

QUANTITATIVE ANALYSIS OF TOURISM POTENTIAL IN THE CZECH REPUBLIC

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Abstract

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On the one hand, tourism is a significantly spatially differentiated socio-economic phenomenon, bound to the attractiveness of local conditions. On the other hand, it is a sectional phenomenon which requires a high level of coordination and cooperation of all tourism stakeholders. This is the background for the practical implementation of tourism policy. The state's conceptual activity and its institutions are irreplaceable in this respect. From this point of view, a prerequisite for quality economic-political decisions of the existence of materials and methods, which these features respect, is necessary. One of these prerequisites is a quantitative analysis of tourism potential in the Czech Republic, which should be a basis for direct and targeted state's interventions into the improvement of public infrastructure of tourism in the area.

The main purpose of the quantitative analysis of tourism potential is to objectively measure the tourism potential, i.e., to set the criteria for the evaluation of its national, regional, and local importance and consequently, conduct a comparative analysis of the tourism areas and centers of importance according to the key types of tourism. Finally, on the basis of the processed factual, statistical and cartographic information to propose functionally spatial delimitation of tourism potential.

Keywords: tourism, tourism potential, economic importance of tourism, planning in tourism, functional typology of tourism

INTRODUCTION

In literature, tourism is often described as a suitable tool of socio-economic development of regions. This conclusion is based both on empirical experience and theoretical concepts and approaches. In practice, there is a number of regions in which tourism significantly contributes to the economic prosperity of their inhabitants. For example, mountain tourism in the Alpine regions of Austria, Germany, Switzerland or Italy brought a source of economic development. Pechlaner and Tschurtschenthaler (2003) state that tourism in the Alpine regions is one of the most important branches of local economy. They also cite the study by Elsasser *et al.* (1982), which showed that there were very few other alternatives which would form sufficiently strong economic conditions for maintaining population in the area. Similar studies point out the importance of tourism in peripheral

and rural areas. Saarinen (2003) examines the areas of northern Finland with respect to the impacts of tourism on income and employability in the region. In addition, Wall, G. and Mathieson, A. (2006) present a number of studies which quantifies direct and indirect economic effects of tourism in peripheral regions of North Wales, Scotland (Archer, Shea, and De Vane, 1974; Brownrigg and Greig, 1975) or in Norwegian cities (Huse, Gustavsen, and Almedal, 1998). On the other hand, there are studies, which prove the deepening of disparities among regions due to the development of tourism. At the example of tourism in Turkey, Tosun, Timothy, and Öztürk (2003) show an impact of a number of factors which influence spatial differentiation of tourism. Apart from the demand structure and its character, these factors include natural and cultural prerequisites of the area, regional capital and level of governance or the direction of tourism policy.

Arguments about the importance of tourism for the regional development are based on different theoretical approaches and concepts. It is especially the export base theory (North, 1955) and its emphasis on international (alternatively regional) competitiveness of local economy. In fact, tourism can be considered a factor of such competitiveness since it represents the so-called "hidden export", which brings additional finances into the area (Telfer and Sharpley, 2002). Another, very often mentioned approach is Keynesian theory of "core-periphery" (Perroux, 1955; Friedmann, 1966). In this case an ability of tourism to create sources of growth in peripheral areas is emphasized (see Pásková, 2003), and tourism is a development pole which stimulates the regional development (Weaver, 1998). The institutional approaches emphasize the endogenous development factors. In this case, the connection with local environment (its natural and cultural values) is important. Thanks to this, stronger ties of entrepreneurial subjects with local economy can occur through locally rooted sub-supplying relationships. (Granovetter, 1985; Andriotis, 2002).

The importance of tourism as a tool of regional policy is based on its ability to provide a sufficient demand and that is sufficient incomes, generate employability at low investment costs, develop economic activities in the regions where other, more important activity is very weak. In addition, this can be done through flexibility and linking SME with local environment. On the other hand, all proclaimed advantages of tourism have its pros and cons. (Fleischer and Felsenstein, 2000). For example, the seasonality of tourism negatively affects the character of employment and incomes from tourism. The argument that tourism creates a new demand clashes with a possibility of extrusion the current demand (Hoy and Rowley, 1996) or a promise of higher tax revenues can change into disproportionate budgetary burden of many municipalities (Fleischer and Felsenstein, 2000).

Apart from the characteristics of tourism mentioned above, other specifics which differ tourism from other fields of national economy can be mentioned:

