# SHARING COMMON POOL RESOURCES AT THE BORDER OF PROTECTED AREAS IN THE ROMANIAN CARPATHIANS

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#### Abstract

The common pool resources are a very actual topic approached by both scientists and practitioners preoccupied nowadays of gradually increasing environmental problems. Protected areas in Romania and especially in Romanian Carpathians of national and natural park type (IUCN II and V) represent areas of particular interest in the light of the common pool resources theory imposing conservation laws on areas meeting an increased pressure from human communities around them. The important socio-economic and ownership changes that Romania met in the last decades changed its previous state unique ownership into a multiple stakeholder ownership. At the same time vulnerable human communities located in fragile mountain areas and depending to a high extent on natural resources met an increased stress when exploiting natural resources at the border of protected areas. Consequently sharing the common pool of resources in the buffer zone of protected areas in the Romanian Carpathians represents a very actual and important topic to be treated in the present study.

Keywords: common pool resources, protected areas, Romanian Carpathians.

## 1. Introduction

Protected areas in Romania and especially in Romanian Carpathians represent areas of special interest in the light of common pool resources theory. They are particular territories imposing conservation laws on areas meeting an increased pressure from human communities and settlements overlapping them. All these are explained through the important socio-economic and ownership changes that Romania met in the last decades of post-communist transition. The common pool of resources within protected areas in Romanian Carpathians changed from a previous state unique ownership into a multiple stakeholder ownership, management and exploitation pattern under the laws governing types of natural resources (ex.: forest) and property restoration. At the same

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time human communities themselves, located especially in remote areas lacking socio- economic opportunities and depending to a high extent on natural resources for their daily activities as well as for obtaining supplementary revenues met an increased stress in the vicinity of areas with special regime of conservation. Sharing common pool of resources at the border of protected areas in the Romanian Carpathians represents consequently a very actual and important topic to be treated in the present study.

#### 1. 1. The Concept of Common Pool Resources

The common pool resources are a very actual topic approached by both scientists and practitioners preoccupied nowadays of gradually increasing environmental problems. It was introduced by Hardin in 1968 and generated a whole literature and debates on it as other terms launched in the '70s and '80s and referring to the sustainability of ecological resources (e.g. sustainable development, demographic growth etc.). According to Hardin (1968) the common pool resources describing in general natural resources (e.g. air, water etc.) are characterised by subtractability as there are "fluid boundaries" and a rivalry among potential users and by non excludability. In fact Hardin was talking about the tragedy of freedom in a commons which should be regulated by social arrangements in the view of actual numbers of populations of different territories, taking into consideration however that "every new enclosure of the commons" would mean "the infringement of somebody's personal liberty". Common pool resources put more than ever in the conditions of post communist societies with important issues in ownership restitution the problem of "moral responsibility" (Braham/van Hees 2012). In fact Braham and van Hees (2012) were redefining the tragedy of commons as a problem linked to the number of individuals that have a direct control over the outcome. "Balancing multiple interests" within resource management patterns (Steins/Edwards 1999) remains one of the key issue for preventing the commons tragedy. The increased demand for natural resources and the way in which societies organize resources extraction from environment (Braham /van Hees 2012) should be carefully approached in the context of globally transforming socio-politic and economic structures and of more and more stressed ecological systems and natural areas. In fact post socialist societies encountering during totalitarian regimes rather an anti commons tragedy, as described by Heller in 1998, are directing once with the profound societal transformations towards problems of a commons tragedy.

#### 1.2. Protected Areas in the Romanian Carpathians

Protected areas in Romania and especially in Romanian Carpathians are of different categories but the most important in both terms of area and management, that we refer also in our study, are the ones of national parks (IUCN II) and natural parks (IUCN V). Romania has 12 national parks, 8 natural parks and 2 geoparks mostly founded in 1990 but also after 2000 and especially in 2004 when also the park management councils and policies were established in view of the approached entry in the European Union. A major extension of protected areas in Romania and also in mountain regions occurred in 2007 when new protected areas of SCI (Sites of Community Importance) and SPA (Special Protection Areas) type, part of Network Natura 2000, were declared (Erdeli/Dincă, 2011).

