha, majority of which is represented by forest (99%) (MMNP 2006). Table 2.4 presents the structure of land ownership of the terrain included in the MMNP.

Table 2.4 – Property structure and administration of the terrain in MMNP (01.05.2006) (MMNP 2006)

Category	Owner	Administrator	Surface (ha)	% of MMNP
Forestry area	Romanian State	NFA-ROMSILVA	11,107.00	99.62
Forestry area	Private owners Luncavița	NFA-ROMSILVA	3.20	0.03

Pastures	Măcin Local Council	NFA-ROMSILVA	30.00	0.27
Arable	Private owners Hamcearca	NFA-ROMSILVA	8.95	0.08
TOTAL	X	NFA-ROMSILVA	**11,149.15**	**100.00**

According to MMNP (2006) the functional zonation of the park is based on the value of the natural habitats and comprises the following internal zones, that determine the major management objectives and the permitted activities:

- ***Scientific reserves***, with a surface of 293.7ha. At present include the ***Moroianu Scientific Reserve***, within which only scientific research is allowed. These areas correspond to IUCN 1 category.
- ***Special conservation zones***, with a surface of 3,573.70ha. In these areas the following activities are allowed: scientific research, controlled tourism, educational activities, sustainable use of pasture land, in the conditions laid down in the MMNP Regulations and Management Plan
- ***Sustainable conservation zones***, with a surface of 7,281.75. Economic activities are allowed in these areas (according to the Ministry Order No. 552/ 2003, the MMNP Regulations and the forestry arrangements) with respect to natural resources' sustainable use principles, that do not endanger the conservation of the natural and cultural patrimony of the park.
- ***Recreational, camping and other touristic and religious activities areas.*** Activities for awareness raising, support for nature conservation and for the protected area, public contact are run here.

As shown before, the MMNP is administered by NFA-Romsilva, through its Tulcea branch, having the following personnel structure: 1 park director, 1 chief of security, 1economist, 1community relationship, environmental education and investment responsible, 1biologist, 1 information technology specialist and 6 field rangers.

In terms of financial resources, the MMNP administration currently implements the United Nations Development Program – Global Environmental Facility (UNDP-GEF) project No. 00047111, „Strengthening Romania's protected areas system by demonstrating best practices for management of small

protected areas in Măcin Mountains National Park", with a total budget of $3,095,970 over a period of 5 years.

2.6 Conclusion

As pointed out in the first part of this chapter, there are different attitudes regarding the involvement of communities in the management of PAs. However, the attempt to link conservation and development seems to be the "victorious" paradigm. It is of outmost importance not to regard community-based conservation as a panacea, but rather to aim at anchoring it in the complex social, economical, political and cultural context in which conservation takes places. Therefore, knowledge about the conservation attitudes of the people in the peripheral areas of PAs should be addressed and periodically improved through attitudinal surveys.

Romania, although defective in terms of nature protection, can be considered one of the biodiversity hotspots of Europe. In this context, improving effectiveness of the conservation effort becomes impetuous. One necessary direction in which this should be achieved is the assessment and improvement of community attitudes towards conservation.

Chapter 3 Methodology

3.1 Introduction

This chapter aims to justify how was the research problem approached and how were the research questions answered, including a delimitation of the geographical area of the study, together with the period when it was conducted.

3.2 Study location (Study area)

This study was conducted in the communities neighbouring the Măcin Mountains National Park. The MMNP is surrounded by 14 villages and 1 town, grouped in 7 local councils, as presented in Figure 3.1 and Table 3.1. All 7 local councils have land either inside or in the immediate vicinity of the MMNP border.

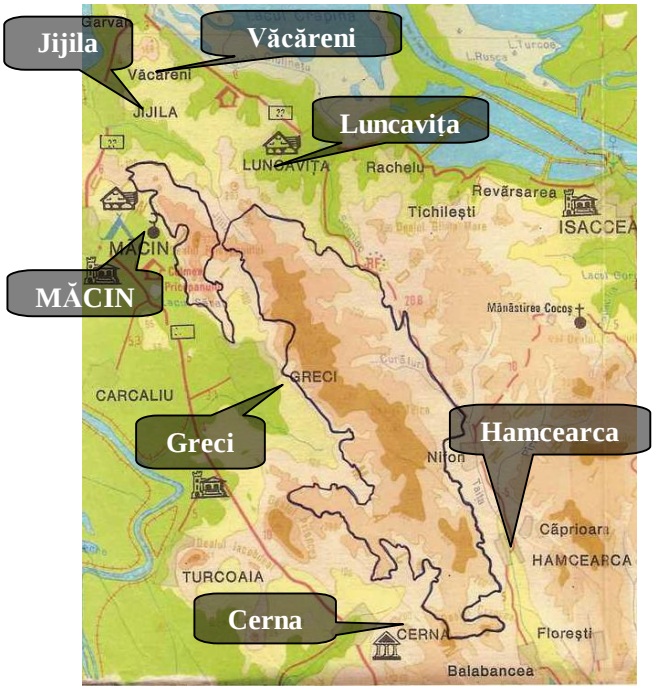


Figure 3.1 – Study area with the location of the local councils included in the study

As it can be noticed (Table 3.1), not all villages were included in the selected sample in the case of the Cerna commune. The decision was based on two reasons: spatial (distance from the MMNP border > 5 km) and interactional (both people from the area and representatives of local authorities declared that the

some villages have no interaction with the MMNP – and therefore a decision was taken to exclude the from the research sample).

The population of these communities adds up to 39,218 inhabitants according to the data declared by Mayors and presented in Table 3.1.

Table 3.1 – Settlements neighbouring the MMNP

	Local Council	Villages	Towns	Population[20]	No. of households[21]	Households in sample
1.	Măcin	-	Măcin	11,920	3,200	93
2.	Jijila	Jijila	-	6,600	2,165	72
3.		Garvăn	-			
4.	Văcăreni	Văcăreni	-	2,350	860	23
5.	Luncavița	Luncavița	-	4,758	1,837	55
6.		Rachelu	-			
7.	Hamcearca	Hamcearca	-	2,670	1,108	42
8.		Căprioara	-			
9.		Balabancea	-			
10.		Nifon	-			
11.	Cerna	Cerna	-	5,100	1,200	38
12.		Mircea Vodă			-	-
13.		Traian	-		-	-
14.		G-ral Praporgescu	-		-	-
15.	Greci	Greci	-	5,820	1,870	51
Total	**7**	**14**	**1**	**39,218**	**12,240**	**374**

3.3 Field methods and data collection

This section aims to provide an account of the methods chosen for answering the research questions, together with a short justification, but without trying to reiterate the extensive methodological debate[22] in the sociology, regarding qualitative and quantitative methods of social research. Given the complexity of both the phenomena and the social setting, a combination of three methods was used for collecting data: unstructured interviews with park staff (both administrative employees and field rangers) and representatives of the local communities (mayors), a structured / questionnaire survey and study / review of project documents/records. Quantitative methods (the questionnaire survey on a representative sample) were primarily used in order to gain an overview of the research problem, to obtain data in a quantifiable form (from which to identify possible relationships) and which gives the opportunity to generalize and compare (comparison is possible only if the tool – i.e. the questionnaire – is identical to other researches).

[20] As declared by Mayors during face-to-face interviews.
[21] Agricultural registry for the communes and Mayor's declaration for Măcin.

The choice of the qualitative methods is motivated through the need for more depth in some of the research aspects, an anchorage in the local realities and meanings.

Unstructured (open) interviews were mostly used in the *pilot phase* of the research[23], in order to identify some of possible directions / topics that might not have been considered in the initially for the quantitative survey. This involved discussion of some methodological aspects with the MMNP staff and community leaders[24]. Formal community leaders were also contacted, in order to consult them regarding the appropriateness of the research and the possible response of the communities during the field research. Establishing contacts in the field, both at community and MMNP administration level, was one of the objectives of the pilot phase.

As part of the initial research (the *pilot study*), literature on previous relevant studies was reviewed, together with documents and records related to the project, mostly provided by the MMNP administration, but also project-related documents publicly available (i.e. published on the UNDP's, as donor organisation, website). This proved to be of great value when trying to get a deeper understanding of the research problem, but also provided me with a invaluable local information, which were important to clarify before the field research itself (location and access of the villages etc).

The questionnaire was constructed using both closed and open-ended[25] questions regarding different topical categories, such as:

- the *context* – socio-demographic characteristics of the local population were recorded together with information regarding their livelihoods;
- *orientations* – attitudes and beliefs of the local population regarding the needs of the local community, conservation, protected area management, MMNP.

[22] One of the best references, in the Romanian sociological literature, on the methodological debate in sociology, is Rotariu and Iluț(2001).
[23] A visit in the area of the MMNP was done in beggining of May 2007.
[24] They were presented the general topics of the research and asked if they considered some other topics relevant for the aim of the research.
[25] Open-ended questions were mostly used in order to allow the respondent to express an opinion / attitude in his (her) own words. The responses were later coded using a topical method (identification of the recurrent topics) and / or positive / negative classification (Weisberg *et al*. 1996), trying to keep as much of the initial information as possible.

The questionnaire was first written in English and then translated into Romanian. The questionnaire was pre-tested on three people from the MMNP area. As a result some modifications were made.

Quantitative data were collected during a two-week structured household survey in July 2007. A simple random sample consisting of 374 households was selected from the Agricultural Registries[26], to form a statistically representative sample with a confidence interval of ±5% and a confidence level of 95%.

One adult person (≥18 years old) was interviewed in each of the selected households, field operators being instructed to try, when possible to interview the head of the household. In the event that no adult person was found for an interview the research operator had to visit the selected address/ household one more time, in another day, at a different hour. Assistants were also instructed to avoid gatherings of people, be it neighbours of family members, when a person was interviewed. If the second attempt to interview also failed, then the operators were allowed to select a neighbouring household using a 'left-3' rule[27]. In order to minimize the research bias, the questionnaire was administered by 17 trained research assistants, mostly[28] sociology students and from the Department of Sociology and Social Work of the Babeş-Bolyai University in Cluj Napoca, Romania. A detailed table can be found in the annex indicating the villages surveyed by each operator.

Before administering the questionnaire, each of the assistants introduced himself (herself), the questionnaire (duration, main topics to be covered) and a provided a short explanation of the research aim. The second step, after the informative stage, was to ask for the consent of those to be interviewed and insure them of the confidentiality of the data.

All quantitative data were analysed using the Statistical Package for Social Sciences (SPSS) software, Version 13, to:

- study variation of variables in the sample (trends, trying to identify homogeneity / heterogeneity in the data)

[26] The Agricultural Registry, according to Governmental Order No. 1 / March 13th, 1992, represents the official document in which data concerning households are entered: head of household and members; terrains under property of exploitation; number of livestock and yearly evolution; buildings; means of transportation (both animal and mechanical traction); tractors and agricultural machines.
[27] The 3rd house on the left was selected or first street on the left and 3rd house there.
[28] 15 sociology students, 1 PhD candidate in Sociology and 1 volunteer for the MMNP.

- explore possible linkages (correlations, associations) between socio-demographic data a
  perceptions/opinions/attitude.

All results will be made available in Romanian, upon completion of the research, to all formal leaders (mayors) of the communities covered by this research. All data resulted from the quantitative research is anonymous. Any links between the person that responded the questionnaire and the questionnaire itself can be made only through a file that contains identification information, to which only one person (the author of the present thesis) has access. This file will never be made public and will be destroyed 1 year after the completion of the research.

3.4 Limitations

As pointed out in above (2.4 Biodiversity conservation in Romania – history and current trends) Romania is in course of developing a PA network. As a consequence, most of the focus of existent and future PAs goes into the direction of biodiversity studies. To the researcher's and the MMNP administration's knowledge, no study regarding the relationship of a PA with its neighbouring communities was conducted in Romania. The pioneering character makes this study an important milestone, but has also created difficulties for the researcher.

As a consequence of time and financial constraints, this study had to be condensed in a relatively short period of time. Additional resources would have offered the possibility to include additional stages of research, thus resulting in a more comprehensive image of the relationship of the MMNP with its neighbours.

Chapter 4 : Research results

4.1 Introduction

Chapter Four focuses on the results of the research, providing a short and under no circumstances exhaustive presentation of the most important research findings. The Chapter consists of three sections, in addition to the 'Introduction' and the 'Summary'. Each of the section treats addresses one or more research questions. Section 4.2 presents a socio-demographic profile of the people living in the area of the MMNP and corresponds to the first research question and an overview of community needs. The following section includes results referring to the second research question. Findings in relation to the third and fourth research questions are presented in section 4.4. Discussion of the data presented in this chapter is reserved for Chapter Five.

4.2 The profile of the local communities

4.2.1 Introduction

This section will present the socio-demographic characteristics of the local populations and community needs. The socio-economic and demographic profile represents the context in which attitudes, opinions and beliefs are formed and, therefore, have the potential to influence community development programmes.

4.2.2 Gender and age

Out of the 374 interviewed respondents, 149 were male and 206 female. In 19 of the cases the questionnaire administrators did not record the gender of the respondent. A distribution of real percentages is presented in Figure 4.1. If we exclude the missing values then the percentage gender distribution is 48% male and 52% female.

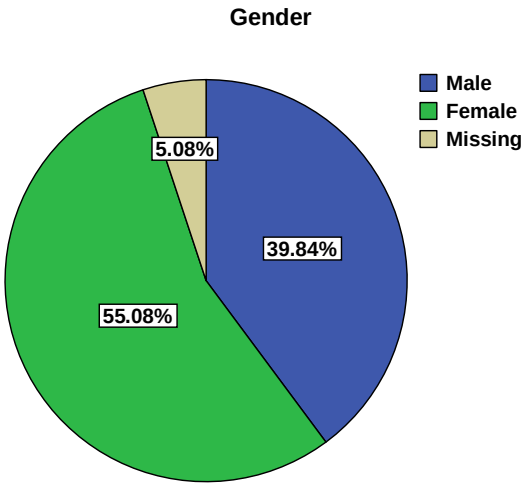


Figure 4.1 – Pie chart showing the distribution of respondents according to their gender (N=355)

The youngest respondent is 18 years old, the oldest being 92. The mean age of respondents is 53.27±17.22. The mean age of male subjects was 55.83±17.98, while the mean age for the female interviewees was 50.94±16.54. The difference in mean ages between genders is not statistically significant (Figure 4.2).

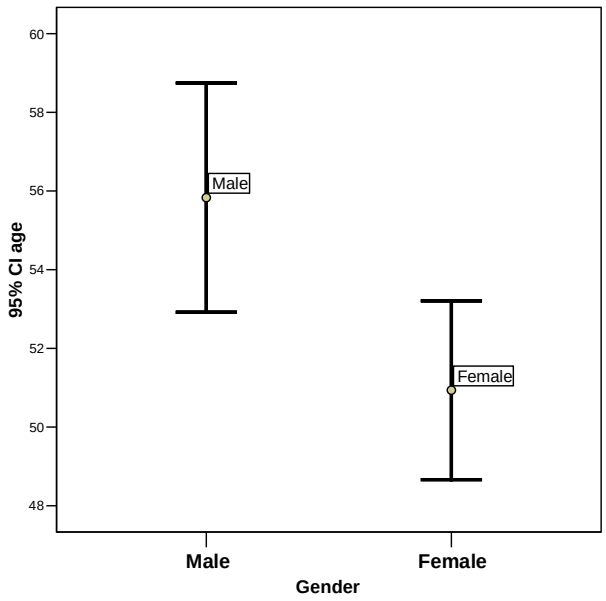


Figure 4.2 – Error bar graph indicating the mean ages and 95% confidence intervals (N=374)

The age variable has been recoded into six different age groups (Figure 4.3), for a better overvi of the variable. This also supports the high mean age recorded, showing that the largest age groups represented are the '65 and above' and '45-54' groups.

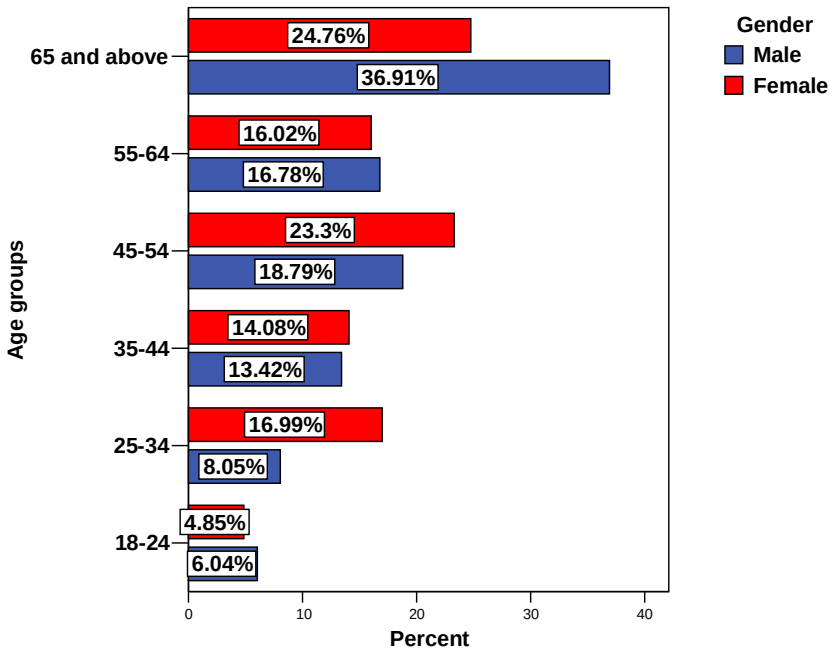


Figure 4.3 – Bar chart representing gender and age groups (N=355)

4.2.3 Household size, composition and years of residence in the village

Another variable that was recorded for a more accurate depiction of socio-demographic conditions was the size of the household, i.e. the number of persons that have lived together within the last 6 months, eat together and share resources and normally reside at least four nights a week at the specific household (Figure 4.4). Most of the households (29.2%) have only 2 members, while another important share (8.3%) is represented by persons who live alone. We observed a dominance of small (up to 4 members) households, representing 74.5% of the total households, the mean number of inhabitants per household being 3.45.