1. *Character of tourism product.* Destination of tourism can be understood as a relatively closed system of mutual ties and interactions among different types of stakeholders (actors of tourism). The reason is a high fragmentation of own offer of the destination (the offer consists of many different segments – tourism attractiveness, tourism services, public spaces or countryside) and an above-average number of small and medium-size companies (Thomas, Shaw, and Page, 2011). On the other hand, visitor perceives the destination as a whole. Therefore, the tourism product is defined as a package of wide range of destination services and environment. The structure and quality of individual segments of offer do not necessarily mean a successful position of the destination on the tourism market. They are only a necessary condition. Current literature (Enright and Newton, 2004; Dwyer and Edwards, 2009; Cracolici and Nijkamp, 2009; Crouch, 2011; Mazanec, Wober, and Zins, 2007; Mihalič, 2000) on the competitiveness of tourism destinations is connected with cooperation and coordination of individual stakeholders in functional networks which lead to the activation of savings from the extent, creation of economies of scope, internationalization of business, improvement of knowledge transfer and other effects.
2. *Role of public sector.* In tourism, there is a number of actors (stakeholders), such as business subjects, non-profit organizations or public sector. Each actor has own targets. In case of business subjects, it is mostly the profit; the non-profit organization monitors public good; the public sector has an interest in political mechanism. The public sector plays several roles in tourism (Keller, 1999: 42). First, it is a coordinator that influences framework conditions of tourism in the area of transport, public infrastructure, education and employability. As a co-producer, this actor provides participants of tourism with different goods and services, e.g., in form of providing security, transport services, or accessibility of tourist destinations. In the area of urban planning or more broadly in space planning, the state is a planner. Its task is to actively affect time and space organizations of tourism at regional and local level. Finally, the last role of the state is a catalyst function as an initiator of competitive development of tourism through different supporting programs. The state does not only have a regulatory function in tourism, but it also forms an offer. With respect to business subjects, it cannot only act from the position of power, but as an equal partner that more or less forms the whole destination product.
3. *Space concentration of tourism.* Character and extent of the offer is subject to the character of primary offer from which the secondary offer is derived. The primary offer is created by natural, cultural and historical potential of the final destination, which with its attractiveness influences dynamism and a characteristic form of tourism. However, it is not balanced. The secondary offer includes all kinds of establishments and their services which must be at disposal for the participants of tourism. Their extent and structure depends on the primary offer (Gúčík, 2010: 167–168). Therefore tourism is a spatially differentiated phenomenon and as a factor of regional development is only selectively applied (Vystoupil, J., Šauer, M., 2011).
4. *Effect of a tourist trap.* Another characteristic feature of tourism is the existence of the so-called effect of tourist trap, i.e. an ability of tourism to reduce its own capital (of natural and cultural destination

value) as a consequence of uncontrolled development of tourism (Zelenka and Pásková, 2012), which is the issue of establishing social consensus in the field of priorities of destination development.

5. *Multilevel spatial organization of tourism.* At present tourism represents a local, regional, national and international spatial system, mainly based on an enormous mobility of participants of tourism and their economic possibilities (Šauer, Vystoupil, Holešinská *et al.*, 2015). It is the character of tourist streams which determines the role of individual segments of the offer in spatial organization of tourism. The relationships among the sending and destination points create a network of a mutually overlapping level of spatial relationships which can be of international, national, regional, or local dimension.

If one strives for a responsible and sustainable development of tourism, the characteristics of tourism described above must be respected. The conceptual activity of the state is a necessary prerequisite of the quality economic and political decisions of the existence and application of a conceptual approach to planning and policy of tourism. In this sense, the policy of tourism must be based on:

- objective evaluation of tourism potential,
- necessity to respect a multilevel spatial organization of tourism and strive for the interconnection of individual levels,
- requirement of searching for balance between the public and private interests, intervention into the places where it minimally undermines the competitive environment and at the same time it solves the problems of external costs, asymmetrical information and public goods (see Smeral, 1998),
- consensual forms of action which are supported by all key destination actors.

The purpose of this article is an objective evaluation of tourism potential which respects the multilevel spatial organization of tourism and searches for balance between the public and private interests. Each strategy of tourism must be based on the support of development of the strongest segments of a given destination or on the cultivation of its potential. *Tourism potential* can be defined according to the Explanatory Dictionary of Tourism (Zelenka and Pásková, 2012: 433) as a summary value of all prerequisites of tourism, usually assessed on the basis of a scoring scale, lowered by a negative value of negative factors of tourism development, particularly by an adverse state of environmental segments and conflict use of a given area. This definition enables many approaches and views on its evaluation.

The theoretical-methodological issues of evaluation of tourism potential started to appear in geographical studies (and not only geographical) in the 1960s, both in the touristic important European

countries and former Czechoslovakia. At first only the theoretical questions such as definitions, concepts, the concept of partial and complex segments of tourism potential, or the concept of potential from the tourism supply and demand point of view were discussed (Mileska, 1963; Kiemstedt, 1967; Mariot, 1971; Šprincová, 1968). Sometime later, (especially in the 1970s up to present time) many approaches and methods to measure and evaluate tourism potential originated at a different degree of the territorial detail (national, regional, local level of evaluation). These evaluations were required not only by academics, but mainly by zoning practices, for example in Germany (Kiemstedt, 1972, 1967), in Austria (provincial laws on tourism), in Czechoslovakia (e.g., Míchal and Nosková, 1970; Vepřek, 1974). Modern theoretical and methodological approaches and detailed evaluations of tourism potential in the Czech Republic (CR), or the selected regions of CR, can be found in studies by Pásková (2003), Bína (2002), Šíp (1998, 1997), Novotná (2005), Vystoupil and his colleagues (Viturka and Vystoupil, 2003; Vystoupil, J. *et al.*, 2006; Vystoupil and Šauer, 2009).

A vast majority of all conducted evaluations measuring the potential of tourism in an area try to achieve one aim, i.e. to determine how much the particular area is suitable for either partial or overall tourist activities. To do that we use available quantitative (often also qualitative) and cartographic methods.

Apart from the evaluation of natural potential for recreation and tourism on the one hand, there has also been measurements of the importance of villages for tourism on the other hand, particularly from the economic point of view. For example, since the 1990s provincial laws of Austria have set the importance of a village on the basis of the measurement of several parameters. Such indicators include the long-term average number of overnight stays of tourists in the village, the share of overnight stays per inhabitant, and the share of the total turnover of gastronomic and accommodation establishments per inhabitant of the village (e.g. *Steiermarkischen Tourismusgesetz*, 1992 and *Ortsklassenverordnung der steirischen Gemeinden nach ihrer Bedeutung für den Tourismus*, 2014). Similar philosophy can be found in other provincial laws on tourism in Austria (e.g., *Gesetz über die Förderung und den Schutz des Tourismus*, 1997).

