

Tourism potential value assessment model for rural-mountain and boundary contact areas. Case study: Cluj County, the district of Ciceu and the balneal area of Bacău County (Romania)

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Abstract: This paper aimed to develop a specific assessment method focused on the tourism potential of the rural-mountain and boundary contact areas. Once elaborated, the model was employed within three appropriate territories of Cluj, Bistrița and Bacău counties (Romania), who's investigated administrative units, were repeatedly ranked into hierarchical order according to the different tourist categories, invested with numerical values. In order to reach its goals, several objectives were assigned, from awarding the components of the primary and secondary tourism supply certain scores, proposing scales and calculating values, to comparing the results and identifying best rated tourism potential categories, units and areas. With respect to the research methodology, the most commonly used methods dealt with observation, analysis and synthesis along with comparison, cartographical, statistical and mathematical techniques. Therefore, main results regarded both proposal and testing the evaluation model, highlighting values and ranging territorial units in concordance with the tourist attractiveness power.

Keywords: *tourist resources, tourism infrastructure, tourist categories, tourism supply, territorial-administrative units*

1. Introduction

Tourism is a complex economic and social phenomenon both structurally and functionally speaking. In this train of thought, a wide variety of theoretical studies and analyses along with methodological approaches were employed in the development of tourism research, including the tourism potential. Given its complexity, not all scholars agreed on a uniform and exhaustive conceptual framework concerning the tourism potential. For this reason, some of them referred to it as a synonym for the primary tourism supply, integrating only natural and

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anthropogenic tourist resources (Cândea & Şimon, 2006), while other authors consider the tourism potential the equivalent of both primary and secondary tourism supply, incorporating the material base of tourism as well (Cocean & Dezsi, 2009).

In a similar vein and sharing the latter statement, this assessment model retrospectes to the tourism potential related to the natural tourist fund, anthropogenic tourism heritage and tourism infrastructure, whose components were equally analysed and invested with appropriate numerical values. Based on these scores, comparative and holistic perspectives of the tourism potential emerged, facilitating not only an ultimate classification of the rural-mountain and boundary contact areas according to low, medium, high and excellent potential values of the examined territories, but also a three-dimensional interrelationship established between the primary and the secondary tourism supply.

In order to show the effectiveness of this method, three case studies were reviewed, focused on administrative units belonging to Cluj County, the District of Ciceu and the balneal area of Bacău County (Figure 1), due to their embeddedness in the mountain and boundary contact areas. The selection process of these particular territories took into consideration the level of specificity in terms of tourism forms (mountain, rural, historical, spa etc.) and the low promotion degree of the tourism potential which could benefit from adequate valorisation if included in future development strategies. In these conditions, a helpful support would consist in the prospection of the primary and secondary tourism supply so as to identify the best rated administrative units and to determine the existing relationships between them.

1.1. Study area

Regarding the first study area, worth noting that corresponds to the north-eastern part of Apuseni Mountains, situated in the south-western half of Cluj County, on one third of the county's total surface (6.650 km²) (Buta et al., 1980). It integrates Gilău Mountains, Muntele Mare and Vlădeasa Mountains, the northern part of Trascău Mountains and the south eastern and south-western terminal components of Plopiş and Meseş Mountains (Pop, 2007). Though, given the fact that the mountain sector covers, not only totally but also partially, the inland of some territorial-administrative units, the final configuration of the examined area included 26 communes that benefited from the analysis of the tourism supply (Figure 1).

The District of Ciceu is located at the interference zone of Bistriţa-Năsăud and Cluj counties, having its largest part of territory inside Bistriţa-Năsăud County. Gathering 6 communes, the District of Ciceu corresponds to the boundary hills sector of Transylvania Depression that coincides with the link between mountain (Țibleş

Mountains) and lower zones (Transylvania Plain). As for the relief units of the study area, their morphological configuration made some scholars retrospect to them as Transylvanian Subcarpathian Hills or Lăpuș Subcarpathians (Posea, 1962; Savu, 1963; Tufescu, 1966).

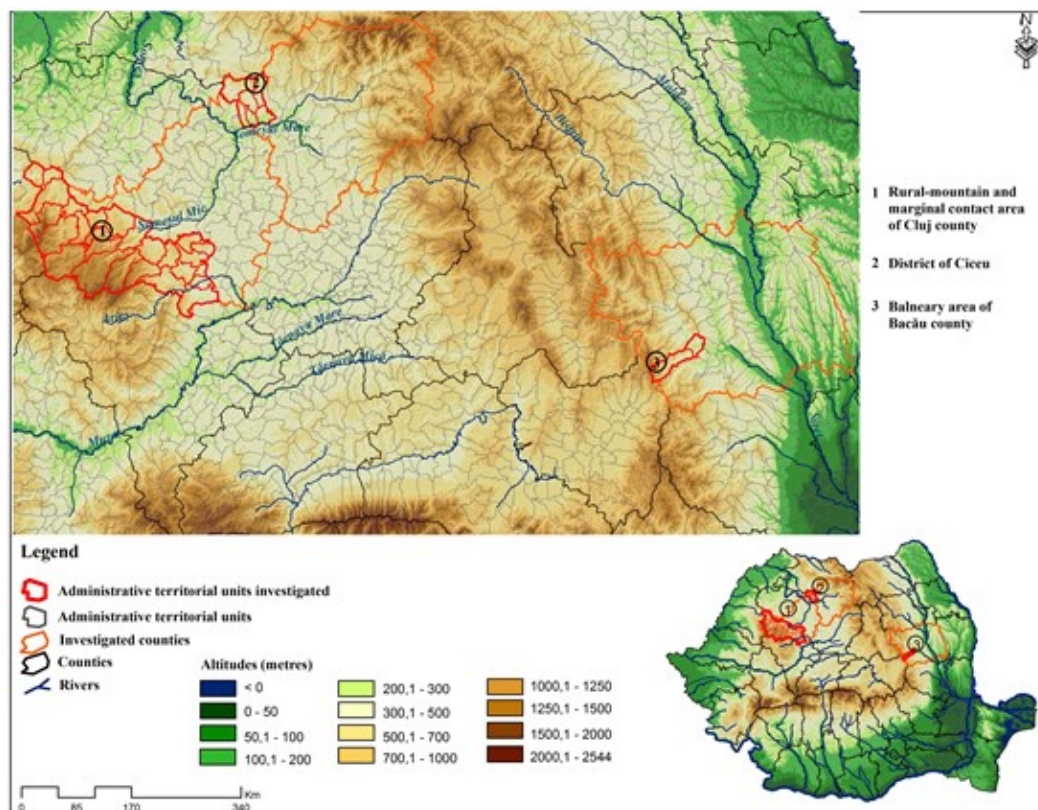


Figure 1. Spatial contextualisation of the examined territories at national and county level

