

THE ENVIRONMENTAL IMPACT OF TOURIST ACTIVITIES PERFORMED IN THE SPA RESORTS OF VÂLCEA SUBCARPATHIANS

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The local environment has a positive influence for tourist trips, both through the conditions it offers, and through its high attractivity. This is the main reason why tourism should play an important part in the conservation of the environment and the maintenance of its high standards (both in the area of tourist resorts, and in their surroundings). The main interests in the field of tourist activities should be well aware of the fact that the natural resources which are used in this domain are limited.

Destructive actions derived from tourist activities are manifested mainly through the inadequate usage of the environment's resources, in recreation and leisure purposes, and they are increased by the human intervention upon spa resources, which is often quite brutal. Therefore, the development of tourism should be made along with the idea of a sustainable development of the region, which is based on natural resources and their protection.

Key words: tourist activities, spa resorts, environment, Vâlcea Subcarpathians.

1. Introduction

Vâlcea Subcarpathians are located between Topolog and Olteț rivers. They are a complex association of landforms, which, along with the geological formations and the favourable climate are bench marks for catalyzing the emergence of mineral springs. Thus, the evolution of this region is based on the neotectonic areas that would give birth to the axial bulging from Slătioara entry, in the east, to the Târgu Jiu subsidence area, in the west (after Dinu, 2002).

The natural frame along with its components (climate, relief, hydrography, vegetation, fauna, natural reserves) contributes to the attraction of significant tourist flows and influences the development of the tourist activity in the analysed space. It is its very obvious steep mountains and the smoothness hearth of the current depressions and mount passes among the basinet – depressions that characterize the region. (after Ielenicz M., Pătru Ileana, 2005).

The advantageous natural conditions offered to its residents, the good transport infrastructure, a high level of life security and also a very dense population are the main reasons why the Vâlcea Subcarpathians region is an

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important contact region for commercial exchange. The economy of this region has been adapted to commercial trade from early times. Intense economic activities have been sustained with Transylvania, due to the proximity of the Olt river passage, which made the entire area, generally speaking, and also the trade center of Râmnicu Vâlcea, in particular, to play a special part, not only for the local commercial exchange, but also for the inter-regional trade.

One of the main attractions of Vâlcea Subcarpathians are their numerous spa resorts (*Fig. 1*), widely known for their thermal springs and the beauty of the landscape, which are recommended for both rest and healing properties. Besides the treatment of many diseases, these resorts offer a wide variety of leisure possibilities, such as hiking or practicing different sports. The tourist offer includes more than 11.000 accommodation places in hotels, villas, guesthouses, campsites and rural households registered in the Romanian spa tourism system.

Setting goals (both general and specific) is an important stage which aims to establish directions for action, such as: identifying tourism resources, quantitative and qualitative evaluation of the elements of tourism potential which can be considered as main attractions, the determination of the tourist valuing level of the region. Also, an analysis and synthesis study on a large scale was required, which is supposed to contribute, by its content, structure, methods, and procedures, not only to bring light upon the numerous aspects concerning Spa tourism, but also to draw the attention towards the mineral riches that are found all over our country's territory, including the area in question. This thing was noticed by analysing the favourable natural potential for the development of Spa resorts in this area, process in which the available human resources played a significant part as well.