The principal aim of this study is to objectively measure the tourism potential from its offer point of view. That means that the first step is to set criteria for the evaluation of its supraregional, regional and local importance. And consequently we conduct a comparative analysis of the importance of areas and centers of tourism according to the key types of tourism. Finally, on the basis of the processed factual, statistical and cartographic information to propose a functional and spatial delimitation of tourism potential at a level of centers of tourism, set the key concentrated (integrated) tourist-recreational zones

and regions, resp. line and fully usable areas for specific functions of tourism (e.g., water tourism, or rural tourism).

Methodology of the evaluation of primary tourism potential

Within this evaluation, location factors of tourism, specifically natural, cultural and historical factors of tourism, are analyzed. (Mariot, 1971). The location factors are the main determinants of most activities of tourism and recreation, particularly its residential forms. They are also the core stones of any tourism regionalization, and they also determine the basic functional and spatial dimensions or differentiation in the recreational use of the territory.

Methodology of the evaluation of the natural tourism potential

Approaches to the evaluation of the natural tourism potential can be divided into two basic problem areas. The first accepts the evaluation of potential as the overall natural conditions of the area. So far the research results in the field of natural conditions of tourism have shown a general consensus on the structure of agents influencing the natural tourism potential of the area. The primary determination of functional exploitation of the area is influenced by landscape relief, climate, hydrologic and biographic conditions (Mariot, 1971). The second approach consists in the evaluation of potential with respect to the suitability of a given area for a certain form of tourism (down-hill skiing or tourism). If the natural tourism potential should be analyzed, it is necessary to determine activities which can be performed in the area. This process results in the proposal of functional use of the area for the given activity (see Bína, 2002). This approach is most frequently applied in the territorial detail (specific location, smaller territorial units).

For the purpose of the quantitative analysis, the first approach was selected. Its basic indicators for the evaluation of the natural tourism potential are as follows:

a) potential recreational areas

Potential recreational areas in their synthetic and clear way generalize an impact of the overall natural conditions on the present state and intensity of functional and spatial exploitation of the territory and provide a view on the overall natural tourism potential of the area for its recreational use. The methodology of the determination of a potential recreational area is relatively simple. The value of the indicator is based on the sum of the areas, recreationally exploitable in cadastral units of individual villages of CR, which is then divided by the total area of the village and provided in %. The recreationally exploitable areas in the land

use register include areas of forest land, meadows and pastures, gardens, orchards, and water areas (static and flowing water). For a demonstrative spatial differentiation of the provided indicator and for the determination of the key functional and spatial types of the countryside, the following evaluation scale was selected:

- up to 20.0 % of potential recreational areas – agriculturally intensively used rural landscape, for tourism and recreation there are only very few suitable natural conditions;
- 20.0–37.9 % of potential recreational areas – mostly agriculturally used rural landscape in the lowlands and uplands, for tourism and recreation there are few suitable natural conditions;
- 38.0–56.9 % of potential recreational areas – rural landscape with average natural conditions for tourism and recreation;
- 57.0–74.9 % of potential recreational areas – foothill and highland rural landscape with favorable natural conditions for tourism and recreation;
- 75.0 and more % of potential recreational areas – mostly mountain areas with very favorable natural conditions.

b) Functional and spatial types of recreational area mainly based on the evaluation of the representation of a potential recreational area in the landscape (territorial detail of the village)

The methodology of the functional and spatial geographic regionalization of the natural prerequisites of the territory for tourism and recreation consists in the determination of the mountain landscape, rural landscape with favorable, average and minimal preconditions of tourism, urbanized landscape. From this perspective, the type of the mountain landscape and rural landscape with favorable and average preconditions for tourism are considered as a natural potential of regional and supraregional importance.

Methodology of the evaluation of cultural and historical tourism potential

The basic view on the importance of the tourist centers was firstly performed on the basis on their cultural and historical potential. In fact, its classification was done. The primary criterion of the evaluation was the degree of protection of historical monument and secondarily, also the visitor rate of these monuments. The villages (centers) of regional and supraregional importance of tourism included the villages which met the following criteria:

- a) Villages with a UNESCO monument – altogether 19¹ villages

1 Lednice – Valtice Area is in the cadastre of eight villages.

- b) Towns with an urban conservation area (UCA) – altogether 40 villages
- c) Towns with another cultural and historical potential for tourism and with a number of 200 beds and more in collective accommodation establishments. Altogether 187 towns.
- d) Villages with a national cultural monument (NCM). Altogether 186 villages.
- e) Villages with important castles and chateaux with the visitor rate higher than 30,000 per year (mean of 2010–2012). Altogether 66 villages.

Methodology of the evaluation of the secondary tourism potential

The tourist importance of the region and its centers is usually measured by capacity indicators such as a number of tourist and recreational beds on the one hand, on the other hand by performance indicators such as a number of overnight stays, or by a number of jobs in the tourism sector and a total turnover (incomes from tourism). Since the last two indicators have not to be fully at disposal in the Czech Republic, the following analysis is based on the information provided by the Czech Statistical Office (CSO) about the capacities and performances of the collective accommodation establishments in 2012. Another source information are the terrain research on the capacities of collective accommodation establishments (CAE) organized in 2013 Ministry of regional development (MRD) and the results of authors' research (Vystoupil, J. *et al.*, 2006; Vystoupil, J., Šauer, M., Holešinská, A., *et al.*, 2007a, 2007b).

