

THE DEVELOPMENT OF ECOTOURISM IN PROTECTED AREAS

STUDY CASE: COMANA NATIONAL PARK

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Abstract

It has been proven in the last years, that integrating the ecotourism as an instrument of sustainable development of protected areas represent a beneficial method in the management of the latter, including results regarding the economic prosperity of the local communities, besides important results obtained at the level of protection and conservation of concerned areas generated by tourism revenues.

In other words, additionally to a positive environmental impact, the proper handle of ecotourism, generates direct effects on the economic progress, education and the perception regarding the identity of surrounding communities, creating interdependence win-win relationships between the protected area and the inhabitants.

In Romania, a country with a high ecotouristic potential, the official steps taken by the authorities in implementing this form of tourism either are delayed, or have been adopted in a declarative way, which is why Romania has only two declared destinations of ecotourism. Comana National Park is a treasure on the Romanian land, with a rare biological diversity, fully deserving the title of "The second Romanian Danube Delta" and the enrolment on the UNESCO World Heritage list. The Comana National Park case, in which the ecotourism expansion strategy has obvious lacks respecting a practical point of view, is one of the protected areas in which ecotourism may become a real balance factor among conservation and sustainable economic evolution.

Keywords: Sustainable development; Ecotourism; Protected Areas; Comana Park

JEL Classification: Z30

Introduction

Not often tourists visiting a protected area are passionate about nature or amazed by its biodiversity. It happens quite often that the people visiting the Comana Natural Park forget to respect nature and offer it what deserves: life and cleanliness.

Natural areas are true oasis of life. Life in a protected area never ends even though any being cease of live at some point. Biodiversity is what supports this idea of life without death within protected areas. Moreover, the connection between man and nature can only be realized in nature, which is why the observation of the protected areas must be an objective of the authorities.

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The benefits that come from protected areas are numerous. First of all, protected areas support biodiversity and all that involves it, from ecosystems and species to the smallest organisms that form an ecosystem, thus shaping the diversity of life.

At the same time, the importance of conservation areas can be found in the fact that they encompass significant areas from a cultural, historical, educational and even medical point of view.

Natural areas at international level

The concept of setting up national parks and protected areas took shape in educational and social terms, initially developing in advanced industrial countries. Over time they have spread across all regions of the globe and currently United Nations registers 2600 national parks or biosphere reserves, in 124 countries. (UICN, 1992, OMT, 1993)

Conservation areas requires a subtle involvement, rather than a very extravagant one, which can differ from country to country. Also, the touristic equipments found in natural parks are different in every country, those fitting in the margins established by the ecosystem. Respecting those margins is extremely important in protected areas, any imbalance causing disturbance or even destruction of their stability.

Ever since ancient times people defended and conserved nature. Therefore, those notions are not recent. The idea of national park, however, originally appeared on the territory of the United State of America, in 1832, where George Catlin was committed in protecting the Native Americans culture, fearing that the impact of others on this civilization and everything surrounding them (plants, animals, wildlife) could destroy this perfect and harmonious ecosystem.

Among the oldest protected areas in Europe is the one found in Grand Paradiso, Italy. It was born in 1856 as a refuge for wild animals. Not long after, in 1909, Swedes are the one who create the first national parks in Europe.

Yearly, there is an increase in both the number and the surface of the protected areas worldwide. World Database on Protected Areas provides every five years data regarding the growth recorded in protected areas. In 2016 there have been registered 202,467 areas¹, with a surface of 19,8 km² representing 14,7% of the cumulated surface of national territories.

¹ Protected Planet Report 2016, p. 30.

The development of ecotourism in protected areas; Evolution at international level