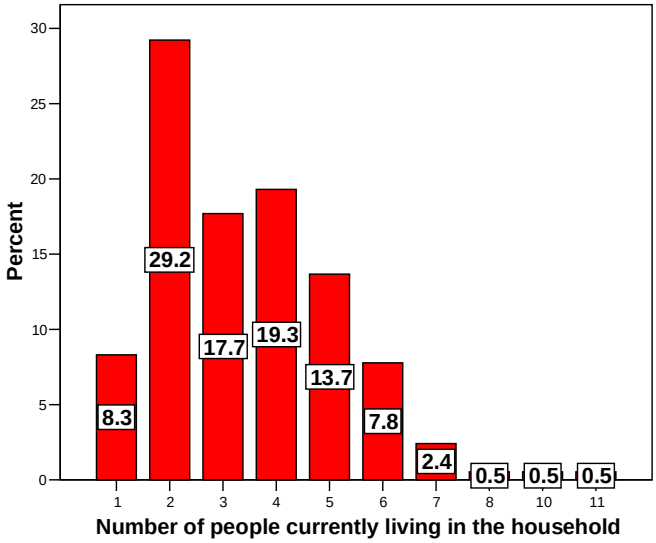


Figure 4.4 – Bar chart presenting household size (N=373)

Another important aspect is that, as shown by Figure 4.5, most of the households with more than 2 members have at least 1 other adult, which pints in the direction of a predominant extended family type present in the area (family with more than two generations sharing the same household).

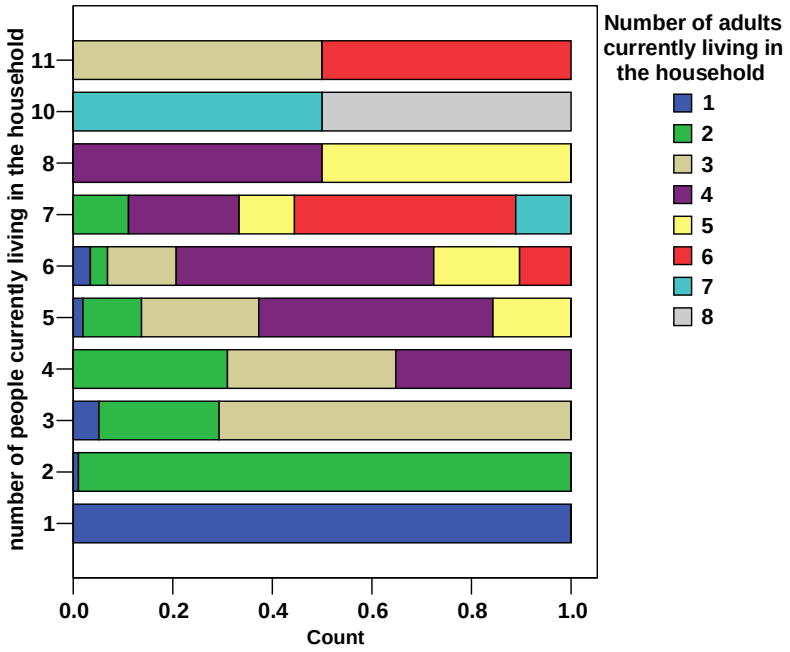


Figure 4.5 – Stacked bar chart illustrating the number of adults per household dimension (N=345)

The mean family residence period in the villages surrounding the MMNP is 45.98 (S.D.= 26.820; N=368).

4.2.4 Ethnicity and religion

The area surrounding the MMNP is inhabited by a diversity of ethnic groups, due to its complex and sometimes controversial history. In the sample, the majority of respondents (93.6%) identified themselves as being Romanian. Other ethnic groups, accounting for the remaining 6.4% of the sample, were: Lipovenian (3), Turkish (2), Aromanian (2), Russian (1), Roma (6), Greek (2), Italian (2), Megleno-Romanian (2), Macedonian (3) and Bulgarian (1), as shown in Figure 4.6.

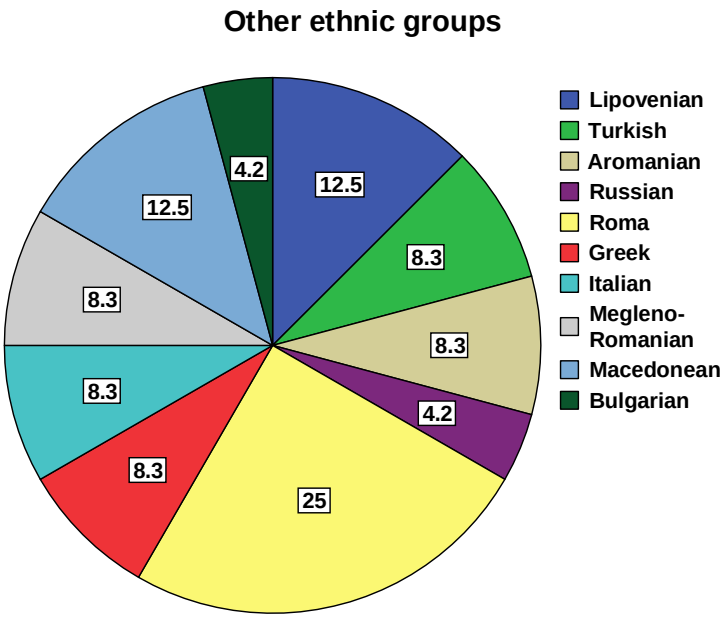


Figure 4.6 – Pie chart depicting the distribution of respondents (as %) from ethnic groups other than Romanian (N=24)

Consistent with the fact that the majority of the sample is represented by Romanians, in terms of religion we observe a majority of Orthodox (369). Other religious affiliations include Old Ritual Orthodox (2), Muslim (2) and Roman-Catholic (1).

4.2.5 Education, occupational status and income

Data concerning the highest educational level attained by the respondents was also recorded (Figure 4.7). Of the 374 interviewees, 1.3% have not been enrolled in any form of education (therefore, considered illiterate – lower illiteracy rate compared with the average of 2.94% Tulcea County[29]) and 23% have some

[29] According to data from the 2002 Census.

form of primary education, 67.6% attended high school or high school level equivalent (vocational apprentice schools). Only 8% of the population was enrolled in or graduated from a form of higher (tertiary) education. Educational level has also been recoded into number of years spent in an educational facility, thus giving us the opportunity to calculate correlations. There is a significant inverse correlation between the age of the respondents and their level of education (r=-.550, $p<0.01$), meaning that younger people tend to be more educated. Possible associations between the level of education and gender were tested and no evidence was found[30]. An interesting characteristic in terms of education is the distribution of illiterates, found only among the youngest and oldest respondents, in the "18-24" and "65 and above" age groups. This is coherent with the educational policy during the communist period in Romania (1944-1989) when a ten-year enrolment in an educational establishment was compulsory, therefore, illiterates were either educated in pre- or post-communist Romania.

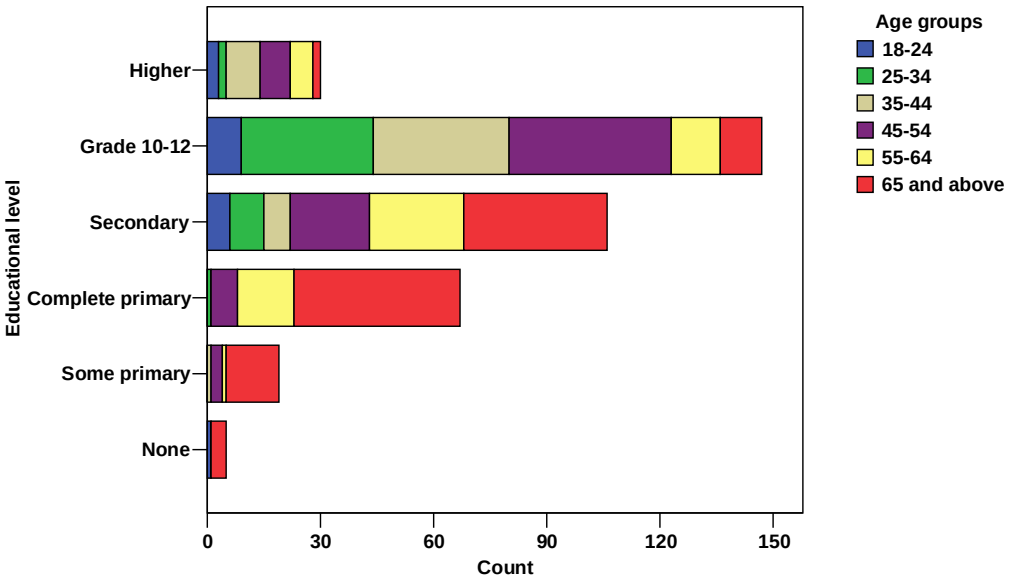


Figure 4.7 – Bar chart showing educational level and age class of respondents (N=374)

In a similar manner, the interviewees were asked their occupational status, with results represented in Figure 4.88. As expected, due to the high mean age, the majority of respondents are pensioners. The second largest category is that of housewives, representing 21.8% of the respondents. However, it should

[30] This was tested in two directions: the significance of the difference of means number of education years between the two sub-samples defined by the gender variable and as association between gender and educational level attained.

…e noted that we might have an overrepresentation of pensioners, housewives and unemployed persons d… to the fact that some of the questionnaires were administered during working hours.

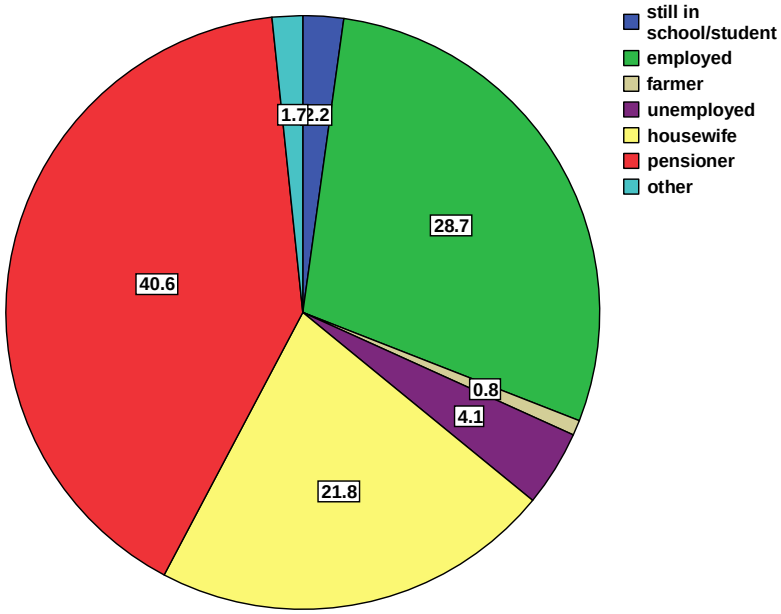


Figure 4.8 – Pie chart portraying the employment status of the respondents (N=362)

The average monthly income per household was recorded in absolute values, and is presented in the form of a histogram in Figure 4.9 – Histogram showing the distribution of the total monthly income (RON) per household (N=347). The mean monthly income per household is 724.55 RON (S.D.=630.05; N=332). The distribution of incomes manifest a significant positive skewness (γ=1.812 S.E.=0.131), i.e. most of the sampled households (82.4%) have an income in the 0-1000 RON range (≤300€)[31]. If we assume that all adults bring income to the household and divide the average household income to the mean number of adults per household, which is 2.69, then we obtain a value of 261.05 RON per adult. This is situated far below the national average[32].

[31] 1€ = 3.22RON

[32] According to the Romanian National Institute for Statistics, in June 2007, the net average income was 1.023 de lei (317 euro) per person.

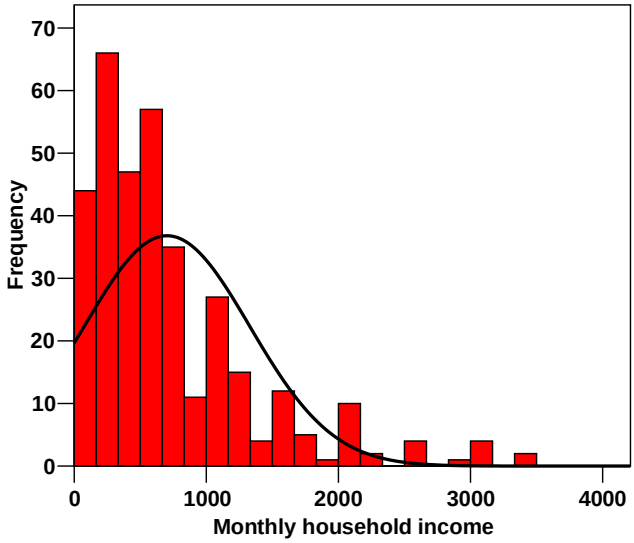


Figure 4.9 – Histogram showing the distribution of the total monthly income (RON) per household (N=347)

4.2.6 Livelihoods – Land and livestock holding

Data was registered regarding the household livestock holdings. Some descriptive statistics have been calculated and are presented in Table 4.1. The most frequent type of livestock owned is poultry (chicken, ducks, geese, turkey), with 81.2% of the households owning at least one, followed by pigs (53.9%).

Table 4.1 – Livestock holdings of the sample households (N=373)

Livestock type	% of households	Number of livestock		
		Min.	Max.	Mean
Poultry	81.2	0	150	21.29
Pigs	53.9	0	13	1.09
Horses	26.8	0	5	0.32
Cattle	10.7	0	21	0.20
Goats	9.7	0	400	1.85
Sheep	6.7	0	50	1.01
Donkeys	3.2	0	1	0.03

An overwhelming number of respondents (86.1%) have at least one type of livestock in their households. The livestock holding diversity ranges from 0 to 7 types, as presented in Figure 4.10, with most households (30.7%) owning two different types of livestock.

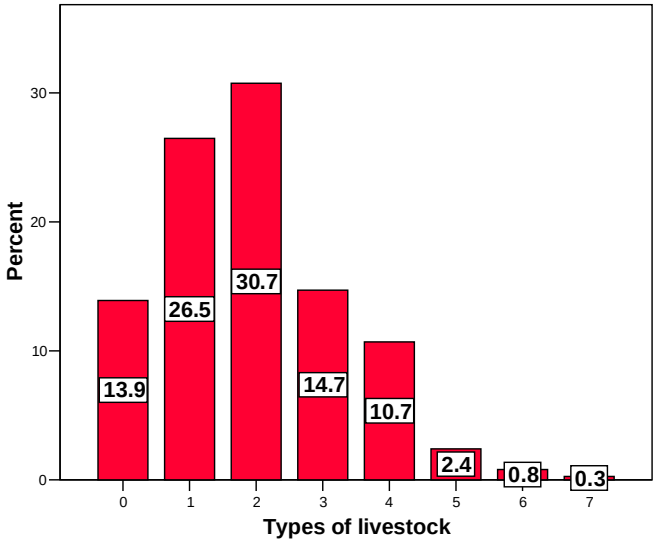


Figure 4.10 – Bar chart representing the distribution of the livestock holding diversity (N=374)

Since the impact of livestock on natural resources is different, depending mostly on size, the number of livestock per household into a single aggregated score, by using the Livestock Size Unit (LSU). One LSU is equivalent to a 400 kg steer (Raut 1997). For the use of the present study the following equivalents are considered: 1 ox is equivalent of 1 LSU (1 steer) and one cow, pig, sheep, donkey, horse, poultry or goat is equivalent to 0.8, 0.4, 0.3, 0.4, 1, 0.05 and 0.2, respectively. The average LSU for the sampled households is 2.66 (S.D.=5.89; N=373) and ranges from 0 to 100.80 (an owner of a herd of 400 goats). The LSU has significant (at 0.01 level) positive correlation with the number of people living in the household (Pearson's coefficient=0.220; N=371).

Apiculture is popular among the communities neighbouring the MMNP, with 15 of the sampled households (4%) affirming that they keep bees for making honey.