In 2010, CSO registered collective accommodation establishments (establishment with more than nine beds) in 1,573 villages with a total capacity of 450,000 beds (permanent and temporary), in 2013, based on the preliminary information from the terrain survey organized by MRD in 1829 villages with a total capacity of 500,000 beds. The differences in the conducted surveys are caused by different methodology of the data collection and the development in the presented accommodation sector during the last three years. However, for the selection of tourist centers of regional importance, these differences are not higher than 10%, which is acceptable.

For the selection of the tourist centers of regional or supraregional importance, the following criteria were set:

a) Determination of the regional importance by a number of beds in collective accommodation establishments (CAE)

The basis for the evaluation was 200 beds in the village at minimum, which was based on the conducted survey of 2013. There were 461 villages. In some cases, the analysis also included the centers with fewer number of beds (however, 100 bed at minimum). This was done in case of a big difference between the data of 2010 and

2013 (higher data in 2010 – arithmetic mean of the presented data had to be higher than 200). In controversial cases, an additional indicator of the number of overnight stays in 2012 (min. 20,000 overnight stays) was used. Altogether it was 43 villages. On the basis of this criterion, 504 villages were selected, further described as tourist centers of regional and supraregional importance.

b) Delimitation of regional importance of cultural and historical and natural monuments and attractions

The importance of the tourist center of regional significance cannot be only determined by the number of beds, but also by its real tourist importance. This is based on the visitor rate of the center and its tourist significance. The analysis also included all the centers (villages) with UNESCO monuments and urban conservation areas (UCA), centers with important cultural and historical monuments (castles, chateaux, memorials, museums, or open-air folk museums) with the visitor rate of more than 30,000 paid visitors per year (2012). In addition, the villages with national cultural monuments, which are clearly important for the tourism, were involved. Altogether 75 villages were selected, apart from the villages with more than 200 beds. Finally, other villages and location with significant natural attractions (e.g., caves, sand rock towns and formations) were identified. They were 8.

The Tab. I summarizes the criteria of the selection of the tourist centers in CR for the quantitative analysis. Altogether 587 villages of regional and supraregional importance were selected.

Methodology of the functional and spatial evaluation of tourism

The results of the primary and secondary potential evaluation are the essential entry information for the search of functional and spatial relationships of the key features of tourism offer. Tourism is not static. On the contrary, it is a very dynamic phenomenon, which has its own functional and spatial consequences. Spatially, it manifests itself in three dimensions: as a point, line and area. The approach to the evaluation of a functional and spatial organization of tourism is based on this fact.

The point character is typical of the tourist centers with most tourist infrastructure (accommodation establishments, sport-recreational infrastructure) and cultural and historical monuments. Within tourism, these centers have different functions, which are based on their offer and visitors' motivation. Another important segment of this offer is represented by large areas in which more significant tourist attractions are concentrated. They are mainly typical of natural preconditions of tourism (protected landscape areas, larger landscape areas). Finally, they are the last segment in the spatial and functional organization of tourism, and have a line character. In the Czech Republic the most

I: *The criteria for the selection of the tourist centers*

Criterion	Definition
A) Regional importance determined by the number of beds in CAE	
Basic criterion – number of beds (year 2013)	number of beds (2013) > 200 beds
1. sub-criterion – number of beds (year 2013 and 2010)	number of beds (2013) > 100 beds + average of beds (2010, 2013) > 200 beds,
2. sub-criterion – number of overnights (2010)	number of overnights (2012) > 20k
B) Regional importance determined by cultural/historical and natural monuments and attractions	
Basic criterion – UNESCO and UCA	villages with UNESCO sights or urban conservation areas
1. sub-criterion – monuments attendance (2012)	villages with cultural or historical monuments which achieved more than 30k paid visitors per year (2012)
2. sub-criterion – national culture monument	villages with national cultural monuments which are important for tourism development on the regional level
3. sub-criterion – natural attractions	villages with natural attractions which are important for tourism development on the regional level

important are cycle tracks and paths, hiking trails², rivers and cross-country skiing tracks.

RESULTS AND DISCUSSION

Tourist centers of regional and supraregional importance

On the basis of the previous methodology, the quantitative analysis determined 587 tourist centers of regional and supraregional importance, which according to the internal data of MDR from 2013, was totally 32 % out of more than 1,830 villages with at least one CAE. From the accommodation capacities point of view in the selected 587 villages, totally, 423,216 beds in CAE were registered in 2013 (more than 82 % of all beds in CAE in CR). If the CSO data from 2012 are considered, then in these 587 centers there were approximately 36.8 mil overnight stays, which means 94 % out of all overnight stays in CAE (39.3 mil overnight stays). The application of the criteria above stated thus represents a minimal barrier for the exceedance of local significance into regional significance and they are fully in compliance with the aims of the quantitative analysis. Stricter criteria could eliminate the centers in less attractive areas.

The 587 selected tourist centers of regional importance represent a set of different functional types, mainly based on the functional dominance

of the key forms and types of tourism in CR. The functional typology (specialization) of the tourist centers was set on the basis of dominating functions of a given tourist center. The centers included into the functional typology involved 587 villages described above. Each center of tourism had two functions at minimum (in cases when the center of tourism was not a clear cut only in one function). The evaluation considered the following functions:

- historic cities,
- other urban centers,
- mountain resorts of summer and winter recreation,
- centers of summer water recreation,
- centers of rural tourism,
- spa resorts,
- natural attractions,
- other cultural-historical monuments.

