



ROMANIAN WINTER SPORTS DESTINATIONS IN A SUSTAINABLE DEVELOPMENT CONTEXT

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Abstract

During the past decades, winter sports tourism developed by planning and equipping mountain massifs for alpine skiing, snowboarding, sleighing etc.. Facilities were made, especially in the alpine area (with a fragile natural balance), in disregard to urbanism and environmental protection laws (e.g. the construction of roads in natural parks – for tourism ?!; clumps of secondary residences built without preliminary urban planning; real estate speculations and intensive allotments; elimination of agro-pastoral economic activities; lack of involvement of local population in the field of mountain tourism etc.).

Thus, for a sustainable economic and environmental development in the Romanian mountainous and sub-mountainous areas, the paper presents a series of proposals aimed at leading towards a new vision in planning winter sports in Romania through the development of accommodation and recreation facilities at the foothills of the mountains and the promotion of agro-tourism in the mountainous and sub-mountainous areas. The authors' suggestions include: limiting or avoiding estate and leisure facilities in alpine and high mountainous area; economic and tourism revival of villages in the mountainous and sub-mountainous areas (agro-tourism) by taking over accommodation, catering and after-ski recreation facilities; the development of non-residential ski areas and ski centers for week-end and youth tourism; revitalization of agro-pastoral activities etc..

Key words:

winter sports destination; economic and environmental sustainability; mountainous and sub-mountainous agrotourism; non-residential ski areas, ski centers; optimal functionality; public private partnership; modernization, development; Romania

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1. INTRODUCTION

A campaign for the development of winter sports began in Romania, in the last decade, particularly within the “Super Ski in The Carpathians Program”, covering both the high mountain area and some lower altitude areas. In most locations they did not act in reliance with an urban plan requiring compliance with a set of principles and technical rules that lead to functional tourist facilities (ski resort/ center). They opted for a disparate design and construction of some technical and estate components to be followed by a continuation and integration of a functional system. In such situations, as in Straja, Râncea, Parâng-Petroșani, Muntele Mic etc., they can hardly shape an integrated resort with functional structure: ski area, accommodation and catering, leisure, parking, auto

and pedestrian pathways etc.. Most of current locations can function as non-residential ski areas (Fr. „stade de neige”, Romanian „stadiu de zapada” which designate a multipurpose winter sports area/“stadium” equipped with sport facilities and food catering, but without accommodation facilities) for the week-end or as complement to other resorts and settlements.

In sustainable tourism planning practice, a series of principles, technical standards and guidelines are employed for planning and architectural conception of equipping the territory with tourism accommodation structures. These applies, with specific adaptations, to all tourist resorts or other areas of tourist interest, especially in the mountainous area.

The general principles aim at: a better use of tourism resources and attractions, while protecting them, the environment, as well as the harmonious integration of tourism equipment with the natural setting and the architectural particularities of the area; an optimal, integrated functionality of the resort networks and activities; the correlation of the basic services to the leisure and cultural entertainment; the interconditioning between tourism activities and the residential population activities; the direct and indirect return on investment; the public-private partnership between central and local authorities and between county and inter-county authorities etc..

The technical norms refer to: emplacement of tourism equipment and facilities in the field, their density and height regime; architectural conception regarding the natural conditions, landscaping and aesthetics; tourism constructions and infrastructure engineering; quality of equipment etc..

In this paper the authors will refer to equipping the ski area in the Carpathians taking into account the above mentioned principles and technical norms for a tourism sustainable development.

2. THE SKI AREA EQUIPPED LAYOUT

The Romanian Carpathians are of medium and small heights, with almost 90% of their surface below 1,500 m altitude; only 7% is between 1,500-2,000 m while 3% is above 2,000 m. The overall average altitude does not exceed 840 m, the

highest being in the Meridional Carpathians, where it reaches 1,136 m; in the Oriental Carpathians it reaches 950 m, while in the Apuseni Mountains and the Banatului Montains it reaches about 654m (Geografia României, I, 1983).

The altitudinal and morphographical configuration, the high degree of forestation and the fact that the forest reaches 1,600-1,850 m in the mountainous area, cause the reduced expansion of the national ski area, given that the climatic optimum for winter sports in Romania is situated above 1,500m, where the snow layer is over 0.5m and it lasts about 90-120 days a year.