A vast majority of the interviewees (85%) declared that their household has land under cultivation. Regarding the position of the garden, 52.8% stated that it is at their home, 12.2% outside the village and 35% stated that they have multiple lots under cultivation, some being at home and some outside the village. The majority of the respondents owning land declared that they are able to plant crops every year (93.8%). Among those not cultivating it yearly, the most common reasons were shortage of money, lack of workforce

and position of garden (last two reasons mostly evoked by older respondents) and drought. Overall, 81.0% of the households in the area have a garden and plant crops every year. Only a small percentage of the respondents declared that they are able to secure a living out of their cultivated land (Figure 4.11).

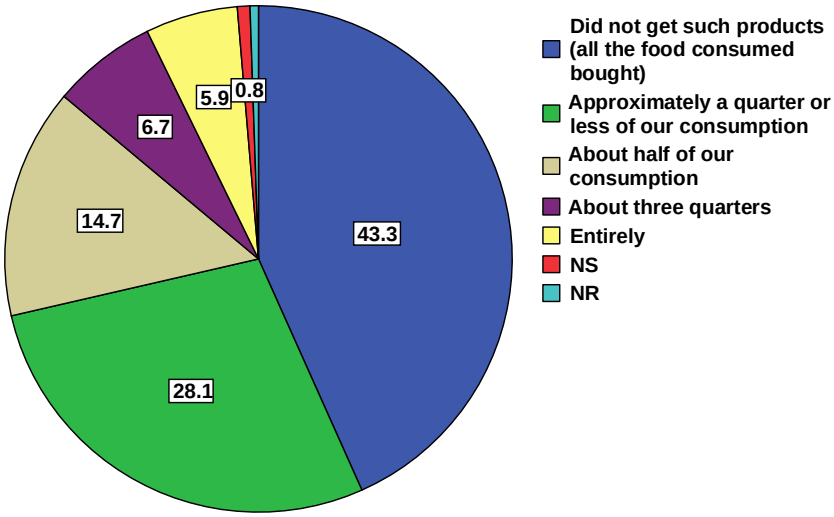


Figure 4.11 – Contribution of food produced in the household or received from friends or relatives to the overall consumption (N=374)

4.2.7 Community needs

In order to have an accurate image of what communities consider important when discussing their needs, respondents were asked to select the five most important needs and rank them, from a predefined list (Table 4.2). They were also given the opportunity to add extra items on the list, in case they considered it necessary. A weighted score[33] was calculated for each of the needs and used as indicator of its importance. It takes into account both the total number of persons that have opted for a certain need, together with the position/rank they have placed the need on. Thus, we observe that the communities consider health facilities to be most important, followed by employment and drinking water facilities (weighted score over 2). Infrastructure, namely road improvement and access to natural gas fall in the second importance category (weighted score between 1 and 2). Of least importance to community members are forestry, agricultural

[33] The weighted score (WS) was calculated with the following formula WS=(%1st rank*5 + %2nd rank*4 + %3rd rank*3 + %4th rank*2 + %5th rank*1)/100.

Expansion (both in terms of livestock and crops), quarry development, school facilities, protection of natu… tourism development and preservation of traditional culture.

Table 4.2 – Ranking of community needs by respondents (% per each rank)

	% per Rank						
	1st	**2nd**	**3rd**	**4th**	**5th**	**Total**	**Weighted score**
Health facilities	34.2	15.0	10.4	7.2	4.0	**70.9**	**2.806**
Drinking water facilities	29.1	20.3	6.7	4.5	0.5	**65.8**	**2.563**
Forestry	0.8	2.7	2.7	1.3	1.9	**9.4**	0.274
Expansion of agriculture (crops)	1.1	5.6	3.7	5.3	4.8	**20.5**	0.544
Employment	18.2	25.1	19.5	9.6	4.0	**76.4**	**2.731**
Quarry development	0.5	3.7	2.4	3.2	2.7	**12.6**	0.336
Access to natural gas	3.5	10.4	13.1	7.5	8.6	**43.1**	1.22
School facilities	1.1	4.0	9.9	11.2	6.7	**32.9**	0.803
Road improvement	8.3	9.6	13.4	15.2	13.6	**60.2**	1.641
Protection of nature	1.3	0.8	4.0	8.8	9.4	**24.3**	0.487
Expansion of agriculture (livestock)	0.8	0.5	3.7	4.5	4.0	**13.5**	0.301
Tourism development	-	0.8	1.9	2.7	8.0	**13.4**	0.223
Preserving traditional culture	-	-	1.1	0.5	1.3	**2.9**	0.056

Considering the fact that SPSS does not have a built-function to calculate the weighted scores, as they were defined for the purpose of this chapter, there is no possibility to test whether the differences among them in the different local councils are statistically significant or not**.** Therefore,

Table 4.3 has only an illustrative purpose. As we can see, there is great homogeneity when it comes to the ranking of the different needs among the communities surrounding the MMNP. The first three choices are almost identical with the ones found in the overall sample, the only exceptions being Cerna, where we have 'access to natural gas' and Văcăreni, where we have 'road improvement' instead of 'drinking water facilities'. High importance is placed on 'quarry development' in Greci[34], a settlement which has a long tradition of stone masonry.

However, we cannot support a thesis of perfect homogeneity concerning opinion regarding the needs of the community. Some differences among different local councils should be pointed out. Investigating them and realizing a more comprehensive portrait might prove of great help in designing any community development programmes.

Table 4.3 – Weighted need scores separated by local councils (top three positions are bolded)

[34] A local council with only one village – Greci.

	Măcin	Cerna	Greci	Hamcearca	Jijila	Luncavița	Văcăreni
Health facilities	**2.616**	**3.422**	**2.395**	**2.619**	**2.875**	**3.127**	**2.865**
Drinking water facilities	**2.744**	**1.634**	**3.022**	**2.642**	**2.833**	**2.729**	1.694
Forestry	0.227	0.286	0.411	0.384	0.266	0.256	-
Expansion of agriculture (crops)	0.282	0.818	0.685	0.787	0.39	0.583	0.824
Employment	**2.812**	**2.659**	**2.761**	**2.501**	**3.295**	**2.09**	**2.782**
Quarry development	0.165	0.448	1.156	0.072	0.098	0.397	0.172
Access to natural gas	1.229	**1.767**	0.803	0.641	0.833	2.072	1.434
School facilities	0.984	0.866	0.411	0.432	1.082	0.69	0.912
Road improvement	1.851	1.447	2.077	1.882	1.11	1.27	**2.262**
Protection of nature	0.667	0.58	0.372	0.406	0.586	0.237	0.348
Expansion of agriculture (livestock)	0.121	0.318	0.294	0.382	0.251	0.579	0.435
Tourism development	0.271	0.315	0.296	0.264	0.209	0.018	0.172
Preserving traditional culture	0.11	0.026	0.04	0.024	0.098	-	-

In another section of the questionnaire the interviewees were requested to state what they regard as the most important problem concerning natural resources or land use (the question was open-ended). About 31% of the respondents believe that there are no such problems or are unaware of them. Among those affirming the existence of different natural resource or land-use problems, 38% stated water scarcity as a problem, linking it mostly to agricultural problems and infrastructure (lack of irrigation facilities, unable to cultivate land due to climatic conditions – drought) (see Figure 4.12). The second most common problem was the lack of access to natural gas, identified by 6.1% of the responding households. Financial constraints and lack of access to wood, coupled with high prices for it represent a concern for another 10% of the households in the surrounding communities. Other worries are related to closing of quarries due to park presence, lack of workforce and state assistance for agriculture and with two households experiencing incidents with damage causing animals (DCA)(jackal).

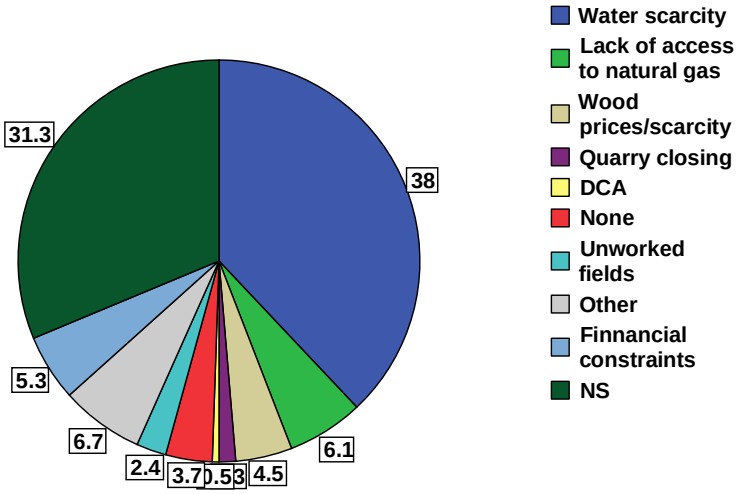


Figure 4.12 – Pie chart indicating the most important natural resource and land use problems as perceived by locals in the communities neighbouring the MMNP (N=374)

4.2.8 Summary

The results presented in this section indicate that the average respondent is over 50 years old. The population pyramid is reversed showing an aged population**.** The average household comprises 3.45 members, most being shared by more than 3 adults which, coupled with observations during the collection of field data, leads us to affirm that in the communities surrounding the MMNP the extended family type is most characteristic. Families have resided in the area on average for 44.78 years, ranging from families that have just moved in the area (<1 year) to families that came to the area more than 100 years ago.

Illiteracy is uncommon in the area, with most respondents (over 90%) having been enrolled in some form of primary education. Most frequently, they have also attended secondary education, the average number of years spent in school being 8.5. In terms of religion and ethnicity we have quite a homogenous population, with over than 90% of respondents identifying themselves as Romanian and Orthodox.

Compared to the average income per capita in Romania, 80% of the households of the area are situated, as total income, below it. Animal husbandry is common in the area, with few households (≈13%) not having any type of livestock. Generally, households have one, two or three different types, with some houses having up to 7 varieties. Most often households choose to raise poultry (chicken) and pigs.

households have land and cultivate it on a yearly basis, but some report unsatisfying crops due to droug and lack of proper irrigation systems.

In terms of community needs, the image is quite homogenous, with most of the households stating that they would like to see improvements in three directions: health facilities, employment and drinking water facilities. Other important community needs were natural gas and road infrastructures. Protection of nature was ranked seventh.

Although over 30% of respondents are not aware or do not believe there are any important problems associated with the use of land or natural resources, most indicate lack of water for agriculture as their main concern.

4.3 Resource use

4.3.1 Introduction

Another chapter of the questionnaire was designed to address issues related to the use of natural resources in the area, namely fuel wood, reeds, fish and game. Information on the local demand and need of natural resources represents a far from negligible component when aiming to understand local forces and dynamics of attitudes towards nature conservation. The following section presents results regarding the use of the four types of natural resources as extracted from the community questionnaires.

4.3.2 Wood and reeds

Respondents were asked to identify the type of heating they are using in their households, being allowed to choose more than one option. They were also given the opportunity to state other sources their households use for heating. As portrayed in Figure 4.13 – Pie chart presenting the type of heating used in household (N=374), most of the respondents (83.4%) in the vicinity of the MMNP indicated that they use fuel wood for heating purposes. Significantly smaller percentages of the households use natural gas (11.8%) and central heating (4.3%). Two of the interviewees (0.5%) affirmed that their households use other means for heating,

one stating that the household he resides in uses electricity (through the use of a radiator) and the second one mentioned the existence of a separate system of heating, without mentioning the type of energy used.

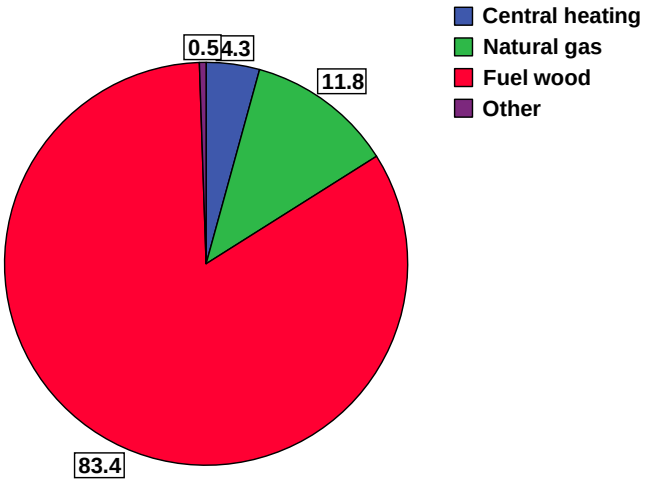


Figure 4.13 – Pie chart presenting the type of heating used in household (N=374)

In terms of heating sources diversity, only seven households, representing 1.9% of the selected sample, indicate that they two types of heating sources.

The data shows a concentration of central heating and natural gas in Măcin and Jijila (Table 4.4). Most of the central heating households (13, representing 81.3% belong to the town of Măcin)[35]. Natural gas heating is concentrated in the town of Măcin and the Jijila commune[36] (97.7%). Only three households included in the sample, belonging to other local councils than Măcin or Jijila, are not dependent on fuelwood for heating.

[35] It must noted that an indicator testing the hypothesis that the rows and columns of a crosstabulation are independent (χ^2 – Pearson's Chi Square) cannot be used (but can be computed) as there are cells with expected less than one and 60.7% of the cells have expected counts less than 5.

Table 4.4 - Crosstabulation showing the distribution of types of heating for every local council

Type of heating in household - choice 1 * Local council Crosstabulation

			local council							
			Macin	Cerna	Greci	Hamcearca	Jijila	Luncavita	Vacareni	Total
Type of heating in household - choice 1	Central heating	Count	13	0	2	0	1	0	0	16
		% within type of heating in household - choice 1	81.3%	.0%	12.5%	.0%	6.3%	.0%	.0%	100.0%
	Natural gas	Count	7	0	0	0	36	1	0	44
		% within type of heating in household - choice 1	15.9%	.0%	.0%	.0%	81.8%	2.3%	.0%	100.0%
	Fuel wood	Count	71	38	49	42	35	54	23	312
		% within type of heating in household - choice 1	22.8%	12.2%	15.7%	13.5%	11.2%	17.3%	7.4%	100.0%
	Other	Count	2	0	0	0	0	0	0	2
		% within type of heating in household - choice 1	100.0%	.0%	.0%	.0%	.0%	.0%	.0%	100.0%
Total		Count	93	38	51	42	72	55	23	374
		% within type of heating in household - choice 1	24.9%	10.2%	13.6%	11.2%	19.3%	14.7%	6.1%	100.0%

Most of the households (91.3%), that have wood as the primary fuel for heating, declare that they buy it (Figure 4.14), while 5.8% resort to gathering and 2.9% completing their collected wood through extra purchase. A household, in the vicinity of the MMNP, that uses fuel wood spent in 2006, on average, 927.44 RON for purchasing it (S.D.=543.14). If we compare that with the mean monthly income of 702.23RON per month per household, we can estimate that members of the average households need to work 1.3 months per year in order to pay for the wood they use.

[36] According to data from the interview with the Mayor of Jijila, the local government implemented a series of natural gas infrastructure development projects in the past 5 years

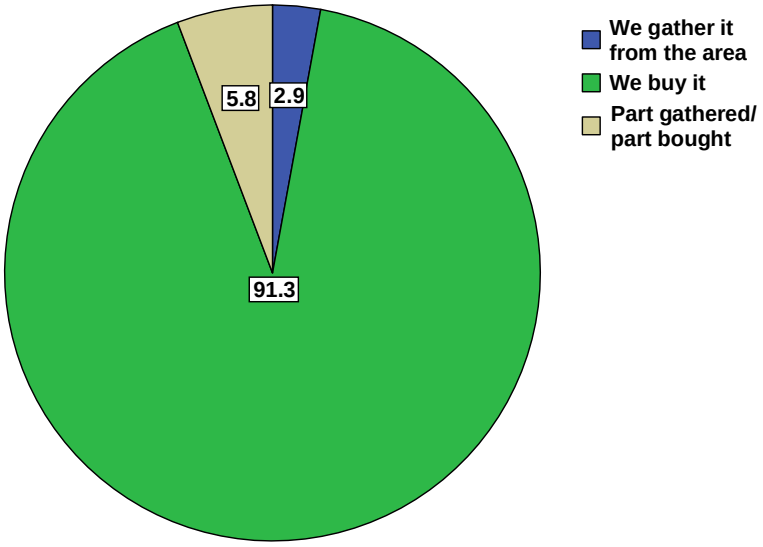


Figure 4.14 – Pie chart depicting fuelwood procurement pattern in the area of the MMNP (N=312)

Respondents were also asked to indicate whether they are collecting and using reeds, with 5.9% (22 respondents, out of 370 that answered the question) affirming that they are collecting reeds. Most of the households use it for construction purposes (fences, roofs, livestock annexes, barns etc), only one respondent mentioning use as a food source for livestock.

4.3.3 Hunting and fishing

Results show that only eight households, representing 2.1% of those included in the sample, have members that hunt, while 34 of the households (9.1%) have at least one member that fishes. Although we have touched in the interviews with the park rangers, the issue of poaching, we did not include any question in the final questionnaire. We believe that such a question would have been regarded with circumspection by interviewees and might have put off some of them. In the same section, respondents were also asked to indicate the importance that fishing products play in their household's consumption (Figure 4.15). Most of the respondents (51.6%) stated that fishing provides a significant amount of food for household consumption and gave fishing products a moderate and high importance.