The objective classification of the importance and position of individual centers, resp. zones with concentrated tourism in CR was reached by evaluating (setting) the functional dominance of 587 selected tourist centers of regional importance (classification of functional types of tourist centers). Within the framework of the performed analyses and tests, a solution of the clear dominance of one form of tourism, possibly of two forms of tourism, was set. The basic functional and spatial distribution

² Cycling tracks, hiking trails and cross-country skiing tracks are not included in the evaluation of this study.

II: Centers of tourism of regional and supraregional importance (2013)

Region	Number of tourism centers	Number of beds	Number of overnights in mil.
	2013	2013	2013
Capital Prague	1	90,329	13.669
Středočeský	73	24,733	1.385
Jihočeský	74	45,270	2.577
Plzeňský	43	19,524	1.132
Karlovarský	17	26,984	4.476
Ústecký	42	17,290	0.870
Liberecký	44	35,238	2.164
Královéhradecký	59	39,373	2.921
Pardubický	31	13,689	0.763
Vysočina	32	14,254	0.661
Jihomoravský	55	31,254	1.865
Olomoucký	32	16,527	1.300
Zlínský	36	21,456	1.440
Moravskoslezský	48	27,075	1.644
Total	587	422,996	36,799

Source: MDR 2013, authors' own analyses

of the selected 587 centers of tourism in CR is illustrated in tables and cartogram (map) below.

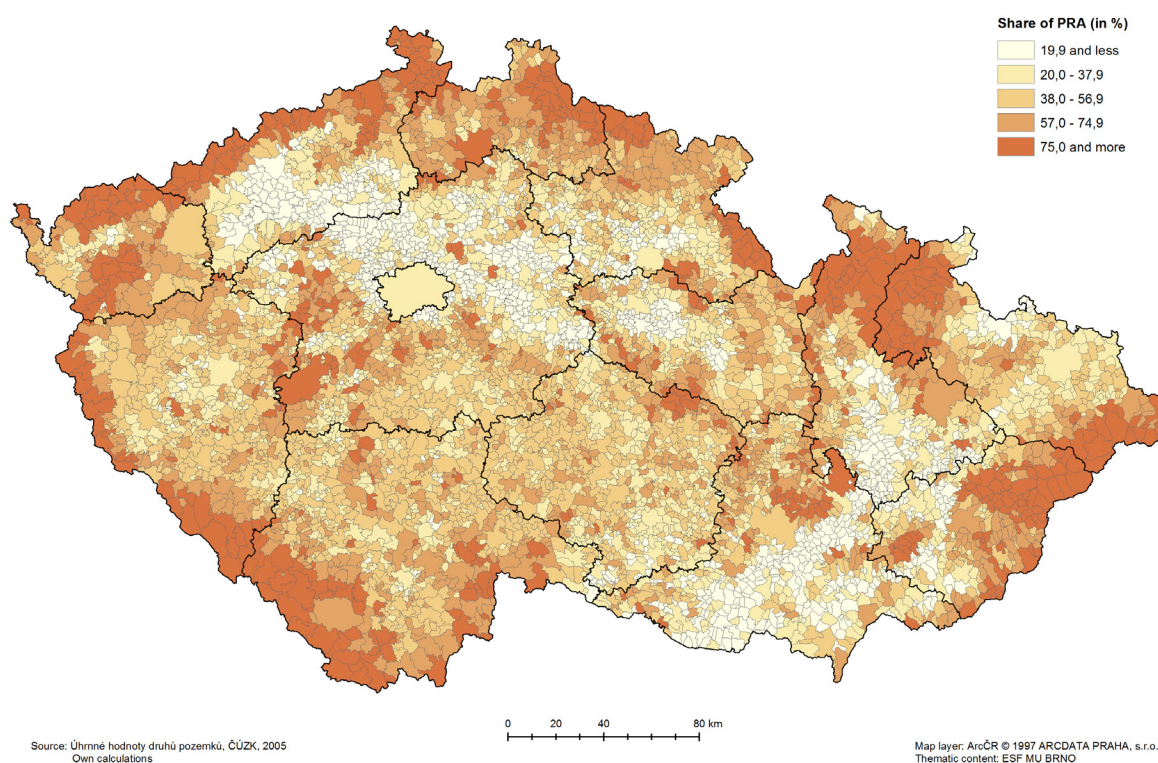
The Tab. III. shows global information about the dominance of the key types of tourist centers in CR. If it is measured by the number of beds in CAE, then the most significant segment of the offer

is represented by towns (52 % of bed capacities in CAE in 587 centers of regional and supraregional importance). These are then followed by mountain resorts of tourism (19 %), centers of summer water recreation (12 %), spa resorts (12 %), while rural centers and natural attractions have only 5 % of bed

III: Key functional types of tourist centers and their bed capacity (2013)

