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Tourism – A vulnerable strength in the protected areas of the Romanian Carpathians

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Abstract

Representing a long-term source of revenue, an important job generator, and offering opportunities to increase life quality, tourism is considered a priority for economic development in Romania from the national to the local levels. These reasons to which the minimum environmental impact and the reduced consumption of natural resources could be added, recommend this domain as a solution to obtain economic gains within protected areas in Romanian Carpathians (i.e. national and natural parks). Thus, considered a key activity in some of the most valuable and fragile territories, this economic branch induces a certain degree of vulnerability at the same time. Firstly, tourism through unplanned extension and unorganized demand threatens its own resources and consequently its sustainable development. Moreover, the sensitive protected areas already facing the tourism impact have to cope with the pressure induced by the neighbouring communities located mostly in rural areas with poor urban infrastructure, suffering from economic decline and trying to develop tourism themselves while advertising natural resources in the area. These aspects were emphasized in our study by using suggestive available indicators displayed by official Romanian statistics, the National Spatial Plan (PATN) - Tourism Section and the Ministry of Environment. At the same time an analysis of the existing management plans of national and natural parks and of the development strategies of settlements (NUTS 5) and counties (NUTS 3) overlapping protected areas in the Romanian Carpathians on the other.

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1. Introduction

Facing a period of socio-economic transition and decline after the 1989 Revolution enforced by the political restructuring and transformation of the social and centralized system into a capitalist, decentralized one, Romania oriented toward the tertiarisation of its economy, tourism being one of the domains thought to increase and bring economic gains among the other service sectors. Due to its high-value natural capital into which Carpathians play a central part, ecotourism or tourism within natural areas embracing sometimes rural or cultural values became an important tourism product advertised by this country at international tourism fairs and events. Moreover, recent

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strategies mention tourism as an important tool for community development and which should be managed at the local level [1]. In parallel, the major changes occurred after 1990 and the EU accession increasingly raised the attention of national and international institutions towards different environmental problems in our country. The protected areas constituted a major issue within the national environmental strategies, and important efforts were made for establishing their territory, legislation and internal planning and organization as well as for multiplying their number and variety. It is the protected areas in the mountainous regions that concentrate however the most valuable ecologic resources and the most attractive natural objectives in Romania. Moreover the Carpathians concentrate four-fifths of the number of major protected areas in our country. Undoubtedly, an inappropriately managed tourism activity on the spot would generate irreversible negative consequences. In the light of the most recent socio-economic and administrative changes within rural and small urban communities all over the Romanian territory in general, and in the Romanian Carpathians in particular, and of the still officially unapproved internal management plans of protected areas, we may speak though of these areas as vulnerable territories both to a potential higher and presently unmonitored visitor pressure and to a social and economic pressure from local communities (materialized especially through pollution generated by localities lacking urban infrastructure and pressure on timber resources in the parks and their neighbouring areas).

2. Tourism – a strength of the protected areas in Romania

Tourism is considered a strength by development policies in Romania from the national to the local levels, as it is generally accepted to be a source of revenue and a job generator contributing to an increase in life quality and regional development. In a period of social transformations and counting on valuable natural resources, Romanian policies and development plans declared tourism to be a priority for socio-economic development. At the same time, most of them agree that, lacking general infrastructure (an efficient highway system in terms of transport) and specific tourism infrastructure (especially leisure infrastructure), the tourism development would centre mostly on raw natural and cultural resources. The importance of tourism management strategies at the protected area level is consequently greatly increased. Moreover the link tourism – environment became a chapter treated in the major strategic documents elaborated for Romania both by international (WTTC, UNWTO, UNEP) and national [2] key institutions for tourism and environment domains.

In the 2006 report entitled “Romania the Impact of Travel & Tourism on Jobs and the Economy” the World Travel and Tourism Council was stating the fact that “*The successful growth of Travel & Tourism in Romania will be highly dependent on the natural, social and cultural environments that surround it. In many instances, the natural environment and cultural heritage are central features of the country’s tourism product*” expressing at the same time the idea that even if “*considerable steps have been taken to clean up and protect the natural environment in Romania*” another important measure to be taken would be for “*tourism development plans to be integrated into environmental management systems and vice-versa*”.

