The interaction of tourism and nature conservation

-Two case studies from Biosphere Reserves in Romania

Bachelor thesis in Geography, orientation Human Geography

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Abstract

Following work is a bachelor thesis in Geography. It was conducted as the last moment of the Bachelors Program in Geography at the University of Gothenburg, during the second half of the spring semester, 2013. The aim of the study was to examine and illuminate the interaction of tourism and nature conservation at the Biosphere Reserves of Pietrosul Mare and Danube Delta, Romania. The methods used to achieve this aim have been qualitative interviews with key players of the matter. The results show that the interaction of tourism and nature conservation differs between the areas. At Pietrosul Mare, the interaction is less obvious than in the Danube Delta implying that tourism would look very different without nature conservation there. It was also found that different aspects of tourism affect the reserves differently, mostly depending on the geographical characteristics of each site. Further, the reserves are unequally important to the counties in which they are situated. The Danube Delta is more important to overall tourism in the county of Tulcea than Pietrosul Mare is to overall tourism in the county of Maramures. A development of nature conservation and tourism has taken place in the areas over the last 20-25 years. Nature conservation has gone from a low priority to a significant factor, at both sites. Tourism has also evolved, with a slightly increase in visitor numbers at both sites. In Pietrosul Mare, a higher portion of the increase in visitor numbers derives from tourists from neighboring or closely situated countries. At the Danube Delta a higher portion of the increase in visitor numbers are by tourists from long-distance countries. At none of the sites neither the activity of tourism nor nature conservation seems to seriously threaten each other. However, it can also be concluded that they nor yet take, even close to, the maximum possible advantage of each other.

Key words: tourism, nature conservation, biosphere reserves, Romania

Contents

Abstract	1
Preface	4
1. Introduction	5
1.1 Background	5
1.2 Problem formulation	6
1.3 Aim and research questions	6
2. Theory	7
2.1 Introduction	7
2.2 Tourism and nature conservation	7
2.3 Site connected concepts	12
3. Study areas	15
3.2 Romania	16
3.2 Tulcea and DDBR	19
3.3 Maramures and PMBR	20
4. Methods	22
4.1 Introduction	22
4.2 Philosophical approach	22
4.3 Methodological approach	23
4.4 Selection of material	24
4.5 Research process	25
4.6 Method discussion; alternative methods, source criticism	26
5. Results	29
5.1 Introduction	29
5.2 Maramures / Pietrosul Mare Biosphere Reserve	29
5.3 Tulcea / Danube Delta Biosphere Reserve	33
6. Discussion	36
6.1 Introduction	36
6.2 Usability of the report	36
6.3 Review of working process and results	37
6.4 Related research	38
6.4 Speculations about the future	38
7. Conclusions	41
8 Deferences	42

9. Appendix	46
9.1 Interview templates	46
0.2 Abbreviations	18

Preface

This bachelor's thesis in Geography is the result of about two months of, mostly, both interesting and challenging work. The working process has, as it should, significantly differed from all other tasks I met as an undergraduate student, both in terms of the extent of the study as well as the fact that I've worked on my own. Though, I've received important advices and support from my supervisor Marie Stenseke who has guided me through the working process. Since the theme of the study can be described as rather broad the support from my supervisor was useful already at start, when the delimitations of the study had to be made. The study became narrower than what I first had in mind, though now, at the end of work, I appreciate its scope as quite enough- in order to be graspable.

Different actors and interests use of the landscape and the impacts they bring to it is an interesting field of research. That is what this report is about. Neither the specific choice of "actors" nor the geographical settings were given at the start of work, though it can, now at the end, be considered fruitful. Romania draw mine, as well as my supervisors, attention with its interesting combination of nature and turbulent history. This choice made me encounter some difficulties and limitations (in terms of documents only available in Romanian, etc) but it also became educative as it obliged me to practice my English, in the contact with the respondents as well as in this written report.

At last, I would like to thank some people who have enabled and facilitated the production of the report. First, I thank my already mentioned supervisor, Marie Stenseke. Then I would also like to thank my Romanian respondents from the authorities of the Biosphere Reserves of Pietrosul Mare and Danube Delta, the tourist information offices of Maramures and Tulcea and the Association of Eco-Tourism in Romania. They all agreed to help with my question, some very enthusiastically.

1. Introduction

1.1 Background

To examine how different interests and factors influence the appearance of the landscape is an interesting field of research. Often those interests and factors can be difficult to identify and assess, something that will be evident later on in this piece of work. Tourism and nature conservation are two of those factors which influences the physical appearance of landscapes and the conditions of ecosystems. To what extent differs probably much from case to case, even though it's not excluded that some general rule could be formulated. To do so is not the intention of this study but to take a closer look at two cases, from Romania. Both cases are designated Biosphere Reserves, which is thought to release comparisons between them even though the Results are presented separately. The reserves consist of very different ecosystems. Danube Delta Biosphere Reserve is made up of most part of the Danube Delta, Europe's second largest river delta. The landscape is almost entirely flat and water and land are interspersed (United Nations Educational, Scientific and Cultural Organ^a, 2012) Pietrosul Mare Biosphere Reserve on the other hand is situated in the Carpathian Mountains. The area is rugged and some peaks reach over 2000 masl (UNESCO^b, 2012). To examine whether the interaction between tourism and nature conservation take different forms depending on the geography is therefore an objective of the study. Undoubtedly, tourism can bring different impacts, considered both positive and negative, to the environment and ecosystems. While nature conservation is mostly comprehended as a conserving factor, tourism is often perceived as exploiting. Paradoxically, some acts of the "exploiting" factor tourism can probably benefit nature conservation. The interesting interaction between these forces is in focus in this study. By studying available documents of the matter, for background information, and by conduct interviews with some key players the aim is to present an estimation of how the tourism influences nature conservation, and vice versa, at the two specific sites chosen. The reasons to focus the study on Romania are several. Firstly, my pre-understanding of the issues indicated that Romania possesses areas which are of high interest for both nature conservation and tourism. It was therefore expected to find interesting and useful information of how the interaction between them occurred. Secondly, Romania has like most other states of the former Eastern Bloc gone through dramatic political changes over the last 25 years which should have affected most aspects of society, including tourism and nature conservation. To take a look of how the interaction of the factors- and their position in the society has changed is therefore also an objective. Some aspects of this development are illuminated, for example changing patterns of nationality of tourists and touristic behavior relative to nature conservation. To compare the situation of the areas studied with sites in other former socialist states or in Western Europe would also be very interesting but for this, much more time had been required.

1.2 Problem formulation

The interaction between tourism and nature conservation does not always run smoothly. Sometimes the circumstances favor one of them, both or none. The relationship between the factors is dynamic and dependent on a great number of factors. The "strength" of them varies both in space and time. To examine their relationship at two specific sites in Romania is aimed to increase the understanding of this interaction, both specifically at the sites but also generally in order to more easily facilitate conditions which benefits them both. The sites, both biosphere reserves situated in Romania, are chosen in respect of the country's context including a dramatically transforming history as well as natural areas of high importance.

1.3 Aim and research questions

The purpose of this study is to conduct a stakeholder analysis of key actor's perceptions of the impacts and interactions of tourism and nature conservation in the Danube Delta Biosphere Reserve and Pietrosul Mare Biosphere Reserve. The aim is to establish an understanding of how these interests are related to each other and to investigate this relationship back in time. Further, the aim includes examining the importance of the reserves for overall tourism in the counties in which they are situated in. In order to facilitate the aim of the study following specific research questions has been established.

Research questions:

- 1. In which way does tourism and nature conservation affect the conditions of the Danube Delta Biosphere Reserve and the Pietrosul Mare Biosphere Reserve?
- 2. How do the Reserves affect overall tourism in the counties of Tulcea and Maramures?
- 3. In which way has this interaction changed during the last 25 years?

2. Theory

2.1 Introduction

Following theory chapter is aimed at presenting an overview of some relevant theories and research connected to the subject of this study. The ambition is not, obviously, to proportionally cover "everything" of relevance but to present the reader with a selection of material which can enhance the understanding of such questions examined in this study.

2.2 Tourism and nature conservation

2.2.1 Tourism

Tourism is, if a broad definition of the concept is used, the world's largest industry (Goeldner et.al, 2009). People travel for a wide range of reasons, where nature experiences of various kinds are significant contributions. The economic importance of tourism can hardly be exaggerated. In 2008, 8.4% of the world's total work force was direct or indirect employed within the sector. (Ibid) recognizes that tourism brings both benefits and negative impacts to the area were the tourism takes place. Whether positive or negative impacts will dominate is closely related to whether the host area/country has an overall development strategy. The lack of such can lead to various forms of overexploitation. Among the benefits of tourism is the income it generates maybe the greatest. If the system works well the incomes will contribute to both individuals as well as the state's budget.