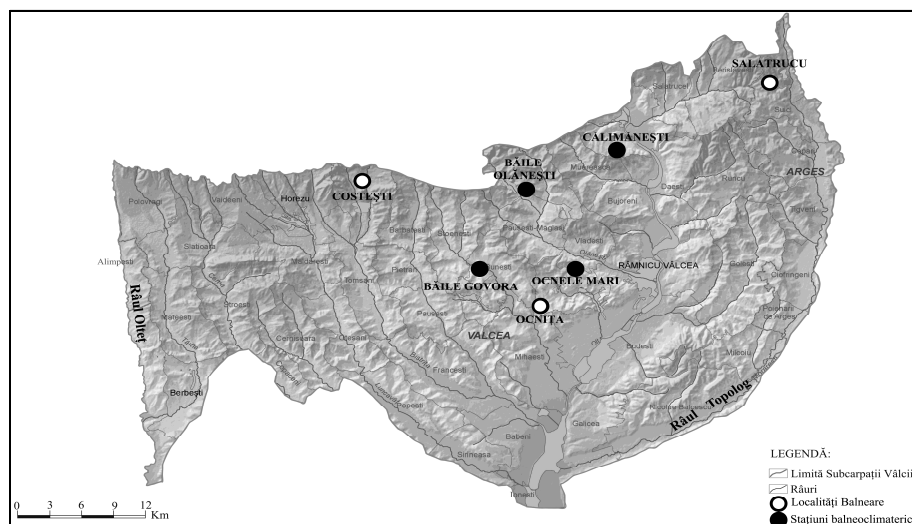


Fig. 1. Spa resorts in Vâlcea Subcarpathians

The necessity of elaborating this paper work derives from the fact that in its content are presented several types of tourism that could have a certain influence over the natural environment. The purpose was to elaborate an analysis of the tourism attractivity, as well as of the different ways and methods of promoting this potential, without causing any damage to the environment.

2. The Environment – A Key Factor in the Development of Tourism Activities

In the western side of the Olt river, especially at Ocnele Mari, there are a few blocks of salt which have been pushed towards the surface. The presence of these salt blocks has determined the appearance of salt accumulations on small areas. Downstream of Călimănești, large terraces present themselves as an aisle depressional passage of considerable dimensions. Due to the appearance of many hydrotehnic amenities in this sector, the meadows and the nearby terraces are covered by lakes.

The environment makes the tourist heritage of a nation (Ciangă N., 2001), playing an important part for both humans and their activity. The environment contributes substantially to the development of tourist activities. As long as tourism and the environment co-exist in harmony, the environment takes many advantages from tourism. There are many examples of such situations, most of which can be grouped in one of the two main directions: the conservation and the rehabilitation of the environment. Air and water quality, the diversity of flora and fauna, as well as the landscapes are inevitably affected by tourist activities, when they are deployed inappropriately.

Activities that already have a tradition in the area, such as the chemical industry, woodworking and agricultural products are going through a process of “redimensioning” and readaptation to the recent internal and international market requirements, and also of developing new activities related to the existing ones. The local industry is the main source of pollution due to the technological equipment with chemical profile producing heat and electricity, also used in wood processing. For instance, environmental pollution in Râmnicu Vâlcea area is due to the storage of waste heaps of ashes from Govora CET in the Olt river banks, which affects in the first place the quality of water, but also soil and air (in extreme drought conditions and windy periods) (*Fig. 2*).



Fig. 2. Industrial Chemical Govora (Source: Roanghes Ana)

At the same time, air pollution in the area is also caused by the local chemical industry. The main sources of pollution are the burning processes in the heating installations (from an average total of 144764 establishments, 20.14% use coal, 63% use wood, 9.91% use natural gas, and only 6.4% are connected to the local heating system), local traffic (20756 – vehicles are within public property, 54786 – vehicles are private property¹), and transit traffic.

Therefore, the Olt valley is not only an important circulation route, but also an access way for the air mass circulating from north to south and spreading the polluting elements on vast surfaces, or, on the contrary, being responsible for their persistence over the soil's surface. The construction of dams for hydro-energetical purposes on the Olt and its tributary rivers: Topolog, Olănești, Bistrița along with the erosion preventing works that have been done in the small river basins, are major interventions in the geographic landscape. The Olt and its tributary rivers have become an important source of energy and of water supply for the settlements and the industry in the area as well as for the irrigations needed in the agricultural sector, or for pulling flooded areas from underwater, fishing and other leisure activities.

¹ Recorded for the year 2008.

The two components, the environment and local tourism should mix together, without causing any damage to one another. Tourism by its nature involves the environment. Tourism activity influences the environment, but sometimes the environment can also influence back tourism activities. But we can certainly say that the effects of tourism on the environment are very diverse and imply a series of factors which are the direct impact of the economic development or factors generated by the frequent and intensive use of the natural environment for leisure activities.