The Romanian Master Plan in Tourism elaborated in 2007 by UNWTO and the Ministry of Tourism was stating the fact that “*the natural environment provides probably the greatest assets for Romanian tourism*” in this context environmental protection being a special issue to be dealt with by tourism development especially that some “*areas of concern*” such as “*environmental degradation, malpractice (abuse of the protected areas through unregulated logging and inappropriate construction of recreational and residential facilities; poor waste management, particularly in rural areas; continued discharge of untreated waste water; litter and its collection)*” could be underlined in the experts’ opinion.

The national sustainable development strategy for Romania 2013–2020–2030 elaborated by UNEP and the Government of Romania and published in 2008 considered on its turn the *promotion and sustainable development of tourism* a major point of the regional development. Moreover, in practice, the sustainable development of tourism was considered a priority for investments appealing structural funds as it was mentioned as a separate chapter in the Regional Operational Programme. The major areas for investments within the tourism sector were considered to be the restoration and sustainable valorization of cultural patrimony, the creation and development of tourism infrastructure and the promotion of tourism resources (creation of national information centres, development of domestic tourism, and promotion of national brand).

The policy for tourism development in relation to environment resources in Romania culminates with the National Strategy of Ecotourism Development elaborated by the Tourism Ministry in 2009. It has as a major objective:

“ecotourism development inside and in the vicinity of protected areas.” Further, the following are the major directions of intervention: the development of a partnership among key institutions and stakeholders for the ecotourism industry as well as of appropriate ecotourism infrastructure, the education of various stakeholders for the environment (local communities, visitors, local administrations, etc.), the human resources and the local development, the preservation of natural resources and an appropriate marketing strategy and the competitiveness of ecotourism products. Within this general context at the national and regional levels, county and local policies (NUTS 3 and NUTS 5 levels respectively) introduced tourism on their turn among the economic activities to be developed in the future reconsidering their natural tourism resources and envisaging on the basis of social and economic benefits.

3. Protected areas in Romania vulnerable to tourism development

The Romanian natural and national parks (category IUCN V IUCN II respectively) as we know them today are very recent. They were founded, in majority, as late as in 1990 and a part was declared in 2004 [2]. They represent 7% of the total area in Romania. However, the first national park in Romania appeared in 1935. It is also known that before 1990, there were many reserves which still exist nowadays as a part of the actual parks or as independent areas. The Romanian Carpathians concentrate 22 within the 27 major protected areas covering approximately 1 million hectares, among which are 8 natural parks, 12 national parks, and 2 geoparks [12].

Another major extension of protected areas occurred in 2007 when new protected areas of SCI (Sites of Community Importance) and SPA (Special Protection Areas) types, part of Network Natura 2000, were declared. Hosting important ecological elements which represent, at the same time, major tourism attractions for the tourists interested in nature and scientific tourism the protected areas in the Romanian Carpathians comprise sensitive territories of tourism development. In order to respond sustainability goals either from an ecological point of view or from other perspectives (economic valuing) in 2004 management councils were set up for every major protected area in Romania. They were responsible for designing and implementing a reliable strategy and plan of management at the level of each national and natural park. All the strategies, developed on the basis of Appelton’s workbook, included among other domains, a chapter dedicated to tourism activity and tourism management in the area. However, due to different political, administrative, and economic contexts, that continuously changed in the last years. At the moment, most management plans are still waiting for an evaluation and an official approval in order to be implemented. An important moment that delayed this process greatly was the year 2007 when due to legislation, the management plans of the parks were not to be approved anymore by the Central Public Authority. This institution was being replaced by the National Agency for Protected Areas which on its turn did not function due to the political crisis. Nowadays, facing the severe economic recession, discussions between park councils and environment ministry authorities are taking place in order to adjust all the strategies to a common structure and to introduce some necessary corrections. The main result of these delays is, at the moment, a significant difference in the implementation of a management system [2] each protected area emphasizing a different situation depending on its particular context. In this way, tourism, through which minimum environmental impact and reduced consumption of natural resources in comparison to other economic sectors, is considered a solution to obtain economic gains within protected areas in Romanian Carpathians, could be a factor of stress for these sensitive spaces. Besides the tourism activity itself within the parks, quantified at the level of the very few permanent accommodation units or camping sites, a high number of unregistered visits and sometimes “unauthorized” camping activities could be noticed. These are due to tourists accommodated or visiting friends and relatives in the surrounding settlements. All the local guides and owners of accommodation units in the neighbouring areas of a natural or national park would advertise it as a major attraction which is worth visiting by tourists. In this way, an external vulnerability induced by tourism activities in the neighbouring settlements to protected areas, besides the internal one described above could be identified (Fig. 1). Moreover, through their activities (forestry activities) and actions, the inhabitants of the neighbouring settlements also put a pressure on the protected areas inducing though a socio-economic stressor (Fig. 1). This is also to be explained in the present context of socio-economic regress (high rates of unemployment due to industry decline, lack of employment opportunities mostly in the rural areas, a demographic ageing process especially in rural and inaccessible mountain areas which characterize communities located in the Romanian Carpathians) on the one hand, and of property restitution (including forested areas) on the other hand. All these factors increased human pressure on natural resources especially in the Romanian mountainous area. So, a frame of external vulnerability composed mainly of the two mentioned variables: tourism activity and other socio-economic