2.2.2 Nature conservation

The term nature conservation can be understood in different ways. In some cases a rather narrow definition is used which only refers to the conservation of biodiversity, on different scales. This definition is also referred to as conservation biology or just conservation (Encyclopedia Britannica^a, 2013). Others, however, use a broader definition which includes many aspects. Bromley et.al (1997) claims that nature conservation includes species-based or land-based issues. They also mean that nature conservation is a part of broader environmental policies and in the case of many European countries "virtually inseparable from landscapeand amenity conservation" (Bromley et.al, 1997) Nature conservation in its modern form

started to emerge at the end of the 19th century with Yellowstone National Park (1872) as one of the earliest protected areas in the world (Encyclopedia Britannica^b, 2013)

2.2.3 Interaction of tourism and nature conservation

One of the main challenges for present and future tourism is how to limit the negative impacts that tourism, in many cases has, on the environment. Not only for the sake of the general "good" but also in order to maintain tourism at the site. If tourism "destroys" the environment in a too heavy extent, the area becomes useless for future tourism, people will chose another destination. (Goeldner, et.al 2009).

A comprehensive study published in 2002 assesses the impacts tourism has on the environment, on a global scale. The study mainly focuses on the negative impacts. That might give a somewhat skew picture but nevertheless some facts highlighted in the paper can be useful to know about. For example, about 1/3 of the energy used for transports (man-driven systems not included, such as walking bicycling, rowing, etc) worldwide is due to tourism transports. Also, the study asserts that tourism may affect animal breeding in a detrimental way as tourists are often eager to come close to wild animals. The study notes that tourism certainly affect the geographical spreading of species as well as the geographical extent of different habitats but any quantitative measures of these issues are not yet available. (Gössling, 2002)

In an attempt to clarify how the characteristics of places and landscapes are shaped, Burton et.al (1995) recognizes three elements which together contribute to form them. First, there is the landform and geology (including waterways). Second, there is the flora and fauna. Third, there is the influence of man. These three factors do not contribute equally to the appearance of a place or a landscape but the significance of them can vary from place to place. Burton et.al also describes which type of features that usually attract tourists. They recognize that their conclusions in this case risks to be rather generalizing. Nevertheless, it is obvious that some areas attract a lot more tourists than others. When it comes to nature based tourism, surveys (Burton et.al) have found that landscapes with high relative relief (large altitudinal difference between highest and lowest point) are generally more attractive than flat areas. High relative relief is perceived as more dramatic and offers better opportunities for "long" views. Also, forested areas are preferred before non-forested. To summarize, hilly, forested areas with elements of open water are the most attractive "landscape type" for those looking

for nature experiences. Clear, sunny weather with low relative humidity is also perceived as much more attractive than the opposite. This is important for the general, geographic patterns of international tourism since some regions are able to present such weather conditions with high certainty, for example the Mediterranean region in Europe. These preferences for the attractiveness of landscapes can be useful to bear in mind for this reports specific case studies. Burton et.al divides non-urban tourism into several categories. Coastal tourism is special and forms the first category. This kind of tourism is based on "sun, sand and sea". It can be both urban and non-urban. Then they make a separation between rural tourism and nature based tourism. The separation is based on the characteristics of the landscape and how it is used. In rural areas either agriculture or forestry are important elements while in so-called wilderness areas are more or less uninhabited and virtually non-affected by either agriculture, forestry or any other human activity. Rural tourism can involve many types of nature experiences but the main element of it is not to experience what is perceived as undisturbed nature. In nature based tourism, it is, however. Nature based tourism differs from other types of closely related types of tourism, adventurous tourism for example, in the way that the experience of undisturbed nature is the main purpose. Also, the authors define wilderness tourism as a separate branch of nature based tourism. This branch requires solitude as an important element (in the meaning that very few other people are met). By using this definition one can conclude that going on an East African Safari is not wilderness tourism (as you will probably meet or see a lot of tourists) but hiking across Greenland certainly is. The development of nature based and wilderness tourism is fascinating. By 1950, going to the zoo was immensely popular, especially among urban populations. But as public consciousness about wildlife, natural habitats etc grew, the demand for a more "authentic" experience also increased. "Safari Parks" were set up domestically. These allowed the animals to occur in something similar to their natural habitats but still behind fences and fed by the park staff. Those parks also started to face a declining popularity, rather soon. (Burton 1995) This decline was observed at the same time as a growing number of tourists from developed countries were able to visit wilderness areas around the world, safaris in East Africa being one of the attractions. To illustrate the development; the number of yearly visitors at the London Zoo declined from 3 million in the 1950s to 1,8 million in the late 1980s (Ibid) whilst the number of international tourists visiting Kenya increased from 400 000 in 1983 to about 1.8 million in 2007. (Kibara et. al, 2012).

Nature based tourism, overall, has a small negative impact on the environment compared to other sectors (agriculture, mining, factories, etc). However, nature based tourism often take place in remote areas where the overall human impact is small. Therefore, in some cases, tourism has the only significant impact on ecosystems. (Burton 1995) It can be useful to divide different types of impacts into categories. Burton suggests three categories, according to following;

Impacts of building development associated with tourism

Widespread impacts caused by the presence of tourists themselves

Localized impacts of routes through the ecosystem

They also point out that it is theoretically possible to calculate the "touristic carrying capacity" of a certain area, thus how many visitors the area can receive without unacceptable disturbances to appear. Practically, it is difficult to do this because there might be different opinions on what is considered "unacceptable" and also the calculation strongly depend on the behavior of the visitor.

National Parks are not regulated by any international rules but their main purpose is almost in every case to conserve the environment. Promoting tourism is mostly a secondary task. However, in many countries (especially developing countries) which are heavily dependent on incomes from tourism, there might be a strong pressure on the park authorities to enhance tourism. This then becomes a difficult balance, on the one hand to preserve the natural environment in as great extent as possible and on the other hand to increase the revenues from tourism. (Burton 1995) There are different ways of doing this. Raising the income from the individual tourist is one option, but only if the attraction is spectacular enough to still draw attention from tourists despite enhanced entrance fees, etc. Otherwise, it is likely that the effort rather will be spent on increasing the volume of tourists. One interesting example is found in a small portion of Eastern Central Africa. Rwanda, Uganda and Congo (the latter not very attractive because of security issues) are the only countries in the world were mountain gorillas can be seen in their natural habitat. To do so is very popular among tourists. That has made it possible to set the permit cost to these areas (tours not included) at 750 USD, and still receive visitors. (Rwanda Development Board, 2012).

According to Swedish research the phenomena of nature based tourism is interlinked with social status. Ever since the first protected areas in Sweden were established the great majority of their visitors belonged to the middle- or upper class. Even though the physical and economic restrictions of the working class to travel can be said to have relieved, over the last 100 years, this pattern of class membership of nature based tourists, is largely unchanged (Bernes & Lundgren, 2009).

2.2.4 Swedish research review

Quite some research on the topic, the interrelationship between nature conservation and tourism, has been done. Wall Reinius (2009) study "Protected attractions" provide interesting knowledge of the matter, concerning Sweden. This doctoral thesis contains a general introduction of the topic and four separate papers of the theme. At least two of them are relevant to this study.

The first paper examines the role of protected areas as attractions and the importance of the protection status of the specific site. Three different sites with different labels, in northern Sweden, were investigated. The results indicate that the protection status does matter in its capacity to attract tourists. In Fulufjället National Park, a rather high amount of visiting tourists were affected of the areas status as national park. Comparisons of visitor numbers before and after the areas designation to national park show that the designation raised the visitor numbers significantly. Laponia World Heritage Site consists of several already existing national parks. The designation to World Heritage Site was found to influence the characteristics of tourism in the area in a marginal way. Only five percent of the visitors were affected of the World Heritage status in their decision to visit the area. However, some visitors were found to have very high expectations of the area as it was a World Heritage. At the third site, Lake Torne Biosphere Reserve (now withdrawn), the protection status was of even lower importance. Only 13% of the visitors were aware of the areas status as Biosphere Reserve and only 1% stated that this affected their decision to visit (Ibid). These results can be of interest for this study as well as Pietrosul Mare and Danube Delta are labeled differently. Both are Biosphere Reserves but Pietrosul Mare is also a national park under a different name (Rodna) and Danube Delta is a World Heritage Site.

Paper 2 compare the characteristics of tourism in the mountains of Norrbotten, northern Sweden, between the years of 1980 and 2003. The average age of the visitors was higher in 2003, while the average length of visit to the area visit had been shortened. It was also found

that the tourists of the latter study year desired a higher level of service, accessibility, marked hiking trails etc, which in turn leads to a more visible human impact on the landscape. What implications that might bring to nature conservation interests is not further discussed but it can be assumed that it might affect some aspects of the characteristics of the ecosystems in the area.

2.3 Site connected concepts

Following sub-chapter deals with concepts of tourism and nature conservation specifically connected to the study areas in this report. First, a general presentation of the biosphere reserve concept is made and then tourism and nature conservation in mountains and wetlands are presented.