The entire Romanian Carpathian Chain holds 22 protected areas of park type that total approximately 1 million hectares and also 600 reserves and natural monuments totaling 50 000 hectares (Bălteanu et al., 2008). All the park areas represent 7% from the total area in Romania (Erdeli/Dincă 2011).

Parks remain the most important protected areas influencing through their large territories and protection regime, especially national parks included in the IUCN II category, the economic systems at the level of local economies. All parks in the Romanian Carpathians overlap in different percentages the territory of 154 settlements from which 30 cities (fig. 1). Few of them are crossed by European roads and major railroads and especially at their borders (Bucegi, Portile de Fier, Apuseni, Maramuresului Mountains, Putna-Vrancea natural parks, Tara Hategului geopark, Cozia national park) (Fig. 1) most of them not being accessed by communication ways of national importance and being neighbored by less accessible communities. Management councils develop and are interested without exception in valuing parks' territories through ecotourism activities, their strategies reflecting this preoccupation through appropriate planning and management chapters. Although protecting various natural elements from geologic formations to endemic species of flora and fauna, all national and natural Romanian mountain parks are protecting scenic and unique landscapes which represent a major attraction for itinerant tourists that form most part of leisure domestic tourism demand in Carpathian regions during summer season. At the same time park resources (wood, pastures, forest fruits etc.) are of vital importance for, often less accessible, neighboring local communities and especially for those that were involved in a restitution process of land and forest property overlapping park areas.

Resources of protected areas and of natural areas in general and especially forestry resources increased as economic importance and met an increasingly greater pressure imposed by human communities in the post-communist period. This was even more accentuated in areas having suffered a severe process of deindustrialization (e.g. mining areas) accompanied by important unemployment rates and lacking investments and economic opportunities capable to absorb the multi-phase severe shock of mine closing. In some regions parks overlap or are very close to ex-mining areas (e.g.: parts of

Muntii Maramuresului natural park, Muntii Rodnei national park, Apuseni natural park, Cheile Nerei – Beusnita national park, Semenic – Cheile Carasului national park, Portile de Fier natural park) emphasizing in this way even more obviously the problem of sharing the commons among different economic activities within natural mountainous areas.

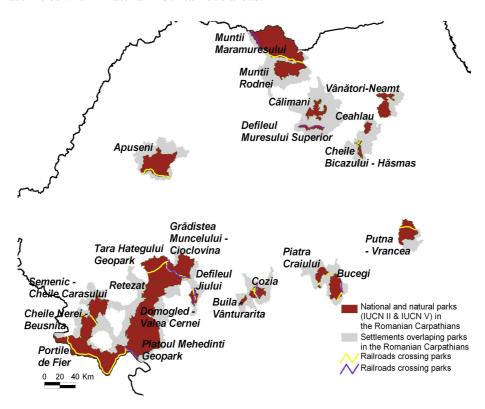


Fig. 1. Settlements overlapping national and natural parks in Romanian Carpathians

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 to tourism development (Erdeli/Dincă, 2011). However, if well managed, tourism activity is to be preferred in a common pool resources context to other much harmful activities such as mining or forestry in the whole mountain natural areas located in the Romanian Carpathians. Moreover if 'tourism commons' (Briassoulis, 2002) are concerned, thanks to the laws imposing the design and application of a responsible management plan in park areas in Romania, national parks are better managed and are rather

recommended as ecotourism destinations than other natural areas imposing no restrictions at all to tourists and visitors.