3. Tourist Activities in Spa Resorts within Vâlcea Subcarpathians

Tourism does not offer only a reason for the conservation of both natural environment and human resources, but it also provides the economic support which is necessary for the actual conservation program: part of the profit obtained from tourist activities could be invested in the protection of the natural environment. (Glăvan V., 1996)

The outburst of tourism circulation, the participation of larger and larger masses of people in this activity, the diversity of the motivations which determine the increase of the tourism demand have led to the multiplication of tourism forms. The contouring of these various tourism forms, of their theoretical and practical importance, offers the scientific basis for the main decisions concerning the development and diversity of the tourist offer, its alignment to the possible changes in the structure of the demand.

In the current social-economical context of the area of Vâlcea Subcarpathians, a limited number of tourism forms are performed, and some of them (rural tourism, for example) are still in an incipient stage. It is not less true the fact that, in the conditions of the expansion of the number of services offered in the field and their adaptation to the international requirements, the forms of tourism which are practiced in the local area could be well diversified. From urban tourism, which includes a large range of cities (e.g. mining towns – Ocnele Mari, Spa towns – Băile Olănești, Băile Govora, Călimănești, the county capital city – Râmnicu Vâlcea) to mountain tourism, people have shown a lot of interest in combining the spa treatment (as the main purpose for their visit for a spa resort) with the large range of leisure activities that can be practiced in the area.

Natural tourist sites which are characteristic to the region are variate. These can be of geological provenance (certain types of rocks – limestone system from Costești, salt deposits from Ocnele Mari), natural sites provided by the relief (the peaks, the gorges, the waterfalls, the caves and limestone systems at Olănești and Cheia, the limestone carvings made by Olteț and Bistrița rivers),

biogeographic tourist sites, such as forest-parks, botanical gardens, botanical and forest reserves, zoo parks, trout farms, national parks (Buila-Vânturarița National Park, Munții Cozia Natural Rezervation), as well as tourist sites linked to the water (mineral and thermal springs in Olănești, Govora, Călimănești-Căciulata).

Particularly interesting are also the religious sites (hermitages and monasteries) that were built in the XIV and XVII centuries, around the region, and which attract a large number of tourists (e.g. Iezer, Frăsinet, Pahomnie, Pătrunsa, Cozia, Bistrița, Dintr-un Lemn), and the ethnographic tourist sites as well (The Local Architecture Museum from Bujoreni north from Râmnicu Vâlcea along Olt river course). These can provide the tourist who has come in the region for Spa treatments with various possibilities for leisure activities.

Tourists are attracted to traditional local activities, such as fairs, which gather every week or month many residents from near-by villages, as well as they are to religious pilgrimages that reunite for 1 to 3 days a large number of christian believers from around the region, and even from around the country. Among the most popular events are the celebrations of the patron saints of the surrounding churches (Cozia, Hurez). The artistic festivals that involve music, folklore and theatre take place more rarely nowadays and only in those villages with an ancient ethnographic tradition, such as Vaideeni and Horezu.

The diversity of the traditional art in the region, the incredible abilities shown in wood processing (e.g. the wooden houses from the Peasant's Museum in Bujoreni), the art of decorating small objects by carving them (especially spoons and forks), the art of creating traditional musical instruments (simple flutes decorated by sculpting, at Vaideeni), attract numerous tourists, thing that can be a menace for the natural environment.

As for what concerns internal tourist circulation, after year 2000 this registers a massive decrease as a consequence of deterioration of local life conditions, of the constant damage caused to the material support that sustains tourist activities and of the even more weaker standards of the offered services. Starting with 2002 many properties have been asserted and most part of the accommodation units, such as guest houses and villas, were restituted to their former owners. Consequently their capital becomes private. What follows next, between 2004 and 2008, is a period in which private owners invest in the refurbishment of the accommodation units, offering to tourists modernized buildings, which has led to an increased number of visitors in this area (e.g. the case of Olănești, Govora or Călimănești-Căciulata resorts).