2.3.1 Biosphere reserves

The two sites more closely investigated in this study are both Biosphere Reserves. Therefore a brief introduction to the concept can be suitable.

Biosphere Reserves are geographically defined units of land which are designated by UNESCO under the program Man And Biosphere. The purpose of the program is to: "reconcile the conservation of biological diversity with socio-economic needs and cultural integrity – in short, sustainable development." (UNESCO^c, 2011). Currently there are 610 sites in 117 countries (UNESCO^d,2012). The Madrid Action Plan, formulated in 2008, states that the WNBR is "one of the main international tools to develop and implement sustainable development approaches in a wide array of contexts" (UNESCO, 2008^e). This statement suggests that the MAB program is of significant international importance. However, a Biosphere Reserve does not by automatic get a legal protection and hence MAB governing bodies does not act as an "international, environmental police force". The management of each reserve is the responsibility of the state in which it is located. Each reserve is evaluated every 10th year in order to determine whether it still qualifies as Biosphere Reserve. (UNESCO^f). There are no strictly defined criteria which have to be fulfilled in every detail but the expectations on the Reserves, which are used to assess their justification as such, are outlined in the Seville Strategy for Biosphere Reserves (UNESCO^g, 1996).

2.3.2 Wetlands and mountains

Wetlands and mountains are in focus in this study. These landforms are the result of the physical geography, geology and climate at the specific spot. These conditions, in turn, give rise to specific communities of plants and animals which make it relevant to talk about mountain ecosystems and wetland ecosystems. Both mountains and wetlands often contain a high biodiversity. This is due to the fact that they can host a wide range of habitats in a limited space. (Convention on Biological Diversity). For example, the habitats along a mountain slope relieves each other as the physical conditions, in terms of temperature, precipitation, wind exposure, sun exposure, soil, etc, change. The same is true for a wetland where the scale can range from completely saturated to very dry in just a few meters.

There is no worldwide established definition of mountains. In most cases, however, the term means that the terrain must be somewhat steep. While using present day's most reputable definition (basically based on ruggedness) mountains make up about 12% of the worlds land surface. (Global Mountain Biodiversity Assessment, 2010). At the same time they host 25% of Worlds biodiversity. Currently, about 16% of the mountainous areas of the world are protected, in some way. Legal protections do not always guarantee that an area is appropriately conserved but it is a step in the right direction and the portion of mountains protected are still growing. (Ibid). While mountains are important from a conservational point of view they can also be very attractive for tourists. As mentioned earlier; hilly, forested landscapes are generally perceived as the most attractive type of settings for nature based tourism among the majority of westerners (maybe among all people but the study only investigated the perceptions of westerners). This suggests that mountains are important in terms of nature based tourism. However, other types of tourism are also well represented in mountainous areas, especially adventure tourism (climbing, rafting and skiing) and rural tourism. 15-20 % of the global tourism industry (economically) is associated with mountain areas. (People & the Planet, 2008).

Wetlands are, like mountains, difficult to define. The term is normally used in a broad sense and includes most areas where water and land are interspersed. Open water does not usually count, except if it is very shallow. Examples of different types of wetlands are; marshes, peat lands, river deltas, rice fields and seasonally flooded plains. They can be both inland and coastal. (Wetlands International). In total, wetlands are estimated to cover about 6% of the

Worlds surface. (Nature Conservancy, Canada). Wetlands often contain high biodiversity and are especially important for many birds. Among many important ecosystem services, flood protection and water filtration are noteworthy. (United States Environmental Protection Agency, 2012). Despite the global importance of wetlands many sites are under severe threat and the global coverage of wetlands is continuously shrinking. Although the loss of wetlands in Europe and North America has largely ceased, the rate of loss in developing countries is, generally, still high. The principle drive of wetland loss is the demand for agricultural land. It is estimated that this factor is responsible for more than half of the wetlands lost, globally, during the 20th century. (Moser, et al, 1996). There are few studies made on the global reduction of wetlands. The result of such study will naturally depend on the definition of wetlands used and the definition of reduction. Some detailed studies for regions exist, though. A paper written in 1996, which is cited at the Ramsar website, suggests that the World may have lost 50% of its wetlands during the 20th century. Some regions, such as Europe, may have lost more. (Ibid).

Wetlands are, as well as mountains, exposed to tourism. The type of tourism and the scale seems to differ, though. The impression is that nature based tourism is by far the most commonly found type. People visit wetlands for the nature experience, of which animal watching is an important part. Examples of wetlands visited by many tourists are; Everglades USA, Pantanal Brazil, Danube Delta Romania and Kakadu Australia (Secretariat of the Ramsar Convention on Wetlands and the World Tourism Organization, 2012) Everglades National Park in USA receives annually about 1 million visitors (National Park Service, 2013).

The threats tourism pose to wetlands seems to be concentrated on small, not very well known, sites. These sites, often localized on attractive shorelines have been, and still are, destroyed to make place for coastal tourism facilities. (Secretariat of the Ramsar Convention on Wetlands, 2012). More famous wetlands, which themselves are visited attractions, can also be damaged by tourism but more in a degrading than totally destroying manner. The importance of tourism as a factor to count with considering wetland conservation is demonstrated by the fact that the 11th International Ramsar Congress, held in Bucharest in June 2012, had "Wetland Tourism" as its theme. (Ibid).

3. Study areas

3.1 Introduction

In this chapter the study areas, which are; Maramures county, Tulcea county, Danube Delta Biosphere Reserve and Pietrosul Mare Biosphere Reserve, will be presented. Though first, an introduction to Romania (which hosts all areas of the study) will be made. Figure 1, found below, shows the geographic settings of Maramures- and Tulcea County, inside Romania. No specific maps of the Biosphere Reserves are provided though, mainly because of difficulties in finding comparable maps for both reserves.

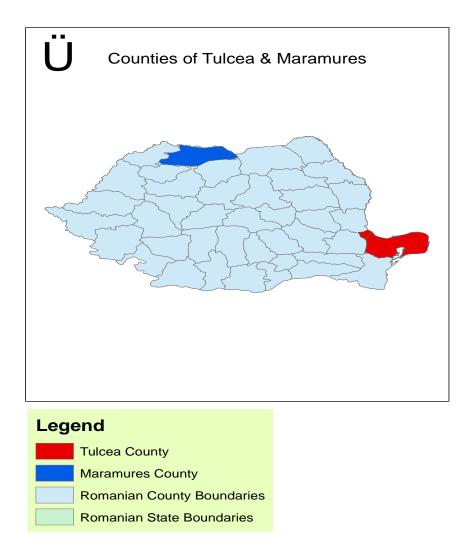


Figure 1: Location of Maramures and Tulcea, (diva-gis), processed by the author.

3.2 Romania

Romania share many aspects of both history and physical geography with the rest of the post socialistic states in Europe but it also encounters its own important characteristics. Romanians are not Slavs as the population in most of their neighboring countries and Björklund et.al (2009) argues that this is important in terms of creating a sense of national unity among its citizens. Briefly, the origins of the Romanian nation can be traced back to about 200 A.C. when Roman settlers intermarried with local tribes and gave rise to the ancestors of present day Romanians. However, it was not until 1877 Romania first appeared as a state, when the provinces of Moldavia and Walachia united and declared independence from the Ottoman Empire (Encyclopedia Brittanica^c, 2013). During the Inter War Period (1919-1939) the Romanian state reached its maximum geographical extent (so far) and the most significant change since, is the loss of Bessarabia and Bukovina to the Soviet Union. (Encyclopedia Brittanica^d, 2013). (Encyclopedia Brittanica^e, 2013). During WW2, Romania joined the Axis Powers because of border conflicts with the Soviet Union but switched side at the end of the war and fell under Soviet influence in the post-war period, or, with other words, "behind the Iron Curtain". A communistic dictatorship was established in the end of the 40s, which lasted until 1989. According to Björklund et.al (2009) the rule of Romania, during the Cold War was, distinguished from the "Eastern European mean" by being especially harsh but also relatively independent from the Soviet Union. By time, the dictator Ceausescu also developed, in comparison to other Eastern European countries, an unusual high degree of personal cult around himself. This explains why the fall of communism became more dramatic and violent in Romania than in most other countries, the dictator was very much associated with the ills in Romania at the time. (Björklund et.al, 2009) Since the fall of Ceausescu some remarkable transformations of the Romanian society have occurred. The country is now considered a consolidated democracy according to most definitions, although problems still remainespecially corruption. (Ibid) also note that the Romanians are the most "EU-friendly people" in Europe but the country is also the second poorest (after Bulgaria) in the union.

