

ECOTOURISM IN THE RODNEI MOUNTAINS NATIONAL PARK – BETWEEN ASPIRATION AND REALITY

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Abstract. The initiation of projects concerning the delimitation of areas that should be protected against any economic activity is fully justified, regarding the amplification of the human pressure on the components of the geographical environment. Therefore, any study about such protected areas (and all the more National Parks) should be realized with all responsibility, including every aspect that may influence these areas. Furthermore, such studies must elaborate specific strategies, whose implementation will support the sustainable development of the region. The Rodnei Mountain National Park (RMNP) became, beginning with the 1st May 2004, a protected, functional area, and its administration, based in Rodna, tries by special strategies to encourage the development of ecotourism, as a fundamental part of the concept of sustainable development. The absence of an consistent and coherent educational system, along with a poor financial support for the protected areas in order to promote the values of their biodiversity, effected a small percentage of eco-tourists among the total number of tourists visiting the RMNP. For this reason, the contrast between aspiration and reality remain significant.

Key words: ecotourism, sustainable development, protected area, biodiversity, development strategies, multidimensional perspectives of ecological development

INTRODUCTION

Natural resources can be exploited in various ways, according to our different visions (Pandi et al 2010). Scientific and landscape-related reasons, along with the increase of human pressure on the geographic milieu, led the Pietrosu Rodnei Reserve (the first of its kind in the country, founded 1932) to be declared Biosphere Reserve in Paris in 1979.

Despite all this, as in the case of many other protected areas nationwide, uncontrolled human activities (especially deforestations) had a great impact on natural habitats, including the Pietrosu Mare Reserve, effecting major disbalances, as well changes in the landscape.

From then on, things evolved, so that, nowadays, the Rodnei Mountains National Park (RMNP) covers 46 399 ha, an area also including the Biosphere Reserve.

A turning point was reached in May 2004, with the establishment of the Rodnei Mountains National Park Administration (RMNPA), seated in Rodna.

Once in place, the RMNPA started, among other things, to quantify the touristic flows in order to gain knowledge on the real extent of the phenomena, and, in the first place, to obtain data about the structure of touristic flows, namely the interest point of every tourist.

Basing on observations realised between 2004 and 2009, the conclusion emerged that only a small part of the tourists visiting the Park possess a certain eco-touristic education (students, scientists, professors, etc.), the rest of them visiting the area only for recreational purposes.

1. The Rodnei Mountains National Park, biosphere reserve – conceptual principles and general geographical features

The national parks are natural areas intended to preserve the ecological integrity of one or more

ecosystems for the present and future generations, to stop overexploitation and untoward activities, and to offer ecological and cultural compatible spiritual, scientific, educational, and recreational opportunities.

The biosphere reserves are areas including internationally accepted ecosystems in UNESCO's Programme on Man and the Biosphere (MAB), constituting a worldwide net. Every biosphere reserve has to fulfil three basic functions (Mureșianu, 2006):

- *The protective function* – concurs to landscape preservation, maintenance of ecosystems, of species, and genetic diversity
- *The development function* – supports sustainable economic and human development through ecological activities
- *The logistic function* – offers support for providing research, monitoring, education, and information exchange on local, national, and global level, in order to promote the aspiration for preservation and sustainable development.

The Rodnei Mountains National Park is the largest protected area in the north of the Eastern Carpathians, covering 46 388 hectares and including the highest peaks in the Eastern Carpathians (Pietrosu – 2303 m and Ineu – 2279 m).

The impressive altitude and the massiveness of the Rodnei Mts. are a result of the petrographic structure and the geo-tectonic conditions. The mountain appears as a horst composed of crystalline schist, surrounded by deep faults: Dragoș Vodă (N) and Rodnei (S). The crystalline schist occurs in three series: Bretița, Repedeș, and Rebra. On the southern limit of the Rodnei Mts. occur neogene volcanic rocks in form of uprisings along the morphologic-hydrographical line of the Someșul Mare river. The cretaceous and paleogene deposits (marl,



sandstone, conglomerate, and limestone) surrounding the massif were affected by the styrian orogenesis, confer the relief some distinctive features.