Thus, the Romanian ski area is situated between 2,000 m altitude (2,090 m in Sinaia – the Bucegi Mountains) and 1,423 m altitude (Harghita Băi – the Harghita Mountains) – as maximal altitudes of the ski slopes on departure – and 1,198 m (Straja – the Vâlcan Mountains) to 1,533 m (Râncea – the Parâng Mountains) altitude at arrival. The lowest altitudes are encountered in the medium mountains, between 700-800 m and 450-500 m (from departure to arrival) as in Cavnic – the Gutâi Mountains, Slănic Moldova – the Nemira Mountains, Vatra Dornei-Dealul Negru – the Căliman Mountain etc., where artificial snow is usually practiced (table no.1).

The ski area equipped layout in some ski resorts/ centres in Romania

*Maximum and minimum altitudes
(from departure to arrival)*

Table no. 1

No. crt.	Mountains (max. altitude, m)	Ski resort / center	Max. altitude (m)	Min. altitude (m)
1.	Bucegi (2,505)	Sinaia	2,090	1,200 (1,400)
2.	Parâng (2,519)	Râncea	1,918	1,533
3.	Latoriței (2,055)	Vidra-Bora	1,850 (1,974)	1,320 (1,770)
4.	Vâlcan (1,946)	Straja	1,726 (1,863)	1,198 (650)
5.	Rodnei (2,303)	Borșa	1,545 (1,375)	1,365 (880)
6.	Cindrel (2,244)	Păltiniș	1,450	1,209
7.	Harghita (1,800)	Harghita-Băi	1,423	1,322
8.	Nemira (1,649)	Slănic-Moldova	725	485
9.	Căliman (2,100)	Vatra-Dornei – Dealul Negru	1,300 (800)	500

Source: adapted after cited papers

In the Alpine European countries, the equipped ski area ranges from 1,200 to 3,500m in Italy, 600 – 3,200m in Austria, 1,500 – 3,300 in Switzerland, 1,200 – 3,500m in France; the altitudinal extension refers to the glaciers areas

equipped for winter sports (idem D.S.V. – Atlas Ski Winter).

In the Carpathian Mountains, the equipped ski area boasts about 147 ski slopes with a total length of 143,503 m. *National and regional* tourist resorts in Romania count for 85,802 m, respectively 59.8% (Table no.2). Among these, the most equipped one is Straja resort (the Vâlcan

Mountains), with 24.4% of the total length of slopes followed by Sinaia – 22.5%, Poiana Braşov – 12.3%, Predeal – 9.4%, etc.. *Mountain winter sports centers* have 55 ski slopes with a length of 46,971 m (32.7%). The most equipped ones are Cavnic (the Gutâi Mountains) with 15.6% of the total length, Parâng-Petroşani – 15.8%, Vidra-Bora – 13.5%, Dealul Negru (Vatra Dornei) – 11.5%, Muntele Mic – 9.3%, Râncea – 6.4% etc. *Other less equipped ski areas* hold about 15 slopes with a total length of 10,730m. The most representative ones are Harghita-Mădăraş – 18.8%, Baci-Bunloc – 18.6%, Bradu-Măgheruş – 13.6% etc.

The Carpathian ski area developments hold 119 cableways (cable gondolas, cable cars, chairlifts and ski lifts) with a total length of over 110,900 m and an optimal transport capacity of 78,000 people/ hour. Among the best equipped locations are the resorts of: Poiana Braşov – 10.7% length / 14.3% capacity, Sinaia – 9.7% / 10.2%, Straja – 7.7% / 7.4%, etc..

It is obvious that the Romanian equipped ski area is rather reduced, given the natural and

economic conditions, compared with the French Alps, where they opened over 6,400 km of ski slopes while „Les Trois Vallées”, one of the 23 ski areas, with 8 resorts, is about 600 km of ski tracks long (D.S.V. – Atlas Ski Winter, Deutscher Skiverband, 1997 and SkiPass, 2004-2015).

In the Romanian Carpathians they developed 14 tourist resorts of national and regional interest and also 12 mountain winter sports centers. Locally, they worked out 9 other ski areas, with more simple or technologically obsolete equipment.

Tourist resorts are equipped with modern cable transport installations, lighting, artificial snow, snow processing installations and machines etc.; the resorts have ski slopes of various levels of difficulty, snowboarding tracks and other demanding amenities for extreme sports, ski schools etc.. Unfortunately, most resorts lack of after-ski recreation and entertainment facilities.