The balneal area of Bacău County incorporates only the territorial-administrative units of two famous Romanian health resorts: Slănic Moldova and Târgu Ocna, that beyond the two city centres, host two rural localities, apiece. Thus, the former embeds Cerdac and Cireșoia, both situated in the Valley of Slănic River, at the foothills of Nemira Mountains, at an elevation of 380 metres and 340 meters. The latter encloses Poieni and Vâlcele, both located in the foothills of Berzunți Mountains, the first one at 294 metres altitude, in the valley of Trotuș river, whereas the second one at 340 metres, in the valley of Vâlcica brook. The importance of this study derived from the fact that most Romanian rural settlements from the mountain areas require

special attention when it comes to tourism development, the more so as a series of exogenous conditions such as physical, functional and economic depreciation of the tourism infrastructure, low accessibility and little diversified tourist attractions negatively affect tourist attractiveness. In addition to this, the tourism potential of Romanian urban and rural settlements reveal major differences that claim specific assessment, reason for which this peculiar model emerged and focused on rural settlements located within mountain and boundary contact areas.

1.2. Theoretical substantiation

As expected, there is a substantial body of existing literature dedicated to assessment models and techniques in each domain, including tourism, where many scholars came up with different methods of estimating the value or the related risks of air quality (Jakeman & Simpson, 1988), natural resources (Deason, 1998), water resources (Price & Firaq, 1996; Wilby, 2005), bioclimates (Matzarakis *et al.*, 2013). However, none of these fields gathered as many papers as transportation did, mainly because of the modernisation process that regarded the entire infrastructure, generating the elaboration of numerous evaluation methods concerning accessibility (Geertman & Eck, 1995; Geurs & Wee, 2004).

On the subject of tourist resources, some of the reviewed papers based their research on surveys of tourists, mostly focused on their perceptions and opinions. On this line, Ferrario (1978, 1979), proposed an evaluation method for tourist attractions in South Africa, in accordance with both tourists and specialists perceptions. A similar methodology was employed by Dowling (1993) and Yankholmes & Akyeampong (2010), who took into account the residents' opinions too when determining the value of tourist resources.

Tourism surveys were equally considered within a study made in the Grand Strand Region of South Carolina, whose main purpose was to evaluate the quality of services inside tourism phenomenon, on nature-based tourism setting. In order to achieve this, 630 questionnaires, using Fishbone analysis, were elaborated, asking respondents to compare their expectations to their perception of services on what a nature-based tourism business should provide for visitors. Thus, by choosing a certain value ranking form 1 (strongly agree) to 9 (strongly disagree), they expressed their beliefs about programs meant to be fun, constant attention-seeking programs, well-informed guides, employees willing to make time for visitors whenever they needed it, restroom cleaning services etc.(Backman *et al.*, 2000).

Mojić (2011) referred to tourism survey, as well, when valuing the spa tourism potential of Niš (Niška Banja) Area in south-eastern Serbia, advocating the

assessment model developed by World Tourism Organization. Therefore, both internal factors (degree of urbanisation, infrastructure, services and equipment, intrinsic characteristics of tourist resources analysis) and external ones (level of accessibility, specificity of resources, issuer neighbourhood centres, importance of resources) were taken into account and were awarded scores rating from 1 to 10. The numerical values that the respondents – people living outside the area where Niș Resort was located – associated to each category were all added up, resulting a final score of 1054 points, in the context of 1600 being the maximum value for the tourism.

In a similar vein, different types of evaluations regarding natural resources, were conducted by researchers who based their work on scenic quality established through landscape assessment techniques (Moss & Nickling, 1980; Mitchell, 1989; Yildurim & Olmez, 2008; Marzuki, 2011; Backman *et al.*, 2000).

For instance, Cocklin, Harte & Hay (1990) proposed an assessment method for natural, historical and recreation tourist resources in New Zealand, which contributed to their own conservation strategy. The model consisted in a two-step inventory process of those resources considered compatible with tourism and recreation, which were first reviewed and then evaluated according to their preservation status. Using topographic maps and aerial photos, the scenic quality was determined and represented, in concordance with the aesthetic attractiveness level (low, medium, high, very high) which mediated the separation of the investigated area into seven sectors remarkable for the landscape specificity. In addition to this, the authors also retrospect to those activities endowed with certain recreation potential which were consequently awarded points (very high: 1, high: 2, medium: 3, low: 4, very low: 5).

Priskin (2001) suggested a nature-based tourism methodology focused on Central Coast Region of Western Australia. For assessing the natural resources of the study area, five different types of classification were discussed and described using related classes and number of sites to exemplify them. The major criteria employed in dividing the nature-based tourism resources dealt with: attractiveness (low: 0-33; medium: 34-66; high: 67-100), types of resources (coastal, floral, geological, lakes, picnic sites), accessibility (low, medium-low, medium, medium-high, high), infrastructure (absent: 0, weak: 1-5, basic: 6-10), environmental degradation (low: 0-20; medium-low: 21-40; medium: 41-60; medium-high: 61-80; high: 81-100).

Rosič & Klamár (2007) came up with an interesting model as well, whose central point consisted of evaluating tourism potential on medium and long term in connection with specific activities. So as to illustrate the applicability of this technique, four micro-regions (Tatra, Spiš, Šariš, Upper Zemplin) included within

Prešov Region (Slovakia) were examined on the basis of particular activities related to individual tourism (e.g. water sports, water recreation, thermal and mineral water recreation, forest short-breaks, hiking, cycling, skiing, climbing, speleotourism, country short-breaks, hunting and fishing) and were assigned assessment points that reflected medium and long term potential of both regions and activities.

Baimai & Daniel (2009), provided a more economic approach towards tourism estimation whom they oriented on tourism receipts, tourist arrivals, national heritages, hotels, offences against tourists, tourism expenditures, considered important variables (integrated in multiple regression models) with high impact on tourists spending within emerging markets.

Concerning Romanian literature, a growing body of research addressed the issue of tourism potential assessment, in relation to which the methodology designed by Ciangă (1998) still is a fiducially marker in the field. The author developed an ideal model for estimating the tourism potential value of the tourist fund, whom he assigned 100 points and divided into eight components: morphologic (16 points), climatic (5 points), hydrographic (18 points), biogeographic (8 points), historical and cultural (10 points), ethnographic and cultural (8 points), material base of tourism (24 points) and communication potential (11 points). Ultimately, based on the obtained numerical values for each analysed component, the tourist value and the associated graph emerged for each settlement located in the Eastern Carpathians.