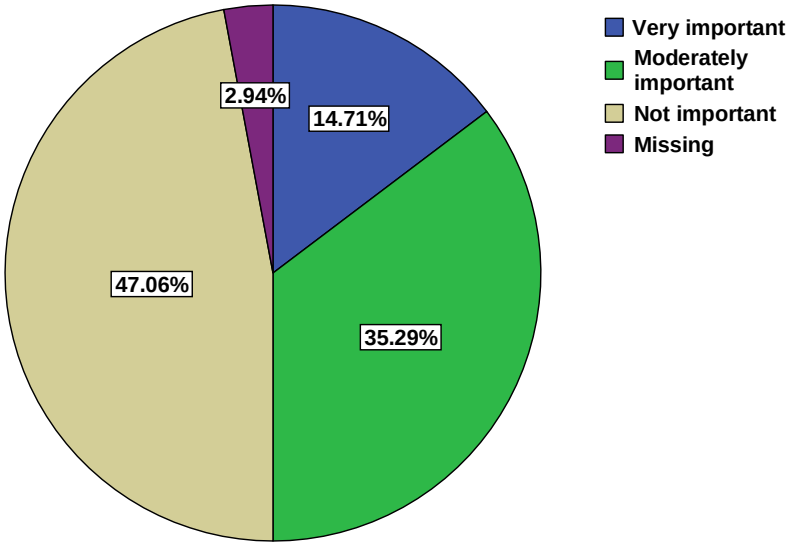


Figure 4.15 – Pie chart showing the contribution of fishing products to the overall household food consumption (N=34)

4.3.4 Summary

Understanding natural resource use patterns plays an important role in designing successful strategies for PA management. Consequently, through a section of the questionnaire, an attempt was made to illustrate how four different types of natural resources (wood, reeds, fish and game) are used in the area of the MMNP.

We have seen that most of the households included in the study sample (83.4%) use wood for heating. Only two local councils have managed to make step in the direction of alternative sources of heating, namely the town of Măcin, having central heating and access to natural gas in some areas of the town and the Jijila commune being connected to a pipe of natural gas. Residents of all other communes depend almost entirely on wood taken from the park or the surrounding forest area. Reeds are still used in the area, mostly for construction purposes. Out of the sample selected for the purpose of this study, 5.9% of the households collect reeds. Hunting can be considered

PDF-XChange
Click to buy NOW!
http://www.guthcad.com

4.4.1 Introduction

Another section of the questionnaire covers aspects related to the interaction with the MMNP, starting from knowledge about the park, going through attitudes towards park management policies.

4.4.2 Interaction with the MMNP

When asked whether they have ever been inside the park, most of the interviewees (52.5%) respond affirmatively. Another set of question was aimed towards detailing the nature of the park-related activity. Figure 4.16 offers details about the activity of those that entered the park. The majority of the respondents (56.5%) declared that they were hiking inside the MMNP and, consequently, the aim of their trip inside the park was recreational. The second most important category (20.2%) is represented by people that go inside the park to collect wild resources (mainly berries, medicinal plants or wood). Roughly equal proportions of people declare that they have worked inside the park (8.3%) or they have been camping (8.8%). It must be mentioned that, on the territory of the MMNP, there is a site bearing high religious significance for the Orthodox community (majoritarian as seen in section 4.2), called the Healing Spring. Each year, on the last Friday before Easter there a religious service is held at this location. This might explain the high percentage of people that declared a trip/hike inside the park. Two actually specified that they attended the religious service and camped overnight. Twelve respondents chose other activities, two indicating that they have taken their animals inside the park to graze, activity which is not permitted according to the MMNP regulations.

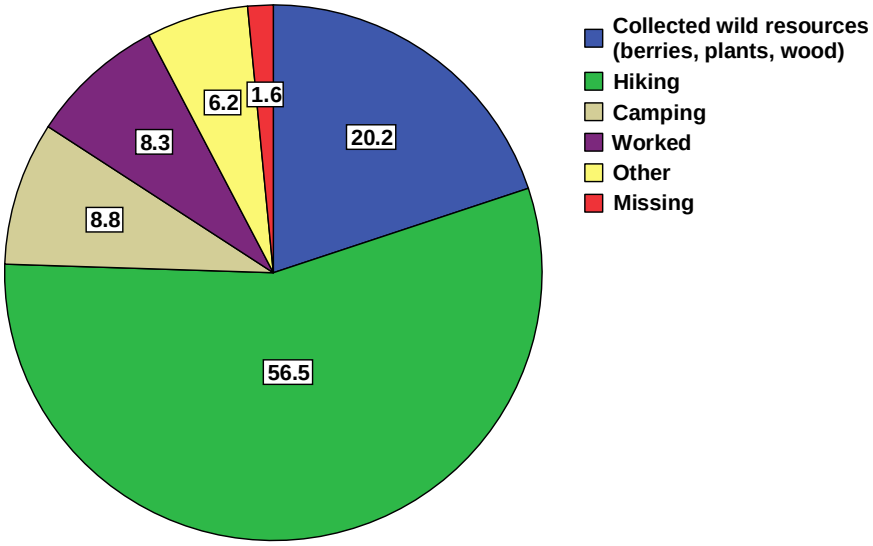


Figure 4.16 – Pie chart detailing the activity of the respondents inside the park (N=196)

4.4.3 Knowledge about the park

The cognitive dimension of the relationship with the park was also addressed by this research. Knowledge about the MMNP expresses the local peoples' interest with the park and, at the same time, is a valuable indicator in evaluating the administration's awareness raising programmes.

Approximately one fifth (20.1%) of the local population has some knowledge about the activity of the park. Interpersonal communication represents the most important source of information regarding the activity of the park (Figure 4.17). Out of the respondents that indicated that they were aware of MMNP activity, most of them (45 accounting for 60%) indicate that they have their information through direct communication with friends, family, acquaintances etc or direct interaction with park activities. The second most important source of information is the park staff, indicated by 18.7% of the respondents as their primary source of information. Park newsletter reached six of the respondents in the sample (8% of those having some knowledge about the MMNP). Other sources of information are represented by the media (radio), formal local authorities (Mayor's Office) and representatives of the forestry sector in the area (Forestry District).

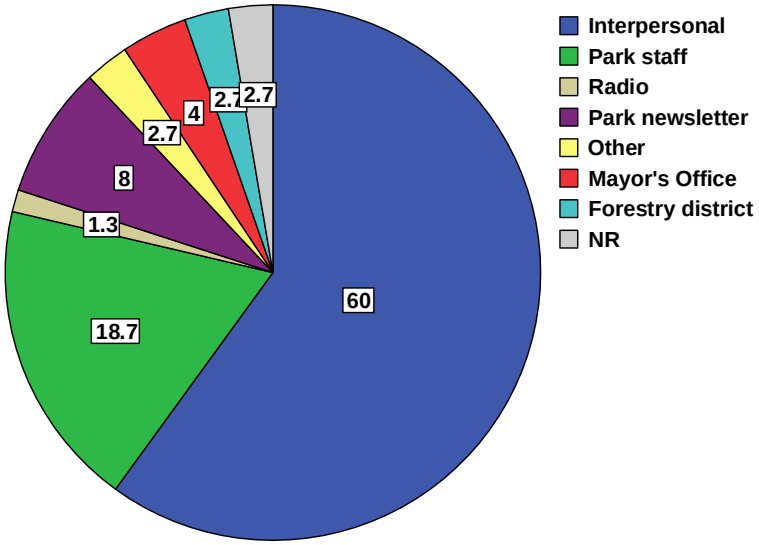


Figure 4.17 – Pie chart showing the sources of information regarding the activity of the MMNP (N=75)

Knowledge regarding the MMNP's date of establishment was another indicator employed to assess the knowledge about the park in the surrounding communities. The question was open-ended and then recorded into a dummy variable ('Yes' or 'No' variable), with 29.4% of the respondents indicating they were aware that the park had been established in recent years and 70.6% either declaring that they do not know the date when the MMNP was established of they have indicated a wrong date.

When asked what they considered to be the main purpose of establishing the MMNP, the majority of the respondents (58.3%) declared that they 'Do not know'. The rest of the interviewees (156) indicated different purposes, as presented in Figure 4.18. Protection of nature has been pointed out by 76.3% as the most important objective, being followed by 'leisure and tourism', chosen by 12.2% of the respondents. An interesting aspect is that ten persons, representing 6.4% of those that stated a park aim, consider that the main purpose of the MMNP is to introduce/repopulate the area with vipers.

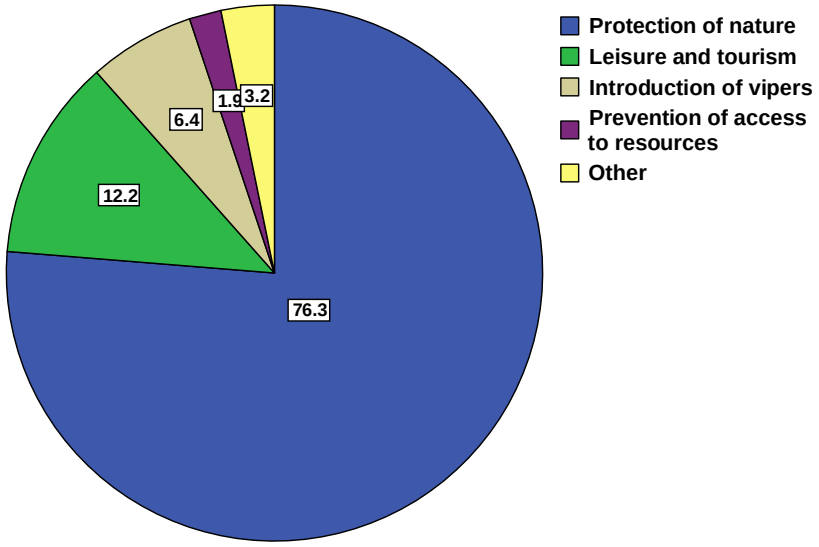


Figure 4.18 – Pie chart indicating the perceived purpose of the MMNP (N=156)

Following the same direction of knowledge about the park, respondents were asked whether they knew where the park border is situated. The dominating category was represented by those who do not know where the border of the park is (73.8%). Those affirming that they knew the location of the border were asked to give details on how do they know about it/ how do they recognize it. Only one person gave clear indication about the border, stating that it is marked. All others made rough indications or stated that they just know about it.

When requested to identify the management authority of the MMNP, most of the respondents (34%) stated that they do not know who is in charge with the management of the park as shown by Figure 4.19. Almost a third of the respondents (29.7%) identified correctly the managing authority as being the Măcin Mountains National Park Administration. However, another third stated that the MMNP is managed either by Romsilva – the Romanian National Forest Authority – (23.8%) or by the Tulcea Environmental Protection Agency (Tulcea EPA)(10.2%). Other managing institutions were also identified, seven respondents indicating that the MMNP is managed by local authorities, one stating that it is managed by the Orthodox Church and another one considering that the Police is the institution in charge with the management of the protected area.

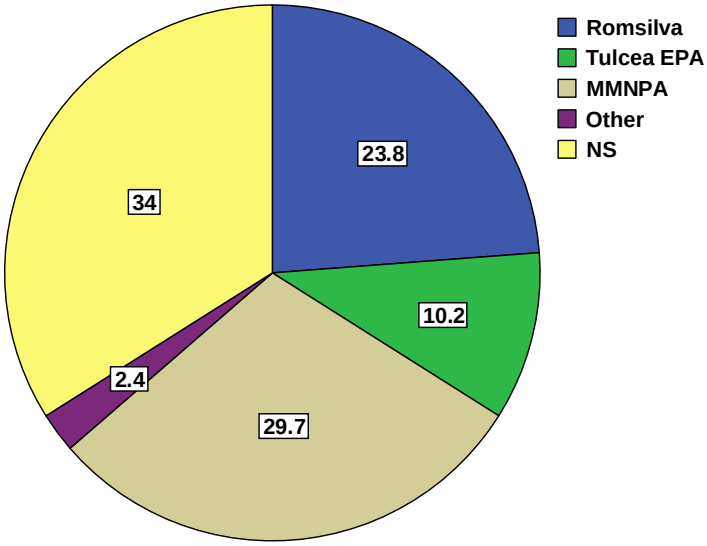


Figure 4.19 – Pie chart presenting the management authority perception of respondents(N=374)

4.4.4 Attitudes towards the Măcin Mountains National Park

Another section of the questionnaire, consisting of seven questions, was dedicated to identifying attitudes towards the MMNP. The answers were recoded and grouped into three possible categories (positive, negative and neutral), each category receiving a corresponding score (positive = 1; neutral = 2; negative = 3) . Frequency, mean, standard deviation and total number of valid responses for each of the attitude questions is given in Table 4.5.

Table 4.5 – Attitudes of respondents towards the MMNP

Attitude question	Response (%)			Mean	S.D.	N
	+	0	-			
1.Have the activities of the MMNP resulted in any improvement in your community?	12.3	38.8	48.9	2.37	0.692	366
2.Have you or anyone in your household ever benefited from MMNP?	2.7	3.3	94	2.91	0.366	369
3.To what extent you think the MMNP will eventually help your household economically?	8.8	47	44.2	2.35	0.637	364
4.How does MMNP staff treat the people in your village?	19.2	77.3	3.5	1.84	0.450	344
5.How well do you think the MMNP considers your village's interests?	6.4	63.2	30.4	2.24	0.558	358
6.Are you satisfied or dissatisfied that your village is located near the MMNP?	75.1	21.1	3.8	1.29	0.531	365
7.Do you agree or disagree that the MMNP exists for the betterment of your community?	51.4	38.8	9.8	1.58	0.664	366

Each of the questions above was accompanied by an open-ended question giving respondents the opportunity to motivate their choice. Generally the positive responses are motivated by local pride (of living close to a beautiful location – that from time to time receives media exposure), the probable future development of tourism, cleaner air, beautiful landscape and employment.

Lack of interaction between staff and local people represents the reason behind many of the neutral statements. Many of the answers presented as neutral in Table 4.5 come from people that have neither ever interacted with park staff or have never been inside the park. An important group is also represented by the elderly, who argue their neutral position from the perspective of their age "we are too old, I do not think we can benefit from the park, maybe the young people".

Negative attitudes towards the MMNP are also present in the communities researched. These are mainly linked to the presumed introduction of vipers in the area and the consequent life threat for the local inhabitants. Other negative responses were also determined by the perceived increase[37] in restrictions, related to wood collection and grazing and the fines associated with them.

A particular issue is represented by the closing of the quarries close to the park border, due to the presence of the park in the area, an aspect that produces mixed feelings among the local population. Some respondents stated that it is a good fact that the quarries were closed, as they now have less pollution (both in terms of air and noise pollution), while others regard it as a negative aspect that contributed to the high unemployment figures.

A single community attitude index (CAI) was computed by adding the score of all individual responses (Anthony 2006). Reliability of the CAI was estimated using Cronbach's Alpha (Cronbach 1951) and resulted in a score of 0.715. The CAI score ranged from 7 to 21 (7 = most favourable; 21 = least favourable), with a mean score of 14.47 (S.D. = 2.14, N=317) (Figure 4.20). We can see that the distribution of the data resembles quite closely a normal curve, with most of the scores being concentrated around the mean.

[37] The MMNPA claims that the exploitation regime in the forest did not change at all. People were forbidden to cut from the forest before, just as they are forbidden now.

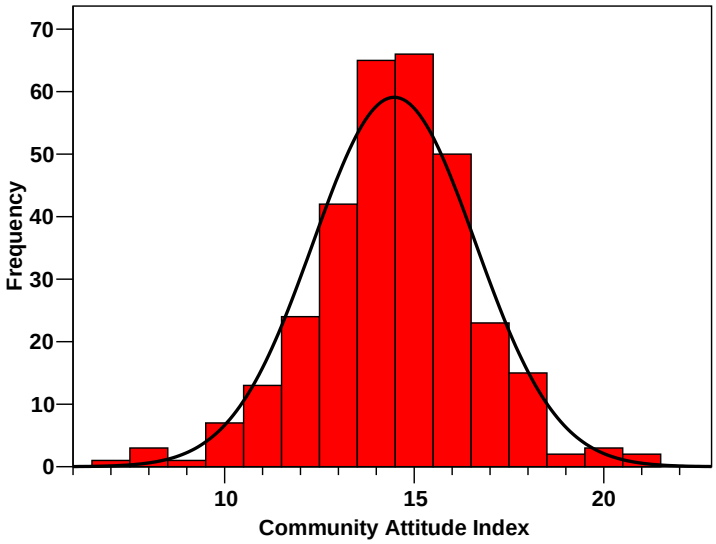


Figure 4.20 – Histogram showing the frequency distribution of the aggregated CAI score for attitudes towards MMNP (7 = most favourable; 21 = least favourable)

Bivariate correlation was used to determine which of the other variables are correlated with the CAI score. Results show a weak negative correlation between (Pearson's coefficient = -0.205; Sig = 0.000) the CAI score and the educational level (expressed as number of years of formal education). This translates a link between a high number of years of education and favourable attitude towards the MMNP. No other significant correlations were found (tests were run for age, number of people in household, amount of money spent on fuelwood, income, LSU).