activities, could be designed into which both factors consume natural resources within protected areas inducing a negative impact on them (Fig. 1).

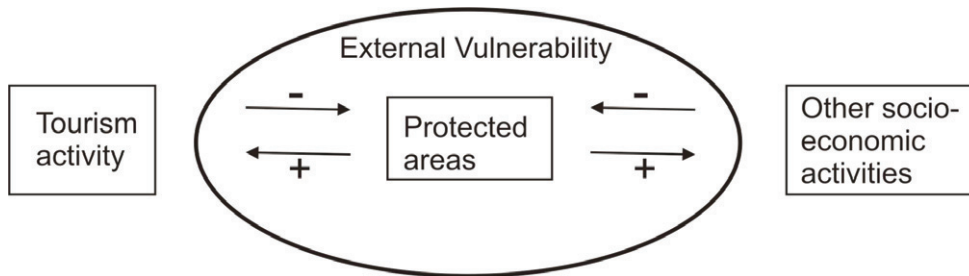


Fig. 1. Vulnerability frame of protected areas in the Romanian Carpathians to socio-economic activities.

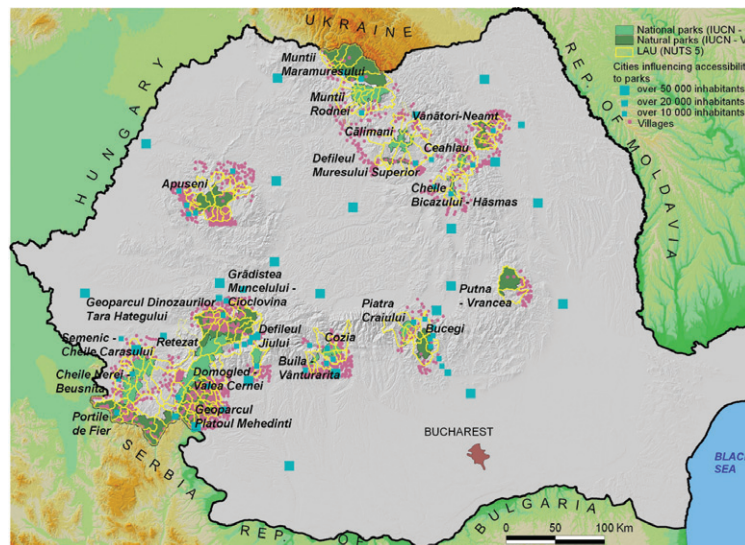


Fig. 2. The low administrative units overlapping the major protected areas in the Romanian Carpathians.