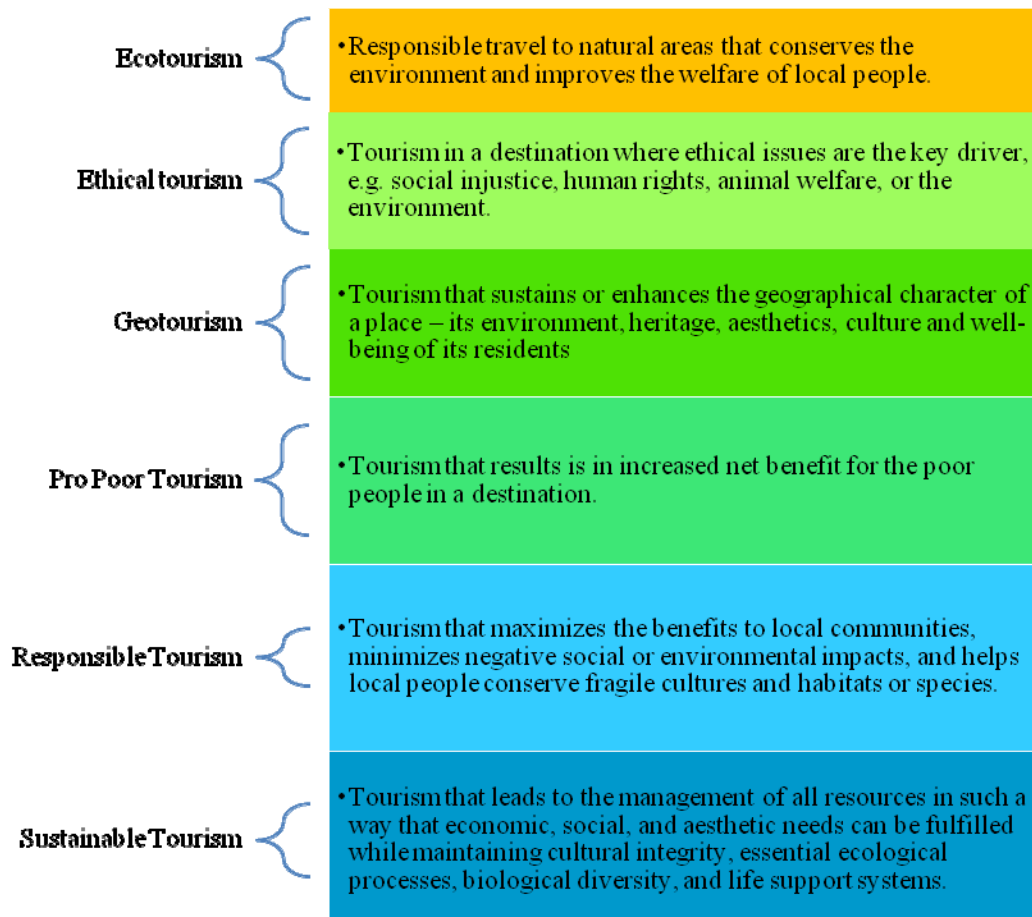


Figure no. 1: Tourism forms

Source: The Case for Responsible Travel: Trends & Statistics 2016

Regarding ecotourism, it has been observed that it is difficult to be measured and did not carry out accurate analyzes defining the clear number of tourists that who would be really motivated by the principles of practicing it. However, it is noted that ecotourism is the part of tourism that is developing the fastest.

Lately, ecotourism has grown internationally, particularly in Europe, Asia and North America, but the difficult part intervenes in the way of providing ecotourism products and their impact on the environment and economy. On this line, Blue Flag² and Green Flag International³ have been created, actions that fight and contribute to the optimization of the environment.

² <http://www.blueflag.global/>

³ <http://internationalgreenflag.org/about.php>

The ecotourism in Romania and protected areas

The territory of Romania has 1,395 protected areas⁴, which can be translated into a concrete percentage of 24,46% of the country's surface. These protected areas are included in the National Protected Areas Network.

Both the position and the geographical conditions, but also the natural environment facilitates the improvement of flora and fauna diversity on our country. From a geographical point of view, Romania is the only country that holds five of the eleven biogeographical areas met in Europe, fact which is clearly indicating the wealth and prosperity of Romania's ecotourism areas.

The most important wetland in Europe (the Danube Delta), the Carpathian Mountains (more than half of their surface), virgin forests, all these are found on the territory of Romania.

The richness of our country is constituted by these elements, which together with the history, traditions and authenticity of the area turn Romania into one of the richest countries in Europe in terms of biological diversity and wildlife.

Tables no. 2 contain information regarding the numer of habitat types and plant species on Romania's territory. Furthermore, table no. 3 presents the situation of protected areas in Romania (areas of national, regional and international importance) along with the specific categories of each area and the number encountered on Romania.