The Equipped Ski Area in Romania (2013)

Table no. 2

No.	Winter sports resort/ centre	Mountains	Ski Area			Chairlifts / Ski lifts		
			No. slopes	Length m	Optimal Capacity pers. / h	Unit. No.	Length Lm	Optimal Capacity pers. / h
I. National / regional mountain tourist resorts								
1	Poiana Braşov	Postăvaru	10	10546	15620	11	11952	11170
2	Sinaia	Bucegi	16	19304	15000	8	10799	8020
3	Predeal	Baiului – Gârbova	7	8100	12000	6	5370	6250
4	Buşteni	Bucegi	2	2550	2100	3	8032	1670
5	Azuga	Baiului – Gârbova	7	7095	3550	7	3586	4400
6	Borşa	Rodnei	3	2549	1350	3	3113	1640
7	Durău	Ceahlău	1	400	300	1	400	300
8	Lacu Roşu	Hăşmaşu Mare	2	1500	1500	1	350	300
9	Păltiniş – Arena Platoş	Cindrel	8	6450	7400	6	3338	3760
10	Semenic	Semenic	7	4900	4200	4	2450	3000
11	Straja	Vâlcan	12	20978	10000	10	8557	5819
12	Arieşeni	Bihor – Bătrâna	2	1430	1440	2	1180	1440
13	Voineasa	Lotrului	-	-	-	-	-	-
14	Cheia	Ciucaş	-	-	-	-	-	-
TOTAL			77	85802	74460	62	59127	47769
II. Winter sports and recreation centres								
1	Poiana Izvoare	Gutâi	3	1330	1600	3	1345	2100
2	Mogoşa – Şuitor	Gutâi	3	3600	1500	3	2350	560
3	Cavnic	Gutâi	7	7370	2300	5	3180	3540
4	Vatra Dornei – Dealul Negru	Căliman	4	5430	3770	5	5502	2030
5	Harghita Băi	Harghita	5	2973	1500	4	1810	1440
6	Pârâul Rece	Bucegi – Clăbucete	1	700	200	1	480	200
7	Râncea	Parâng	5	3041	5120	6	3790	5360
8	Parâng – Petroşani	Parâng	9	7442	1600	6	4805	2760
9	Vidra – Bora	Latoriţei	8	6352	19500	4	12137	7192
10	Muntele Mic	Muntele Mic	4	4600	2500	3	3160	2000

11	Băișoara – Buscat	Munții Gilău	4	2933	5200	3	3835	2600
12	Râu de Mori (Răușor)	Retezat	2	1200	500	2	800	500
TOTAL			55	46971	45290	45	43194	30282
III. Other (smaller) ski areas								
1	Harghita – Mădăraș	Harghita	3	2020	-	2	1500	-
2	Baciu – Bunloc	Piatra Mare	3	2000	-	2	1663	-
3	Bradu – Magheruș	Gurghiu	2	1460	-	2	1000	-
4	Fântânele	Muntele Mare	2	1300	-	1	530	-
5	Șugaș Băi	Baraolt	1	700	-	1	565	-
6	Gura Humorului	Obcina Mare	1	350	-	1	1069	-
7	Tihuța	Bărgău	1	1000	-	1	1030	-
8	Bran	Bucegi	1	500	-	1	450	-
9	Slănic Moldova	Nemira	1	1400	-	1	870	-
TOTAL			15	10730		12	8677	-
GRAND TOTAL			147	143503	-	119	110998	-

Source: processed after www.mdr.ro, www.schi-in-romania.com, www.wintersports.com

Obviously, rest and recreation tourism as well as other types of active tourism, are practiced in all resorts, during both winter season and all year round.

Between 2001-2003, in the resort town of Râșnov, situated at the foothills of the Postăvaru Mountains (1,798 m), they created facilities for national and international winter sports competitions: 4 trampolines equipped with chairlifts and artificial snow machines and a biathlon complex at the Cărbunării Valley; a biathlon track at the Cetății Valley; downhill and slalom slopes at the Grădiștei Valley. These last equipments are typically used for competitions and less by ordinary tourists.

3. ECOLOGICAL AND SOCIO-ECONOMIC IMPLICATIONS

High mountain and alpine/ subalpine (above 1,500m) landscapes, forestsfree and with a thin soil, have a fragile natural balance and are highly vulnerable to natural erosive agents.