4. Methodological approach

In order to emphasize in practice this external vulnerability matrix induced to protected areas in the Romanian Carpathians, a microterritorial analysis was needed. For this purpose, we selected the NUTS V units overlapping entirely or in part the national and natural parks, identifying a total of 144 LAU/ NUTS V administrative units (Fig. 2). They divide the territory in terms of local administration and comprise stakeholders with different interests in natural resources. Based on the available official statistics, we selected a set of suggestive indicators for significant years so as to illustrate a dynamic perspective of tourism activity on the one hand, and of the socio-economic background on the other. Data was afterwards standardized and aggregated [9]. Mapping through GIS techniques was used in order to represent computed data. In order to obtain an index of tourism vulnerability, we used the value of occupancy rate in 2002 (a composite index measuring tourist demand in balance with the functional accommodation capacity, calculated as the ratio between the volume of overnight stays and the accommodation capacity in function and expressed in bed places - days), the percentage of population occupied in tourism activities within the total occupied population for the same reference year (2002 - the census year) and the evolution of the number of accommodation units between 2002 and 2009. This third indicator was considered more suggestive for protected areas than the number of bed places as after 1990, especially in the mountain regions, we assisted a rapid

growth in the number of small accommodation units of boarding house and villa types. For calculating the socio-economic vulnerability index, we chose as suggestive indicators the proportion of occupied population within the total population and the proportion of employment within the total occupied population (in 2002) intending to describe the strength of the socio-economic environment in general and of tourism sector in particular, for creating job opportunities and occupying the available working force. A third available indicator, the quantity of drinking water supplied to consumers, was chosen to show the pressure induced to natural environment by settlements, often lacking minimum urban infrastructure. Meant to reduce pollution as well as to monitor and diminish consumption of natural resources (water, gases, thermal energy, etc.), the presence of urban infrastructure needs to be emphasized as we speak about fragile ecosystems and generally sensitive areas to human activity and pressure in general.

5. Main results

The values displayed by the *tourism vulnerability index* show a low and a medium vulnerability for the majority of protected areas in the Romanian Carpathians as tourism is still not a very developed economic activity. Due to the actual political and administrative context and to the lack of coherent and uniform management strategies, we considered that the more tourism activity is developed (in an unplanned and unmonitored way), the higher the vulnerability is in the natural protected territories where it takes place. The most vulnerable parks overpassing a value of 60 for the tourism index are Bucegi and Vânători – Neamț natural parks, Cozia, Buila Vânturarița and Domogled – Valea Cernei national parks (Fig. 3). Munții Rodnei and Cheile Bicazului – Hășmaș national parks are also displaying high values of vulnerability to tourism activities (over 50). The high scores could be explained by the existence of mountain and spa resorts of national interest in the vicinity of the abovementioned parks as they display important figures in terms of accommodation capacity in function and overnight stays as well as of the employment in tourism industry. So, we may state that areas with traditional tourism activities (mountain resorts, spa resorts, winter sports resorts) are the ones concentrating the greatest accommodation capacity and tourism demand. In this way, they generate the greatest potential pressure on the protected areas. Even if the main purpose of tourism is different than the interest in nature, the intensity of this activity could induce a pressure on the natural area itself. Another aspect to be underlined would be the lack of tourism leisure infrastructure and facilities in Romanian tourism resorts in general which makes sensitive and at the same time attractive natural places to be advertised and become secondary attractions for tourists and travellers motivated initially by other reasons (business tourism, spa tourism, relaxation, etc.). Another category of protected areas that raises our attention would be national and natural parks displaying at the moment a medium degree of vulnerability to tourism development (Fig. 3).