Ielenicz and Comănescu (2006) also offered a detailed description for a complex tourism potential evaluation that separated all existing tourist resources into major and simple ones. The former category was assigned a five-criteria analysis (attractiveness, interest, tourism forms, recognition, equipment) whereas the latter took into consideration only the first four aforementioned criteria.

Dezsi (2008) provided an estimation method, as well, determining the tourism potential of Lăpuşului Land, wherein the factors that contributed to tourism development were grouped into three main classes awarded 50 points each: natural factors (relief, climate, hydrology, biogeography), anthropic resources (archaeological sites and monuments, architectural and cultural complex, art monuments, traditional and spiritual cultural attractions), material base of tourism (accommodation, recreation, treatment, transportation). By adding up all the associated numerical values, tourism potential was divided into insignificant (< 24,9 points), low (25-34,9 points), medium (35-69,9 points) and high (> 70 points).

Last but not least, other relevant Romanian studies regarding tourism potential assessment were conducted by Voicu (2011) and Oprea (2012), who had both

proposed, within their researches, original techniques oriented on specific and determinant factors of tourism phenomenon.

2. Data and methods

With reference to the methodology that facilitated this research, several methods such as observation, analysis and synthesis along with comparison, cartographical and mathematical (statistical) techniques contributed to both data processing and results procurement.

The *analysis method* regarded quantitative (inventorying) and qualitative (scoring) retrospection of each component of the tourism supply, from those belonging to natural tourist fund (morphologic, climatic, hydrographic, biogeographic, therapeutic, natural protected areas) and anthropic tourism heritage (historical, religious, cultural, economic edifices with tourist function and events) to those pertaining to material and technical base of tourism (accommodation, catering, transportation, entertainment, spa treatment) so as to establish the tourism potential value of each category and each examined unit.

In order to display the results within unitary representations, the *synthesis method* was broadly used, mediating further actions in which *comparison* was employed so as to emphasise the similarities and differences between components and the overall tourism supply of the three researched areas belonging to Cluj, the District of Ciceu and Bacău, both from territorial-administrative and tourist perspective. *Cartographic techniques* enabled both spatial contextualisation and configuration of the investigated areas and their tourism potential value associated to each unit, illustrated by choropleth maps that use graded differences in colour, to show these contrasting values. It is worth mentioning that the cartographic materials were elaborated by the means of ArcGis 9.3 the holder of an official cartographic projection of Romania, Stereo 70. Besides this professional software, Microsoft Excel was also intensively used along with *mathematical (statistical) techniques* employed within the tourism potential value's assessment generating total scores for all tourist categories and communes/settlements which favoured the overall analysis.

3. Results and discussion

3.1. Results

On the subject of the configuration of the proposed tourism potential value assessment model for rural-mountain and boundary contact areas, one can observe that three major components were taken into account: natural tourist fund, anthropic tourism heritage and tourism infrastructure. Based on the importance of each

prospected subcategory, numerical values ranking from 0,1 to 10 points were awarded, thus, resulting different scores for the tourism potential of the analysed components and for the territorial-administrative units included within the examined areas.

3.1.1. Natural tourist fund

Natural tourist resources were grouped into six categories (Table 1), within which the relief units, more precisely the mountainous ones, were the best rated subcomponents (10 points), not only because they represent the support and background for tourist activities, but because of the specificity for the proposed assessment model which focused on the mountain and boundary contact areas. On the basis of this argument, the lower the elevation, the lower the score, thus, territories covered by hills and depressions got 2 points.

The biogeographically category succeeded the morphologic one due to the attractiveness power exerted on tourists, inversely proportional to the prevalence and distribution within the territory. Consequently, the subalpine storey of vegetation, including related species of plants and animals, was invested with 6 points (flora: 3 and fauna: 3), whereas, the forest steppe received only 2 points (flora: 1, fauna: 1). The protected natural areas – established within the National Territory Plan – were assigned an identical minimum value (2 pt.) in connection to those of county interest, while the national-interest ones were doubly awarded.

For the therapeutic resources, the highest score (4 points) corresponded to the mineral waters, due to their high prevalence within mountain areas, followed by moffettes and thermal waters, characteristic to plain zones, leaving the saline owners of the lowest numerical value (1 point). With respect to the climatic elements, meaningful for this assessment model was the stimulant-tonic bioclimate associated to the mountain areas. Due to its therapeutic benefits, it was considered most appropriate for this model and thus, provided with the highest score (3 points), even though most scholars find the neutral bioclimate (hills and depressions) the optimal one because of the lack of health contraindications.

Finally, the hydrographic category embedded first-order rivers (the equivalent of the main collector of a geographic area) and lakes, of great importance for tourist activities such as fishing and nautical sports. For this reason they received the best score (3 points), whereas small tributaries, waterfalls and springs characterised by a low degree of tourist valorisation only got 1 point.

Table 1. Natural tourist resources and related scores (points)

Morphologic tourist resources	Climatic tourist resources	Hydrographic tourist resources	Biogeographic tourist resources	Protected natural areas	Therapeutic tourist resources
mountain: 10pt. mountain & hill: 8pt. hill & mountain: 6pt. hill: 4pt. hill & depression: 2pt.	mountain (tonic-stimulant): 3pt. intermediate: 2pt. submontane (neutral): 1pt.	I st rank river: 3pt. II nd rank tributary: 2pt. III rd rank tributary: 1pt. lakes: 3pt. waterfall, spring: 1pt.	subalpine: 6pt. coniferous: 5pt. mixed forests: 4pt. broadleaf forests: 3pt. forest steppe: 2pt.	national interest: 4pt. county interest: 2pt.	mineral waters: 4pt. moffette: 3pt. thermal waters: 2pt. saline: 1pt.

3.1.2. Anthropic tourism heritage

Anthropic tourist resources were separated into five categories (Table 2), whose most attractive elements, that also support homonymous forms of tourism, were invested with 5 points each, whereas those with low tourism potential level were given 1 point or less (0,1 pt.). It was the case of archaeological vestiges that although gathered significant number of resources – communes with more than 30 sites according to the Romanian Institute of National Heritage – most of them are not even visitable nowadays. On the other hand, resources which distinguished by their age, architecture and other special features, were provided with the status of historical monuments (H.M.) and the highest score (4 points), being succeeded by historical buildings with habitat function (3 points).

Both religious and cultural edifices integrated resources which were declared historical monuments and were consequently awarded (5 points). Although high tourist attractiveness characterised wooden churches and monasteries on the one hand, and museums and collections on the other hand, they only got a medium rate (3 points) because of their widespread distribution and lack of the H.M. status. The other churches and monuments, enjoying the best numerical representation, built over the past decades, that have neither historic nor tourist value, were assigned 1 point.