In spite of the limited knowledge about the MMNP respondents were also asked about their opinion with regards to specific policies of the MMNP, namely the wildlife and forest protection policies (Figure 4.21). The questions were aimed towards understanding attitudes of people regarding the specific issues mentioned and not necessarily to see if they possessed detailed knowledge about the provisions of such policies.

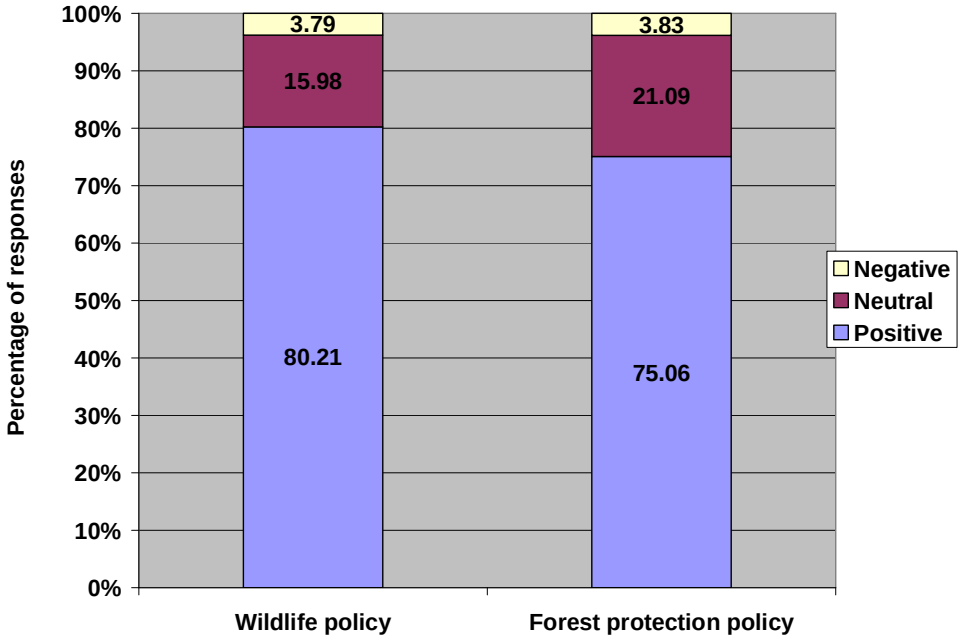


Figure 4.21 – Attitudes towards various MMNP policies by respondents (N=365)

Responses to the open-ended questions, gave respondents the opportunity to motivate their attitude. Most of the people (80.21%) agree that wild animals should be protected, however a significant proportion among respondents believe that only those animals that no not harm people or destroy crops should be protected. Bear, wolves and, especially, snakes (vipers) are mentioned among the "animals that can do harm" and, consequently, should not be protected. According to the data from the interview with the biologist of the MMNP, there are neither bears, nor wolves on the territory of the park. An opinion that the MMNPA wants to repopulate the park area with certain species emerges again – "animals should be protected, but it depends on what kind of animals they will bring". Animals should also be protected for the future generations – "for our children and grandsons to see something real, not only on TV". Most of the responses have a normative form, stating simply that the animals "should be protected". Those against the protection of the wildlife state primarily that they believe that because the animals pose a threat to human life and crops or because the MMNPA introduces animals from other countries.

Most of the respondents also approve with the MMNP's forest protection policy. Among the reasons of those in favour are environmental services like clean air, fuelwood, habitat for animals, beauty /

landscape value, value for future generations. Those not approving the forest protection policies of the MMNP most often identify the restriction of access to firewood as the main reason behind their attitude.

Attitude towards wildlife and forest protection policies are show a significant negative correlation with the level of education, expressed as number of years spent in a formal educational establishment (Pearson's correlation coefficient of -0.183 and -0.205, both significant at 0.01 level).

In order to understand the local communities' perception of tourism, a section covering attitudes towards tourism was included in the questionnaire. Responses are resumed in Table 4.6, with the answers recoded into positive, neutral and negative. Most of the people have not benefited from tourism and but would be happy if tourists visited their area, mostly due to economical reasons. Most respondents (46.2%) believe that local traditions and culture will be neither positively nor negatively affected. Mixed opinions on tourism are present, some community members believe that tourism may ruin local culture, while others see the presence of tourist as a possible catalysts for the perpetuation of traditions.

Table 4.6 – Attitudes of respondents towards tourism in the area of the MMNP

Attitude question	Response (%)			Mean	S.D.	N
	+	0	-			
1.Have you or any member of your household benefited from tourism?	1.6	0	98.4	2.96	0.252	371
2.Do you approve or disapprove of tourists coming to your area?	94.1	4.0	1.9	1.07	0.331	372
3.How do you think tourism affects local culture and traditions?	39.8	46.2	14.0	1.74	0.688	171

4.4.5 The Consultative Committee

The Consultative Committee is the formal structure that represents the stakeholders in the relationship with the administration of the MMNP. As the name suggests, the role of the committee is only consultative (it has the power to make recommendation, but the final decision is still taken by the management of the MMNP). It meets twice every year and discusses matter of interest to all stakeholder representatives. All local communities are represented by their formally elected leaders (Mayor or delegated person).

A section of the questionnaire addresses the knowledge and perception of community members on the CC. Results indicate that most of the respondents (95.2%) do not have any knowledge of any forum or committee representing their village to the MMNP. Out of the eighteen respondents that affirmed they are aware of the existence a forum, only one identified correctly the CC. Regarding the attributions of the CC

of the methodology of bringing concerns in the attention of the CC, only one respondent answered positively, being one of the mayors of the communities surrounding the MMNP and, therefore, a member of the CC.

4.4.6 Damage caused by wildlife

As we have seen so far, community perception of danger-posing animals has great potential in shaping attitudes towards wildlife, in general, and MMNP, in particular.

As pointed out by Anthony (2006), a standard definition of damaged caused by wild animals does not exist, therefore, for the purpose of this research, we understand through damage-causing animals (DCAs) the wild animals that:

- kill, injure or chase humans or livestock
- property damage
- crops destruction

The MMNP administration does not keep a record of the DCA event, therefore no data coming from the park could be analyzed, with the exception of data provided by park rangers and park staff during interviews, which is at best orientative. They mentioned the existence of DCA incidents, mostly caused by wild boar, fox and jackal. As a consequence, a section of the community questionnaire was dedicated to assessing perception of DCA events. Twenty-four respondents, representing 6.4% percent of the selected sample, declared that their household experienced some for of damaged caused by wildlife in the past 5 years. When the spatial base was extended to the whole village, 18.4% of the interviewees declared that they know about incidents in their village.

Respondents were asked what did the wildlife related problems involve. They were allowed to choose more than one option[38]. Most frequently (68.1%) they stated that the problem was the chasing or killing of livestock, second problem (55.1%) being the destruction of crops. In 13% of the cases the wildlife

[38] As a consequence the cumulative percents of all answers is 400% (since they were allowed to pick from 4 possible answers). No one indicated other problems, besides those identified in the questionnaire.

nd some property damage and in four cases, human life (5.8%) was supposedly threatened by w animals.

Wild boars are thought to be the most damaging animal, being followed by fox and jackal. One possible biases in the data might be due to the fact that the questionnaire operators might have not stressed the five-year time frame for the reported DCAs.

Respondents were also asked to indicate the authority they should report a DCA incident to. The request was presented in the form of an open-ended question. Figure 4.22 presents the most important categories, as identified by the respondents and their consequent frequency distributions. Most of community respondents (40,6%) identified local authorities as the direction of grievances. The second and third positions are occupied by Romsilva and MMNP administration, with 16.3% and 12.6%, respectively. Other frequent options were police, hunters' and fishermen's association[39] and doctor. In three cases the respondents stated that they considered there was no need for report to authorities since there were no incidents with wildlife.

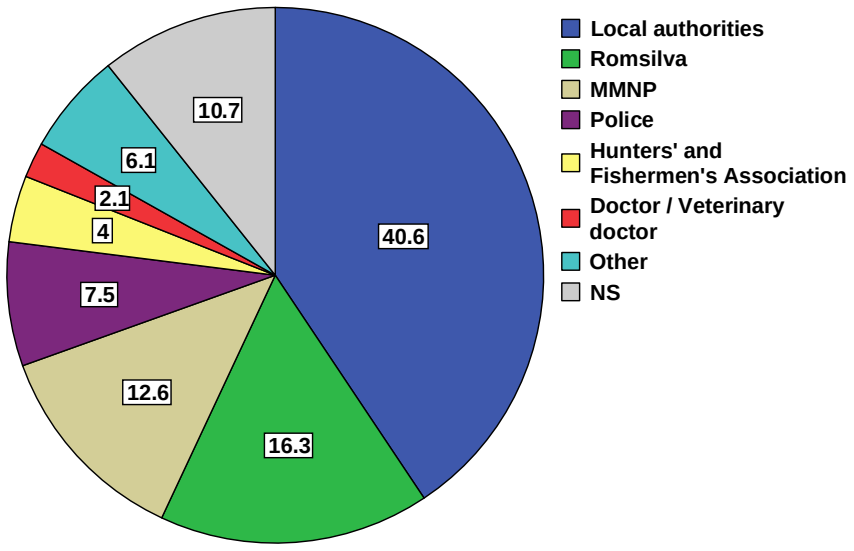


Figure 4.22 – Pie chart depicting the reporting authority (N=374)

[39] Association responsible with the regulation and organization of hunting and fishing in Romania.

Generally, the answer to such reports is general in the form of either "something gets done" "nothing gets done".

Respondents were also asked to indicate, in their opinion, the evolution of the number of DCA incidents. Most of the respondents believed that they have decreased (40.7%), with only 9.3% considering that such problems have increased, while 15.4% stated "Remained the same" and 34.6% "Do not know".

MMNP administration (37.4%), together with local government (25.6%) and forestry representatives (18.8) are seen as the institutions bearing the responsibility for the wildlife in the area.

4.4.7 Awareness regarding protected species

Another section of the community questionnaire addresses knowledge regarding endangered species. Most of the interviewees (64.9%) declared that they know the meaning of the term "endangered". Out of those that responded affirmatively to the previous question, 54.7% (127 respondents) were able to name at least one species of animal or plant considered "endangered" and found on the territory of the MMNP.

An open-ended question was used to ask community members on why they believed were the reasons behind the labelling of these animals or plants as "endangered". Among the reasons that resulted were diminishing of numbers, especially due to over hunting / over grazing, change of climatic conditions / drought, habitat reduction / habitat invasion by humans, poaching, deforestation, explosions in the stone quarry. In a few cases the respondents affirmed that the park management introduced rare species – "They did not exist before and the park has recently been populated with them".

4.4.8 Summary

As pointed out in this section, community respondents have limited interaction with the MMNP and, most often, limited knowledge about the park also. Attitudes towards the park are both in the negative and positive spectrums, with most falling in the area of neutrality. Although meant to represent stakeholders, including communities neighbouring the MMNP, the Consultative Committee was found not to be known to the overwhelming majority of the local residents. Limited knowledge exists in the area

garding what is the meaning of the 'endangered' attribute associated with a species. Residents repo damage caused by wild animals, most often in the form of attacked livestock and crop destruction and consider wild boars as the most menacing representative of the area's wildlife .

4.5 Conclusion

This chapter has focused on presenting the most important findings of the research. The results were summarized into three main sections, detailing information on: the profile of the communities, the use of natural resources in the area and the attitudes and knowledge regarding conservation and the MMNP.

Chapter 5 – Discussion

5.1 Introduction

The aim of this chapter is to discuss the research problem, as it was presented in Chapter One, namely what are the natural resources uses and attitudes of communities neighbouring a small protected area in Romania.

The following discussion will be based on the research findings as they were presented in the previous chapter and will attempt to integrate the result in the bigger picture of the scientific research in the field, through the use of the theoretical framework presented in Chapter Two. The discussion will be centred around the research questions identified.

5.2 What is the socio-economic and demographic profile of the study area?

In order to take into account the influence local people might have upon the conservation effort, it is first important to understand the conditions in which they live, together with the demographic evolution of the communities (Veech 2003, Anthony 2006). In terms of gender, we have an unequal distribution in the research sample, with 149 male subjects and 206 female subjects, out of a total of 355 valid cases. The mean age of the respondents is also high – 53.27 years (S.D.=17.22). The distribution of the age groups, resembles a reversed pyramid, with over 30% of the population over 65 years old. We can also notice that in the 25-55 age groups of the selected populations there are more female persons than male. Such a situation might arise due to migration from rural to urban areas especially due to higher opportunities for employment (Anthony 2006, Rotariu and Mezei 1999), aspect pointed out by a significant share of the members of the local communities, which translated in employment occupying the second position in the needs classification. With the degradation of the communist irrigation infrastructure, aged population, increased drought and outward migration, we have a picture of the constraints households in the area of the MMNP have to face. Data from the sample indicates that an extended type of family is present in the area, with more than one generation of adults being present at the same time in the household.

In terms of ethnic composition, we see that most of the persons in the research sample identify themselves as Romanians, with a presence of 10 other ethnic groups, accounting for a total of 6.4%. People are generally educated, to at least a full primary education level, the illiteracy rate being lower that the region average.

The population in the area is forced to live off an income far lower than the national average and a dying agriculture (in terms of land cultivation), due to a semi-arid climate and non-existent irrigation infrastructure. The average house will keep several types of livestock, namely twenty poultry, one pig, two goats and a sheep. Sheep herders from the area take their flocks during summer in the alpine pastures of the Carpathians and are, therefore, not so much affected by the dry and hot summers. Despite drought and other shortages (i.e. financial resources, lack of workforce), most of the households decide to cultivate their land yearly, knowing that the harvest will not be able to cover for more than a quarter of the entire household consumption.

5.3 What are the needs of the local communities and how do they use the most important natural resources of the area?

A clear image regarding pressure on the natural resources, deepened through the understanding the most important needs of the local residents have great potential in the overall success of conservation strategies.

Communities regard provision of health facilities, access to drinking water and jobs, as the most important needs that need to be addressed, opinion that is rather homogenous throughout the peripheral area of the MMNP. Protection of nature is considered relatively important, but, generally, there are other priorities coming first. Thus, the objectives of the local population differ from those of the MMNP. Most of the people would like to see an increase in agriculture and see the lack of water as the main obstacle that needs to be overcome. *These are all valuable information that the MMNP needs to input in the design of a community relationship management plan and in the overall management plan.*

Most of the households neighbouring the MMNP are largely dependent on wood for heati... Already, due to the perception that the MMNP is associated with restrictions on the quantities of wood they will be able to access, there are some negative perceptions of the park. Households generally spend 1.3 months income on fuel wood every year.

Reeds is not widely used resource. Instances when use occurs, mostly involve construction works.

Hunting is not common in the area, possibly due to the associated permitting and fire arm costs. Rangers indicated in the interviews that they are often finding illegal traps used for poaching. Fishing products, due to the small distance from the Danube, play a relatively important in household consumption.

Access to natural resources, especially fuel wood, should be made clear by the MMNP administration, as it represents an important aspect of the wellbeing of the local communities and, consequently, of the relationship between them and the park.

5.4 What is the perception of the local population towards nature protection and the MMNP and what are the factors influencing it?

Given the relative recent history of the MMNP, people tend to be more reserved in their appreciations and favour a neutral attitude towards it. Most of the people believe that the MMNP has neither done anything good, nor anything in particular bad for their communities, especially in terms of direct benefits. However, they like the fact that their village / town is situated near a national park and consider that it also exists for the betterment of their communities. Therefore one of the directions for progress towards a better relationship with the surrounding communities can be the creation of *outreach programmes with concrete non-utilitarian benefits for the communities*. Negative attitudes are also present and are mostly related to the perceived increased restrictions to wood and grazing land, but also to the introduction of vipers. Wood exploitation in the area sometimes resembles more of a informal institution, governed by unwritten laws and sometimes left at the discretion of the local NFA representatives. This is a sensitive subject, seldom discussed or studied openly, but indicated in some of the interviews. *What the*

MMNPA can do is to try and inform people of the real situation regarding fuel wood. The subordinati[illegible] of nature-protection structures to NFA and, consequently, to the structures responsible for the exploitation of forests, represents the paradox of the Romanian PA system.

Out of the factors found to influence attitudes towards conservation and PAs in other studies (age, gender, ethnicity etc – Anthony 2006; Allendorf 2007; Kideghesho *et al.* 2007; De Boer and Baquete 1998; Mehta and Kellert 1998; Baral and Heinen 2007; Lindsey *et al.* 2005; Wang *et al.* 2006) and were expected to have a potential to influence attitudes, none apply to the case of the MMNP, except education. Research data show that people with more education are likely to have more favourable attitudes towards the MMNP. This is one interesting fact, which I believe is based on the short history of the MMNP as people have not interacted much with the institution of the park and their attitudes are not based on interaction, but rather on pre-existent knowledge and, therefore, on pre-constructed notions / stereotypes, which they haven't had the opportunity to check against reality yet.

Although most of the respondents are not very familiar with the content of the forest and wildlife protection policies, they agree that both should be protected, arguing for protection based upon a utilitarian understanding of the nature (only to the extent it benefits the people).