The Physical Geography of Romania can be summarized as diversified. Mountains occupy large part of the territory; with many peaks above 2000 m.a.s.l. Low-lying plains are also extensive, as well as coastal areas. (Encyclopedia Brittanica^c, 2013). The altitudinal differences between regions imply different climate and vegetation cover. Generally, the plains are more appropriate for modern, large-scale agriculture while mountainous areas suits traditional, small-scale farming better. This has resulted in large differences between regions,

considering development pathways, especially in the second half of the 20th century. According to Emanuelsson, (2009) there are areas in Romania with very high biodiversity and low contamination levels of the environment, but also the opposite. Those areas, with low biodiversity and high contamination of the environment, are generally located close to big cities or in the plains. They were selected by the government for development plans based on their favorable location. It appeared, for the government, to be rather ineffective to put such plans in action for remote, mountainous regions, therefore they were left to practice traditional ways of life. The exceptions are places where mines are located, a business which often affect the surrounding environment in a negative way (Ibid).

Nature conservation in Romania goes back to the end of the 19th century when ideas of protecting parts of nature first arose. Those Romanian nature conservation pioneers are contemporaneous with their colleagues abroad. (Geacu et.al, 2012). The first legally protected national park in the country was established in 1935 and in 1940 only 0,047% of Romania was protected. During the socialistic period the coverage of protected areas grew modestly, in 1989 protected areas made up 0,36% of the country. However, Romania's three Biosphere Reserves were established in 1980. Following the fall of socialism, 13 national parks were established in 1990. The coverage of protected areas grew rapidly during the 90s and 00s and reached 7% of Romania in 2010 (excluding Nature 2000 sites). (Ibid)

The main instrument of controlling protected areas within the EU is the Nature 2000 concept. This consists of a network of protected areas throughout the union. Each member state is obligated to participate in the framework. (European Commission 2013). Thus, since Romania gained membership of the EU, a number of sites throughout the country were added to the Nature 2000 network. Currently, the total area of Nature 2000 sites covers about 22% of the surface of Romania. (Geacu, et.al 2012). This number seems huge but it should be noted that Nature 2000 sites does not exclude human activities. Rather they are sites were certain values —mainly biodiversity— are to be maintained in consonance with human activities. Or with other words; areas designated for sustainable development. (European Commission 2013).

Protected areas in Romania are labeled in many different ways. The most important categories, in the national context seem to be scientific reserves, national parks, nature monuments, natural reserve, natural park. International categories include Biosphere

Reserves, Natural World Heritage sites, Ramsar sites and Geoparks, (UNESCO) and Nature 2000 sites (EU). (Toncea et.al).

To summarize, the expansion of protected areas in Romania has been significant over the last 50 years, with an acceleration in the coverage of protected areas the last 5-10 years. Figure 1 illustrates the development.

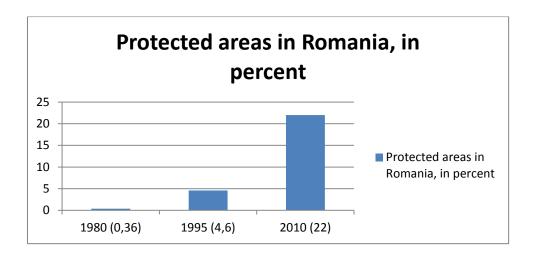


Figure 2: Development of protected areas coverage, Romania (Geacu ey.al, 2012).



Figure 3: International tourism to Romania (The World Bank, 2012)

International tourism in Romania goes back to the 1960s. Before that, few tourists from abroad visited the country. Large scale investments by the socialist government enhanced the

number of international arrivals to 7 million in 1981, where after it started to decline. The main part of the international tourists in the 70s and 80s were residents in other socialist countries but about half a million a year were not. Unlike many other post-socialist countries no tourism boom were noticed in Romania during the 90s and early 00s. The explanation for that seems to be, partly that the governments since the early 90s has prioritized other things than tourism development. (Hall et.al, 2006). However, according to statistics from the World Bank there has been an increase in international arrivals over the last years, with an absolute peak in 2007, the year Romania officially joined the EU (see figure 2).

The interconnection between tourism and nature conservation in the past has been difficult to reveal. As mentioned above, nature conservation has been very modest in Romania until the fall of socialism. That, however, does not necessarily mean that tourists didn't visit places considered "wild", which today are protected. In other words, nature based tourism (this concept is explained in the Tourism and nature conservation chapter) may have been widespread before nature conservation was a matter of concern. The Association of Eco-Tourism in Romania assert that nature based tourism was popular among Romanians during the socialistic era due to lack of alternatives and the possibility to escape from the surveillance of the secret police.

Some studies suggest that rural tourism has grown in many parts of Romania since the fall of socialism as a way for poor people in the countryside to earn their living (Iorio & Corcale, 2010).

3.2 Tulcea and DDBR

Tulcea is one of 42 counties in Romania. (European Commission, 2011) It is located in eastern Romania and borders Ukraine to the northeast and the Black Sea to the east. From south to north it borders the counties of; Constanta, Braila and Galati. The area of the county is 8499 km2 and the population is approximately 250 000 (Encyclopedia Brittanicaf, 2013). The topography is generally flat, especially to the east. Fishing is one of the most important economic activities in the county. Tulcea is totally dominated by the Danube Delta, which is the most extensive Delta in Europe, after the Volga Delta at the border of Asia (EUROPARC Federation, 2013). The Delta covers approximately 5100 km2 but is still expanding. This area is equivalent to the size of Halland County in Sweden or half the size of Lebanon. (Nationalencyclopedin, 2013). The average elevation of the Danube Delta is only 0,5 masl which makes most land surfaces exposed to flooding, part of the year. Its history is, in a

geological perspective, short. The Delta started to form just 16 000 years ago, at the end of the Last Ice Age. (Danube Delta Biosphere Reserve Authorities). The area has been protected in several steps, two of the most important making it first to a Biosphere Reserve (1979) and second to a World Heritage Site (1991). (UNESCOh). Only about 15 sites in the whole of Europe share this "double award". (UNESCOg, 2009). Due to its uniqueness and high biodiversity the Delta is considered one of the most important European landscapes to conserve and protect. Also, because of the same reasons, the area is a popular tourism destination. The Biosphere Reserve cover an area of 6200 km2. (UNESCOa, 2012)



Figure 4: Picture from the Danube Delta (Atu-travel)

3.3 Maramures and PMBR

Maramures is located in northern Romania. It borders Ukraine to the northeast and from west to east the counties of; Satu Mare, Salaj, Cluj, Bistrita-Nasaud and Suceava. (Romanian Museum). The total area of the county is 6304 km² (Encyclopedia Brittanica, 2013g) and the population reaches ca 510 000 at 2010, which is a decline of about 50 000 people since 1990. (Institutul National de Statistica, 2013). Most of the county is mountainous and agriculture and forestry form important parts of the economy. Maramures is dominated by the Carpathians with the highest peak reaching 2303 masl (Maramures County Council). Naturally, much of the nature conservation in the county is focused on the Carpathians. In order to ensure a sustainable use of the Carpathians the Carpathian Initiative was formed in

1999. About 50 NGOs from all the affected countries came together under the influence of WWF and produced, in July 1999- September 2001, the first comprehensive study of the "status of the Carpathians" (Carpathian EcoRegion Initiative, 2001) the "status of the Carpathians"



Figure 5: Picture from the Pietrosul Mare massif (Rodna National Park).

Pietrosul Mare Biosphere Reserve is situated in the Rodna massif, north part of the Eastern Carpathians. The reserve is important from a biodiversity perspective which is due to the many habitats encountered by altitudinal differences. The reserve cover an area of 440 km² (UNESCO^b, 2012).

4. Methods

4.1 Introduction

The methods used to obtain the results of this study are rather homogenous. The prime method used is qualitative interviews, backed up by some literature review. Five different actors involved in nature conservation and tourism were interviewed, some via telephone, some via e-mail. Details about the respondents are found in table 1, selection of material.

4.2 Philosophical approach

In order to justify the methods chosen for a study it can be useful to account for the underlying philosophy of the specific method. One fundamental choice to be made when conducting research is whether the results of the study should be based on a positivistic- or anti-positivistic view. Basically, the positivistic view means that the results obtained can be tested and proven false. Also, it includes the assumption that the results can be explained by logic and form general laws. This kind of approach is dominating (or ruling) among natural sciences. The opposite, anti-positvism, rejects the idea that all knowledge can be tested and proven false. Instead, it emphasizes that questions concerning human actions are complex and cannot easily be explained by general rules (Flowerdew & Martin, 2005). This approach seems most suitable to this study given the issues investigated and the time available. Thereby not said that a positivistic approach would have been impossible to use for this study but it would have acquired much more time and resources.

Another philosophical debate concerns the terms of realism and anti-realism. A realistic approach states that there exists a true reality, independent of our conceptions of it. Anti-realists oppose this standpoint. Whose theory is "right" is impossible to determine, especially here, but it can be useful to bear the anti-realistic approach in mind, concerning the structure and purpose of this study. Anti-realism emphasizes how important our conceptions of the world are. This involves our background as individuals, our opinions and beliefs. That, in turn, can be said to influence the choice of subject of the study, the questions asked, the material chosen, etc, for a study like this (Ibid). For example, my conception of nature conservation (and tourism) as something substantially meaningful can be recognized as influential in my decision to choose this specific topic, to study.