As for the economic buildings with tourist function, the highest score (5 points) corresponded to dams, massive constructions linked to mountain areas, followed by their main exploiter: hydroelectric power stations. Predictably, the lower the tourism potential, the smaller the numerical value related to it (e.g. water treatment plants: 1

point). In a similar vein, the human activities with attractive function were ranked from 1 to 4 points. Thus, according to their importance within the tourism supply and their capacity of attracting tourist flows, local events got the lowest score while those of international interest received the highest (table 2).

Table 2. Anthropogenic tourist resources and related scores (points)

Historical buildings	Religious buildings	Cultural buildings	Economic buildings	Human activities with tourist function
H.M.*:4pt. castle, manor, palace: 3pt. Houses H.M.: 2pt. Ruins: 1pt. Archaeological vestiges:X:10=0,Xpt.	H.M.:5pt. wooden church, monastery:3p t. Hermitage, other:1pt.	Museum H.M.:5pt. Museum: 4pt. Collections: 3pt. Mausoleum, trinity H.M.:2pt. Monuments:1pt.	Dam:5pt. Hydroelectric power station: 4pt. Mill: 3pt. Trout farm:2pt. Water treatment plant:1pt.	International interest:4pt. National interest: 3pt. Regional interest: 2pt. Local interest:1pt.

3.1.3. Tourism infrastructure

The tourism infrastructure comprised 5 categories of elements (Table 3), invested with 1 up to 10 points, due to the existence of resorts, the most complex form of tourism planning, joining subcomponents belonging to many categories. Within the entertainment sector, they were succeeded by ski slopes (5 points), indispensable for winter sports tourism and by recreational centres of medium attractiveness (3 points).

By the same token, both catering and spa treatment equipments were scored according to the complexity degree of the tourist services and facilities which best valorised the local resources, either it involved traditional gastronomy, or climatotherapy and moffettes supported by bioclimate the post-volcanic emanations. Predictably, these equipments benefited from the highest values within their category, while the lowest were assigned to the most common units (fast-food, snack-bar) and procedures (kinetotherapy).

Contrary to all expectations, the best rated accommodation type was not the most complex, but the most authentic of all, bringing into prominence agritourist guesthouses (5 points), chalets and other rural guesthouses (4 points), the providers of the closest experience to the specificity of the rural-mountain area. Thus the lower the authenticity degree, the smaller the associated value and for the reason, hotels got the lowest score within this assessment model. Yet, this principle lost its value when

transportation infrastructure was awarded, providing the highest scores to the most modern roads, required by accessibility standards, also responsible for the tourism potential valorisation of an area (table 3).

Table 3. Tourism infrastructure elements and related scores (points).

Accommodation sector	Catering sector	Transportation sector	Entertainment sector	Spa treatment sector
Agritourist guesthouses: 5pt. guesthouse, Chalets: 4pt. vacation village, camping: 3pt. Villa bungalow, stopover: 2pt. Hotel, hostel,motel:1pt.	National specific restaurant: 5pt. Guesthouse rest., classic rest.: 4pt. Bistro, terrace:3pt. bar,buffer, coffe-bar/cafe:2pt. Fast-food, snack-bar:1pt.	Highway: 5pt. European roads: 4pt. National roads:3pt. county roads:2pt. Communal roads:1pt.	Tourist resort, tourist complex:10pt. Ski slope:5pt. Zoo centre, equitation centre:3pt. park:1pt.	Climatotherapy installations: 4pt. Moffeta: 3pt. Electrotherapy, hydrotherapy:2pt. Balneotherapy, kinetotherapy:1pt.

3.2. Discussions

3.2.1. Natural tourist fund

This major component of the primary tourism supply represents the result of a unique combination of qualitative and quantitative features related to natural attractive resources. Given the physical and geographical characteristics of the researched territorial-administrative units, most of them owed their tourism potential value to the contribution of biogeographic and hydrographic components, followed by morphologic attractions and natural protected areas (Table 4).

Considering the relief units, 29 percent of the examined territorial-administrative units possessed remarkable features which ensured high tourism potential values, especially for Gilău-Muntele Mare Mountains (e.g. Beliș, Măguri-Răcățău, Mărișel, Râșca, Valea Ierii) and Vlădeasa Massif (Mărgău, Săcuieu) regarding the communes of Cluj, and for Nemira Mountains (Slănic Moldova) in Bacău. Given the relationship between relief and climate, the same percentage of territorial units which were occupied by the mountain sectors was provided with mountain tonic-stimulant bioclimate, leaving 47 percent of the administrative units in the area of influence of the submontane neutral bioclimate (table 4).

Most investigated communes stood out through a high biogeographic tourist attractiveness (e.g. Băișoara, Poieni etc.) that along with the hydrographic one (best

represented in Negrilești, Chiuiеști, Ciurila etc.) held the greatest share of the total numerical value belonging to the natural tourist fund.

Table 4. Natural tourist potential value by components and units.

County	Commune	Morpho-logic tourist resource	Climatic tourist resources	Hydro-graphic tourist resources	Biogeo-graphic tourist resources	Pro-ected nat. areas	Thera-peutic tourist resource s	NATURAL FUND (Total score)
CJ	Aiton	4pt.	1pt.	7pt.	5pt.	-	-	17pt.
CJ	Băișoara	8pt.	3pt.	2pt.	20pt.	2pt.	-	35pt.
CJ	Beliș	10pt.	3pt.	6pt.	15pt.	10pt.	-	44pt.
CJ	Călățele	6pt.	2pt.	4pt.	14pt.	-	-	26pt.
CJ	Căpușu Mare	6pt.	1pt.	3pt.	9pt.	4pt.	-	23pt.
CJ	Ciucea	6pt.	2pt.	3pt.	9pt.	-	-	20pt.
CJ	Ciurila	2pt.	1pt.	20pt.	5pt.	4pt.	-	32pt.
CJ	Feleacu	4pt.	1pt.	3pt.	5pt.	2pt.	-	15pt.
CJ	Gilău	6pt.	2pt.	19pt.	9pt.	12pt.	-	48pt.
CJ	Iara	8pt.	2pt.	8pt.	9pt.	8pt.	-	35pt.
CJ	Măguri-Răcătău	10pt.	3pt.	10pt.	15pt.	12pt.	-	50pt.
CJ	Mănăstireni	8pt.	2pt.	6pt.	7pt.	-	-	23pt.
CJ	Mărgău	10pt.	3pt.	9pt.	18pt.	24pt.	-	64pt.
CJ	Mărișel	10pt.	3pt.	14pt.	15pt.	6pt.	-	48pt.
CJ	Mihai Viteazu	6pt.	1pt.	9pt.	5pt.	6pt.	-	27pt.
CJ	Moldovenești	4pt.	1pt.	12pt.	5pt.	-	-	22pt.
CJ	Negreni	6pt.	1pt.	11pt.	5pt.	-	-	23pt.
CJ	Petrești de Jos	6pt.	1pt.	7pt.	5pt.	4pt.	-	23pt.
CJ	Poieni	8pt.	3pt.	15pt.	18pt.	4pt.	-	48pt.
CJ	Râșca	10pt.	3pt.	12pt.	15pt.	6pt.	-	46pt.
CJ	Săcuieu	10pt.	3pt.	5pt.	18pt.	4pt.	-	40pt.
CJ	Săndulești	4pt.	1pt.	11pt.	5pt.	-	-	21pt.
CJ	Săvâdisla	4pt.	1pt.	2pt.	5pt.	-	-	12pt.
CJ	Sâncraiu	6pt.	1pt.	5pt.	5pt.	-	-	17pt.
CJ	Tureni	6pt.	1pt.	28pt.	5pt.	4pt.	-	44pt.
CJ	Valea Ierii	10pt.	3pt.	6pt.	12pt.	6pt.	-	37pt.
CJ*	Chiuiеști	8pt.	2pt.	25pt.	7pt.	-	-	42pt.
BN	Ciceu-Giurgești	4pt.	1pt.	17pt.	3pt.	-	-	25pt.
BN	Ciceu-Mihăiești	4pt.	1pt.	12pt.	5pt.	-	-	22pt.
BN	Negrilești	8pt.	2pt.	35pt.	7pt.	-	-	52pt.
BN	Petru Rareș	2pt.	1pt.	11pt.	5pt.	-	-	19pt.
BN	Uriu	2pt.	1pt.	18pt.	5pt.	-	-	26pt.
BC	Slănic Moldova	10pt.	3pt.	30pt.	18pt.	8pt.	50pt.	113pt.
BC	Târgu Ocna	8pt.	2pt.	31pt.	7pt.	4pt.	29pt.	81pt.