5.5 What is the perception of the local communities regarding the Consultative Committee?

The Consultative Committee is the only forum involved in the management of the MMNP that has, in its composition, members of the local communities. Its function is to represent all stakeholders (local communities, research institutes, etc) in the relationship with the MMNP. As far as local people are concerned, we can affirm that it does not exist. Very few of them have knowledge about it. The existence of such a forum, should in theory, improve the relationship between the MMNP and its neighbours. *The MMNPA can and should transform the CC into a structure aimed at strengthening participation of communities in the management of the park, through*:

- The inclusion of other community members than formal representatives (businesses, informal leaders etc).
- Giving the communities the opportunity to elect their representatives.
- Clearly defining role of CC and state procedures, policies through which people can communicate with members of the CC.

Chapter 6 – Conclusions

The relationship of the people in the communities situated in the peripheral area of the MMNP with the park is complex and multi-dimensional. Given its relatively recent establishment, and absence of radical changes in the forestry exploitation regime, residents in the surrounding area did not have the opportunity to interact extensively with the administration structures and representatives. Attitudes towards the MMNP and nature conservation gravitate around different recurrent themes. Some of these themes are positive, such as the area provides clean air, recreational and leisure space, beautiful landscape, but also negative, like quarry closing and associated loss of jobs, change of wood prices and availability, multiplication of wild animals and consequently a perceived increase in DCA incidents.

Education was the only socio-demographic characteristic found to play a role in the attitude towards the MMNP.

The management strategies should recognize that the establishment of a PA is a social act that produces changes in an inhabited environment. Therefore, it needs to be aware of both the negative and positive perceptions it might generate among local residents and work to integrate the diversity of opinions, attitudes and values in order to reflect reality and, thus, have a better founded approach.

The present research helps in understanding the relationship between local communities and protected areas. It has also brought to light several aspects that can and should be covered in further research:

- Similar investigations in other PAs in Romania and Eastern and Central Europe.
- How are beliefs regarding nature constructed and what are the factors determining their evolution. An important role in such an investigation can be played by an interdisciplinary approach (ethnological, sociological, anthropological etc.)
- The functioning of the institution of ‘illegal’ wood cutting. The perception of the local representatives of the NFA and community members might prove useful when trying to develop management plans that take into account the extraction patterns of natural resources.

PDF-XChange
Click to buy NOW!
http://www.guthcad.com

References

American Museum of Natural History. 1998. *National survey reveals biodiversity crisis - scientific experts believe we are in the midst of the fastest mass extinction in Earth's history*. URL http://www.well.com/~davidu/amnh.html [consulted 20 July 2007].

Agrawal, A. and Gibson, C.C. 1999. Enchantment and disenchantment: the role of community in natural resource conservation. *World Development 27* (4):629-649.

Allendorf, T.D. 2007. Residents' attitudes toward three protected areas in southwestern Nepal. *Biodiversity Conservation* 16:2087-2102.

Alpert, P. 1996. Integrated conservation and development projects. *BioScience* 46:845-855.

Anthony, B. P. 2006. *A view from the other side of the fence: Tsonga communities and the Kruger National Park, South Africa*. PhD Thesis, Department of Environmental Sciences and Policy, Central European University, Budapest.

Baral, N. 2005. *Resources use and conservation attitudes of local people in the Western Terai Landscape*, Nepal. MSc Thesis, Department of Environmental Sciences, Florida International University, Miami.

Baral, N. and Heinen, J.T. 2007. Resources use, conservation attitudes, management intervention and park-people relations in the Western Terai landscape of Nepal. *Environmental Conservation* 34(1): 64-72.

Barret, C.B. and Arcese, P. 1995. Are integrated conservation-development projects (ICDPs) sustainable on the conservation of large mammals in Sub-Saharan Africa? *World Development* 23:1073-1084.

Brandon, K. 1997. Policy and practical considerations in land-use strategies for biodiversity conservation. In *Last stand: Protected areas and the defense of tropical biodiversity*, ed. R.A. Kramer, C.P. van Schaik and J. Johnson, 90-114. New York: Oxford University Press.

Brechin, S.R., Wilshusen, P.R., Fortwangler, C.L. and West, P.C. 2002. Beyond the square wheel: toward a more comprehensive understanding of biodiversity conservation as social and political process. *Society & Natural Resources* 15 (1):41-64.

Burchell, K. 1998. *Fractured environments: diversity and conflict in perceptions of environmental risk*. Research papers in Environmental and Spatial Analysis No. 52 (Department of Geography and Environment , London School of Economics). URL: http://www.lse.ac.uk/collections/geographyAndEnvironment/research/Researchpapers/rp52.pdf. [consulted 17 July 2007]

Clay, J. 1991. Cultural survival and conservation: Lessons from the past twenty years. In *Biodiversity: Culture, conservation and ecodevelopment*. Boulder, CO: Westview Press.

Cristea, V., Denaeyer, S., Herremans, J.P. and Goia, I. 1996. *Ocrotirea naturii şi protecţia mediului în România* [Nature and environmental protection in Romania]. Cluj Napoca: Cluj University Press.

Cronbach, L.J. 1951. Coefficient alpha and the internal structure of tests. *Psychometrica* 16:297-334.

Council of Europe. 1979. *Convention on the Conservation of European Wildlife and Natural Habitats (The Bern Convention)*. URL: http://conventions.coe.int/treaty/en/Treaties/Html/104.htm [consulted 17 July 2007]

De Boer, W.F. and Baquete, D.S. 1998. Natural resource use, crop damage and attitudes of rural people in the vicinity of the Maputo Elephant Reserve, Mozambique. *Environmental Conservation* 25(3): 208-218.

Fiallo, E.A. and Jacobson, S.K. 1995. Local communities and protected areas: attitudes of rural residents towards conservation and Machalilla National Park, Ecuador. *Environmental Conservation* 22(3):241-249.

Forest Research and Management Institute. 1996. *National strategy and action plan for biodiversity conservation and sustainable use of its components in Romania*. Bucureşti, Romania: Forest Research and Management Institute.

Furze, B., De Lacy, T. and Birckhead, J. 1996. *Culture, conservation and biodiversity: The social dimension of linking local level development and conservation through protected areas*. Chichester, England: John Wiley and Sons.

Ghimire, K.B. and Pimbert, M.P. 1997. *Social change and conservation: Environmental politics and impacts of national parks and protected areas*. London: Earthscan.

Gibson, C.C. and Marks, S. 1995. Transforming rural hunters into conservationists: an assessment of community-based wildlife management programs in Africa. *World Development* 23 (6):941-957.

Gillingham, S. and Lee, P.C. 1999. The impact of wildlife-related benefits on the conservation attitudes of local people around the Selous Game Reserve, Tanzania. *Environmental Conservation* 26(3):217-228.

Golescu I. 1912. Necesitatea regulamentelor de protecție a zonelor sensibile din România [The necessity of regulation for the protection of the sensitive areas in Romania]. *Revista Pădurilor* 32: 13–17.

Gurung , C.P. 1995. People and their participation: New approaches in resolving conflicts and promoting cooperation. In: *Expanding partnerships in conservation*, ed. J.A. McNeely, 223-233. Washington, DC: Island Press.

Heinen, J.T. 1993. Park-people relations in Koshi Tappu Wildlife Reserve, Nepal: a socio-economic analysis. *Environmental Conservation* 20(1):25-34.

Holmes, C.M. 2003. The influence of protected area outreach on conservation attitudes and resource use patterns: a case study from western Tanzania. *Oryx* 37(3): 305-315.

Ioras F. 2003. Trends in Romanian biodiversity conservation policy. *Biodiversity and Conservation* 12: 9-23.

IUCN. 1994. *Guidelines for protected areas management categories*. Gland, Switzerland and Cambridge, UK: Commission on National Parks and Protected Areas (CNPPA) with assistance from World Conservation Monitoring Centre, IUCN.

Kellert, S.R., Mehta, J.N., Ebbin, S.A. and Lichtenfeld, L.L. 2000. Community natural resource management: Promise, rhethoric and reality. *Society & Natural Resources* 12:705-715.

Kideghesho, J.R., Røskaft, E. and Kaltehorn, B.P. 2007. Factors influencing conservation attitudes of local people in Western Serengeti, Tanzania. *Biodiversity Conservation* 16: 2213-2230.

Kuhn, T.S. 1962. *The structure of scientific revolutions*. Chicago: University of Chicago Press.

Larson, P., Freudenberger, M. and Wyckoff-Baird, B. 1998. *World Wildlife Fund integrated conservation and development projects: Ten lessons from the field, 1985-1996*. Washington, DC: World Wildlife Fund.

Lindsey, P.A., du Toit, J.H. and Mills, M.G.L. 2005. Attitudes of ranchers towards African wild dogs *Lycaon pictus*: conservation implications on private land. *Biological Conservation* 125:113-121.

Măcin Mountains National Park. 2006. *Raport general de activitate pentru anul 2006* [General activity report for 2006]. Internal report. Available from the Măcin Mountains National Park, Tulcea.

Mehta, J.N. and Kellert, S.R. 1998. Local attitudes toward community-based conservation policy and programmes in Nepal: a case study of the Makalu-Barun Conservation Area. *Environmental Conservation* 25 (5):320-333.

Michaelidou, M., Deccker, D.J. and Lassoie, J.P. 2002. The interdependence of ecosystem and community viability: a theoretical framework to guide research and application. *Society and Natural Resources* 15:599-616.

Ministry of Environment and Sustainable Development. General Directorate for the Management of Structural Instruments. 2007. *Sectorial Operational Plan for Environment*. URL: http://www.mmediu.ro/integrare/comp1/POSmediu/POS_Mediu_EN.pdf [consulted 19 July 2007].

Ministry of Environment and Waters (MEW). 2000. *The Green Gold of Bulgaria*. Ministry of Environment and Waters of the Republic of Bulgaria, Sofia, Bulgaria.

Ministry of Waters, Forests and Environmental Protection. 2000. *Strategia națională de conservare a biodiversității* [National Strategy for Biodiversity Conservation]. URL: http://www.mmediu.ro/dep_mediu/biodiversitate/Strategie_Biodiversitate_2000_Ro.pdf. [consulted on 19 July 2007].

Newmark, W.D. and Hough, J.L. 2000. Conserving wildlife in Africa: integrated conservation and development projects and beyond. *BioScience* 50 (7):585-592.

Newmark, W.D., Leonard, N.L., Sariko, H.I. and Gamassa, D.G.M. 1993. Conservation attitudes of local people living adjacent to five protected areas in Tanzania. *Biological Conservation* 63: 177-183.

Oarcea Z. 1984. The evolution of the conception and the principles governing the creation and the setting up of the Retezat National Park. In: *Recherches ecologiques dans le Parc National de Retezat* [Ecological research in the Retezat National Park], ed. Pascu S. *et al*, 27–31. Cluj Napoca, Romania: Cluj University Press.

Oarcea Z. 1999. *Conservarea naturii. Filosofie şi reusite; Parcuri Naţionale, Parcuri Naturale* [Nature conservation. Philosophy and achievements: National and Natural Parks]. Timişoara, Romania: Romanian University Press.

Pop E. and Sălăgeanu N. 1965. *Monumente ale naturii din România*. [Nature monuments in Romania]. Bucharest, Romania: Meridiane.

Pop I. 1982. *Ocrotirea naturii in Republica Socialistă România* [Nature protection in the Socialist Republic of Romania]. Cluj Napoca: Cluj Napoca.

Popovici, I., Caloianu, N., Ciulache, S. and Lețea, I. 1975. *Enciclopedia descoperirilor geografice* [Encyclopaedia of Geographical Discoveries]. Bucharest, Romania: Editura ştiinţifică şi enciclopedică.

Radu I. and Iluț P. 1994. *Psihologie socială* [Social psychology]. Cluj Napoca, Romania: EXE.

Raut, Y. 1997. Concept of stocking rate and carrying capacity: high stocking rate and its effects on pasture production and ecology. In: *A Textbook of Animal Husbandry I: Pasture Production*, pp. 16-34. Katmandu, Nepal: His Majesty Government of Nepal, The Department of Livestock Services, Ministry of Agriculture.

Redford, K. 1990. The ecologically noble savage. *Cultural Survival Quarterly* 15(1): 46-48.

Richards, M. 1996. Protected areas, people and incentives in the search for sustainable forest conservation in Honduras. *Environmental Conservation* 23(3): 207-217.

Rokeach M. 1972. *Beliefs, attitudes and values*. San Francisco: Jossey-Bass.

Rotariu, T. and Iluț, P. 2001. *Ancheta sociologică şi sondajul de opinie* [The sociological inquiry and opinion pole]. Iași, Romania: Polirom.

Rotariu, T. and Mezei, E. 1999. Asupra unor aspecte ale migrației interne recente din România [Apects of recent internal migration in Romania]. *Sociologie Românească* 3:3-37.

Sah, J.P. and Heinen, J.T. 2001. Wetland resource use and conservation attitudes among indigenous and migrant peoples in Ghodaghodi Lake area, Nepal. *Environmental Conservation* 28 (4): 345-356.

Sibanda, B.M.C. and Omwega, A.K. 1996. Some reflections on conservation, sustainable development and equitable sharing of benefits from wildlife in Africa: The case of Kenya and Zimbabwe. *South African Journal of Wildlife Research* 26(4):175-181.

Simon, T. 1992. *A Magyarorszagi Edenyes Flora Hatarozoja* [Characteristics of the Hugarian flora]. Budapest, Hungary: Tankonyvkiado.

Stoetzel J. 1963. *La psychologie sociale* [The social psychology]. Paris: Flammarion.

Veech, J.A. 2003. Incorporating socioeconomic factors into the analysis of biodiversity hotspots. *Applied Geography* 23 (1):73-88.

United Nations Development Programme. 2005. *Romania: strengthening Romania's protected area system by demonstrating best practices for management of small protected areas in Măcin Mountains National Park*. Project No. 00047111.

von Wright G.H. 1971. *Explanation and understanding*. London: Cornell University Press.

Wang, S.W., Lassoie, J.P. and Curtis, P.D. 2006. Farmer attitudes towards conservation in Jigme Singye Wangchuck National Park, Bhutan. *Environmental Conservation* 33(2): 148-156.

Wells, M., Brandon, K. and Hannah, L. 1992. *People and parks: linking protected area management with local communities*. Washington, DC: World Bank, World Wildlife Fund and U.S. Agency for International Development.

Weisberg, H.F., Krosnick, J.A. and Bowen, B.D. 1996. *An introduction to survey research, polling and data analysis*. 3rd edition. Thousand Oaks, California: Sage Publications.

West, P.C. and Brechin, S.R. 1991. *Resident peoples and national parks: Social dilemmas and strategies in international conservation*. Washington, DC: Island Press.

Wilshusen, P.R., Brechin, S.R., Fortwangler, C.L. and West, P.C. 2002. Reinventing a square wheel: critique of a resurgent "protection paradigm" in international biodiversity conservation. *Society and Natural Resources* 15:17-40.

PDF-XChange
Click to buy NOW!
http://www.guthcad.com

Appendix – Research questionnaires in English and Romanian

Questionnaire for MMNP neighboring communities

Questionnaire No:

Interviewer(s) /
Date **Time**

Hello, my name is _____. I am part of a team that is conducting research to learn about the relationship between Măcin Mountains National Park and neighboring communities. The research team includes researchers from Babeş-Bolyai University and Central European University. Since this is a survey of opinions, it is desired that you indicate your personal opinions regarding the following questions, regardless of whether you think other people might agree or disagree with you. All information is kept strictly confidential.

Your household was selected randomly. We would also like to make it clear to you that we are neither affiliated with the Park nor any other government institutions. Our sole interest is scientific and educational. The questionnaire will take less than an hour. We would very much appreciate your participation in this study.

If you would like more information about this research, please contact Dragos Moldovan at 0744-588 695.
THANK YOU…

I. Basic Information

Note: Do not ask the following three items; just fill out these factual data once the person agrees to participate in this study. Only choose adults ≥18 years old

Q1. Local Council: _____ Q2. Village: _____
Q3. Gender: Female / Male (circle)

First of all, we need some background information about yourself and your household. This information will remain strictly confidential.

Q4. What is your age? _____

Q5. What is the total number of people currently living in your household? _____

Note: A household as consisting of a person or a group of persons who:
- have lived in the household within the last 6 months
- eat together and share resources; and normally resides at least four nights a week at the specific visiting point;
- a live-in domestic worker is considered to belong to the household.

Q5a. Number of adults (≥18) _____

Children (<18)		
	Age	Student (S) / Employed (E) / Unemployed (U) / Other (O)
Q5b		
Q5c		
Q5d		
Q5e		
Q5f		

Q6. How many years has your family/household lived in this village? _____

Q7. What is your nationality?

[ ] 1. Romanian
[ ] 2. Lipovenian
[ ] 3. Turk
[ ] 4. Aromanian
[ ] 5. Russian
[ ] 6. Roma
[ ] 7. Greek
[ ] 8. Ukrainian
[ ] 9. Tatar
[ ] 10. Italian
[ ] 11. Hungarian
[ ] 12. German
[ ] 13. Jewish
[ ] 14. other (specify):

Q8. What is the highest level of education you have completed?