4.3 Methodological approach

In a more practical way, there are three different approaches to choose from when conducting research. Those are; the inductive, the deductive and the abductive approach. The inductive approach can be said to start without any theory. Instead, once a subject of study is chosen, the researcher starts to collect empirical material. The aim is to be able to formulate patterns, laws or theories out of this material. The deductive approach is the opposite. Here, the researcher starts with a theory which is to be tested against material gathered during the research project. The abductive approach is a combination of both and the most common approach in human geography according to Gren & Hallin (2003). The approach chosen to conduct this study is to be classified as abductive. Depending on the view of the observer it can be argued that both the inductive- and the deductive approach are dominating. The author started with some general conceptions of the subject to be studied. First, the belief that tourism and nature conservation in some way interacts and affects each other was a prerequisite for the study. One can argue that it is rather obvious that tourism and nature conservation, in some way, affects each other but still, it is a an idea. That is an argument for the claim that the deductive approach is involved. On the other hand, this "idea" is on a basic level and if the study would be viewed as truly deductive the idea should be developed, better defined and put into a hypothesis. For example, the study did not start with a hypothesis declaring how tourism affects nature conservation and vice versa. Rather, it started with a loose conception that some kind of interaction occurred. The empirical material gathered later on was meant to articulate how this interaction looked like. This indicates that the approach is mostly inductive. As Gren & Hallin (2003) asserts, it is almost impossible to conduct a study solely based on the inductive approach. Once a subject of study is chosen ideas of what kind of material that should be collected must arise in the mind of the researcher. That implies that an assumption of what is of importance and what is not, also takes form. That, in turn, means that the researcher starts with conceptions or even hypothesis, which implies that the approach is partly deductive. (Ibid).

Once concluded that the approach of the study is abductive, it is time to examine another important methodological choice. The maybe most familiar way to distinguish between methodological approaches is between qualitative- and quantitative method. In few words, a quantitative method is used to create numerical values out of data gathered. The qualitative method does not. (Ibid). They suits different tasks differently. Polls, for example uses a large amount of rather simple data and puts it together to numerical values, an example of a

quantitative approach. A survey tailored to investigate how voters reasoned about which party to vote for would need more questions and could be appropriate to carry out qualitatively. This study is based on a qualitative method but this was not determined in the beginning of the research project. Rather, this approach became defined during the process of work. Further, the interviews were organized in a semi-structured way which implies standardized questions but also a flexibility to shed light on issues not covered by the standard questions, if this appears to be of interest for the study.

4.4 Selection of material

In order to fulfill the purpose of the study, which is to examine how tourism and nature conservation interacts at the specific sites chosen, it is crucial to reflect upon which respondents to choose. The aim was to select respondents in such a way that different aspects of the interaction between tourism and nature conservation could be identified. Also, it was important to choose representative respondents in that meaning that they are heavily involved in the issues investigated and could be expected to possess some knowledge about the matter. Another idea which influenced the selection was to choose the same type of respondents for both areas in order to ease comparisons between them and make such, more meaningful.

The Reserve authorities appeared to me as a rather obvious choice of respondents, for this study. They are responsible for the daily management of the Reserves and probably, it is not a too wild speculation to assert that they should have some insights in the issues investigated. Then, my idea was to choose an official actor involved in tourism. Since one of the questions of issue deals with which significance the chosen Reserves has to overall tourism in the counties in which they are situated, the official tourist information of the counties of Maramures and Tulcea appeared to be another good choice of respondents. At an early stage it became clear that those institutions main task is to provide tourist with practical information. Nevertheless, one can expect them to possess information about what tourists want to experience in the county, based on their practical experience of tourists visiting their office. At last, I found it motivated to interview an actor independent of local, regional, national or international governments. My perception was that official institutions might feel obligated to present a picture in line with "their ruling organs". Although the Reserve authorities can be expected to work for biodiversity conservation and the preservation of different ecosystems I found it interesting to take note of the view of a NGO active in the field. Based on my pre-understanding of nature conservation and organizations working with that, I chose to contact a well known, international organization which I perceived as maybe

the most influential, WWF. They replied my request positively and quickly but after seeing my questions they referred to the Association of Eco-Tourism in Romania, one of their co-workers in Romania. Based on that, I assume that the answers I received from Eco-Romania are more or less in line with the attitude of WWF, Romania. Of course, as with the previous described respondents, it is important to reflect upon which bias this organization might represent. Obviously, their objective is nature conservation and preservation of traditional rural livelihoods, in a sustainable matter. Whether other people than the rural inhabitants addressed might benefit economically from achieving this aim is not examined. My perception is that this is not a driving factor (income for directorial members of the association) for the organizations work but recognizing that such motives can influence, as anywhere else, is advisible.

Respondents name	Organization
Juliana Lylulaen ¹	Danube Delta Biosphere Reserve
Iusan Claudiu	Pietrosul Mare Biosphere Reserve
Alina ²	Tulcea Tourist Information
Rada Pavel	Maramures Tourist Information
Bogdan Papuc	Association of Eco-Tourism in Romania

Table 1: Overview of the respondents. 1: spelling of the sir name is uncertain. 2: No sir name was recorded.

4.5 Research process

About two weeks after the onset of work, a plan was scheduled of how to gather data for the Results. This plan was more or less followed. At start, the idea was to visit the areas studied and gather data there. This idea was later abandoned, mostly because of lack of time. However, the idea of which data sources to use remained the same. The difference became how to approach the sources. Since interviews conducted with important actors was chosen as the main source of data, the respondents had to be connected in some way. After the selection was made (see selection sub-chapter) the respondents were contacted via e-mail. At first, four out of five respondents answered the e-mail. But later on, when the specific questions were sent, some of them did not reply. This made it necessary to call those who did not send the answers back via e-mail, by telephone. Therefore, three interviews were carried out via telephone conversation and the remaining two were sent to me via e-mail. This might have implications on the Results. After receiving all answers they were described rather right off in the Results chapter.

4.6 Method discussion; alternative methods, source criticism

There is an array of possible methods for conducting this study. But in a way, when selecting another one, the study is not any longer the same. Maybe it is better to ask which methods could be used to answer the questions of issue, chosen. To answer the first one; *In which way does tourism affect the conditions of the Danube Delta Biosphere Reserve and the Pietrosul Mare Biosphere Reserve?*, I find it difficult to use a totally different method from the one chosen. The question is rather big and complex. To do quantitative measurements in field is an option which appears in my mind but it has obvious disadvantages. First, it must be established what to look for. Already there, there is a high risk of doing an assessment detrimental to the results. Secondly, the sites are extensive and to do some kind of inventory of the effects of tourism there would be very time consuming. At last, some of the aspects of the question cannot be assessed by field measurements. So even if such a one could be implemented successfully, it would not be able to answer the question fully.

Another option would be to rely totally on literature. This would also be time consuming and encounter the disadvantage that there is no appropriate- or not enough literature to answer the questions satisfactory.

A questionnaire designed survey would be possible but the selection of respondents, in order to answer the question with some "accuracy", would be tricky. To chose random Romanians does not appear to me as I good idea as their interest and knowledge of the question, in some cases, can be expected to be minimal.

The most motivated discussion about the method seems to be about the selection of respondents, as well as the number of respondents. My impression is that a higher number of respondents would most likely leave no effect or be positive for the study, in order to nuance the results. A lower number of respondents, on the other hand, would affect the study in a negative way. The reason for choosing this specific number of respondents (five) is a combination of time restrictions and a lack of ideas of which other ones to include.

In other words, if an identification of, let's say, two more suitable respondents easily had been made, it would probably enhance the reliability of the study slightly but hardly change the results significantly. This is the impression I have after conducting the study.

The latter two questions of issue are, obviously, different from the first one;

How do the Reserves affect overall tourism in the counties of Tulcea and Maramures?

In which way has this interaction changed during the last 20-25 years?

An approach focusing on quantitative field measurements would be even less suitable for those. They are actually not easy to answer and when trying, the un-wanted inclusion of some bias is probably inevitable. The philosophical approach/choice earlier mentioned is clearly present. Is there an objective, "true" answer to the questions? And if so, can this answer be reached and presented by research? Whether a "true answer" exists should not be determined here but, at least, it appears impossible to present such a one. If trying, choices of priorities and formulations have to be faced and the final result will not be 100% indisputable. The results presented here are therefore, as mentioned elsewhere, estimations of important actors.

For those two questions of issue, statistics, if available, might be substantial enough to produce some kind of result. Nevertheless, I assert it difficult to produce meaningful answers to those questions without using interviews as, at least, one methodological component.