Almost 47% of Romania's territory is represented by natural ecosystems⁵. Protected Areas also represent an important percent of Romania's surface, more exactly, 25%.

Table no. 1: Types of habitats and plant species on Romania's territory

Types of habitats	Plant species
13 – costal	23 – monuments of nature
143 – wetlands	39 – endangered
196 – pastures and meadows	171 – vulnerable
206 – forestry	1.253 – rare
90 – dunes and rocky areas	
135 – farmlands	

Source: Adapted from the National Strategy for the Development of Ecotourism in Romania 2016-2020, p. 32

⁴ <http://www.wdpa.org/country/RO>

⁵ Fundația Centrul Național pentru Dezvoltare Durabilă, *Natura 2000 în România*, București, 2012, p 6

The first column of table no. 2 represents the types of habitat found on Romania's surface. These cover a total of 783, shared on 261 sectors surveyed. The second column represents the plant species in our country and how are they divided.

Besides the richness of the flora, fauna and biogeographical framework, there are important historical events, traditions and old customs, that standeth giving the country both a mystical and authentic air.

The link between conservation areas and ecotourism is unavoidable, even overlapping at a certain point. The National Institute for Research and Development in Tourism has discovered due to a research project several ethnographic areas specific to Romania. Several areas of the previous are very close to protected areas, contributing and creating the opportunity of expansion for ecotourism.

Table no. 2: Protected areas in Romania

	Categories	Number
Areas of national importance	National Parks	13
	Scientific Reserves	36
	Natural Reservations	539
	Natural Parks	15
	Nature Monuments	172
Areas of regional importance	Sites of Community Importance	383
	Special Protection Areas (Birds Directive)	148
Areas of international importance	Ramsar Sites, Wetlands of International Importance	19
	World Heritage	1
	Reservations of the Biosphere	3

Source: Adapted from Protected areas in Romania: Introductory notions, p. 31

Identification of protected natural areas. Problematic.

The central purpose of the protected areas, is as it is already understandable from its name, the protection of the natural environment. In the same time, they represent an attractive point for the tourism industry. However, the problem arises when humans intervene, therefore allowing tourists to visit the natural protected areas is not always an advantage. There are a lot of protected areas, natural or national parks which are not maintained, mostly administratively, according to the proper standards which also brings a series of other problems.

One of the problems that contribute to the depreciation of the protected areas is represented by traffic, and not only touristic. In a lot of areas cars and busses are going through the protected areas (Switzerland, France and Italy, have a large number of protected areas where traffic is permissible). Clearly there can be no benefit, on the contrary, the negative effects are even more devastating.

First and foremost, the existence of automobiles in protected areas pollute the environment implicitly, they contribute to the relatively slow but certain destruction of the ecosystem. The imbalance and disruption of the habitat, fauna and flora take place as a negative effect of traffic. In the same time, it would be ideal for all people that visit a

protected area to be interested and to support the development of zonal ecosystem or even re-construction of it in some cases.

Circulation issues also arise in protected areas that are crossed by national roads or highways. Obviously, roads, national roads have a very important purpose in facilitating access from one area to another, but often do not bring a real benefit to a protected area, contrary to the overcrowding that brings about a decrease or even loss of beauty of the area.

We can also talk about the deterioration of the protected areas and the different types of accommodation structures. For example, a hotel of large size is not the best accommodation structure that could be implemented in a protected area, as tourist traffic would be excessively amplified, which would have negative effects on ecosystems.

Last but not least, it has been found that over the years, one of the causes that have greatly contributed to extinction was hunting. The best example is Western European countries. On their territory there were problems with the wolves wading the reindeer herds, so it was decided that the wolf hunt would be an advantage. Instead, the result was the extinction of the species. Hunting is currently prohibited in protected areas, at least theoretically.

Comana Natural Park. History.

Comana hides an impressive history that involves the name of a feared ruler: Vlad Țepeș. During his reign, Vlad Țepeș founded a wooden church that later became the Comana Monastery, building around the history, economy and culture of the area, followed by the evolution of the area. Archaeological finds attest to the fact that the region has been inhabited since Neolithic times. Besides these discoveries of the archaeologists, 12 tombs were found in the courtyard of the Comana Monastery, hiding very old coins, which led the researchers to support the idea that the original wooden church built by Vlad the Impaler was then surrounded by walls, in a monastic settlement with the role of protecting the Romanian Country⁶.