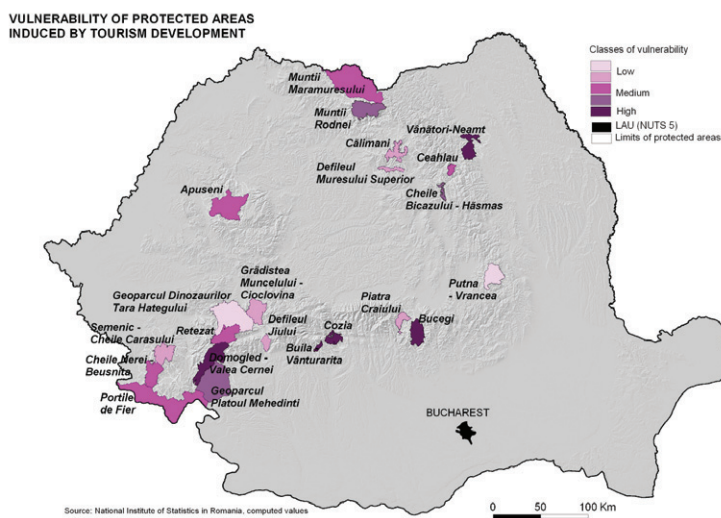


Fig. 3. Tourism vulnerability index for protected areas in the Romanian Carpathians.

Areas like Munții Maramureșului or Apuseni natural parks are emphasizing nowadays a fast-growing rural, agricultural, and cultural tourism, as different nuances of ecotourism industry that focus to a great extent on tourism resources in the protected areas. Integrating at the moment in the upper medium classes of vulnerability, these areas could register higher values of this index in the near future and could even generate an inner tourism vulnerability index characterising tourism activity inside the park areas.

The analysis of the available drafts of management strategies for different protected areas already showed some vulnerable points of tourism activity. They revealed among the weaknesses of tourism development within the parks' area, the pollution due to unmonitored tourism circulation (litter, unorganised camping, accidental fires, inappropriate parking and car entrance, etc.).

The variables aggregated in the tourism vulnerability index as well as other indicators characterising this economic domain show that the tourism industry has a low economic sustainability. A suggestive aspect would be the explosion of tourism boarding houses with a low rate of occupancy during the year and especially of the economically unproductive and space-consuming, secondary homes. The average stay in general for the analysed areas is 2–3 days, showing a dominance of weekend tourism and of transit, as the tourism offer in terms of leisure activities is not a very developed one. The occupancy rate is below 30% while the percentage of employment in tourism is below 2% for the majority of areas.

Traditional tourism resorts specialized in spa or winter sports tourism seem to be the most profitable in economic terms as they increase the values for the average stay up to 6–7 days and over 50% those for occupancy rate for parks which include them. They also display high values of population occupied in tourism activities and lower levels of seasonality, outstanding as the most economically sustainable areas for tourism activities and being able to support a profitable activity. Concentrating an important accommodation capacity and displaying a higher accessibility in comparison to other settlements in the area, they attract a great number of tourists, motivated by different reasons, to the neighbouring areas of parks in the Romanian Carpathians often representing gates for tourists to protected areas.

The values displayed by the *socio-economic vulnerability index* are translated in a reverse order into classes of vulnerability than those for the tourism vulnerability index, as one should consider that the lower the degree of socio-economic development the higher the vulnerability induced on natural environment. Problematic regions inducing an external socio-economic vulnerability to fragile natural regions (displaying lower values than 45) would be the neighbouring area of Grădiștea Muncelului – Cioclovina Natural Park (a value of 37), of Defileul Mureșului Superior and Retezat national parks, of Vânători Neamț, Munții Maramureșului, Apuseni natural parks and of Platoul Mehedinți and Țara Hațegului geoparks (Fig. 4). In this way, the most vulnerable areas from the socio-economic point of view appear to be those displaying an upper medium class of vulnerability for the previous index, having a high potential of increase of vulnerability induced by rural, cultural, and ecotourism activities, which are constantly growing, emphasising important increases in tourism accommodation capacity and the number of tourists. However, one should also consider that tourism growth is to counterpart the socio-economic decline for these regions as local communities found a solution to provide employment and a temporary source of income. Unfortunately, if not well managed and planned, tourism 'consumes' its own attractions. The pressure of human environment on the natural one through tourism activities becomes a stringent topic for these highly dynamic spaces consequently. The profound changes of local economies in the transition towards a market economy and the decaying of non-profitable industries such as mining (reflected in a high rate of unemployment) affected the abovementioned areas greatly showing high values of socio-economic vulnerability index. The lack of opportunities and investments in the rural areas and the decaying industrial regions (e.g. Defileul Jiului, Maramureș, Apuseni—based on mining industries; Brașov, Hunedoara, Reșița—based on heavy industries) decreased the employment rates gradually after the 1990s. In 2002, the proportion of employment compared to the level in 1990 was below 50% in the settlements surrounding Piatra Craiului, Munții Maramureșului, Apuseni, Vânători- Neamț, Cheile Bicazului – Hășmaș, Piatra Craiului, Defileul Jiului, Retezat, Cheile Nerei – Beușnița parks.