When it comes to the selection of the respondents I claim that they are suitably chosen. But of course there are others which also could fit. The Romanian government is one of those. They might be able to report useful information or they might refer to local authorities since the questions asked might be to narrow and to locally connected for them to assess. Local governments are therefore another possible respondent. Further, the organs responsible for nature conservation and sustainable development (Nature 2000) within the EU are also possible respondents. At last, more locally established actors, such as ski resorts, fishing companies, bird watching organizations etc could be targeted. If so, the need for visiting the sites appears to be bigger and the need for interpreters may also arise.

The respondents chosen gave different amount of information. I perceived some of them very "honest" and able to speak freely while others seemed to be more constrained. One of them stated that the answer he/she gave was the "official line" and indicated that his/her own opinion differed substantially from that. But he/she did not seem confident to discuss the issue further.

There are also other factors involved in the assessment of the sources. Some of them were perceived as less interested in the interview and some of them had little time to deposit. The practical approach may also influence the behavior of the respondents. Three out of five interviews were carried out via telephone while the remaining two were via e-mail

correspondence. Two of the three respondents interviewed via telephone seemed either surprised, not very comfortable or both. The last telephone interview, on the other hand, was totally different and I perceived it as maybe the most rewarding of all five. I assess the difference most due to the individual respondents but the fact that this telephone interview was the last one may have influenced me to be a better and more experienced interviewer.

When calling somebody via telephone, they are in most cases unprepared. All respondents were contacted via e-mail at first and four out of five replied. However, when the questions were sent, some of them did not reply. Therefore the necessity of calling them arose. I assume that it is better (in this case at least) to receive answers from somebody who has been given the time to reflect upon the questions but the circumstances did not allowed that in this case.

It would also have been possible to first call them and inform them about the questions- and then call them again, a couple of days later. Time pressure and the risk of not being able to reach them a second time, made me to exclude this possibility. Interestingly, the respondent totally unprepared (the one that did not answer my first e-mail, PMBR) provided probably the most comprehensive and useful information.

5. Results

5.1 Introduction

The Results of this study is largely based upon interviews with five actors which are involved in both tourism industry and nature conservation, in the Biosphere Reserves of Pietrosul Mare and Danube Delta. Also, some of the Results have been checked against literature available. As follows, each county/reserve is presented separately, comparisons of similarities and differences are made in the discussion. The results reached indicate that the protected areas in focus in this study, in particular, and such in Romania, in general, are visited by less tourists and are less affected by human activity than their counterparts in Western Europe. At the same time some sources indicate that the protection of the areas does not work that well in practice and that much can be done to make interaction between tourism and nature conservation better for both parts.

5.2 Maramures / Pietrosul Mare Biosphere Reserve

In which way does tourism and nature conservation affect the conditions of the Pietrosul Mare Biosphere Reserve?

In order to answer the first question of issue, questions regarding economy of the reserves, visitor numbers, effects of tourism on ecosystems, etc, were asked. The authorities of Pietrosul Mare Biosphere Reserve / Rodna National Park recognized that tourism affected the landscape and ecosystems of the reserve in a not negligible way. The annual amount of tourists visiting the reserve is about 20 000. Most of them follows a small number of marked trails and stops at some especially attractive places. The effects of tourism at those places are significant. It becomes visible as wear of vegetation and geological structures as well as litter and the obvious presence of man herself. However, the reserve is extensive and most parts are visited by few tourists. The interesting question of how tourism affects the reserve as a whole remains largely unanswered. The authorities states that research regarding this is ongoing but at the moment it is difficult to assess how the tourism affects the propagation of specific species, etc. Even though it is not yet possible to assess the overall impact of tourism on the reserve the authorities asserts that other factors has a higher impact of the reserve than tourism. One such is forestry. Lodging is apparently allowed in the buffer zones of the reserve and it seems like there is a pressure for extending this activity. Whether this pressure comes from small, local households, larger forestry companies or both, was not revealed during the interview. Grazing is also common in some parts of the reserve. The authorities assert that this activity can be both positive and negative, especially considering biodiversity. If managed properly, it is known to enhance biodiversity and be beneficial for many rare species. However, according to the park authorities, the local population (living in small villages outside or in the buffer zone of the reserve) often practice grazing in a way which becomes detrimental. Overgrazing of some areas is the main problem, which leads to removal of vegetation cover and decreasing biodiversity.

The reserve authorities practice the establishment of strictly protected areas within the reserve, into which entrance is prohibited. This can be said to be partly an effect of tourism, since many of those present in the reserve are tourists, although others are local residents.

Another interesting phenomena described is the tourism of the local population. The village of Borsa is one of the main gateways to the reserve. According to reserve authorities, a majority of this villages (and surrounding countryside) young adults work and lives most part of the year in Italy. A few weeks each summer they visit their homes and affect the reserve quite significantly. Driving with off road trucks into protected areas is one problem, as well as camp fires in inappropriate places and littering.

The Association of Eco-Tourism in Romania presents a somewhat more pessimistic picture of how tourism affects nature conservation in the Reserve. They state that protected areas in Romania, in general, are not very well taken care of and that there is a high pressure on nature. In Pietrosul Mare Biosphere Reserve the number of tourists is not the main problem but rather lack of planning and poor law enforcement. They mention inappropriate development of ski- resorts and infrastructure as a negative impact of tourism on nature conservation in the Reserve. The tourist information of Maramures assess protected areas in Romania as rather unexploited by tourism; "Unlike many protected areas in other countries, our green areas are not too popular yet."

The other main aspect of this question of issue is whether tourism affects the reserve in an economic way. No such connection was found. The park authorities receive their funds from the National Forestry Administration and from the EU. Thus, it does not seem to be a connection between higher visitor numbers and better economy for the management of the reserve.

How does the Reserve affect overall tourism in the county of Maramures?

Pietrosul Mare Biosphere Reserve is located in the counties of Maramures and Bistrita-Nasaud. Therefore it obviously affects tourism in both counties. The decision to focus on the counties of Maramures and Tulcea, in this study, was taken before it was determined that focus also should be at Danube Delta Biosphere Reserve and Pietrosul Mare Biosphere Reserve, specifically, and before it came to the authors awareness that Pietrosul Mare Biosphere Reserve is transboundary. However, with this in mind, the fact that Pietrosul Mare Biosphere Reserve is transboundary does not make it less relevant to investigate which effect the Reserve has on attracting tourists to Maramures.

To examine this, the official tourist information of Maramures, located in Baia Mare, was of good help. From the interview conducted with them it became obvious that Pietrosul Mare Biosphere Reserve is not an outstanding tourist marker of the county. There seems to be many things of interest for tourists in Maramures, both of natural and cultural character. The mix between those elements, such as picturesque settlements in beautiful surroundings, seems to be maybe the greatest tourist attraction of the county. With other words, Pietrosul Mare Biosphere Reserve has some influence on attracting tourists to the county of Maramures but the tourist markers of the county are many and diverse and the Reserve is only one of those, let be one of the more important.

In which way has this interaction changed during the last 20-25 years?

Both reserve authorities and tourist information were asked how the tourism in protected areas in general, and in Pietrosul Mare Biosphere Reserve in particular, has changed over the last 20-25 years. The reason was to examine whether political changes during this time had any influence on the nature based tourism.

The tourist information asserts that there has been an improvement of infrastructure during this time which has relieved access to many remote areas. Accommodation and restaurants has also been developed. Whether most of this development has taken place in the last few years or in the beginning of the period (early- and mid 90s) is not clear. They also claim that some attractions have lost its authenticity but this is more relevant for rural areas and not so much for protected areas and natural ecosystems.

The reserve authorities states that tourism to the Biosphere Reserve has increased during the period but not significantly. There are now more international tourists visiting the reserve but most of them come from neighboring countries, especially countries which are crossed by the

Carpathian Mountains, such as Poland and Slovakia. They also claim that tourists, in general, now have a higher environmental awareness. Littering in the reserve has decreased and illegal off road driving in the reserve has also decreased. The reserve authorities report that the status for large carnivores is very good in Pietrosul Mare and other species are also increasing, such as alpine goat but whether this has any connection to changing patterns of tourism is not clear.

The Association of Eco-Tourism in Romania provides insights of nature based tourism in Romania before the fall of socialism. They reveal that this type of tourism was very popular during that time, mainly because of two reasons; the lack of alternatives and the possibility to get away from the surveillance of the secret police.

Neither reserve authorities nor tourist information sees increasing tourism to the Biosphere Reserve as a major threat to the ecosystems of the Reserve. In fact, both welcome a higher level of visitors, especially the tourist information but the reserve authorities also put some effort in attracting more tourists.