Comana Natural Park was founded in 2004, Giurgiu County, at a distance of almost 30 km from Bucharest. According to the studies and research carried out by the Institute of Biology, there is a large number of species in Comana. The first discoveries at this site took place in 1800 and were made by doctors and botanists of the Romanian Academy such as Dimitrie Brândza and Dimitrie Grecescu, indicating that Comana has a great potential in terms of biodiversity.

According to Comana Natural Park Management Plan, at the moment, the total surface of Comana park is 24.963 hectares, covering ten protected areas .

Wetland of international importance

Wetlands have stretches of different types of water (standing, flowing, sweet, salted) and swamps, where many bird and animal species build their habitat⁷. These are the most fertile ecosystems in the world, so wetland maintenance and protection is

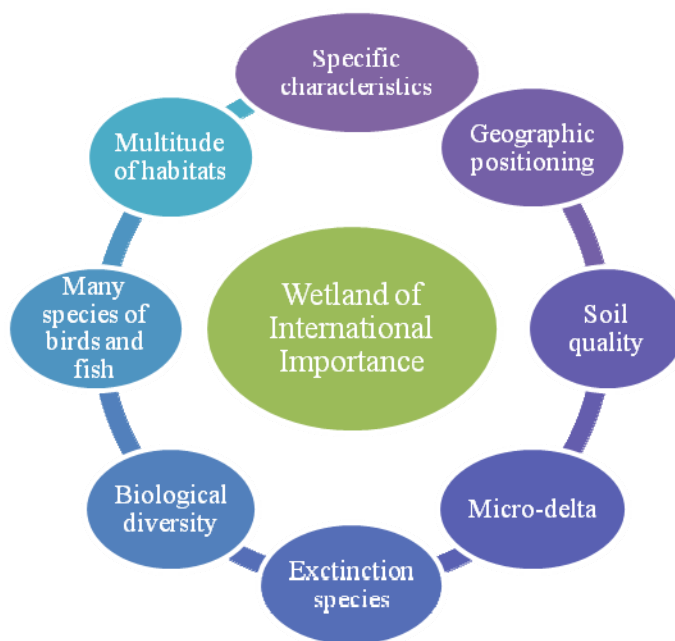
⁶ <http://www.manastireacomana.ro/index.php>

⁷ <https://dreptulmediului.wordpress.com/2013/05/11/conventia-ramsar-asupra-zonelor-umede-de-importanta-internationala-in-special-ca-habitat-al-pasarilor-de-apa-2/>

essential. According to the Protected Planet⁸, Romania has 19 wetlands of international importance, including the Comana Natural Park.

Firstly, for an area to be considered a wetland of international importance, it must have specific wetland characteristics. Both the *geographical location* of the Comana Natural Park and the *soil quality* were key points in declaring this area a wetland of international importance. The Comana Pond is an extremely important factor, first of all in the Comana Park, being considered as a "*micro-delta*", presenting specific features unchanged since 1953. A lot of migratory birds species and not only come back year after year, reason for which this area is considered extremely important in terms of feeding and multiplication of species. Another criterion that a wetland of international importance must meet is the *existence of extinct species*.

Figure no. 2: The wetland features of the Comana Natural Park



Source: Adapted from the Comana Natural Park Management Plan, p. 55

Therefore Natural Comana Park meets the necessary requirements of a moist area of international importance, being registered in 2011 on the Ramsar List⁹.

⁸ <https://www.protectedplanet.net>

⁹ <https://mpgeneva.mae.ro/local-news/1394>

Tabel no. 3: Species currently encountered in Comana Natural Park

Species	Number
Birds	212
Reptiles	9
Fish	30
Amphibians	10
Plankton	34
Mammals	37

Source: <https://www.comanaparc.ro/docum/continut.pdf>, p.39

In 1974 a group of botanists carried out several examinations and studies that demonstrated the existence of more than 1,200 plant species. The absence of laws and regulations to protect the area at that time led to a decrease in the number of plant species over time to 1,153 plant species. The realization of the need to protect the area has turned into the creation of the Comana Natural Park.