Region	Total		Cities		Mountain		Water area		History		Rural area		Nature		Spa	
	No.	Beds	No.	Beds	No.	Beds	No.	Beds	No.	Beds	No.	Beds	No.	Beds	No.	Beds
Capital Prague	1	90,329	1	90,329	0	0	0	0	0	0	0	0	0	0	0	0
Středočeský	73	24,733	20	9,932	0	0	24	8,915	17	1,350	8	1,983	3	638	1	1,915
Jihočeský	74	45,270	17	16,923	10	4,805	29	17,888	9	921	6	1,410	1	27	2	3,296
Plzeňský	43	19,524	15	9,555	8	4,572	9	3,194	7	612	3	958	0	0	1	633
Karlovarský	17	26,984	5	1,851	3	1,125	0	0	2	407	2	476	0	0	5	23,125
Ústecký	42	17,290	17	9,156	6	1,881	2	853	8	748	4	1,302	3	1,239	2	2,111
Liberecký	44	35,238	12	7,328	18	18,267	3	6,385	4	527	0	0	5	1,851	2	880
Královéhradecký	58	39,353	19	10,070	16	21,335	4	1,299	7	908	4	873	5	1,661	3	3,207
Pardubický	31	13,689	17	7,466	2	1,768	2	2,133	3	138	4	1,118	2	423	1	643
Vysočina	32	14,254	16	8,511	6	3,578	4	1,278	3	286	3	601	0	0	0	0
Jihomoravský	55	31,254	18	19,782	1	260	10	5,070	13	1,392	8	2,135	3	250	2	2,365
Olomoucký	32	17,646	8	6,497	8	5,078	1	209	3	560	5	1,150	2	20	5	4,132
Zlínský	37	20,761	15	9,116	12	5,897	4	1,819	3	543	2	473	0	0	1	2,913
Moravskoslezský	48	27,075	18	12,248	23	10,672	2	379	0	0	1	321	1	514	3	2,941
Total	587	423,261	198	218,764	113	79,172	94	49,422	79	8,319	50	12,800	25	6,623	28	48,161

Source: MDR 2013, ČSÚ 2013, authors' own analyses, explanation: classification according to the main dominance



1: Potential recreational areas

Source: Proposal of new tourism regionalization of CR, 2005, authors' own analyses

capacities BCAE). The last data are not surprising because the rural tourism is not concentrated, but on the contrary, spatially dispersed, without bigger centers.

Natural tourism potential

In this case, the aim of evaluation was to determine the areas with natural preconditions of tourism of regional and supraregional character. Two basic segments of the natural tourism potential were evaluated: the position of the potential recreational areas and the determination of the key functional spatial landscape units (i.e., mountain areas and rural areas with favorable and average preconditions for tourism and recreation).

The spatial distribution of the share of the potential recreational areas in the territorial detail is illustrated in the map below. The most attractive territories from the recreational point of view are naturally the mountain areas (Šumava, Krušné and Lusatian Mountains, Jizera Mountains, Krkonoše, Orlické Mountains, Jeseníky, Beskydy), resp. their foothills. In the mountain areas only 63 % of them attain a higher share of 75 % of the potential recreational areas. Thanks to this, the average value in the mountain areas is highly above average and makes 81 %. Other areas significantly stagnate. The overrepresented potential recreational areas are in the rural landscape with favorable preconditions for the development of tourism (62 %) and in the area with large rock formations (63 %).

IV: Potential recreational areas according to the functional and spatial types of landscape

Functional and spatial types of landscape	Potential recreational areas (PRA)		
	Recreational areas (in ha)	Area (in ha)	PRA in %
Rural area I	1,043,735,645	7,657,356,405	13.6 %
Rural area II	8,514,565,097	23,229,535,877	36.7 %
Rural area III	16,965,169,982	27,567,377,101	61.5 %
Mountain area	9,668,673,474	11,923,247,847	81.1 %
Urbanized area	2,909,808,973	7,340,133,983	39.6 %
Areas of large rock formations	749,915,617	1,197,271,352	62.6 %
Total	39,851,868,788	78,914,922,565	50.5 %

Source: Proposal of new tourism regionalization of CR, 2005, own calculations

The least attractive is then the lowland, intensively exploitable landscape (especially Polabí, Pooohří, Dyjsko-svratecký and Dolnomoravský Ravine).

On the basis of the attained values of the share of potential recreational areas and their spatial generalization, six basic types of functional and spatial landscape units were defined: mountain landscape, rural landscape with favorable, average and small preconditions for its recreational use, areas of large rock formations and urbanized areas.

In the spatial representation the mountain areas form 17 % of the CR territory (including the large sand rock formations), the rural areas with very favorable natural preconditions for tourism and recreation make 35 % of the territory, the rural areas with average preconditions 29 % of the territory. The remaining 20 % of the territory of the Czech Republic consists of rural areas with minimal expectations for recreational use (mostly intensively farmed arable land) and defined urbanized areas (9 %). Although it is not possible to apriori decide which natural areas have minimal regional importance for tourism and recreation, it can be at least determine that this category can be achieved by the mountain areas and the rural areas with favorable preconditions, which form nearly 52 % of the CR territory. If at least a half of the rural areas with average preconditions (ca. 15 % of the CR territory) is added, then it is more than 2/3 of the whole CR territory. This is an objective classification of the natural attractiveness the Czech landscape, which can be also proved by comparative data about the deployment of their bed capacities. For example, in 2013 there were:

- over 127,000 beds in CAE in the mountain areas (including the areas of sand rock formations),
- 98,000 beds in the rural areas with very favorable preconditions,
- 50,000 beds in the rural areas with average preconditions,
- Almost 8,000 beds in CAE in the rural areas with minimal preconditions.

The basic spatial representation is illustrated by the cartogram of the **Functional typology of the tourist centers**.