Most investigated communes stood out through a high biogeographic tourist attractiveness (e.g. Băișoara, Poieni etc.) that along with the hydrographic one (best represented in Negrilești, Chiuiești, Ciurila etc.) held the greatest share of the total numerical value belonging to the natural tourist fund. Concerning the protected natural areas and the therapeutic resources, the researched territories dealt with three situations: communes lacking both tourist categories (e.g. Călățele, Mănăstireni, Mihai Viteazu, Ciceu-Giurgești, Petru Rareș etc.), units integrating one component (e.g. Mărgău, Măguri Răcătău, Gilău etc.) and settlements hosting both types of resources (i.e. Slănic Moldova, Târgu Ocna). Ranking from 12 to 113 points, the natural tourism potential total score reflected a heterogeneous primary tourism supply that provided optimal conditions for the valorisation of attractive resources through specific tourism forms.

Considering the value of 40 points as the lower limit of the high tourism potential class, 38 percent of the total number of the studied administrative units proved high tourism attractiveness power, as followed: Slănic Moldova, Târgu Ocna, Mărgău, Negrilești, Măguri-Răcătău.

3.2.2. Anthropic tourism heritage

Within the human-made and purpose built tourism heritage (Table 5), the religious buildings' category was the most important in terms of prevalence within the total score of the anthropic potential. Due to its great variety, both typological (e.g. wooden churches, fortified churches, monasteries etc.) and numerical (only the rural-mountain area of Cluj County has more than 220 religious constructions), some territorial units such as Căpușu Mare, Ciurila, Iara, Moldovenești, Râșca, Săvădisla, Tureni, Chiuiești, Uriu, Târgu Ocna imposed themselves within the ecumenical tourism supply of the investigated area.

Cultural and historical components (e.g. museums, monuments, fortresses, ruins etc.) were identified on 60 percent of the examined territories. Although most of them refer to archaeological vestiges that vanished in time, they still appear on the List of Historical Monuments; therefore they were taken into account within this inventory, but were provided with a different method of assessment, using a decimal numerical expression so as to contribute the least to the total score. Notwithstanding, values outnumbering 10 points were registered within some communes (i.e. Gilău, Iara, Uriu, Ciucea) when archaeological vestiges (e.g. human settlements, fortified settlements, archaeological sites, Roman camps, towers etc.) and historical buildings with habitat functions were equally considered. Similar scores (more than 10 points) were awarded to those administrative units (i.e. Târgu Ocna, Ciceu-Mihăiești, Petru Rareș, Ciucea) that owned museums, exhibition collections and monuments which ensured them a high

cultural tourism potential as well. On the opposite side, 9 communes located in the study area belonging to Cluj lacked this type of attractions and 5 of them (i.e. Măguri-Răcățău, Mărgău, Râșca and Valea Ierii) had neither cultural nor historical tourist resources whom to valorise (Table 5).

Table 5. Anthropic tourism potential value by components and units

County	Commune	Historical buildings	Religious buildings	Cultural buildings	Economic buildings	Activities with tourist function	ANTHROPIC HERITAGE (Total score)
CJ	Aiton	4.3pt.	18pt.	3pt.	-	1pt.	26.3pt.
CJ	Băișoara	1pt.	9pt.	-	-	23pt.	33pt.
CJ	Beliș	-	5pt.	2pt.	5pt.	14pt.	26pt.
CJ	Călățele	0,1pt.	18pt.	3pt.	-	1pt.	22.1pt.
CJ	Căpușu Mare	6.5pt.	56pt.	-	3pt.	-	65.5pt.
CJ	Ciucea	10.7pt.	15pt.	10pt.	-	3pt.	38.7pt.
CJ	Ciurila	4,5pt.	33pt.	8pt.	-	-	45.5pt.
CJ	Feleacu	0.8pt.	17pt.	4pt.	-	1pt.	22.8pt.
CJ	Gilău	13.6pt.	13pt.	1pt.	25pt.	8pt.	60.6pt.
CJ	Iara	12.2pt.	50pt.	-	-	-	62.2pt.
CJ	Măguri-Răcățău	-	13pt.	-	-	2pt.	15pt.
CJ	Mănăstireni	6.1pt.	26pt.	-	-	-	32.1pt.
CJ	Mărgău	-	24pt.	-	-	6pt.	30pt.
CJ	Mărișel	-	4pt.	8pt.	14pt.	2pt.	28pt.
CJ	Mihai Viteazu	4.9pt.	29pt.	1pt.	-	3pt.	37.9pt.
CJ	Moldovenеști	8pt.	48pt.	4pt.	-	2pt.	62pt.
CJ	Negreni	0.1pt.	12pt.	2pt.	-	5pt.	19.1pt.
CJ	Petrestii de Jos	2pt.	20pt.	1pt.	-	5pt.	28pt.
CJ	Poieni	2.6pt.	10pt.	2pt.	8pt.	5pt.	27.6pt.
CJ	Râșca	-	22pt.	-	5pt.	-	27pt.
CJ	Săcuieu	2pt.	12pt.	-	-	2pt.	16pt.
CJ	Săndulești	6pt.	13pt.	6pt.	-	-	25pt.
CJ	Săvădisla	5.6pt.	22pt.	4pt.	-	4pt.	35.6pt.
CJ	Sânraiu	0,1pt.	19pt.	2pt.	-	8pt.	29.1pt.
CJ	Tureni	2.9pt.	24pt.	1pt.	-	-	27.9pt.
CJ	Valea Ierii	-	1pt.	-	-	-	1pt.
CJ*	Chiuiești	-	22pt.	2pt.	-	1pt.	25pt.
BN	Ciceu-Giurgești	1pt.	4pt.	1pt.	3pt.	-	9pt.
BN	Ciceu-Mihăiești	6.4pt.	4pt.	17pt.	-	2pt.	29.4pt.
BN	Negrilești	0,2pt.	7pt.	2pt.	-	-	9.2pt.
BN	Petru Rareș	-	10pt.	10pt.	-	1pt.	21pt.
BN	Uriu	11.8pt.	17pt.	3pt.	-	-	31.8pt.
BC	Slănic Moldova	9pt.	18pt.	5pt.	3pt.	7pt.	42pt.
BC	Târgu Ocna	6.4pt.	58pt.	24pt.	5pt.	15pt.	108.4pt.