# 2. Common pool resources at the border of protected areas in Romanian Carpathians

As described above the profound politic and socio-economic transformations that occurred in Romania after 1989 determined important transformations at the level of local communities and settlements on the one hand and at the level of ownership control, management and administration of resources both through the restitution process and through territorial planning on the other hand. New types of territories, such as protected areas, appeared in parallel with the restitution of private and individual property for natural resources (e.g. forests, water, etc.) previously owned entirely by the communist state. In fact one should speak rather in the case of Romania of the anticommons transformation, perceived and used however by mountain communities as a common pool of resources belonging to one and the same public owner, into commons governed today by 'an institutional diversity' belonging to both private and public spheres. The tragedy of commons at the border of national and natural parks in Romanian Carpathians is to be though a complex issue as the actual types of property are young and as the property upon natural goods is seen as an important source of income by profoundly economically restructured local communities and also by different stakeholders interested in exploiting resources.

If different types of resources and activities are concerned, in terms of common pool resources in the immediate neighborhood or overlapping in part protected areas in Romanian Carpathians, one should mention in the first place forests and forestry activities.

Forests represent one of the most important resources of natural areas in the Romanian Carpathians and especially of national and natural parks which suffer important changes and an important process of deforestation because of post-communist environmental and socio-economic changes. A major factor that influenced the actual state of Romanian forests and of those located in protected areas as well would be the one of forests' ownership. In this respect important transformations occurred especially after the 1989 Revolution once with the change in the communist regime and the long and controversial process of property restitution. After 1989 three successive laws were given one after another by the Romanian Government in its attempt to redesign the property system which existed before the centralized ownership that represented a monopoly during the communist period. The first normative act, Law 18/1991 was the one to make even more complicated the property restitution process as

it was the one to restitute 1 hectare of forest for whoever demanded for it, exowners or other inhabitants of local communities living in settlements located in forested territories. The next two normative acts tried to restitute properties only for ex-owners: Law no 1/2000 within the limit of 10 hectares and Law no 247/2005 for the entire property regardless of its size. The last normative act trying to simplify and totally restore property rights is maybe the most justified one but had the disadvantage to come into power after previous normative acts that already fragmented and deteriorated forest properties. Many forest old and new owners cut their 1 hectare properties after 1991 for different reasons and needs profiting also from the fact that the 26/1996 Law for forest administration hardly came into power only 5 years later. Forest restitution itself as well as present options of owners of forest properties for their administration and management may be explained also by the historical type of usage and property for this natural resource, very different from one Romanian historical province to another. Before the Second World War the property was very much fragmented among individual properties belonging to noblemen families, to churches and monasteries, to peasants or sometimes to colonists that received property titles and different types of common properties belonging to peasant groups with non regulated right to use a common property, with common property in division or non divided common property, to composesorates, to border forests, city forests or different associative forms that existed before 1948. The traditional common usage and the right of usage, sometimes nondivided and non-restricted upon forests, determined to a high extent, at least immediately after 1990, the old owners that recovered their forest property back to "freely" dispose on the wood resources for economic reasons. Most of them either sold their properties or exploited them within the limits imposed by laws of forest administration. The formation of park areas and especially of national parks (belonging to II IUCN category) imposed radical new restrictions on forested territories, integrated previously in different forms of property and restituted after 2005 integrally to the old owners. The common pool of ecological protected resources in areas of park type overlapped in this way the newly formed private property and sometimes common ownership or only common usage of natural resources, or overlapped already conflict situations between forest owners and non-owners using forest resources (e.g. illegal cuttings for selling or private usage of wood for heating). These successive changes within forest property system and the uncertainties induced by property fragmentation at the beginning of forest restitution process, the dissatisfaction of the owners that recovered partially or in a bad state their property but also the low and ancient level of living as well as the need of money and wood resources or the lack of interest of the inhabitants living in urban areas at great distances from their restituted forest properties made for many forested areas to be cut down affecting sometimes spaces situated nearby or inside protected areas (e.g.