Over the past years there was a strong human pressure (uncontrolled deforestations, pasturage, tourism etc.) upon these landscapes, triggering intense degradation processes, with severe consequences on preserving the natural balance of the environment.

Equipping mountain for mountain tourism, especially for winter sports, had a great expansion (“Super Ski in the Carpathians Program”), even in less favorable massifs. This winter sports “expansion”, comprising as well natural parks, has negative ecological, economic and social consequences. Here are only the most important ones:

- Ignoring environmental protection problems – including in natural parks and reservations – by creating tourist equipment, civil buildings, roads, without safeguarding and restoring landscape, thus leading to triggering processes of soil, vegetation and natural environment degradation (the Bucegi Natural Park, the Latoriței Mountains, the Mic Mountain etc.);
- Increasing and uncontrolled urbanization by parcelling and excessive secondary residences and guesthouses building, in the absence of appropriate urban planning, leading to disfunctions and great pressure upon the environment, pollution by combustion, wastewater discharge, erosion processes etc. (Râncea, Parâng-Petroșani, Straja, Cavnic etc.);
- Lack of building harmonization (in terms of architectural style) with the mountain specific conditions and with the particular area elements (from Transylvania, Banat, Maramures etc.) resulting in an artificial, mosaiclike and unaesthetic urban landscape;
- disfunctions between technical equipment (ski slopes, cable transport installations) and accommodation or catering facilities and mostly the after ski leisure; high density of buildings on small surfaces; imprecise delimitation between car/ pedestrian circulation and slopes (Râncea, Straja, Muntele Mic etc.);
- poor mountain endowment for summer leisure activities;
- emergence of real estate speculation through allotments, selling and increasing land prices (Straja, Dealul Negru, Vatra-Dornei, Parâng-Petroșani, Vidra-Bora);

- lack of involvement of local communities in tourism activity; the vast majority of the entrepreneurs, shareholders and workforce employed are from outside the region (Straja, Râncea, Vidra-Bora etc.);
- limitation of the agropastoral activities in mountain skiing areas, as in the Parâng, Cindrel, Rodnei Mountains;

Among the positive aspects of the mountain facilities there are: the diversification of winter sports offer in new locations and the development of the ski area (Sinaia, Poiana Braşov), though still not at the level of international requirements (service quality, facilities and labour, lack of after-ski leisure, accessibility etc.); job creation, the emergence of new sources of income and, locally, the development of infrastructure and of other complementary activities.

4. CONCLUSIONS AND PLANNING / DEVELOPMENT SUGGESTIONS

The reduced extension of the high and alpine mountain area and its fragility to the action of the natural factors catalyzed by human activity, require that planning and equipping for winter sports should be done in a controlled and progressive way, in harmony with the natural and anthropic environment. It is all about the compliance with the principles of an optimal use and protection of tourism resources, while safeguarding environment and local communities interests. There is also a need for equipments and facilities to harmounously match the local landscape and specific traditions.

In order to achieve a sustainable global, balanced and interconditioned development, between tourism and other agro-pastoral and forestry activities in the mountain area, the following **action directions** are **suggested**:

- limiting or renouncing, where appropriate, the complex arrangements for winter sports in the high and alpine mountain area, in order to reduce the negative impact on the mountain environment. By that one means the immovable facilities (hotels, secondary residences, guest houses, tourist villas, restaurants etc.), and recreation facilities as well as the infrastructure (access ways, parking lots, sewerage etc.) accompanying the necessary equipments for skiable area or access pathways to the mountains. These typically generate tourist resorts of various sizes, with negative consequences for the environment, as in the Natural Park of Bucegi, or in some locations with small areas and high densities of constructions, as in Straja resort (over 1,000 accommodation places), or in the ski centers of *Râncea* (1,000), *Muntele Mic* (650), *Poiana Izvoare* (450-500), *Râuşor* (800).
- Remaximization and revitalization of the sub mountainous and mountainous rural domain. Rural settlements can be provided with accommodation, catering and recreation facilities (roads, water and sewerage network, parking lots) to support the development of winter sports and summer tourism in the adjacent mountainous area. Promoting the accomodation in agro-tourist guest houses, mini hotels, secondary residences or tourist villas with customized, decent quality service, eventually leads to an increase in revenues that may motivate the local communities to preserve the traditional occupations and also the development of tourism as a complementary activity of the local economy, with people settling in and even a population increase as consequences. Regarding the investments, financial funds are needed to facilitate the access in the ski areas and to provide the necessary winter sports equipment and the facilities for various services (ski school, fast-food etc.). This kind of development as well as equipping villages in the area can be achieved by accessing structural funds and through public-private partnerships.