[ ] 1. none
[ ] 2. some primary
[ ] 3. complete primary
[ ] 4. some secondary
[ ] 5. complete secondary
[ ] 6. vocational school
[ ] 7. apprentice school
[ ] 8. some high-school
[ ] 9. complete high-school
[ ] 10. post high-school
[ ] 11. college
[ ] 12. some university
[ ] 13. complete university
[ ] 14. MSc, PhD
[ ] 98. NS [Subject does not know]
[ ] 99. NR [Subject refuses to answer]

Q9. What is your employment status? [*Note*: The one that the respondent considers to be more important]

[ ] 1. still at school/student
[ ] 2. employed
[ ] 3. farmer
[ ] 4. unemployed
[ ] 5. housewife
[ ] 6. pensioner
[ ] 7. other (specify):
[ ] 98. NS [Subject does not know]
[ ] 99. NR [Subject refuses to answer]

Q10. What is your main occupation? [*Note:* categories only for the use of the interviewer]

[ ] 1. Owner of private business
[ ] 2. Employee with superior studies: accountant, professor etc.
[ ] 3. Desk work/clerk
[ ] 4. Foreman
[ ] 5. Qualified worker
[ ] 6. Unqualified worker
[ ] 7. Farmer (owns a farm)
[ ] 8. Agricultural worker
[ ] 9. Army, security, guarding
[ ] 10. Never had a job
[ ] 11. Others _____
[ ] 98. NS [Subject does not know]
[ ] 99. NR [Subject refuses to answer]

Q11. What religious affiliation do you hold?

[ ] 1. Orthodox
[ ] 2. Old Ritual Orthodox
[ ] 3. Muslim
[ ] 4. Roman-Catholic
[ ] 5. Adventist
[ ] 6. Baptist
[ ] 7. Pentecostal
[ ] 8. Other (specify): _____
[ ] 98. NS [Subject does not know]
[ ] 99. NR [Subject refuses to answer]

Q12. Do you or members of your household have access to the Internet?

[ ] 1. yes [ ] 2. no [ ] 9 NR [Subject refuses to answer]

II. LIVELIHOODS (AGRICULTURE)

Q13. Please indicate if, and how many, of each livestock type your household owns:
[*Note*: write '0' in 2nd column if household doesn't own]

1. cattle	
2. pigs	
3. sheep	
4. donkeys	
5. horses	
6. poultry (chickens/ducks/geese/turkey)	
7. goats	
8. other (specify):	

Q14. Does your household keep bees for making honey?

[ ] 1. Yes [ ] 2. No [ ] 9. NR [Subject refuses to answer]

Q15. Do you have a garden (land under cultivation)?

[ ] 1. Yes [ ] 2. No (skip to Q18)

Q16. If yes, where is this garden?

[ ] 1. at your home [ ] 2. outside village [ ] 3. both

Q17. Do you plant crops in your garden every year?
[ ] 1. Yes [ ] 2. No

Q17a. If no, why don't you plant crops every year?

III. NEEDS OF LOCAL COMMUNITIES

Q18. Please rank the following items (up to 5 items), in terms of their importance for your community (5 for mc important; 4 for 2nd most important, etc.) [*Note*: show respondent list!!]

Community Need	Rank
1. Health facilities	
2. Drinking water facilities	
3. Forestry	
4. Expansion of agriculture (crops)	
5. Employment	
6. Quarry Development	
7. Access to natural gas	
8. School facilities	
9. Road improvement	
10. Protection of nature	
11. Expansion of agriculture (livestock)	
12. Tourism development	
13. Preserving traditional culture	
14. Other (specify)	

Q19. What type of heating do you use in your household? (check all that apply)
[ ] 1. Central heating
[ ] 2. Natural gas
[ ] 3. Fuelwood
[ ] 4. Other (specify):

Q20. How does your household get the firewood?
[ ] 1. we gather it from the area [ ] 2. we buy it
[ ] 3. part gathered/ part bought [ ] 4. we do not use firewood (skip to Q21)

Q20a. If you buy it, how much did you spend last year for fuelwood? _____ ROL

Q21. Does your household collect reeds from the land in this area?
[ ] 1. yes [ ] 2. no (skip to Q22)

Q21a. If your household collects reeds, what do you use it for?

Q22. Does any member of your household hunt game?
[ ] 1. yes [ ] 2. no

Q23. Does any member of your household fish?
[ ] 1. yes [ ] 2. no (skip to Q24)

Q23a. If you think about your family's consumption, what contribution do fishing products have?
[ ] 1.very important [ ] 2. moderately important [ ] 3. not important

IV. INTERACTION WITH MACIN MOUNTAINS NATIONAL PARK (MMNP)

Q24. Have you ever been inside the MMNP?
[ ] 1. Yes [ ] 2. No (skip to Q26)

Q25. If yes, what did you do when you were inside the MMNP?

[ ] 1. collected wild resources
[ ] 2. hiking
[ ] 3. camping
[ ] 4. worked
[ ] 5. other (explain):_____

MMNP: KNOWLEDGE

Q26. Do you know about the activities of the MMNP?
[ ] 1. yes [ ] 2. no

Q26a. If yes, how did you learn about it?
[ ] 1. Interpersonal
[ ] 2. Park staff
[ ] 3. Radio
[ ] 4. Park newsletter
[ ] 5. Other (specify):_____

Q27. If you know, when was the MMNP was established?

Q28. As far as you know, what is(are) the purpose(s) of the MMNP?

Q29. Do you know where the border of the MMNP is?
[ ] 1. yes [ ] 2. no

Q29a. If yes, how do you know the location of the border?

Q30. As far as you know, who manages the MMNP? (check all that apply)
[ ] 1. Romsilva
[ ] 2. Tulcea E.P.A.
[ ] 3. MMNPA
[ ] 4. other (specify):_____

ATTITUDES TOWARDS MMNP

Q31. Have the activities of the MMNP resulted in any improvement in your community?
[ ] 1. yes [ ] 2. no [ ] 98. NS [Subject does not know]
Explain.

Q32. Have you or anyone in your household ever been employed by MMNP?
[ ] 1. Yes [ ] 2. No

Q33. Have you or anyone in your household ever benefited from MMNP?
[ ] 1. Yes [ ] 2. No [ ] 98. NS [Subject does not know]
Q33a. If yes, how did you benefit?

Q34. To what extent do you think the MMNP will eventually help your household economically?
[ ] 1. A great deal [ ] 2. Some [ ] 3. Not at all
Why do you say so?

Q35. What does MMNP staff do in your village?

Q36. How does MMNP staff treat the people in your village?
[ ] 1. Good [ ] 2. Bad [ ] 3. It depends on the person/not all MMNP staff are the same
[ ] 98. NS [Subject doesn't know]
Why do you say so?

Q37. As far as you know, is the MMNP supposed to take into consideration your village's interests in its management?
[ ] 1. Yes [ ] 2. No [ ] 98. NS [Subject does not know]

Q38. How well do you think the MMNP considers your village's interests?
[ ] 1. doesn't consider at all
[ ] 2. considers somewhat
[ ] 3. considers very much
[ ] 98. NS [Subject does not know]

ATTITUDES TOWARD OVERALL MMNP POLICY

Q39. Do you approve or disapprove of the overall wildlife protection policy implemented by MMNP?
[ ] 1. Approve [ ] 2. Disapprove [ ] 98. NS [Subject does not know]
Why do you say so?

Q40. Do you approve or disapprove of the overall forest protection policy implemented by MMNP?
[ ] 1. Approve [ ] 2. Disapprove [ ] 98. NS [Subject does not know]
Why do you say so?

GENERAL OPINION ABOUT THE MMNP

Q41. Has the establishment of the MMNP affected your everyday life in any way?
[ ] 1. Yes [ ] 2. No [ ] 98. NS [Subject does not know]
Why do say so?

Q42. Are you satisfied or dissatisfied that your village is located near the MMNP?
[ ] 1. Satisfied [ ] 2. Dissatisfied [ ] 98. NS [Subject does not know]
Why do you say so?

Q43. Do you agree or disagree that the MMNP exists for the betterment of your community?
[ ] 1. Agree [ ] 2. Disagree [ ] 98. NS [Subject does not know]
Why do you say so?

Q44. What are the main complaints or suggestions, if any, you have about way the MMNP interacts with the people along its borders?

V. BENEFITS FROM TOURISM

Q45. Have you or any member of your household benefited from tourism?
[ ] 1. Yes [ ] 2. No
Q45a. If yes, how did you benefit?

Q46. Do you approve or disapprove of tourists coming to your area?
[ ] 1. Approve [ ] 2. Disapprove [ ] 98. NS [Subject does not know]
Why do you say so?

Q47. How do you think tourism affects local culture and traditions?
[ ] 1. Positively [ ] 2. Negatively [ ] 98. NS [Subject does not know]
Why do you say so?

VI. MMNP CONSULTATIVE COMMITTEE (C.C.)

Q48. Do you know of any group/forum/committee that represents your village to the MMNP?
[ ] 1. yes [ ] 2. no (skip to Q58)
If yes, what is its name?

Q49. If you know of the CC, how did you hear about it?
[ ] 1. Interpersonal [ ] 2. Park staff [ ] 3. Park newsletter [ ] 4. Other (specify):_____

Q50. Are you or any of your household directly involved with the CC?
[ ] 1. No [ ] 2. Yes (specify how)

Q51. What is(are) the main purpose(s) of the CC?

Q52. How do/can you bring your concerns to the CC?

Q53. How does the CC inform you of its activities?

Q54. How often does the CC inform you of its activities?
[ ] 1. at least once a month
[ ] 2. at least once every 3 months
[ ] 3. at least twice a year
[ ] 4. at least once a year
[ ] 5. never

Q55. How well do you think the CC represents your community's interests?
[ ] 1. much [ ] 2. not at all [ ] 98. NS [Subject does not know]
Why do you say so?

Q56. Do you think that the CC is improving relationships between the MMNP and your community?
[ ] 1. Yes [ ] 2. No [ ] 98. NS [Subject does not know]
Why do you say so?

Q57. Do you think the activities of the CC should be changed?
[ ] 1. no [ ] 2. yes [ ] 98. NS [Subject does not know]
If yes, how should they be changed?

VII. CONFLICTS WITH WILD ANIMALS

Q58. In the past 5 years, has your household ever had problems with wild animals?
[ ] 1. Yes [ ] 2. No

Q59. In the past 5 years, do you know of any households in your village having problems with wild animals?
[ ] 1. Yes [ ] 2. No (skip to Q62)

Q60. If yes, what do the problems involve? (check all that apply)
[ ] 1. eating/destroying crops
[ ] 2. chasing/killing livestock
[ ] 3. chasing/hurting people
[ ] 4. damaging buildings/fences
[ ] 5. other (specify):_____

Q61. What animals (maximum 5) are most responsible for these problems and why? Please number from one (most damaging) to five (5th most damaging).

Rank	Animal	Reason(s)
1		
2		
3		
4		
5		

Q62. If people have problems with wild animals, to whom should they report it to?

Q63. What usually happens when someone reports it?

Q64. In your opinion, have problems with wild animals in your village increased or decreased in recent years?
[ ] 1. Increased [ ] 2. has remained the same [ ] 3. Decreased [ ] 98. NS [Subject does not know]

Q65. In your opinion, who is primarily responsible for wildlife in your area?

PDF-XChange Click to buy NOW! http://www.guthcad.com

[ ] 1. MMNPA
[ ] 2. MoEW
[ ] 3. Tulcea E.P.A.
[ ] 4. Municipal government
[ ] 5. Other (specify):_____

VIII: GENERAL

Q66. Do you know what the term 'endangered' means?
[ ] 1. Yes [ ] 2. No
Q66a. If yes, can you think of some animals or plants that are considered 'endangered' in MMNP?
[ ] 1. Yes [ ] 2. No

Q66b. Why do you think they are labeled like that?

Q67. What are the most important natural resource and/or land-use problems in your community?

Q68. What is the approximate total monthly income for your household? _____ (ROL)

Q69. Which of the following social class do you consider you belong?
[ ] 1. upper class
[ ] 2. upper middle class
[ ] 3. lower middle class
[ ] 4. working class
[ ] 5. lower class
[ ] 98. NS [Subject does not know]
[ ] 99. NR [Subject refuses to answer]

Q70. During the past month (June), what was the contribution of food products produced in your household, or received from relatives or friends, to your overall household's consumption?
[ ] 1. Did not obtain/get such products (all the food that we consumed has been bought)
[ ] 2. Approximately a quarter or less of our consumption
[ ] 3. About half of our consumption
[ ] 4. About three quarters
[ ] 5. Entirely
[ ] 98. NS [Subject does not know]
[ ] 99. NR [Subject refuses to answer]

THANK YOU AGAIN FOR YOUR PARTICIPATION!!

Chestionar pentru comunitățile învecinate Parcului Național Munții Măcinului

Chestionar Nr:

Operator(i) /
Data **Ora**

Buna ziua, numele meu este _____. Fac parte dintr-o echipă care realizează o cercetare cu privire la relația dintre Parcul Național Munții Măcinului şi comunitățile învecinate. Echipa include cercetători de la Universitatea Babeş-Bolyai, din Cluj Napoca, şi Universitatea Central Europeană, din Budapesta. Deoarece acesta este un sondaj de opinie, vă rugăm să ne comunicați opiniile dvs. legate de următoarele întrebări, indiferent dacă dumneavoastră credeți că alte persoane ar putea sau nu fie de acord cu dvs. Toate informațiile pe care ni le furnizați sunt confidențiale.

Gospodăria dvs. a fost aleasă la întâmplare. De asemenea, am dori să subliniem că noi nu avem nici o legătură cu Parcul Național Munții Măcinului şi nici cu vreo altă organizație guvernamentală. Interesul nostru este unul ştiințific şi educațional. Completarea chestionarului va dura mai puțin de o oră. Apreciem foarte mult participarea dvs. la acest studiu.

În cazul în care doriți să aflați mai multe informații despre această cercetare, vă rugăm să contactați următoarele pesoane: Dragoş Moldovan - 0744 588 695, Raluca Perneş – 0740 246 235.

VĂ MULȚUMIM ...

I. Basic Information

Notă: Nu adresați următoarele 3 întrebări; doar completați datele după ce persoana a fost de acord să participe la studiu.
Alegeți doar adulți ≥ 18 ani

Q1. Consiliul Local: _____ Q2. Sat: _____

Q3. Gen: Feminin / Masculin (încercuiți)

În primul rând, am avea nevoie de câteva informații despre dvs. şi gospodăria dvs. Aceste informații vor rămâne strict confidențiale.

Q4. Ce vârstă aveți? _____

Q5. Care este numărul total de oameni care locuiesc în gospodăria dvs.? _____

Notă: O gospodărie constă dintr-o persoană sau un grup de persoane care:
- au locuit în aceeaşi gospodărie în ultimele 6 luni
- împart aceeaşi mâncare şi resurse; şi, în mod normal, locuiesc cel puțin 4 nopți pe săptămână în acelaşi loc;
- un muncitor în gospodărie, care şi trăieşte acolo, este considerat ca făcând parte din gospodărie.

Q5a. Numărul de adulți (≥18 ani) _____

Copii (<18 ani)		
Vîrstă		**Student/elev (S) / Angajat (E) / Şomer (U) / Altele (O)**
Q5b		
Q5c		
Q5d		
Q5e		
Q5f		

Q6. De câți ani locuiește familia dvs. în această localitate? _____

Q7. Care este naționalitatea dvs.? [*Notă*: Nu este necesar să îi citiți respondentului variantele de răspuns.]

[ ] 1. Român
[ ] 2. Lipovean
[ ] 3. Turc
[ ] 4. Aromân
[ ] 5. Rus
[ ] 6. Rom
[ ] 7. Grec
[ ] 8. Ucrainean
[ ] 9. Tătar
[ ] 10. Italian
[ ] 11. Maghiar
[ ] 12. German
[ ] 13. Evreu
[ ] 14. Alta (specificați):

Q8. Care este ultima şcoală pe care ați absolvit-o?

[ ] 1. Fără şcoală
[ ] 2. Şcoală primară neterminată
[ ] 3. Şcoală primară terminată
[ ] 4. Gimnaziu incomplet
[ ] 5. Gimnaziu complet
[ ] 6. Şcoală profesională
[ ] 7. Şcoală de ucenici/complementară
[ ] 8. Liceu neterminat
[ ] 9. Liceu terminat
[ ] 10. Şcoală post-liceală
[ ] 11. Facultate – subingineri sau colegiu
[ ] 12. Facultate neterminată
[ ] 13. Facultate terminată
[ ] 14. Masterat, doctorat
[ ] 98. NS [Nu ştiu]
[ ] 99. NR [Nu răspund]

Q9. În acest moment, aveți loc de muncă? [*Notă*: Alegeți un singur răspuns, cel pe care respondentul îl consideră cel mai important]

[ ] 1. Sunt încă la şcoală/student
[ ] 2. Angajat
[ ] 3. Fermier
[ ] 4. Şomer
[ ] 5. Casnică
[ ] 6. Pensionar
[ ] 7. Altul (specificați):
[ ] 98. NS [nu ştiu]
[ ] 99. NR [nu răspund]

Q10. Care este principala dvs. ocupație? [*Notă:* Categoriile sunt pentru uzul operatorului. Nu arătați lista]

[ ] 1. Patron
[ ] 2. Salariat cu studii superioare: jurist, contabil, cadru didactic etc.
[ ] 3. Muncă de birou/ funcționar
[ ] 4. Maistru sau şef de secție
[ ] 5. Muncitor calificat
[ ] 6. Muncitor necalificat
[ ] 7. Agricultor/fermier (are propria fermă)
[ ] 8. Muncitor în agricultură
[ ] 9. Muncitor în forțele armate, personal de pază şi securitate
[ ] 10. Nu am avut niciodată o slujbă
[ ] 11. Alta _____
[ ] 98. NS [Nu ştiu]
[ ] 99. NR [Nu răspund]

Q11. Care este religia dvs.?