In the Eastern Carpathians, the marks of the quaternary glaciers are best preserved in the Rodnei Mts. This relief is primarily extended on the northern side, where significant cirques are present (Pietrosu, Buhăiescu, Negoiescu etc.). on the southern side, glacial relief has a poorer presence: some suspended cirques, Lala's glacial valley (with the most beautiful moraine in the Carpathian Mts., situated uphill of the Lala Mare glacial lake), glacial-nival cirques, and nivation hollows.

The limestone from the southern half of the Rodnei Mts. permitted the occurrence of a karst area showing combs (Izvorul Cailor, Valea Rea) and impressive caves (Cobășel, Izvorul Albastru al Izei, Baia lui Schneider, Peștera lui Mihai etc.).

Through its thickness, the Rodnei Mts. represent a hydrographical junction, from where the drainage takes place to four main rivers: Bistrița Aurie, Soemșul Mare, Vișeu, and Iza.

The lakes represent one of the most characteristic landscape elements of these mountains, lying on altitudes between 1800 and 1950 m. There are glacial lakes, situated in cirques or valleys of former quaternary glaciers (Mureșianu, 1997).

Its geographic position situates the Massif between two climatic areas: Baltic and Atlantic, which causes differences between the northern and the southern sides.

The regime and the distribution of climatic elements are subordinated to vertical gradation, given the fact that the difference between the maximal altitude (2303 m, Pietrosu Peak) and the Park limits (approx. 700 m) is substantial.

Floristic, this area includes particular alpine and subalpine species. Some endemic species, among which juniper formations with alpine rose and *Pinus cembra*, are especially precious for the spontaneous flora.

Fauna is represented by bear (*Ursus arctos*), deer (*Cervus elaphus*), lynx (*Lynx lynx*), chamois (*Rupicapra rupicapra*), marmot (*Marmota marmota*), golden eagle (*Aquila chrysaetos*); furthermore brown trout (*Salmo trutta*), rainbow trout (*Oncorhynchus mykiss*), and Danube salmon (*Hucho hucho*) in rivers and glacial seas.

As a result of its bio-geographical importance, the Rodnei Mountains National Park was declared biosphere reserve.

2. The promotion of eco-tourism and the perspectives of sustainable development

The rapid increase of tourists spending their vacation in the Rodnei Mountains National Park generates the risk of environment degradation, which already exists due to traditional activities such as mining, forest work, and grazing.

Wonderful scenery is sometimes destroyed on behalf of tourism, and tourists themselves often leave tonnes of garbage behind.

The concept of *eco-tourism* permits man to still comfort on the many benefits of nature, as well as to arrange, reconstitute, and revive what had been destroyed in the past.

March 1st, 2004, represented a milestone for the Rodnei Mountains National Park: for the first time in the history of this protected area, a *unified administration* was invested, basing on a group of specialists (forest officers, biologists, economists), together with a *Science Council*, composed of 20 academic personalities (university professors, geographers, biologists, forest officers), which together consistently coordinate the functionality of this protected area.

A 2009 survey of the touristic activity monitored the quantitative and qualitative evaluation of touristic flows in specific points.

As such, 845 tourists (including 140 international tourists, fig. 1) were monitored in 2009 at one of the most important access points in the Park, the south situated Blazna Valley.

Representatives (responsible for tourism) of the Rodnei Mountains National Park Administration have carried out this survey and realised that the proportion of international tourists is still low, and that they visit the Park in small groups (2 – 5 persons) and for only 1 – 2 days.

One group from every country was asked to fill out a questionnaire in English, containing questions about strong and weak points of the Rodnei Mountains National Park. Most of the sample appreciated the exceptional natural environment, the relief and the remarkable landscape, but were disappointed by the poor infrastructure compared to one required for a modern, civilized infrastructure.