In summary, the reserve is affected by tourism but not in a significantly detrimental way. On the other hand, tourism does not affect the Reserve in a specifically positive way either since no revenues from tourism is used to manage the Reserve. The existence of Pietrosul Mare Biosphere Reserve has a rather small, though not negligible, influence in attracting tourists to Maramures. The interrelationship between tourism and nature conservation has changed over the last 20-25 years. Both have developed, especially nature conservation, but tourists have also become more environmentally aware. The interest of nature conservation can be said to have strengthened its position against other interests, among those overexploiting tourism, since much larger areas are protected nowadays than 25 years ago. Whether this protection is effective is, however, another question. The conflict of interests which sometimes appear between tourism and nature conservation does not seem to be a major problem in Pietrosul Mare Biosphere Reserve. This is the image presented by the Reserve authorities and Tourist information. The Association of Eco-Tourism in Romania assesses the negative impact of tourism on nature conservation in the Reserve as higher and they especially emphasize the lack of planning and coordination as a problem.

5.3 Tulcea / Danube Delta Biosphere Reserve

In which way does tourism and nature conservation affect the conditions of the Danube Delta Biosphere Reserve?

In contrast to Pietrosul Mare Biosphere Reserve it is more difficult to assess the annual amount of tourists to the Danube Delta Biosphere Reserve. The interview with the Reserve authorities did not provide any numbers but the respondent interviewed estimated that it was "probably below 10 000/ year. However, a report (Ramsar Secreteriat, 2012) state that the Reserve was visited by 72 300 tourists in 2010. The low estimation made by the Reserve authorities may be due to a misunderstanding; they might have encountered only foreign tourists. The report referred to, state that 16 000 out of 72 000 were foreigners. It is more difficult to assess the tourist numbers in DDBR since it is larger and has more possible entrance points.

The Reserve authorities did not mention any particular effect of tourism on the Reserve. Their overall approach is that it is not especially detrimental to the ecosystems. Some parts of the Reserve are strictly protected (as are some parts of PMBR). Like the case with PMBR, no connection between increasing tourism and better economy for the Reserve authorities was made. Still, the Reserve authorities were keen to increase the number of visitors. The tourist information of Tulcea could not contribute with any opinion on this question other than "its probably not detrimental". The Association of Eco-Tourism in Romania, however, had some points to add. They claim that negative effects of tourism are significant in the Reserve. Main problems are; chaotic tourism development, over fishing (not clear if made by tourists, locals or both) and speed boats. They also mean that there are too many governing bodies involved in the Delta region. Their assessment is that tourism, as it occurs today, is mostly negative to the nature conservation and maintenance of the DDBR. Further they express ideas of how tourism may affect the local communities, economically; In general, ecotourism can help the local communities to increase their income, but this can only be achieved if the protected area administration is supported by the national and local communities and they have an integrated vision for the development of tourism in the area, with the local communities as an important stakeholder and beneficiary.

How does the Reserve affect overall tourism in the county of Tulcea?

Unlike Maramures, it seems like the DDBR is the main attraction of the county of which it is situated in. The interview conducted with the Tourist information of Tulcea revealed that people coming to the office, interested in nature experiences, are not recommended any other area than DDBR. Also they claimed that the DDBR is most important for attracting tourists to the county. According to them, the DDBR is not very well promoted and they hope for increasing tourism in the future. They also viewed tourism as very important for the inhabitants of the region and for the local economy, as a whole. This assessment appears to be a bit excessive compared to what is stated in the report, earlier cited. Although the authors recognize tourism as important to the region, and increasing, they notice that only 2% of the population in the DDBR is employed within the sector (Ramsar Secretariat, 2012). The Association of Eco-Tourism in Romania means that poverty among the inhabitants of the DDBR (ca 12 000 inh.) is a rather significant problem, though it is not clear whether it becomes a problem for the ecosystems as well or jus for the people.

In which way has this interaction changed during the last 20-25 years?

The Tourist information of Tulcea did not provide as much information regarding this matter as their counterpart in Maramures. They mentioned that international tourists are more abundant nowadays than 20 years ago and that most of them are from Germany and France. The picture of how the interrelationship between tourism and nature conservation has changed is split. Reserve authorities did not comment this question very detailed, less than previously mentioned approach that tourism affects the Reserve in a mostly positive way. The Association of Eco-Tourism in Romania did not exactly assert that the influence of tourism on the Delta has become worse. But they neither recognized any major improvements.

In summary, less information was provided by the DDBR related interviews than for those concerning PMBR. Still, it is possible to sum up the different actors approach and opinions. DDBR authorities and Tulcea tourist information view the detrimental effects of tourism upon the Deltas ecosystems as small whether the Association of Eco-Tourism in Romania acknowledges larger problems. The revenues from tourism is not used to finance the maintenance of the Reserve (at least not directly) though the Tulcea tourist information recognizes tourism as an important contributor to the local economy. At the same time the

Association for Eco-Tourism in Romania asserts that the population of the Delta, in general, is rather poor.

6. Discussion

6.1 Introduction

Interesting information has been revealed in the results above, but it also appears split and contradictory. It seems like one can conclude that the interrelationship between tourism and nature conservation does not look the same for PMBR and DDBR. How those interests interact at the specific sites has only partly been revealed. To do a more comprehensive examination of how decisions are taken and which conflicts that occurs would require more time and an excursion to the areas but would be an interesting following study. To sum, my impression is that tourism takes greater advantage of nature conservation in DDBR than in PMBR. Also this site seems to be of higher importance for both factors. This conclusion is supported by the areas representation on Internet. PMBR webpage is not available in English as DDBR webpage is, which can be an indication of higher international importance of this site.

6.2 Usability of the report

The significance of this report and how it can be used is important to assess. It can be asserted that the report illuminates many aspects of the interaction between tourism and nature conservation. Some might only be relevant for the study areas while others can be used to understand this interaction elsewhere. It is assessed that the interaction between the factorsand the impact of both factors- differs between the areas. It appears that tourism make better use of, or is more dependent on, nature conservation in the DDBR than in PMBR. However, at both sites, it seems like the factors/interests could benefit more from each other. That implies that a "mutualism" is desirable and achievable in protected areas, in general. Also, the report shows that the development of tourism at the specific sites has taken different shape, since the fall of socialism. Both sites have received more international tourists but the DDBR receive more long-distance visitors. That indicates that the areas touristic attractiveness differs, depending on their character- or differences in marketing. The accessibility of the areas is reasonable also a factor to count on. The economic importance of the sites for their surroundings (county) has also been assessed. It is indicated that the Danube Delta is more important to Tulcea than Pietrosul Mare is to Maramures. Even though the tourism in the Danube Delta is presented (to me by tourist information and reserve authorities) as very important for the local economy, other sources (the Association of Eco-Tourism in Romania) claim that the local population is poor, which suggests that some local actors earn good money on tourism while many others don't. That illuminates the different opinions of how

tourism affects the area, which occur. In summary, the report can most likely be used as support for other studies of the same theme but also by more official investigations which aims at facilitating cooperation at newly established protected areas or improve detrimental relations at old ones.

6.3 Review of working process and results

The aim of this work was to reveal distinctive characteristics of the interrelationship between tourism and nature conservation at the specific sites chosen. This has partly been achieved but in a slightly different way than expected at start. Instead of clear, distinctive patterns and statements the results are rather made up of small, in some cases interesting, pieces of information. It appears to me that none of the areas are in high risk of fatal deterioration, especially not caused by tourism. The interviews have provided different opinions of the status of the areas but none of them are extremely optimistic or pessimistic. It appears that tourism is only one of the factors impacting the areas. Some answers collected indicate that other factors, such as agriculture or forestry, are more influential. This is also a thread to another interesting follow-up study, to assess the impact of different factors and not just one.

At beginning of work the expectation was to find more distinctive positive- and negative impacts of both nature conservation and tourism, for the other factor. But after conducting the study it seems like most of the impacts identified are closer to the "middle". To find that few of the respondents recognized no positive impacts of tourism to the reserves, was somewhat surprising. It was expected that a high number of visitors would benefice the reserves economies but this connection was not confirmed by reserve authorities. They seemed to perceive patterns of visitor numbers as something, a bit separate from their activity. Although they took measures for protecting the reserves from increasing number of visitors, by setting up strictly protected areas, they did not acknowledge that enhanced tourism could strengthen the motives for keeping the areas protected and preserved. Neither did they discuss the opportunity to receive higher funds as an effect of enhanced tourism, in terms of entrance fees, etc. Even so, both reserve authorities explained themselves to work for higher visitor numbers. This could be due to a pressure from higher authorities to do so or due to other factors. Maybe they are influenced by the motives presented above, without being able (or willing) to articulate it. Also, the putative positive effect of nature conservation on tourism was not emphasized. Although the reserve authorities indicated that their work was important to maintain the attractiveness of the reserves, they did not emphasize that it is especially beneficial for tourism.