Tabel no. 4: Rare / Endangered species found in Comana Natural Park

TOTAL: 1153 plant species of which:		
69 species have varying levels of danger	Rare at national level	52 species
	Rare at international level	3 species
	Vulnerable	11 species
	Extinction	3 species

Source: Adapted from the Management Plan Comana Natural Park, p. 56

The Comana Natural Park also fulfills this criterion, observing, according to the previous table, that within the park there are encountered both endangered and rare species at national and international level, as well as vulnerable species.

In the same time, Comana has a distinct biological diversity, which places it on the second place after the Danube Delta, and in terms of surface, it is appreciated as the third wetland of international importance in the south of our country, on the first two places being the Danube Delta and the Brăila Small Lake¹⁰.

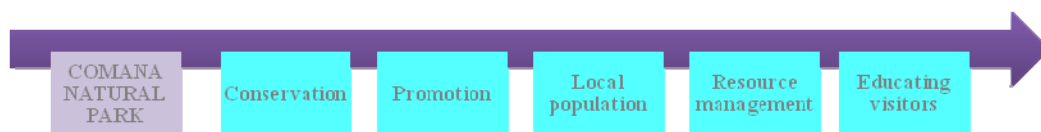
The existence of *numerous bird and fish species* in this area has also been an extremely important point in positioning the Comana Natural Park on the Ramsar list. A large number of birds are migrating and overwinter here, which is due to the location. Moreover, along the river courses they have made *a lot of habitats* that facilitate the presence of rare fish species, which constitutes another specific characteristic that indicates the character of the wetland of international importance.

¹⁰ [https://rsis.ramsar.org/ris-search?page=1&f\[0\]=regionCountry_en_ss%3ARomania&pagetab=1](https://rsis.ramsar.org/ris-search?page=1&f[0]=regionCountry_en_ss%3ARomania&pagetab=1)

The main management objectives of Comana Park

According to the Visit Strategy of the Comana Natural Park, the objectives that the Park administration is considering are those listed in the previous figure.

Figure no. 3: Fundamental objectives of the analyzed areas



Source: Adapted from Comana Nature Park visiting strategy, p. 10 and the Plitvice National Park Management Plan, p. 53

Protecting and preserving intact both the ecological systems, implicitly the species that are found within them, as well as the elements related to the naturalness of the area (views, panoramas) outline the first objective of the protected area. The development and promotion of natural heritage along with the habits of the area and the proper capitalization of renewable resources, together with the education of visitors and of the local population regarding the need to protect and preserve the area sites are also important objectives set within the administration of Natural Park Comana.

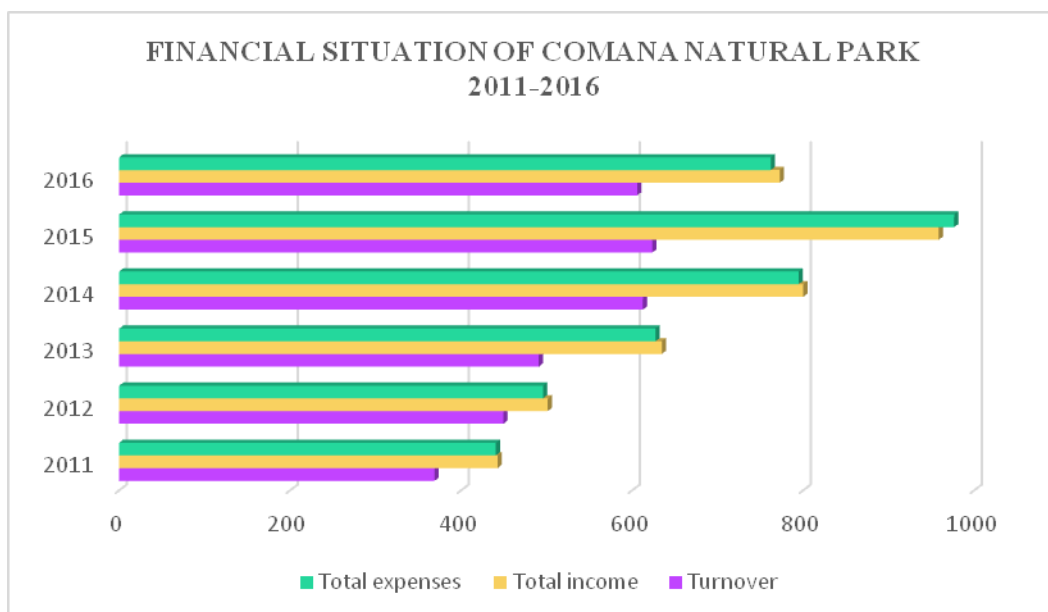
Financial situation of the Comana Natural Park