However, human activities with attractive function (events) compensated the total absence of the aforementioned anthropic components, except for the case of Râșca and Valea Ierii. Mostly consisting in cultural and recreational activities such as traditional celebrations, folklore spectacles, festivals, fairs and sports competitions, specific manifestations were detected within two-thirds of the investigated territorial units, puttin Băișoara and Beliș (rural-mountain area of Cluj County) along with Târgu Ocna (balneal area of Bacău) on the map of events tourism. As for the economic constructions endowed with tourist function, dams (organically linked to water storage reservoirs) and hydroelectric power stations represented the most attractive resources of the related tourism supply belonging to Gilău, Mărișel, Poieni or Târgu Ocna

By illustrating the anthropic tourism heritage in a numerical expression, within which the limit of 30 points was retrospect as the threshold of the high tourism potential class, came out that 41 percent of the researched territorial-administrative units enjoyed a high tourist attractiveness power, best represented in Târgu Ocna, Căpușu Mare, Moldovenești, Iara and Gilău.

3.2.3. Tourism infrastructure

Concerning the secondary tourism supply the overall situation presented major contradictions not only at territorial-administrative level, within the investigated communes and localities (Table 6), but also in corelation with the primary tourism supply. On this line, despite the fact that 26 percent of the researched communes did host tourist resources, more or less attractive, neither accommodation, nor catering services were identified within their inland. Therefore, Aiton, Mănăstireni, Săndulești and Valea Ierii (Cluj County) along with most parts in the District of Ciceu were never even close to ensure the minimal conditions for tourist activities (except for Ciceu-Mihăiești where a camping site was detected). In contradistinction to this, according to official data provided by Romanian National Authority for Tourism, at the beginning of 2015, the spa area of Bacău County summed up 55 accommodation units (35 in Slănic Moldova and 20 in Târgu Ocna), whereas the other 21 territorial units in Cluj, which did possess accommodation services, gathered 137 tourist receiving structures. Given the features of the rural-mountain and marginal contact area that this paper prospected, tipologically speaking, the guesthouse category prevailed over the other accommodation types both in Bacău (58 percent) and in Cluj (40 percent), being followed by agritourist guesthouses, the latter case, within which Sâncraiu stood out by the means of the 40 units (of a total number of 45 within the entire rural-mountain area) that invested it with 212 points.

About tourist receiving structures with public catering and accommodation functions, they should be inseparable or at least available, if not within the same unit, within the same area. However, the analysis of the tourism supply revealed the existence of both undesirable situations: communes hosting accommodation units and lacking catering ones (i.e. Călățele, Moldovenești, Petreștii de Jos, Sâncraiu, Ciceu-Mihăiești) and communes with catering units and no accommodation services (i.e. Iara). In Table 6, one can observe that while the District of Ciceu had no catering tourism supply, the researched areas of Cluj and Bacău counties possessed 43 and 32 units (in 2015). A further noticeable common feature concerned the most widely spread units which bring into prominence classic restaurants in Cluj (65 percent) and in Bacău (56 percent) as well. Followed by ethnic restaurants in the former case, and bars for day drinking in the latter case, the catering sector was best represented in Slănic Moldova, Gilău, Târgu Ocna and Feleacu.

With respect to the transportation infrastructure, the paradox is that although it was neither built in tourist purpose, nor endowed with intrinsic tourist attractiveness, tourism phenomenon would become inconceivable in the absence of transportation. Thus, tourism potential valorisation requires physical accessibility which is mostly ensured by road infrastructure in the rural-mountain areas. The studied territorial units made no exception and taking into consideration the importance, quality and number of the related roads, resulted that Gilău, Feleacu, Moldovenești, Mihai Viteazu were the owners of the highest accessibility rate due to the presence of the A3 Highway, two European roads, two national roads, five county roads and others of local interest (at a commune level).

Regarding the entertainment and spa treatment material base, it can be observed that the few territorial units which include in their tourism supply this kind of facilities, add extra-points to the overall tourism potential value, as follows: Băișoara (due to its winter sports tourism supply ensured by Băișorii Mountain Resort and related ski slopes), Slănic Moldova and Târgu Ocna (on the basis of the balneal and climatic tourist resorts resorts), Beliș-Fântânele Resort and Valea Drăganului Tourist Complex etc. As expected, the favourable natural conditions for unfolding both winter and balneal tourism (recreational or curative) were valorised through specific tourist equipment (from cable transportation means for the 10 ski runs in Cluj and the one in Bacău, to moffetta, electrotherapy and hydrotherapy installations) (table 6).

Taking into account all scores associated with the material base of tourism and retrospection to the 40 points value as to the lower limit of the high tourism potential, came out that 27 percent of the investigated communes belonging to the rural-mountain area of Cluj County benefit from a high tourism potential (e.g. Sâncraiu, Gilău,

Beliș, Băișoara etc.) whereas the spa area in Bacău is totally embedded within the limits of the high infrastructure tourism potential class mostly owing its score to the contribution of Slănic Moldova and Târgu Ocna (thus the results of this assessment are predominantly valid for these two localities, and less representative for the other four rural settlements).