The alpine countries experience is highly instructive and efficient both ecologically and socio-economically. While the French practice speaks of „mountain renovation” by motivating people in the mountainous and sub-mountainous rural tourism development and adding it to the old agricultural, pastoral and forestry activities (the Jura Mountains, the Alps etc.), in Austria, Tirol is considered as a

development model of green and fresh tourism, focusing on the tourism services and environment quality, as well as on the progressive development controlled by the local community.

In the Romanian Carpathians, this goal can be achieved by harnessing the accommodation possibilities provided by the resorts' surrounding villages: *Păltiniș-Arena Platos* (Rovinari, Gura Râului, Cisnădioara); *Semenic* (Gărna, Văliug), *Straja* (Brăița-Lupeni and other villages), *Arieșeni* (Bubești, Arieșeni și Gârda de Sus). This also applies to mountain ski centres such as Poiana Izvoare, Valea Neagră, Firiza, *Cavnic* (Cavnic, Baia Sprie), *Băișoara-Buscat* (Băișoara), *Muntele Mic* (Borlova), *Parâng-Petroșani* (Petroșani city and the surrounding villages) etc.

- Keeping on farming and other pastoral activities in the mountainous area, while further developing winter sports and summer tourism. This creates a diversified economy (pluriactivity), in which tourism can have a great (complementary) contribution to local development, as obvious at *Arieșeni* (Bihar Mountains), *Cavnic* și *Poiana Izvoare* (Gutâi Mountains), *Bran* (Bucegi Mountains), *Gura Humorului* (Obcina Mare), *Păltiniș* (Cîndrel Mountains), *Parâng* etc

Winter sports development, as a tourism offer, could be differentially achieved in terms of equipment and facilities, to meet the domestic and foreign tourists requirements.

Analysing the Romanian ski area in the context of the international planning and technical equipping for winter sports experience, the authors consider the following proper proposals:

- The development of some national resorts - Poiana Brasov, Sinaia, Predeal, Busteni, Azuga – by expanding the ski area, and equipping it with performant and competitive technical and after-ski facilities with world-class service and professional and motivated labour force. Addressing the external market in particular, promotion should be customized and appropriate

- The modernization and properly equipping in terms of technique, real estate, leisure and infrastructure of the present regional/local resorts and ski centers, that would cater especially for the domestic demand. *Straja* and *Ranca* locatios, through architectural, infrastructural and functional modernization and reconfiguration could be developed as resorts of national interest, given their special value of the ski areas and the possibilities for expansion (*Ranca*).
- Creating local resorts and ski centers in different mountain locations, favorable for winter sports, with adequate technical equipment for mass domestic tourism, youth or week-end tourism.
- Setting up and equipping „snow stadiums” nearby resorts or urban centers, with facilities for winter sports and public utility (mountain rescue, fast-food, parking etc.) close to the slopes and ski lifts (cable cars, gondolas etc.). Austria, Germany and Switzerland provide countless such places of high demand in the cold season. Romania could develop „snow stadiums” at *Transalpina – Vf. Bora – Coasta Benghi* of Latoriței Mountains în partnership with *Voineasa* resort (35 km) and *Vidra* (10 km), which could be restored as a resort; *Dealul Negru – Vatra Dornei*; *Cavnic* (Baia Sprie – 17 km, Baia Mare – 27 km); *Baciu – Bunloc* (Brașov); *Gura Humorului*; *Nemira* (Slănic Moldova).
- The integrated setup of the ski areas in the mountain massifs. Besides the technical fitting out of the ski areas, a partnership is needed so that tourists could use only one ski-pass on several slopes in several resorts (as the case of *France – Trois Vallées*, *Italy – Val di Sole*, *Austria*). In Romania, this way could be integrated in the ski areas at Predeal and Azuga over the Schiorilor Pass (*Clăbucet – start – Gârbova – Clăbucetul Taurului Peak – slopes and ski lifts on Valea Glodului versant, Valea Azuga – Sorica – Cazacu slopes*) and *Sinaia* and the future resort *Peștera – Padina*, over *Lăptici Peak* (*Padina – Lăptici Peak – ski area*), *Valea Soarelui – Furnica* at *Sinaia*).

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