Apuseni Natural Park, Călimani National Park etc.) (after Bălteanu et al., 2008). Because of all these stages of property that succeded one after another in the history of mountain forest and natural areas in the Romanian Carpathians, now overlapping protected areas, parks comprise different types of property generally divided (*Fig.* 2) between state and private property. According to this general split the parks that display a low proportion of state property within their total area would be particularly Muntii Rodnei National Park (only 6%), Retezat National Park (46%), Buila-Vanturarita National Park (48%), Apuseni Natural Park (51%), Călimani National Park (57%), Piatra Craiului National Park (58%), Porțile de Fier Natural Park (64%) or Ceahlău National Park (64%).

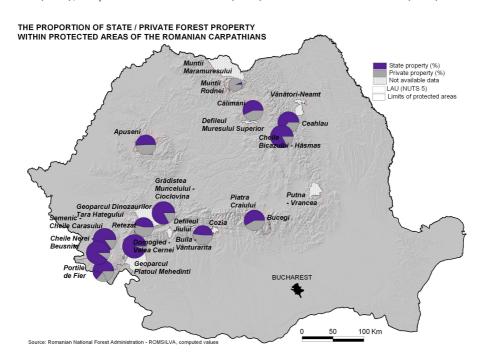


Fig. 2. The proportion of state/private forest property within protected areas in Romanian Carpathians

Their situation regarding forest property is very much different from one geographical region to another (e.g., in the case of Retezat National Park 51% of the total belongs to the alpine level) or from one historical region to another (41% of Călimani National Park belong to different city halls as a consequence of property granting to local communities during the Austro-Hungarian occupation in Bucovina and 53% of Rodnei National Park belong to city halls and to composesorate associations prevalent in Maramureş and Bistriţa

provinces). According to the park category, natural parks should have generally lower percentages of public ownership and state area but this is not always the case as the above mentioned factors are the most important in determining the shares of property types. In fact the property shares figures for most natural parks were not available as the map based on figures existing in the first draft variants of parks' strategies and management plans (2010) show (*Fig. 2*). High percentages of areas belonging to physical persons whithin protected areas of park type belonged according to the same reference data to Porțile de Fier Natural Park (19%) and to Grădiștea Muncelului – Cioclovina Natural Park (11% composesorates, 2,5% individual properties belonging to physical persons).

All this puzzle situations describing property of natural and forest areas within parks in Romanian Carpathians perfectly corresponds to particular cases of natural resources systems regulated through property rights (Feeny et al., 1990) as nowadays all the 4 types of property ('open access', 'private property', 'communal property', 'state property') are met in under different shapes and names. Conflict situations have been described after 1990 as the forest property was restituted and reframed in new public and private administration patterns. Moreover the protected regime of the area introduced a supplementary stressor and limitation for forests exploitation generating hot spots especially at the border of protected areas within properties belonging to the same owner or for poorer communities lacking economic facilities and daily life resources. Human communities in Romanian mountain areas have traditionally lived on forest resources. Suggestive examples of generally perceived common pool forestry resources would be that of forest fruits, mushrooms or medicinal plants most of them freely picked from the forests by locals no matter their property upon forested area or other types of natural lands from where they are gathered. In this case protected areas are again a suggestive example for limiting the access or imposing sustainable ratios for exploiting these natural resources, their borders being in most cases buffer zones between the free unrestricted access and the restricted one for different sorts of common pool resources.

### 3. Conclusion

Common pool resources represent a very actual topic to be debated in the case of protected areas of park type in the Romanian Carpathians. The long history of property restitution and forest exploitation for instance explain the pressure upon forests perceived as common pool resources both in terms of wood and especially of other different products (e.g. forest fruits). Mountain local communities lacking economic opportunities and daily resources and meeting much stricter regulations upon using generally perceived natural common pool resources (e.g. wood, forest fruits) would put in this way a

pressure at the border zones of Romanian parks. They represent a future challenge to be coped with in view of resource sustainable management. Moreover a further analysis should be made from the point of view of other activities interested in forests maintenance in mountain areas such as tourism activities or in terms of other common pool resources than woods such as air and water resources very much affected in terms of quality by deforestation activities occurring in Romanian Carpathians especially after the 1989 Revolution once with the forest restitution process.

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