Table 6. Material base of tourism value by components and units

County	Commune	Accommodation sector	Catering sector	Transportation sector	Entertainment sector	Spa treatment sector	Infrastructure (Total score)
CJ	Aiton	-	-	4pt.	-	-	4pt.
CJ	Băișoara	27pt.	6pt.	6pt.	35pt.	-	74pt.
CJ	Beliș	60pt.	8pt.	8pt.	-	-	76pt.
CJ	Călățele	4pt.	-	8pt.	-	-	12pt.
CJ	Căpușu Mare	7pt.	4pt.	15pt.	10pt.	-	36pt.
CJ	Ciucea	8pt.	10pt.	11pt.	5pt.	-	34pt.
CJ	Ciurila	12pt.	6pt.	2pt.	6pt.	-	26pt.
CJ	Feleacu	1pt.	19pt.	20pt.	5pt.	-	45pt.
CJ	Gilău	34pt.	25pt.	21pt.	1pt.	-	81pt.
CJ	Iara	-	6pt.	6pt.	-	-	12pt.
CJ	Măguri-Răcățâu	16pt.	4pt.	5pt.	-	-	25pt.
CJ	Mănăstireni	-	-	6pt.	-	-	6pt.
CJ	Mărgău	22pt.	6pt.	8pt.	-	-	36pt.
CJ	Mărișel	17pt.	5pt.	4pt.	5pt.	-	31pt.
CJ	Mihai Viteazu	16pt.	12pt.	16pt.	-	-	44pt.
CJ	Moldovenești	14pt.	-	18pt.	-	-	32pt.
CJ	Negreni	4pt.	7pt.	10pt.	-	-	21pt.
CJ	Petreștii de Jos	4pt.	-	2pt.	-	-	6pt.
CJ	Poieni	30pt.	4pt.	11pt.	10pt.	-	55pt.
CJ	Râșca	13pt.	6pt.	5pt.	10pt.	-	34pt.
CJ	Săcuieu	11pt.	6pt.	6pt.	-	-	23pt.
CJ	Săndulești	-	-	15pt.	-	-	15pt.
CJ	Săvădisla	16pt.	8pt.	9pt.	-	-	33pt.
CJ	Sâncraiu	212pt.	-	5pt.	-	-	217pt.
CJ	Tureni	9pt.	8pt.	15pt.	-	-	32pt.
CJ	Valea Ierii	-	-	4pt.	-	-	4pt.
CJ*	Chiuiеști	-	-	4pt.	-	-	4pt.
BN	Ciceu-Giurgești	-	-	3pt.	-	-	3pt.
BN	Ciceu-Mihăiești	3pt.	-	8pt.	-	-	11pt.
BN	Negrilești	-	-	6pt.	-	-	6pt.
BN	Petru Rareș	-	-	8pt.	-	-	8pt.
BN	Uriu	-	-	8pt.	-	-	8pt.
BC	Slănic Moldova	102pt.	85pt.	5pt.	15pt.	12pt.	219pt.
BC	Târgu Ocna	67pt.	22pt.	8pt.	12pt.	6pt.	109pt.

By prospecting the general tourism supply of each territorial-administrative unit included within the rural-mountain area of Cluj County, the District of Ciceu and the

balneal area of Bacău County, overall scores emerged, relying on the contribution of the natural tourist fund, anthropic tourism heritage and material base of tourism. In order to achieve the commensurability of the general tourism potential, the three mentioned-above major categories were expressed through numerical values, whose summation ranked from 42 to 374 points (Table 7).

Table 7. General tourism potential value by supply's categories and units

County	Commune	Natural tourist fund / Primary tourism supply	Anthropic tourism heritage/ Primary tourism supply	Tourism infrastructure / Secondary tourism supply	TOURISM SUPPLY (TOTAL SCORE)
CJ	Aiton	17pt.	26,3pt.	4pt.	47,3pt.
CJ	Băișoara	35pt.	33pt.	74pt.	142pt.
CJ	Beliș	44pt.	26pt.	76pt.	146pt.
CJ	Călățele	26pt.	22,1pt.	12pt.	60,1pt.
CJ	Căpușu Mare	23pt.	65,5pt.	36pt.	124,5pt.
CJ	Ciucea	20pt.	38,7pt.	34pt.	92,7pt.
CJ	Ciurila	32pt.	45,5pt.	26pt.	103,5pt.
CJ	Feleacu	15pt.	22,8pt.	45pt.	82,8pt.
CJ	Gilău	48pt.	60,6pt.	81pt.	189,6pt.
CJ	Iara	35pt.	62,2pt.	12pt.	109,2pt.
CJ	Măguri-Răcătău	50pt.	15pt.	25pt.	90pt.
CJ	Mănăstireni	23pt.	32,1pt.	6pt.	61,1pt.
CJ	Mărgău	64pt.	30pt.	36pt.	130pt.
CJ	Mărișel	48pt.	28pt.	31pt.	107pt.
CJ	Mihai Viteazu	27pt.	37,9pt.	44pt.	108,9pt.
CJ	Moldovenești	22pt.	62pt.	32pt.	116pt.
CJ	Negreni	23pt.	19,1pt.	21pt.	63,1pt.
CJ	Petreștii De Jos	23pt.	28pt.	6pt.	57pt.
CJ	Poieni	48pt.	27,6pt.	55pt.	130,6pt.
CJ	Râșca	46pt.	27pt.	34pt.	107pt.
CJ	Săcuieu	40pt.	16pt.	23pt.	79pt.
CJ	Săndulești	21pt.	25pt.	15pt.	61pt.
CJ	Săvâdisla	12pt.	35,6pt.	33pt.	80,6pt.
CJ	Sâncraiu	17pt.	29,1pt.	217pt.	263,1pt.
CJ	Tureni	44pt.	27,9pt.	32pt.	103,9pt.
CJ	Valea Ierii	37pt.	1pt.	4pt.	42pt.
CJ*	Chiuiеști	42pt.	25pt.	4pt.	71pt.
BN	Ciceu-Giurgești	25pt.	9pt.	3pt.	37pt.
BN	Ciceu-Mihăiești	21pt.	29,4pt.	11pt.	61,4pt.
BN	Negrilești	52pt.	9,2pt.	6pt.	67,2pt.
BN	Petru Rareș	19pt.	21pt.	8pt.	48pt.
BN	Uriu	26pt.	31,8pt.	8pt.	65,8pt.
BC	Slănic Moldova	113pt.	42pt.	219pt.	374pt.
BC	Târgu Ocna	81pt.	108,4pt.	109pt.	298,4pt.