Based on the questionnaires distributed to both Romanian and international tourists entering the Park from the Blazna Valley in 2009, it was possible to summarise the most important aspects regarding the development of eco-tourism in this protected area.

The tourist's evaluation and the study realised basing on it allowed us to elaborate an analysis of the strengths and weaknesses, of the opportunities, and of the external and internal threats (table 2).

Table 1. Provenance of the tourists entering the Park in 2009 through the Blazna Valley

	Country of origin	Nr. of tourists
	Romania	701
	Czech Rep.	35
	Germany	33
	Hungary	29
	Poland	26
	Slovakia	21
	Total	845

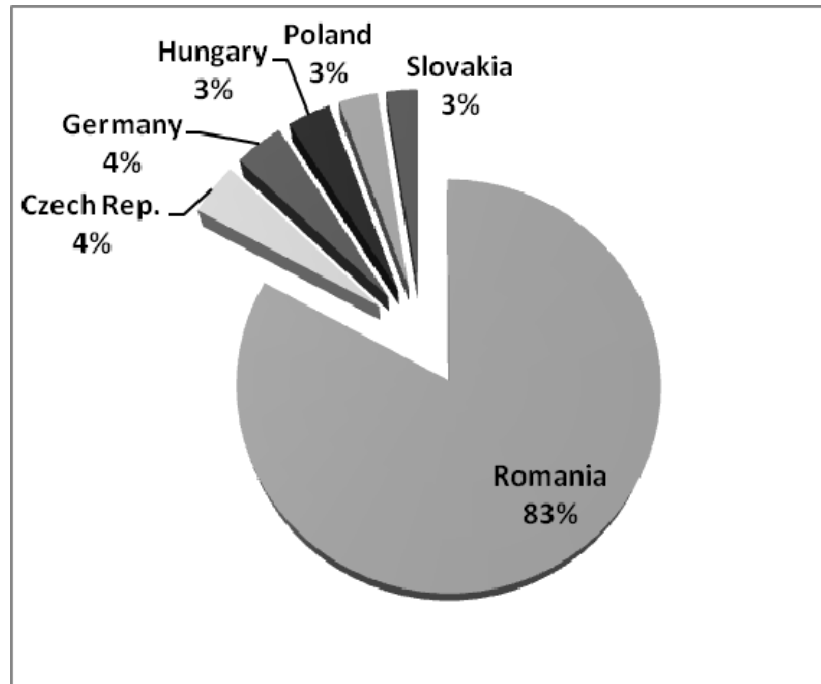


Fig. 1. Country of origin of the tourists entering the Park in 2009 through the Blazna Valley

The analysis of the nowadays condition and of the impact factors highlight the influences, the present hazards, and the strengths and weaknesses occurring in the Rodnei Mountains National Park which are to be taken in consideration by the decision makers for all planned intervention in the Park. Otherwise, the still fragile and (for the future) desirable balance may be endangered, if not destroyed.

The development of eco-tourism (or green tourism) is essential for this Park, as a result of the positive, direct or indirect influences it has on the preservation of biodiversity and local traditions. Thus, through this form of tourism we have the opportunity to control and restrict the activities that are destroying natural habitats, to limit mass tourism and its negative influence on biodiversity, and to increase the living conditions of local communities.

Table 2. Analysis of present condition and of impact factors

Strengths	Weaknesses
<ul style="list-style-type: none"> - Exceptional, relatively well preserved natural environment - Diverse relief, creator of exceptional shaped landscape - Biodiversity - Region's history and culture - Preservation of local traditions and rites - Spa treatment possibilities - Traditional cuisine, with many bio products 	<ul style="list-style-type: none"> - Lack of accommodation at reasonable standards - Insufficient promotion of the region's touristic potential - Absence of a professional image campaign for the Park - Modest cooperation between providers of touristic products and domestic and international distributors - Inadequate infrastructure for a modern, civilized tourism - The incapacity to find foreign co-bankrollers to support eco-tourism in the Park
External threats	Internal threats
<ul style="list-style-type: none"> - Destruction of natural habitats through irrational resource exploitation - Insufficient participation of the Ministry of Tourism and the ANTREC in promoting the purpose of the Rodna Mountains National Park - The decline of traditions and rites, the modification of traditional architecture at new buildings erected in the Parks peripheral area - The increasing interest of Romanian tourists for foreign touristic destinations 	<ul style="list-style-type: none"> - The chaotic development of mass tourism - Degradation of attractive areas through tourists' disregard for visiting regulations - Occurrence of non-traditional or flawed designed accommodation facilities - Possible failure of eco-touristic programmes