Tabel no. 5: Financial situation of Comana Natural Park 2011-2016

Year	Indicators						RON
	2011	2012	2013	2014	2015	2016	
Turnover	368,852	449,216	490,747	612,482	623,468	605,786	
Total income	442,520	501,230	634,693	800,036	958,557	772,539	
Total expenses	440,527	495,720	627,311	794,613	976,553	761,992	

Source: Adapted based on the processed data on <http://mfinante.gov.ro/infocodfiscal.html>

During the analyzed period, within the Comana Natural Park, there have been significant increases in all the analyzed areas. If in 2011 the turnover was 368,852 lei, until 2015 this doubled.

Figure no.4 : Financial situation of Comana Natural Park 2011-2016

Source: Adapted based on the processed data on <http://www.mfinante.gov.ro>

The reasons for which the turnover increased significantly during the period 2011-2015 are mainly due to the investments that have led to a large flow of tourists. In 2011, massive investments were made in the four observatories in the Comana Natural Park, built to provide tourists with the opportunity to watch birds and animals in the area. Besides this important investment, in 2013, the Ministry of Tourism granted funds from the state budget for the restoration of Comana Monastery. Comana Park also contributed to the increase in turnover.

Possible solutions and conclusions

In conclusion, the topic addressed is a topical issue that should be treated more carefully by the authorities. Protecting areas with rare and very rare species of extinction is extremely important in creating optimum conditions for the reproduction of these species.

Comana Natural Park is a treasure on Romania's territory, of a rare biological diversity, which deserves its status as the "Second Delta of Romania" and the inclusion on the UNESCO World Heritage List.

The development of tourism in the protected area in Comana can be an important tool in promoting the area, educating the locals and raising funds in order to sustain this activity within ecological limits inside the area, having real opportunities to become a recreation center for the capital's inhabitants, but also an educational and informational center on the importance of protecting and preserving the environment.

However, the valences that tourism may bring to the protected area of Comana, must be carefully studied and implemented, requiring the pursuit of a coherent and reasonable strategy tourism development. At the moment, we consider the tourist activities carried out in the area to be beneficial on one hand, enrolling in the right tools of development, but the lack of an effective control can lead to many inconsistencies with the concept of conservation and protection.

For example, the unrestricted access of cars and tourists, the lack of an applicable conduct code inside the protected area, the acceptance of open fire and grills for the usual Romanian picnics, the lack of noise threshold regulations lead to the aggression of habitats of numerous species, contrary to the proposed conservation and protection desideratum of Comana area.

However, we believe that some important developmental initiative in the area, which have maximum implementation chances in a protected area, are considered the best ecological tourism instruments: equestrian tourism and biking.

The Horses Kingdom Hippodrom of the Comana Adventure Park is a point of interest for many tourists visiting the area, with carriages (from 50 to 120 lei/hour depending on the route chosen)¹¹.

We support the development of riding paths classified by difficulty (except for fragile areas and reserves in order to avoid the disturbance of the ecosystem), where tourists, along with a guide or a specialist, can walk in nature or ride.

As previously mentioned, Comana has a great potential which is not "exploited" to its real value. Even though the possibility to rent a bicycle to explore the parc for a few hours - 15 RON/hour, or all day - 50 RON, tracks and cycling tracks are not brought to their full potential. Usually, tourists are left to follow easy tracks, accompanied by track signs, and in specific times of the year they have the opportunity to participate in competitions such as Comana Bike Fest.

Tracks for cyclists can be better introduced as a part of Comana and also as a part of natural reserves, resulting in real beautiful cycling tracks (without modifying the ecosystem) which can benefit the tourists. At the same time, forming an organization with which Comana Park administration can collaborate would increase the number of tourists, which would implicitly lead to the development of local communities, but also the economic development.

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