Overall, the density of the tourist circulation at the level of spa resorts in Vâlcea registers an obvious higher level in 2008 (602.7 tourist per 100 inhabitants), than the one registered in 1998 (307 tourists per 100 inhabitants) (*Fig. 3*)

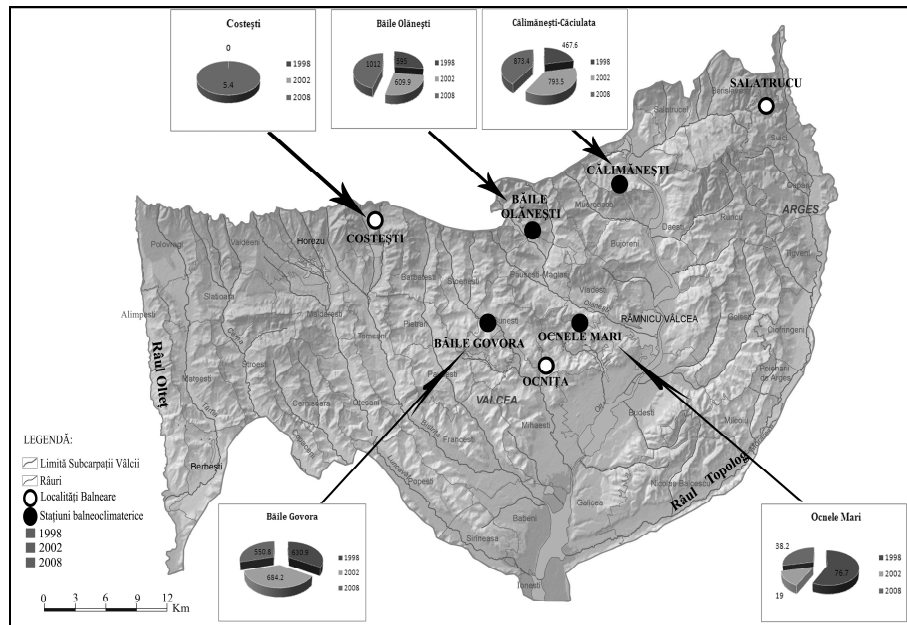


Fig. 3. Tourist circulation density (1998, 2002, 2008) (Source: DJSV processed data)

The analysis at the level of each spa resort emphasizes a clear hierarchy in this sector, as it follows: Govora, Olănești and Călimănești-Căciulata resorts are far superior to Ocnele Mari and Costești resorts. Therefore, for the year 1998, Govora resort registered a total value of 630.9 tourists per 100 inhabitants, Olănești resort – 595 tourist per 100 inhabitants, and Călimănești-Căciulata 467.6 tourists per 100 inhabitants, while Ocnele Mari resort registered only 76.7 tourists per 100 inhabitants and Costești did not register a single tourist. As for year 2008, there was an increase in the density of the tourist flows towards spa resorts in this region: 5.4 tourists per 100 residents in Costești, and over 1012 tourist per 100 residents as it is the case of Olănești resort.

4. The Impact of Tourism Activities on the Environment

Tourism is one of the most important industries with a continuous development, as more and more people are getting interested in exploring new destinations. This is the reason why the analyzed area, one which has proven to be very rich in special natural resources, attracts even more visitors by providing them with the opportunity to take advantage of the treatment with diverse mineral waters, mud packing or thermal baths.

Tourism is a space and tourism resources consumer, participating constantly at the damage of the natural environment and of the tourism background. This damage is caused either by the direct “pressure” exerted by tourists over the landscape, the flora and fauna, or by other tourist sites built in the area, which does not put in good use the resources of the region and the main tourist attractions. The destructive effects of certain leisure activities are manifested basically by the incorrect use of the environment, and by a brutal intervention of humans in the natural landscape.