Opportunities
<ul style="list-style-type: none"> - Increasing interest of tourists for eco-tourism - Existence of a legal structure for protected areas - Interest of foreign institutions for cooperation in and financing of protected areas - Interest in elaboration of programmes for sustainable development - Privatisation of touristic facilities - Increasing interest for open-air recreational activities - The opportunity to establish partnerships with the Ministry for Tourism and tourism agencies

Following tasks can be achieved through ecotourism:

- Educating visitors to treat nature responsibly, whereby a nature-friendly behaviour from tourists in the Park can be achieved, implicitly
- Increasing the utilization ratio of local accommodation facilities (guesthouses, family homes); this contributes to a financial support for individual housings and a improvement of the respective communities' economic situation (this again can convince the through natural resources exploitation subsisting population from the Parks vicinity to stop looking at various eco-touristic strategies with mistrust)
- Encouraging tourists to hire specialised guides which can offer professional guidance and which are familiar with any of the Park's aspects
- Attracting more visitors to the Park, if possible off- peak season, in order to minimise the human pressure on nature as much as possible, respectively to distribute it more evenly in one year
- Leading touristic incomes to local communities in order to support traditional products

Identifying all items and finding all possibilities that can support a sustainable tourism and its main element – eco-tourism – can effect a remarkable economic development for all settlements around this protected area. This is why we consider the promotion and support of eco-tourism to be one of the main lines of action for the authorities engaged in the administration of the National Park, in order to achieve the development mentioned. To realise this, certain strategies are required, basing on various procedures, and whose implementation is depending on a series of factors.

Accordingly, we will try in the next chapter to elaborate the various levels (dimensions) that are forming the frame of these strategies that are to be implemented. For this, we have also sketched a scheme (fig. 2) for a better overview.

3. Strategies for the ecologic development of the protected area and the neighbouring human settlements

Coming from the '70s, the concept and the process of ecologic development reached in present time new dimensions and possess high importance and actuality. The complexity of this process requires a

multidisciplinary approach and a multidimensional view. Because these lines of action cannot be separated without overview quality loss, furthermore, because we consider that the various facets of a certain problem single out the respective branches of science and join them for the purpose of an integrative study, we found it appropriate to present first these facets, hoping to offer a complete overview of all aspects concerning the Rodnei Mountains National Park.

The political-administrative dimension

The Rodnei Mountains National Park won't be able to assert its rules without the active cooperation of local administrations – which tributary to political factors. The strategies for promoting the interests of local communities have to be linked to the fact the Rodnei Mountains National Park, as a Biosphere Reserve, has the status of protected area.

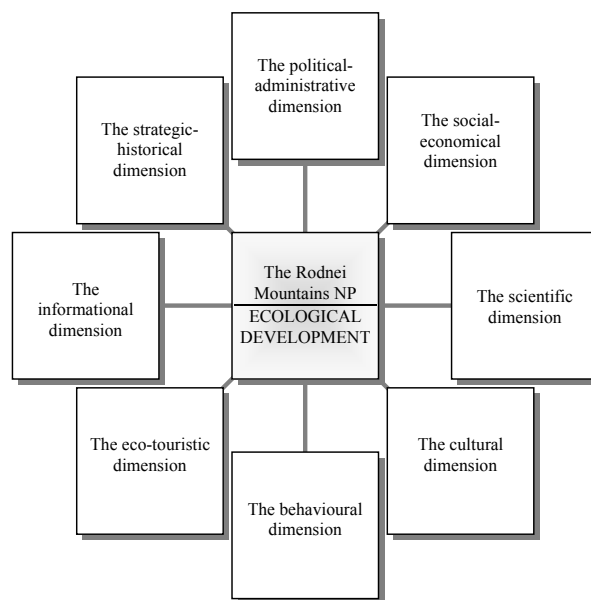


Fig. 2. The multidimensional perspective of the ecological development (after Mureşianu, 2007)

The social-economical dimension

This aspect has a higher importance and is more specific, because the harmonisation of the relations between protected area and society can harm, at first,

the economic and, implicitly, the social interests of the population.