Line segments of tourism offer

Water tourism

An additional segment of natural potential of evaluation included an analysis of the rivers. In the CR water tourism represents traditional forms of tourism and it is especially popular with Czech visitors. There are many navigable rivers in the Czech Republic. Its importance and exploitable intensity is not balanced. First, it is influenced by climate factors and second, by the overall recreational potential of the surrounding area. In addition, most of the rivers are not navigable through the whole year, but only in certain periods of the year when there is a sufficient amount of water.

On the basis of evaluation, nine rivers were selected in the territory of the Czech Republic. Their precisely specified and localized stretches correspond to the set parameters and methodology – Berounka, Otava, Lužnice, Sázava, Ohře, Orlice, Vltava, Morava, and Jizera rivers. The analyses show that the selection of these rivers and their stretches have not almost changed in the course of the last ten years.

The most attractive are the quiet stretches of the rivers which are situated in interesting and the least affected nature. In the selected stretches there are many centers of water tourism which are equipped with a necessary infrastructure. In case of the centers, these are not only the centers of water tourism. They often possess a number of cultural and historical attractions and therefore they represent a comprehensive center of tourism. They are illustrated in the Fig. 2.

Functional and spatial organization of tourism in the Czech Republic

A synthesis of partial analyses is depicted in the following map which represents the key types of tourism (and their functional typology), as well as their spatial organization and differentiation. The map clearly shows that in the Czech Republic the spatial organization is substantially influenced by natural and historical conditions of the area. From the time point of view, there are two contradictory processes. The first one is the strengthening of the position of Prague in the distribution of bed capacities in CR. The second one is an increase in the number of tourist centers, resp. the villages with the presence of accommodation establishments. (Vystoupil, J., Šauer, M., 2011; Vystoupil and Šauer, 2010)

In this context, several areas of the concentration of tourism in CR can be identified. The first ones are the Czech and Moravian cities which represent more than two fifths of bed capacities of CR. As far as the tourist attractiveness of CR is concerned, an important role is played by historic cities with a 68 % of share of bed capacities. The significance of historic cities in the spatial organization of tourism is considerably supported by the bed capacity of Prague and its position on the tourism market (61 % out of all historic cities). Without Prague, the position of towns is weaker (the share of bed capacity decreases to 30 % and in case of historic cities to 27 %).

The second area of concentration of tourism in CR are the mountains. There are 127,000 beds (24 % of beds) and the tourist centers about 80,000 beds (nearly 2/3 of bed capacity of the mountains). The position of mountain tourism in CR is stable. In the spatial organization there are not any fundamental changes; only the bed capacity grows in the mountain resorts.

Another phenomenon which influences the localization of tourism is the presence of water areas and rivers. The water segments are connected

with 12 % of bed capacity of the tourist centers. They are usually located in the rural landscape with very favorable preconditions for the development of tourism and they form an important part of the offer for this functional landscape type (32 %). The rest is developed through the rural and wine tourism, possibly it is performed in the centers with cultural and historical solitary segment.

The last significant type of tourism in the CR territory is spa tourism. In the spa resorts there is 12 % of bed capacity of the identified tourist centers. In addition to the point distribution across CR, two areas of spa concentration can be identified. One of them is the area of a *spa triangle* in Karlovy Vary region (Karlovy Vary, Mariánské Lázně, Františkovy Lázně, Konstantinovy Lázně) and the second is the area of the Jeseníky Mountains (Jeseník, Karlova Studánka, Losiny, Lipová-Lázně).

The findings from the analyses (detailed table and graphic materials) are important information

for the representatives of tourism policy at *regional* and especially at *national* level in the preparation of long-term strategic plans of public support of tourism (they should have a clear strategy, particularly what to support, how to support and also where to support). The basic requirement of effectiveness of public support is a clear and purposeful functional and spatial concentration of the support of investment activities and projects, especially of regional and supraregional importance. The proposed cartographic synthesis enables not only deeper knowledge (understanding) of this importance and internal tourism structure of the region and country, but also the fact where and what to concentrate for the support of tourism development (especially in the area of basic and accompanying infrastructure).