Most part of the damage caused to the environment as a consequence of tourism activities (*Fig. 4*) is caused by the large number of visitors that came to certain destinations where the capacity of the accommodation units has been exceeded. There are several ways to affect the natural environment, from the irrational building of certain units destined to tourism activities, investments that end up by enlarging the area occupied by the accommodation units and treatment sectors (Olănești, Călimănești-Căciulata), transpassing the main principles of exploitation of the natural resources (Govora, Ocnele Mari) to traffic pollution (Călimănești-Căciulata, Olănești).



Fig. 4. Images on the ways of environment degradation and the overcrowding of touristic resorts: a) overcrowding – Băile Olănești; b) automobile traffic in Călimănești-Căciulata resort (*Source:* Roanghes Ana)

The impact of tourism activities causes both direct damage, such as the alteration of landscape (due to the placement of the buildings, the materials used in their construction and even the design elements), the alteration of air quality, the destruction of pastures, trees and flora (due to the large number of tourists coming to wooded areas, and development of infrastructure), pollution of the atmosphere, a high level of noise and indirect damage, such as the excessive use of water flows for water sports, and the development of the infrastructure in general. Furthermore, we can even distinguish certain malfunctions such as the penetration of the inhabited zones by touristic paths of intense circulation, with

a negative impact over the environment: pollution, noise, and accidents. Water pollution has serious consequences upon the environment. Wastage throwing in the river banks have been stated, and also the placement of accommodation units right in the river bed (e.g. in Olănești, two hotels have been built right in the river bed of Olănești water course) (Fig. 5).



Fig. 5. The deterioration of the river bed Băile Olănești spa resort:
a) Hotel Central; b) Hotel Stogu (Source: Roangheș Ana)

Furthermore, the wastage does not affect only the water quality, but also the phreatic water sheet and the soil itself. The main consequence can be observed precisely in the case of spa resorts by the alteration of the existing hydromineral resources, which can lead even to the blocking of the water source in the resorts (as it is the case in Costești, where the mineral water spring has been covered due to landslides and the lack of interest of the local authorities towards the problem).

The hydroenergetic constructions and dams built in the Carpathian and Subcarpathian sector of the Olt river, have led to irreversable modifications of the natural environment, such as the changes that occurred in the way people use the local fields in agriculture (including forests as well), in village constructed area – new locations for roads and railways (made on the Olt valley), the construction of dykes and other modifications of the lower river bed (especially those made along tributary rivers of rank 1 and 2), the apparition of leisure areas (around Râmnicu Vâlcea and Călimănești), and many other similar actions (the protection of the hermitage from Călimănești, which was built by Neagoe Basarab, and placing it on an artifical 6 meter high island above the level of Călimănești Lake). The numerous buildings and roads that have been made for the development of the region also cause significant damage to the surrounding environment. In most situations, the landscape protection protocol is not followed, the main damage being caused by deforestation (as it is the case in Cozia Mountains) or by limestone quarries (at Pietreni-Costești).

The exploitation of raw materials (limestone, lignite, salt, building materials) represented an important part for the development of the local settlements in the area, but also an inevitable source of damage for the environment. The most important side of the situation is to put into practice the measures which have been settled for the conservation of the environment, so that the exploitation of the resources would be sustainable and also generate profit for the local communities. These measures are urged by the numerous aspects of environmental damage, which reaches its highest level at Ocnele Mari. Here, the old salt exploitation wells have turned into abandoned lakes. Other negative aspects are represented by soil cracks, vertical and lateral water erosion, landslides, the clogging of local salt lakes.

Conclusions

Spa tourism is highly important for the resorts in Vâlcea Subcarpathians, as it is the main pillar of the local economy. The over-exploitation of the hydromineral resources and the continuous development of the infrastructure represent the main problem for the local environment. The impact of tourism towards nature can be minimized only by informing the tourists about environmental protection and rational exploitation of mineral resources. This training is also required for local tourism workers. Furthermore, some detailed studies upon the impact of tourist activities and the protection of tourism valuable natural resources are required, especially because the landscape in this region has an unique value that cannot be replaced.

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