Projects for compensating persons that own land in the Park has to be conceived and financed, as well as projects for the development of agro-tourism.

The scientific dimension

It relies on the status of this protected area as a living laboratory and on the necessity to permanently study the biodiversity and its evolution.

The cultural dimension

The ecological development must support the preservation and the promotion of the specific rites, traditions, and activities, together with authentic local folklore, of the communities from the Park neighbouring area.

The behavioural dimension

This relies on the increase of common conscience regarding the promotion of this protected area's values. The necessity of biodiversity preservation in the Park has to be explained to the population, beginning with kindergartner and pupils.

The eco-touristic dimension

The development of eco-tourism is one of the realistic means to achieve a sustainable development of the region, which can motivate local and county administrations to de-allocate own resources in order to reach this goal.

The informational dimension

This has to be elaborated based on a databank containing information about all touristic resources and the eco-touristic services offered in the Park. This databank has to be appendixed with an efficient information / warning system regarding visiting regulations in the Park.

The strategic-historical dimension

The complexity of this process, concerning the local communities' and the region's linked evolution, results in the comprehension that the ecological development is a long-term strategy, conceived not as a short-term, but as a continuous process (Chifane-Drăgușani, 1985).

CONCLUSIONS

- Protected areas represent the most important practicing ground for ecotourism.
- As the local communities from the settlements peripheral to the RMNP remained with few living opportunities, after the downfall of mining and the decline of wood exploitation and primary processing, the ecotourism in the region (with its variants, agro-ecotourism and ecologic rural tourism) became the corner stone of sustainable development.
- Investigations realised by representatives of the RMNPA, in the interval 2004 – 2009, revealed the fact that, presently, there is a significant contrast between the total number of tourists visiting the RMNP and the number of those actually practicing ecotouristic activities.
- All strategies for ecotourism development must rely on the SWOT-analysis of impact factors, and on the profound understanding of the multi-dimensionality of the relation between ecotourism and eco-development; as to that, political-administrative decision-takers must overcome the stage of circumstantial slogan declamation, and take specific actions of financial support for the development of this special form of tourism.

REFERENCES

- Chifane-Drăgușani, C., *Ecotezvoltare – o alternativă viabilă a progresului societății*, Revista Ocrotirea Mediului Încojurător, Natura, Terra, Terra, anul XVII, nr. 1, București, 1985
- Mureșianu, M., *Potențialul turistic din bazinul superior al Someșului Mare* (ediția a II-a), Editura Focul Viu, Cluj-Napoca, 1997
- Mureșianu M., Schuster E., Hădărău A., *Ökotourismus im Rodna-Gebirge-Nationalpark – grundlegende Dimension des nachhaltige Entwicklungs-Konzeptes*, Studii și Cercetări, Geology-Geography, 11, p. 113, Complexul Muzeal Bistrița-Năsăud, Bistrița, 2006
- Mureșianu M., Schuster E., *Strategien zur Förderung der ökologischen Entwicklung im Rodna-Gebirge-Nationalpark*, Studia Universitatis Babes-Bolyai. Geographia, Cluj-Napoca, 2007
- Pandi G., Berkesy C. M., Vigh M., Berkesy L. E., Berkessy P., Evolution of water quality in the Blue Lagoon from Aghiresu, AACL Bioflux, 3(3), pp.151-162, 2010
- * * * Administrația Parcului Național Munții Rodnei – Planul Managerial, 2006