CONCLUSION

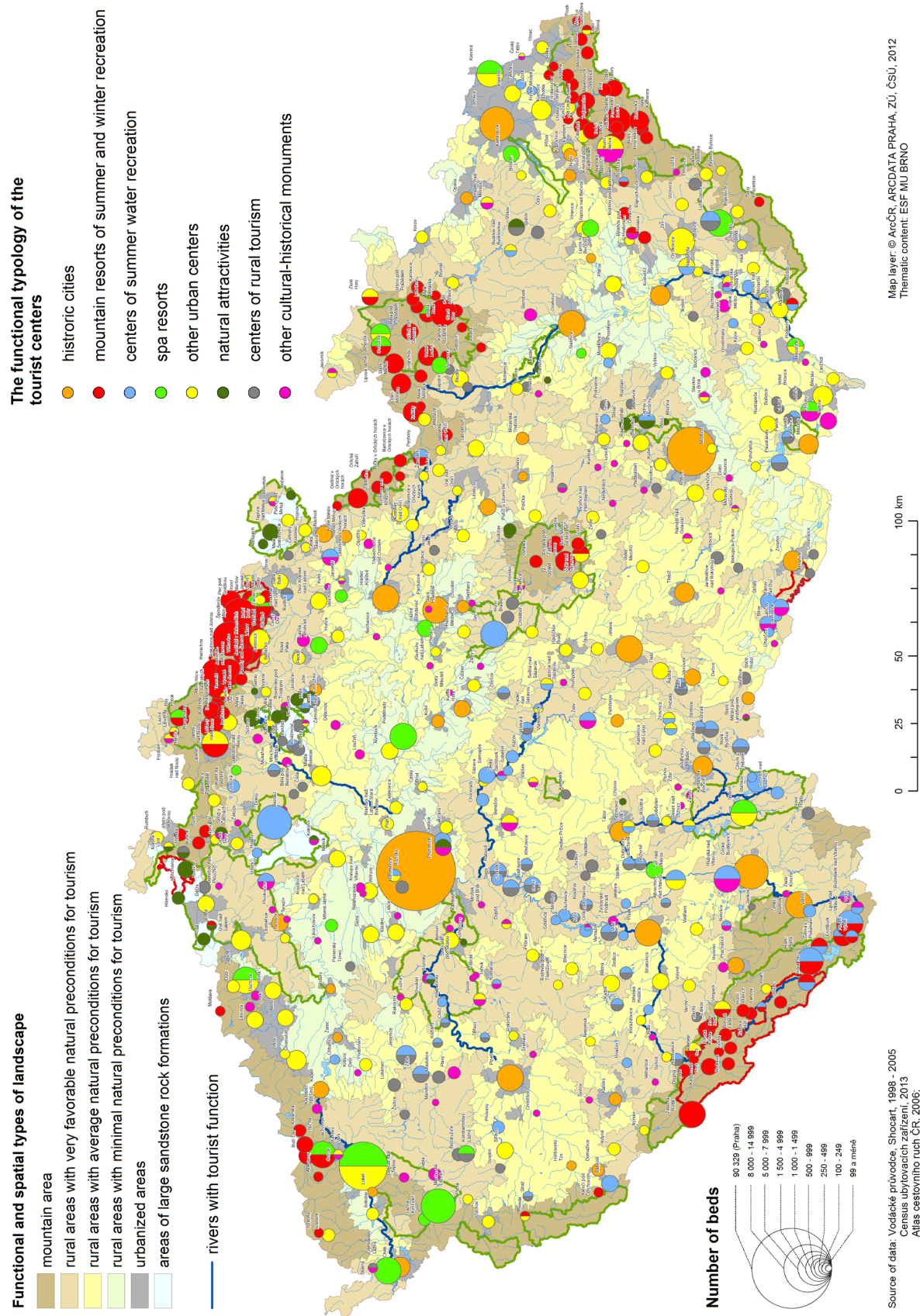
Tourism can be perceived as an internally connected system of individual offer segments which is in mutual interaction and preferences of visitors. The result is the functional and spatial organization of tourism which forms the conditions that promote social and economic development of the area. The nature of tourism requires a certain degree of coordination and regulation, and thus, an application of the conceptual approach which can enable (resp. support) a reasonable and sustainable development of tourist destinations. The proposed approach to the analyses and evaluation of conditions for the development of tourism in the area is based on this logic. This study shows how spatial and regional analysis of tourism can contribute to the decision-making processes of the representatives of tourism policy. The key is the evaluation of importance of the tourist centers and natural and cultural and historical conditions for the development of tourism.

In accordance with the aim of the article – which is to objectively measure the tourism potential in terms of its offer – the criteria for the evaluation of national, regional and local importance in tourism were set. Consequently, a comparative analysis was conducted, which focused on the tourism areas and centers with respect to their specialization (according to the main structural types of tourism). The purpose of these analyses was to highlight the basic features of functionally-spatial distribution of primary and secondary tourism potential of the country.

The results of the natural tourism potential evaluation (based on the above methodology) clearly demonstrated significant functional-spatial differentiation in the use of natural potential. For example, around 25,000 beds in CAE are concentrated in mountainous areas (17 % of the Czech Republic) and 20 % of the beds in CAE can be located in rural areas with very favorable natural preconditions (35 % of the territory). On the other hand, rural areas with minimal natural preconditions for tourism (10 % of total area) have only around 2 % of the beds in CAE.

Similarly, the results of evaluation of secondary tourism potential also showed significant functional-spatial differentiation of tourism in the country. Based on the analysis, 587 tourist centers of regional and national importance were identified, which represented 32 % of the municipalities with the presence of CAE. As much as 82 % of all beds (in CAE) and over 93 % of the total overnights were registered in these centers. Together with functionally-spatial typologies of tourism centers, the above mentioned results allow a better insight in the importance and the internal structure of tourism in the country. This kind of information is fundamental for the decision-making process in tourism policy. Since the primary and secondary potential is significantly spatially concentrated, government investments should focus only on the selected locations with the highest potential for tourism development. The presented quantitative analysis and cartographic synthesis recommend where and what to promote in Czech tourism (especially in the field of basic and supporting infrastructure).

In future with the help of the same methodology, changes in the spatial organization of tourism can be monitored, as well as the effects of the implemented tourism policy can be evaluated. The present proposal does not solve the developmental limits. Nowadays, the development of tourism in CR does not form an inadequate pressure on environmental and socio-cultural environment in most cases.



2: Functional and spatial organization of tourism in the Czech Republic

However, there is also a space for the implementation of the functional and spatial analyses. They can enable a search for new locations and forms of tourism which can contribute to timely spatial dispersion of visitor rate in tourist destinations. The functional and spatial distribution of tourism reveals relationships among the tourist centers, as well as relationships of the position of individual tourist targets in the spatial system of tourism. This knowledge can contribute to a more effective planning of tourism, resp. the implementation of suitable tools of tourism policy.

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