6.4 Related research

To relate to what briefly is mentioned in the Theoretical review, a few words will be said about Wall Reinius research and its significance for this study. Her first paper examines the role of the protection status of a site to attract tourists. Her findings indicate that the concept National Park is a stronger tourist marker than World Heritage Site and much stronger than Biosphere Reserve. Both sites in this study carry the least attractive status but Pietrosul Mare is also a National Park (under the name Rodna) and parts of the Danube Delta is a Natural World Heritage Site. The interviews with Pietrosul Mare reserve authorities indicated that they desired to designate part of the reserve as World Heritage Site as well. The reasons for not designating the Danube Delta as national park is not further investigated in this study but according to Wall Reinius theory, this decision might hold visitor numbers down. It is important, though, to emphasize that Wall Reinius study was carried out in Sweden and it is not certain that her findings can be implemented internationally. To start with emphasizing this, also for her second paper, this too can be useful to compare with this study. Here, she finds that tourism in the Swedish mountains has changed between 1980 and 2003. The average stay has shortened, the average visitor has become older and the average requests for facilities have increased. Similar patterns are not reported from the areas in focus of this study but that does not mean that it does not occur there. It might not be known by my respondents, though. Although both reserve authorities acknowledges expansion of touristic facilities over the last 25 years it is not so much coupled to changing demands from tourists but rather to increasing numbers. It is not an objective of Wall Reinius study to assess how this changing patterns of tourism affects nature conservation. Logically, though, expansion of touristic facilities will leave impacts of the landscape and ecosystems. However, it might as well be vital to attract people to get out there, in order to strengthen the position of nature conservation in the public debate.

6.4 Speculations about the future

This study focus on the interaction between tourism and nature conservation, at present and in the past. The results does not provide information about what can be expected to happen in the future but they, together with literature of the matter, provide enough information to bring such questions into light, in the discussion. As with the questions already investigated, many factors will be influential of the development of the studied interaction. It appears that in order to attract tourists also in the future, the areas must preserve some of their character.

However, which character to be preserved in order to continue attract tourists is disputable. Is it enough for DDBR to keep water and land interspersed and some large fish for tourists to catch? Or do they have to put enormous effort into preserving every single species in the delta? The same applies to PMBR, is a mix of forest and alpine tundra, combined with reports that bears are abundant enough to still attract tourists? Or do they have to carefully plan for each part of the area to keep biodiversity as high as possible?

Previous reasoning discusses the importance of nature conservation for keeping/enhancing the areas touristic attractiveness but what about the opposite? How important will tourism be for the continuing nature conservation in the areas? It can either be assumed that nature conservation will continue unaffected of tourism patterns or that those will heavily affect the conditions for nature conservation. For example, how easy will it be to keep a large area protected if few people care about its maintenance and other actors (agriculture, industry, forestry, infrastructure, mining, etc) are pushing on to get access? My impression is that either factor, tourism and nature conservation, will influence the character of the other, also in the future.

As mentioned briefly in the theoretical review, some areas around the world have managed to make tourism very beneficial for nature conservation. The opposite is in those cases also true. The factors enhance each other's importance in a positive spiral. Such interaction can probably develop in most protected areas, with careful planning, good marketing and a portion of good luck but to make it really successful the specific site must probably appear to be unique, in some way. In the example described in the theoretical review, the entrance fee for watching mountain gorillas, for an hour or so, is between 500 and 750 USD. As good as everybody I have spoken to who has done this thought it was worth the money. The experience is unique and a memory for a lifetime. Therefore tourists gladly spend this amount of money on it. Those revenues are then used to maintain and improve nature conservation which ensures the attractiveness of the site, for tourists, also in the future. Whether the sites of focus in this study could achieve something similar is an interesting question. First, they are not unique in the same way as the mountains at the borders of Uganda, Rwanda and DRC since this is the only place left in the world where mountain gorillas occur naturally. No such species is unique to either DDBR or PMBR. However, both Romanian sites exhibits rare- or hardly spot able species, something that could be more emphasized in marketing and utilized in expensive "safari-like excursions" at the sites. Further, the Danube Delta is a rather unique feature of Europe. It is by far the largest- and probably among the less human-affected deltas of the continent. This could also be more utilized in attracting tourists and receiving revenues from them. To market the Danube Delta as something absolutely spectacular which hardly can be experienced anywhere else on Earth would not be a too obvious exaggeration.

Anyway, tourism and nature conservation will not only affect and be affected by each other but also affect and be affected by other factors. For tourism, the economic development in Europe appears to be of relevance as well as the development of the European Union. The vast majority of the visitors to the reserves are Europeans (DDBR seems to receive a higher portion of non European visitors) and whether they can afford to visit the areas in the future will be of importance. Also, the development of the political situation, which today means rather "open" borders and free movement of people within the EU, will be important. When it comes to nature conservation it will probably also be affected by the economical situation but also by new scientific findings and international trends. At last, it cannot be excluded that, for various unpredictable reasons, the areas investigated in this study will be of low significance for both tourism and nature conservation in the future.

7. Conclusions

- Tourism and nature conservation exists and interacts at both sites. The interaction and the impacts both factors bring to the Biosphere Reserves were less obvious and more complex than expected.
- The Danube Delta Biosphere Reserve seems to be of higher importance for both tourism and nature conservation than Pietrosul Mare Biosphere Reserve and, here, tourism appears to benefice more from nature conservation than the opposite.
- There seems to be good opportunities for an enhanced mutualism (duplex advantage generation) at both sites.
- The Danube Delta Biosphere Reserve is of greater importance for overall tourism in the county of Tulcea than Pietrosul Mare Biosphere Reserve is to the county of Maramures.
- Tourism and nature conservation, at the sites, has transformed over the last 25 years. Both sites attract more foreigners, with a higher share of long-distance travelers in the Danube Delta than in Pietrosul Mare. There are indications that tourists, in general, has become more environmentally aware, at least at Pietrosul Mare. The coverage of protected areas has greatly expanded over the time period investigated.

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Figures

Figure 1: Geacu, Dumitrasco & Maxim (2012) The evolution of the natural protected areas network in Romania

Figure 2: The World Bank (2012) International tourism, number of arrivals. Available:

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Figure 3: Atu-travel. Available: http://www.trekking-tours.ro/birding_trip.php

Figure 4: Rodna National Park. Available: http://www.parcrodna.ro/

Figure 5: Diva-Gis. Available: http://www.diva-gis.org/gdata

9. Appendix

9.1 Interview templates

Questions for Biosphere authorities

- 1. Approximately how many tourists (national and international) do you receive in the biosphere each year?
- 2. Which are the main groups visiting the reserve, regarding age, gender and nationality?
- 3. What experiences do the visitors look for? Are their main interests for example wildlife, hiking, adventurous activities, (climbing, rafting, etc) or more luxurious experiences?
- 4. How is the maintenance of the biosphere reserve financed? What is the annual budget and where does the money come from? Do revenues from tourism contribute to the financing of the reserve?
- 5. What is your opinion regarding the impact tourism have on the reserve? Is it mainly positive or negative?
- 6. What about the magnitude of the annual tourism in the reserve; do you wish to increase, decrease or maintain the present number of visitors?
- 7. How has the tourism in the reserve changed since the fall of communism 1989 and how has that change affected your management of the reserve?

Questions for Tourist information offices

- 1. How many visitors a year do you receive in the tourist information center (both national and international) and what are their main interests in visiting the county?
- 2. What kind of information do you provide for those interested in nature experiences?
- 3. What is your impression regarding the role protected areas play in attracting tourists to the county?
- 4. Do you think that protected areas in the county have a high potential to attract even more tourists in the future or are they already visited by "enough" tourists?
- 5. How has the tourism in the county changed since the fall of communism 1989 and what are your predictions for coming years?

Questions for the Association of Eco-Tourism in Romania

- 1. The Danube Delta Biosphere Reserve and the Pietrosul Mare Biosphere Reserve are two areas in Romania which are considered to possess high "nature values". What is your general opinion about the status of these sites? What are the major threats to the ecosystems and biodiversity there?
- 2. Nature based tourism is one of many types of tourism. Romania seems to be able to offer good opportunities for this branch. Do you consider Romania to make use of this

- "resource" in a wise way? In which way has nature based tourism (people visiting places for the main purpose of experience what is perceived as undisturbed nature) changed in Romania, over the last 30 years?
- 3. What is your opinion about the tourism in Pietrosul Mare Biosphere Reserve and Danube Delta Biosphere Reserve? Are its impacts mainly positive or negative, from a nature conservational point of view?
- 4. What is your opinion about the tourism in these Biosphere Reserves, in the future? Do they have the potential to attract even more tourists than today or do they already receive an annual amount of tourists which is too high?
- 5. How do you assess the importance of nature based tourism for the counties (Maramures and Tulcea) in which the earlier mentioned Biosphere Reserves are located? Is it an important source of income for the local population or authorities? What differences are there regarding this, between the two counties?

9.2 Abbreviations

- 1. Masl Meters above sea level
- 2. DDBR Danube Delta Biosphere Reserve
- 3. PMBR Pietrosul Mare Biosphere Reserve