In this context, the tourism potential could be comprised in four hierarchical classes: low (< 50 points), medium (50-100 points), high (100-150) and excellent (> 150 points). Due to both socio-economic profile and low degree of rurality, Slănic Moldova, Târgu Ocna, Gilău along with Sâncraiu (which owed his highest score to agritourist guesthouses' share) pride them with an excellent tourism potential, mainly determined by the tourism infrastructure. Worthwhile noting that both excellent and low tourism potential classes integrated four territorial units, apiece (Aiton, Valea Ierii, Ciceu-Giurgești, Petru Rareș - low potential class with less than 50 points) as well as both high and medium classes that incorporate 14 units each (41,1%). As shown below, the 14 communes endowed with high tourist attractiveness, completely correspond to Cluj's rural-mountain area, whereas the other 14 of medium attractiveness absorb the rest of the administrative units of Cluj and the District of Ciceu (Figure 2).

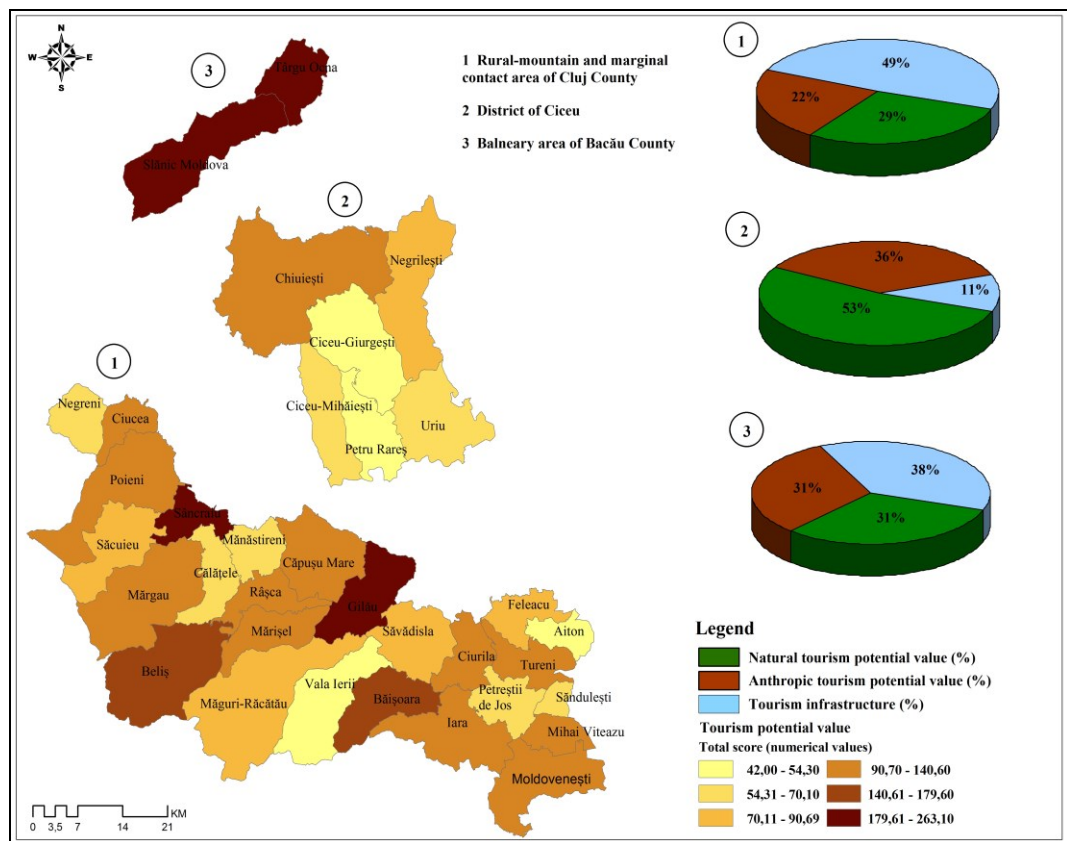


Figure 2. Configuration of the general tourism supply of the study areas

Further analyses of the general tourism supply indicated three types of possible relationships between its components: higher values of the primary tourism supply compared to those of the secondary one, showing underexploited tourist resources whose valorisation would justify the configuration of the material base of tourism and even diversify it (the case of the District of Ciceu); balanced values for both components of the tourism supply, revealing proper exploitation, within which the infrastructure served the purpose of valorising attractive resources (averagely speaking, the situation of the rural-mountain area of Cluj County); lower values of the primary tourism supply compared to those of the secondary one, implying overexploited tourist resources whose valorisation could cause disequilibrium, in the conditions of exceeding the tourism carrying capacity (the case of the spa area of Bacău County).

The results of the assessment that focused on the aforementioned components also highlighted the strengths of the three investigated areas in terms of tourism potential (Figure 2).

Thus, whereas for both examined areas belonging to Cluj and Bacău counties, the material base of tourism represented the greatest share of the overall tourism supply (Cluj: 49%; Bacău: 38 %), for the District of Ciceu the natural tourist resources matter most (53 %).

4. Conclusions

As many scholars have previously argued, the tourism potential of a an area consists in a unique combination of both attractive resources and infrastructure elements whose quantitative and qualitative features reflect the tourism supply configuration. Thus, the evaluation of the tourism potential requires a inventorisation and assessment of all its components so that they properly reveal the degree of tourist attractiveness. By analysing the tourism supply of threer rural-mountain and boundary contact areas of Cluj, the District of Ciceu and Bacău on the basis of a proposed tourism potential assessment model, different percentage values of the natural, anthropic and infrastructural tourist components emerged mediating both comparative and holistic perspectives upon the issue.

On the subject of the 26 examined communes belonging to the Cluj's rural-mountain area, 65 percent of them displayed higher scores for the primary tourism supply compared to the secondary one, indicating an undervalorised tourism potential. However, 30 percent of the total number of communes were characterised by equilibrated rates in connection to tourism components, revealing appropriate exploitation of the attractive potential, especially in Băișoara and Beliș, where the

existing tourist resorts intensively contributed to the development of tourist activities.

Regarding the District of Ciceu, results showed that natural tourist resources (51 percent), followed by anthropic ones (35 percent) are able to support tourism development within this area. Yet, further analysis of the secondary tourism supply highlighted the lack of tourist receiving structures (accommodation and catering units), making it almost impossible to valorise the attractive potential.

As for the balneal area of Bacău County, an interesting conclusion emerged according to which, although the villages taken into study, territorial-administratively speaking, belong to Slănic Moldova and Târgu Ocna (two traditional Romanian health resorts endowed with high tourist potential value) and they do possess a certain degree of attractiveness, they also have many shortcomings regarding tourism infrastructure (secondary supply). They do not benefit from proper valorisation, even though some of them (Cerdac and Cireșoia) share similar environmental conditions with Slănic Moldova (from location and landscape views to climatotherapy possibilities). However, their current tourism supply could participate in the local tourism development if considered when requiring accommodation places by tourists who seek quietness, stillness, rest and recreation.

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