Another variable which influenced the figures shown by the socio-economic index was the quantity of drinking water supplied to consumers. It could be considered as an indicator of settlements endowment with the minimum urban infrastructure, its development being intended to minimize people pressure on natural environment. It may be stated though, that except for the medium size towns, the majority of rural settlements as well as small towns lack essential urban infrastructure (water, sewage systems). If central heating systems are considered, the situation is even more critical, many settlements lacked thermal power station and gas supply networks as well (in 2008, only 18 settlements among the 144 analysed had thermal energy central functional systems). This means a high consumption

of wood for heating and hot water systems. Forest property restitution, involving territories also in the protected areas, further encouraged people to dispose without constraint of wood resources for their own needs or for commercial purpose and made the activity of protecting natural environment even more difficult in the mountainous territories in general and around the protected areas in particular.

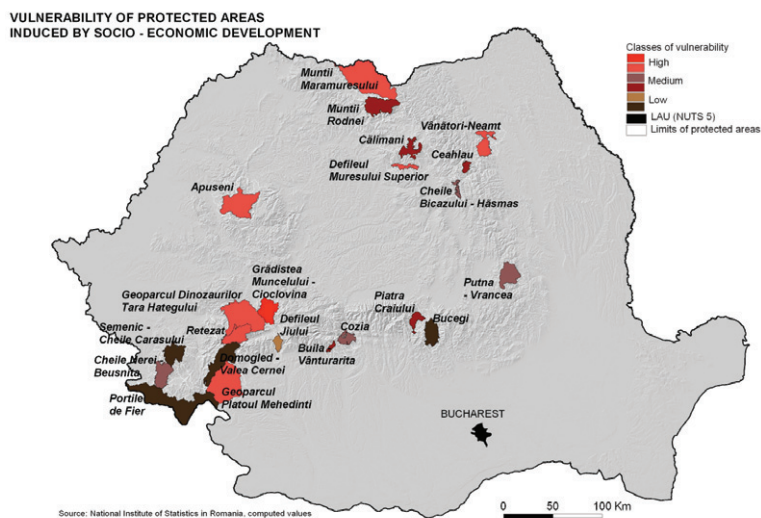


Fig. 4. Socio-economic vulnerability index for protected areas in the Romanian Carpathians.

6. Conclusion

Tourism is regarded as a strength by development policies in Romania as it is considered a trigger of economic development from the national to the local level. As tourism in relation to the environment is a chapter treated in important legislative documents, most of leisure tourism in our country focuses especially on natural resources. The ecotourism topic in Romania as reflected in the recent National Ecotourism Strategy concentrates on the major protected areas in our country, namely the national and natural parks. The Romanian protected areas are young and so are their councils of management that are trying to implement management strategies including issues regarding tourism sector. However, tourism development as well as the socio-economic context in the territories surrounding protected areas contribute to a great deal at the pressure on natural resources inducing an external vulnerability on the national and natural parks. An integrative approach of the related tourism-protected areas and an evaluation of tourism and of socio-economic external vulnerability emphasizing the pressure of local communities on natural resources is accordingly needed. So, calculating and analyzing the results displayed by the indexes of tourism respectively of socio-economic vulnerability, for the low administrative units overlapping national and natural parks in the Romanian Carpathians, it appears that the hot spots/sensitive areas where special measures should be taken are those in which rural, cultural, and ecotourism is constantly growing and which suffered a decline in other economic activities (especially industry) at the same time. In terms of tourism, the prioritization of economic sustainability on behalf of ecological sustainability at the level of human communities, the main focus on natural attractions in the protected areas and natural resources in general, and the delays in approving parks' management strategies threaten the sensitive protected resources making them vulnerable to human actions.

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