[ ] 1. Ortodox
[ ] 2. Ortodox de Rit Vechi
[ ] 3. Musulman
[ ] 4. Romano-Catolic
[ ] 5. Adventist
[ ] 6. Baptist
[ ] 7. Penticostal
[ ] 8. Alta (specificați): _____
[ ] 98. NS [Nu ştiu]
[ ] 99. NR [Nu răspund]

Q12. Dvs. sau membrii gospodăriei dvs. au acces la Internet?

[ ] 1. Da [ ] 2. Nu [ ] 9. NR [Nu răspund]

II. LIVELIHOODS (AGRICULTURE)

Q13. Indicați dacă și câte animale deține gospodăria dvs.:
[*Notă*: scrieți '0' în cea de-a 2-a coloană dacă nu există]

1. vaci sau alte bovine	
2. porci	
3. oi	
4. măgari	
5. cai	
6. păsări (pui/găini/rațe/gâște/curcani)	
7. capre	
8. altele (specificați):	

Q14. În gospodăria dvs. se ocupă cineva cu albinăritul /apicultura?
[ ] 1. Da [ ] 2. Nu [ ] 9. NR [Nu răspund]

Q15. Aveți grădină (pământ pe care îl cultivați)?
[ ] 1. Da [ ] 2. Nu (treceți la Q18)

Q16. Dacă da, unde este această grădină / pământ?
[ ] 1. Acasă [ ] 2. În afara satului [ ] 3. Ambele

Q17. Plantați culturi în grădina dvs. în fiecare an?
[ ] 1. Da [ ] 2. Nu

Q17a. Dacă nu, de ce nu plantați în fiecare an?
_____
_____
_____

III. NEVOILE COMUNITĂȚILOR LOCALE

Q18. Vă rugăm să clasificați următoarele elemente (cel mult 5 dintre ele), în ordinea importanței lor pentru comunitatea dvs. (1 pentru cel mai important; 2 pentru al 2-lea în ordinea importanței; 5 pentru cel mai puțin important, etc.) [*Notă*: arătați lista respondenților!!]

Nevoia comunității	Rang
1. Îmbunătățirea serviciilor de sănătate	
2. Apă potabilă	
3. Exploatarea forestieră	
4. Extinderea agriculturii (a suprafețelor cultivate)	
5. Locuri de muncă	
6. Dezvoltarea de cariere de piatră	
7. Acces la gaze naturale	
8. Facilități școlare	
9. Îmbunătățirea drumurilor	
10. Protejarea naturii	
11. Extinderea agriculturii (a nr. de animale crescute)	
12. Dezvoltarea turismului	
13. Conservarea culturii locale	
14. Altele (specificați)	

Q19. Ce tip de încălzire folosiți în gospodăria dvs.? (*Notă*: se pot bifa mai multe variante)
[ ] 1. Încălzire centrală
[ ] 2. Gaz natural
[ ] 3. Lemne
[ ] 4. Alta (specificați):

Q20. Cum procurați lemnele de foc în gospodăria dvs.?
[ ]1. Le adunăm din zonă [ ] 2. Le cumpărăm.
[ ] 3. O parte le adunăm, o parte le cumpărăm [ ] 4. Nu folosim lemne de foc (sari la Q21)

Q20a. În cazul în care le cumpărați, ce sumă ați cheltuit anul trecut pentru lemnele de foc? _____ ROL

Q21. Gospodăria dvs. recoltează stuf din zonă?
[ ] 1. Da [ ] 2. Nu (Sari la Q22)

Q21a. În cazul în care recoltați, pentru ce este folosit?
_____
_____
_____

Q22. Există vreun membru al gospodăriei care vânează?
[ ] 1. Da [ ] 2. Nu

Q23. Există vreun membru al gospodăriei care pescuieşte?
[ ] 1. Da [ ] 2. Nu

Q23a.Dacă vă gândiți la alimentația gospodăriei dvs., ce contribuție au produsele din pescuit?
[ ] 1. foarte importantă [ ] 2. destul de importantă [ ] 3. deloc importantă

IV. INTERACŢIUNEA CU PARCUL NAŢIONAL MUNŢII MĂCINULUI (PNMM)

Q24. Ați fost vreodată în interiorul PNMM?
[ ] 1. Da [ ] 2. Nu (sari la Q26)

Q25. Dacă da, ce ați făcut când ați fost in interiorul PNMM?
[ ] 1. Colectare/culegere resurse (lemn, plante, fructe de pădure, etc.)
[ ] 2. Drumeție
[ ] 3. Camping
[ ] 4. Am muncit
[ ] 5. Altceva (detaliați):_____

MMNP: KNOWLEDGE

Q26. Știți despre activitatea APNMM?
[ ] 1. Da [ ] 2. Nu

Q26a. Dacă da, de unde ați aflat despre activitatea lor?
[ ] 1. De la prieteni, cunoscuți
[ ] 2. De la angajații Parcului
[ ] 3. De la radio
[ ] 4. Din buletinul informativ/broşura periodică a Parcului
[ ] 5. Altă sursă (care?):_____

Q27. Dacă ştiţi, când a fost înfiinţat PNMM?

Q28. Din câte ştiţi dvs., care este(sunt) scopul(urile) PNMM?

_____
_____
_____

Q29. Ştiţi unde este limita PNMM?
[ ] 1. Da [ ] 2. Nu

Q29a. Dacă da, de unde ştiţi unde este limita?

_____
_____
_____

Q30. Din câte ştiţi dvs., cine administrează PNMM? (puteţi bifa mai multe opţiuni)
[ ] 1. Romsilva
[ ] 2. APM Tulcea (Agenţia de Protecţia Mediului Tulcea)
[ ] 3. APNMM (Administraţia Parcului Naţional Munţii Măcinului)
[ ] 4. Alta (specificaţi):_____

ATITUDINI ÎN RAPORT PNMM

Q31. Activităţile PNMM au determinat vreo îmbunătăţire în comunitatea dvs.?
[ ] 1. Da [ ] 2. Nu [ ] 98. NS [Nu ştiu] 99. NR [Nu răspund]
Explicaţi.

_____
_____
_____

Q32. Dvs. sau cineva din gospodăria dvs. a fost vreodată angajat de PNMM?
[ ] 1. Da [ ] 2. Nu

Q33. Dvs. sau cineva din gospodăria dvs. a avut vreun beneficiu de pe urma PNMM?
[ ] 1. Da [ ] 2. Nu [ ] 98. NS [Nu ştiu]

Q33a. Dacă da, cum aţi(a) beneficiat?

_____
_____
_____

Q34. În ce măsură credeţi că PNMM va fi benefic gospodăriei dvs. din punct de vedere economic?
[ ] 1. Într-o mare măsură [ ] 2. Puţin benefic [ ] 3. Nu va fi benefic deloc
De ce consideraţi aşa?

_____
_____
_____

Q35. Ce fac angajaţii PNMM în satul dvs.?

_____
_____
_____
_____

Q36. Cum se comportă angajaţii PNMM cu localnicii din comuna dvs.?
[ ] 1. Bine
[ ] 2. Rău
[ ] 3. Depinde de persoană/Nu toţi angajaţii PNMM se comportă la fel
[ ] 98. NS [Nu ştiu]
De ce spuneţi aceasta?
_____
_____
_____

Q37. Din câte ştiţi dvs., PNMM ar trebui să ia în considerare interesele comunei dvs. în planul său de administrare?
[ ] 1. Da [ ] 2. Nu [ ] 98. NS [Nu ştiu]

Q38. Cât de mult credeţi ca Administraţia PNMM ţine cont de interesele comunei dvs.?
[ ] 1. Deloc / În mică măsură
[ ] 2. Oarecum
[ ] 3. Foarte mult / În mare măsură
[ ] 98. NS [Nu ştiu]

ATITUDINI CU PRIVIRE LA POLITICILE PNMM

Q39. Sunteţi de acord sau nu cu politica / măsurile de protejare a animalelor/plantelor sălbatice aplicată de PNMM?
[ ] 1. Sunt de acord [ ] 2. Nu sunt de acord [ ] 98. NS [Nu ştiu]
De ce credeţi aceasta?
_____
_____
_____

Q40. Sunteţi de acord sau nu cu politica / măsurile de protejare a pădurii aplicate de PNMM?
[ ] 1. Sunt de acord [ ] 2. Nu sunt de acord [ ] 98. NS [Nu ştiu]
De ce credeţi aceasta?
_____
_____
_____

OPINIE GENERALĂ ASUPRA PNMM

Q41. V-a afectat viaţa de zi cu zi, în orice fel, înfiinţarea PNMM?
[ ] 1. Da [ ] 2. Nu [ ] 98. NS [Nu ştiu]
De ce spuneţi aceasta?
_____
_____
_____

Q42. Sunteţi mulţumit sau nemulţumit că satul/ comuna dvs. se află în apropierea PNMM?
[ ] 1. Mulţumit [ ] 2. Nemulţumit [ ] 98. NS [Nu ştiu]
De ce credeţi aceasta?
_____
_____
_____
_____

Q43. Sunteți sau nu de acord că PNMM există şi pentru a îmbunătăți / a fi de folos comunității dvs.?
[ ] 1. Acord [ ] 2. Dezacord [ ] 98. NS [Nu ştiu]
De ce credeți aceasta?

_____
_____
_____

Q44. Care ar fi principalele nemulțumiri sau sugestii, în cazul în care aveți, referitor la modul în care PNMM intră în contact cu oamenii care locuiesc de-a lungul granițelor sale?

_____
_____
_____
_____
_____

V. BENEFICII DIN TURISM

Q45. Dvs. sau un membru al gospodăriei dvs. ați avut beneficii de pe urma turismului?
[ ] 1. Da [ ] 2. Nu
Q45a. Dacă da, în ce mod ați beneficiat?

_____
_____
_____

Q46. Sunteți de acord cu venirea turiştilor în zona dvs. sau sunteți împotriva?
[ ] 1. Acord [ ] 2. Dezacord [ ] 98. NS [Nu ştiu]
De ce considerați aceasta?

_____
_____
_____

Q47. Cum credeți ca afectează turismul cultura şi tradițiile locale?
[ ] 1. Pozitiv [ ] 2. Negativ [ ] 3. În nici un fel [ ] 98. NS [Nu ştiu]
De ce considerați aceasta?

_____
_____
_____

VI. CONSILIUL CONSULTATIV AL PNMM

Q48. Aveți cunoştință despre vreun grup/forum/comitet care reprezintă localitatea dvs. în relația cu PNMM?
[ ] 1. Da [ ] 2. Nu (sari la Q58)
Dacă da, care este numele acestui for?

_____

Q49. Dacă aveți cunoştință despre Consiliul Consultativ, de unde ați auzit despre el?
[ ] 1. De la prieteni, cunoscuți [ ] 2. Angajații parcului [ ] 3. Buletinul parcului
[ ] 4. Altele (specificați):_____

Q50. Dvs. sau unul dintre membrii gospodăriei dvs. sunteți direct implicați în Consiliul Consultativ?
[ ] 1. Nu [ ] 2. Da (specificați în ce privință)

_____
_____

Q51. Care este(sunt) principalul(lele) obiectiv(e) ale Consiliului Consultativ?

_____
_____
_____

Q52. Cum puteți aduce problemele dvs. în fața Consiliului Consultativ?

_____
_____
_____

Q53. Cum vă informează Consiliul Consultativ despre activitățile sale?

_____
_____
_____

Q54. Cât de des vă informează Consiliul Consultativ despre activitățile sale?

[ ] 1. cel puțin o dată pe lună
[ ] 2. cel puțin o dată la 3 luni
[ ] 3. cel puțin de 2 ori pe an
[ ] 4. cel puțin o dată pe an
[ ] 5. niciodată

Q55. Cât de bine credeți că sunt reprezentate interesele comunității dvs. de către Consiliul Consultativ?

[ ] 1. mult [ ] 2. deloc [ ] 98. NS [Nu ştiu]

De ce considerați așa?

_____
_____
_____

Q56. Credeți că relațiile dintre PNMM şi comunitatea dvs. sunt îmbunătățite de către Consiliul Consultativ?

[ ] 1. Da [ ] 2. Nu [ ] 98. NS [Nu ştiu]

De ce credeți așa?

_____
_____
_____

Q57. Credeți că activitățile Consiliului Consultativ ar trebui să se schimbe?

[ ] 1. Da [ ] 2. Nu [ ] 98. NS [Nu ştiu]

Dacă da, cum ar trebui ele să se schimbe?

_____
_____
_____

VII. CONFLICTE CU ANIMALE SĂLBATICE

Q58. În ultimii 5 ani, ați avut probleme cu animalele sălbatice în gospodăria dvs.?

[ ] 1. Da [ ] 2. Nu

Q59. În ultimii 5 ani, ați auzit de vreo gospodărie din satul/localitatea dvs. sa aibă probleme cu animalele sălbatice?

[ ] 1. Da [ ] 2. Nu (sari la Q62)

Q60. Dacă da, care sunt aceste probleme? (bifați toate variantele care se aplică)
[ ] 1. mâncare/distrugere de culturi
[ ] 2. atacare/ucidere animale
[ ] 3. atacare/ucidere oameni
[ ] 4. stricăciuni – clădiri/garduri
[ ] 5. altele (specificați):_____

Q61. Care animale (maxim 5) sunt în cea mai mare măsură responsabile pentru aceste probleme şi de ce? Numerotați de la 1 (cele mai distructiv) la 5 (cel mai puțin distructiv).

Rang	Animal	Motiv(e)
1		
2		
3		
4		
5		

Q62. Dacă cineva are probleme cu animalele sălbatice, cui trebuie să raporteze aceste probleme?
_____
_____
_____

Q63. De regulă, ce se întâmplă dacă cineva raportează astfel de probleme?
_____
_____
_____

Q64. În opinia dvs., problemele cu animalele sălbatice s-au înmulțit sau au scăzut în ultimii ani?
[ ] 1. Crescut [ ] 2. Au rămas la fel [ ] 3. Au scăzut [ ] 98. NS [Nu ştiu]

Q65. În opinia dvs., cine este responsabil pentru animalele sălbatice din regiunea dvs.?
[ ] 1. APNMM (Administrația Parcului Național Munții Măcinului)
[ ] 2. MMDD (Ministerul Mediului şi Dezvoltării Durabile)
[ ] 3. APM Tulcea (Agenția pentru Protecția Mediului)
[ ] 4. Autoritățile locale
[ ] 5. Altul (specificați):_____

VIII: General

Q66. Ştiți ce înseamnă termenul „pe cale de dispariție”?
[ ] 1. Da [ ] 2. Nu

Q66a. Dacă da, puteți să numiți câteva specii care sunt considerate „pe cale de dispariție” şi care se găsesc în PNMM?
[ ] 1. Da [ ] 2. Nu

Q66b. De ce credeți că sunt considerate „pe cale de dispariție”?
_____
_____
_____

Q67. Care sunt cele mai importante probleme legate de resurse naturale sau folosire a terenurilor în comunitat dvs.?

_____
_____
_____

Q68. Care este venitul total aproximativ al gospodăriei dvs. intr-o lună? _____ (ROL)

Q69. Cărei clase sociale vă considerați a aparține?
[ ] 1. clasa de sus
[ ] 2. în partea de sus a clasei de mijloc
[ ] 3. în partea de jos a clasei de mijloc
[ ] 4. clasa muncitoare
[ ] 5. clasa de jos
[ ] 98. NS [Nu ştiu]
[ ] 99. NR [Nu răspund]

Q70. În luna trecută (Iunie), ce parte din consumul dvs. a fost asigurat de produsele alimentare obținute în gospodăria dvs. sau primite (de la rude, prieteni etc.)?
[ ] 1. Nu am obținut/ primit asemenea produse (tot ce s-a consumat a fost cumpărat)
[ ] 2. Cam un sfert (sau mai puțin din consumul nostru)
[ ] 3. Cam o jumătate din consumul nostru
[ ] 4. Aproape trei sferturi din consumul nostru
[ ] 5. Aproape în totalitate
[ ] 98. NS [Nu ştiu]
[ ] 99. NR [Nu răspund]

VĂ MULȚUMIM ÎNCĂ O DATĂ PENTRU PARTICIPARE!!