

# Basic touristic potentials and further tourism development in Sokobanja

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## Abstract

This research aims to present the specifics of Sokobanja regarding tourism development, as well as opportunities and prospects for better development. Also, the enrichment of the touristic offer of the spa resort with cultural contents, such as in this Sokobanja case, would lead to better placements on the tourist market and more positive economic results could be achieved. It is important to emphasise touristic potentials of Sokobanja as well as the possibilities for their further tourist exploitation to create better conditions for the development of tourism and the acceleration of economic effects in the tourist industry. The analysis of the current development of tourism in Sokobanja is of great importance, which can best be presented through a SWOT analysis of an area. Also, the task of the research in this paper is to look at the overall tourism potentials and opportunities for their exploitation, with the tendency to achieve a better position in the market. In the very research, several methods were used: comparative method, descriptive method, analysis.

## 1. Introduction

Tourism in Serbia has a long tradition. In some tourist destinations, tourism has continuity of over 150 years. Up to now, the main attention of development has been focused, in addition to mountain tourism, to spa tourism, as one of two characteristic motive forms of movement. This is, first of all, caused by the abundance of thermo-mineral springs which spas have at their disposal, but also by the diverse morphological structure of the scenery.

Serbia has a large number of spas. There are over 300 mineral, thermal and thermo-mineral springs. It is especially important that more and more emphasis should be placed on the complementary development of spa and mountain tourism in future development plans. Such a way of combining different motive forms of movement would significantly contribute to the content that could be offered to tourists.

Sokobanja has significant natural, but also anthropogenic tourist potentials. They contribute to the realisation of various forms of tourism. This spa provides opportunities for the

development of mountain, excursion, sports and recreational, eco-tourism and the like. A large number of activities which are practiced here can contribute to the establishment and maintenance of biological and psychological balance. There are also possibilities of running, hiking, swimming, rafting and more.

## 2. Touristic – Geographical Position

Sokobanja is located in the Balkan part of eastern Serbia, in one of the largest basins of this mountain-valley region. The basin was named after the largest settlement, Sokobanja – Sokobanja basin. The spa lies at 350 m above sea level (Marković, 1980). This spa is located in the basin, between the mountains Ozren (1,174 m) and Rtanj (1,560 m), on the left bank of the river Moravica. After the Second World War, Sokobanja became a touristic and a health centre of Serbia. With Vrnjačka and Niška Banja, Sokobanja is one of the three of our largest spa resorts (Janjić et al., 2007).

Sokobanja basin is located in the central part of Eastern Serbia. It is situated between 43° and 44° of northern latitude

and 21° and 22° of eastern longitude. A significant characteristic of its geographic position is the fact that it is, as for the regional geography, located in the system of large Carpathian-Balkan mountain range, whereas its smaller part in the west encroaches in the zone of old Rhodope mass (Ršumović, 1974). In a broader sense, this area belongs to the mountainous-basin-valley macro region, whereas it belongs to the meso-region of Eastern Serbia (Marković and Pavlović, 1995). Such a position of Sokobanja basin in Serbian geo-space defines its particular climatic conditions which indirectly influence the very process of agricultural production. (Pavlović et al., 2011).

The first steps in the development of Sokobanja tourism began on April 1, 1834, when Prince Miloš issued an order to adopt a plan for the construction of the first public bath. The year of 1835 was crucial when the famous German expert in mining Baron Sigismund August Wolfgang Herder sampled water from the Sokobanja spring. Due to its healing properties, the water was compared with the waters of Bad Gastein and Pfaefers (Nikolić and Stanković, 2008). The crucial event in the life of this spa was the establishment of the "Society for the Enhancement and Enrichment of Sokobanja and the Environment" in 1895, the initiator of which was the Serbian Metropolitan Mihailo (Stanković, 2009). Sokobanja from the past is known under different names: Banja, Banjica, Varoš-banja, Velika Banja, Aleksinačka Banja, Al Banja, Hajduk Veljkova Banja and Sokol Banja. The current name of the spa dates back to 1859. Even then, according to Felix Kanic, Sokobanja was a very special place because of the expected arrival of Prince Miloš to treatments, which led to the arrival of many well-known figures of Serbia at the time (Stanković, 2009). The ancient Roman people knew about Sokobanja medicinal springs. The proof that they used them is a part of the large pool wall, with fragments of antique bricks. Sokobanja thermal and mineral springs were also used by the Turks. They expanded the old pool and built several more bathing facilities. Since 1895, the "Association for Enhancing and Enriching the Spa under Ozren" was founded with the patriotic goal of stopping the money from going to foreign countries (Marković, 1980).

### 3. Natural Touristic Qualities of Sokobanja

#### 3.1 Geomorphological touristic characteristics

The basic traits in the morphology of this area comprise the Sokobanja basin, and a mountains range along its periphery. We can distinguish three different parts of the whole: the valley, the hills and the mountain belt (Dakić, 1967).

The Sokobanja basin is a clearly rounded spatial unit, surrounded by mountain ranges on all sides: Rtanj in the north, Slemen and Krstatac in the east, Devica, Ozren and Leskovik in the south. There are the mountains Oštrikovac, Baljevin and Rožanj on the west end of the basin (Cvijić, 1912).

Rtanj, as an isolated mountain massif, has a vast base, oriented to the sides of the world. One side faces south, while the other two are in the northwest and northeast positions. Focusing on the dominant peaks of this mountain, Šiljak, as the central pyramid, and Kusak, as a rounded conical end of the rounded ridge and the Baba peak, as an ellipsoidal, stepped-mountainous form, we can see that the position of their peaks forms an equilateral triangle with another point. In the centre of the triangle is the Šiljak, under which lies a three-sided pyramid with the same orientation to the sides of the world as its triangular base. The edges of this three-sided pyramid, with its angle-to-sides ratio, place this mountain in the category of the Seven Wonders of the World, as a masterpiece of nature.

Located on the southeast side of the highest peak of Rtanj, the Ledenica Cave is a significant tourist attraction and a kind of curiosity. The entrance to the pit is at the bottom of a shallow sinkhole, about 20 m wide in diameter. The length of the pit is 50 m, the entrance gradually narrows, eventually entering a spacious hall, 15 m wide and 10 m high. The bottom of the hall is flat, covered with clay and stone blocks. The internal temperature of the Ledenica is quite uniform, ranging from -2°C (in summer) to -4°C (in winter) (Nađfeji S., 2009).

Ozren is a mountain in southeastern Serbia, with its highest peak being Leskovik (1,178 m). It lies between Niš and Aleksinac. Sokobanja and the medieval Sokograd are near this mountain. This mountain consists of several tourist attractions, which make it possible to complement the development of mountain and spa tourism. In the first place, it is a well-known climate resort rich with ozone. Ozren is one of the most densely forested mountains in Serbia. There are two hospitals on this mountain (for the treatment of lung and eye diseases). It is suitable for the development of health and recreational tourism but also the development of excursion tourism, as evidenced by other motifs. Here is also the waterfall Ripaljka (17 m) on the river Gradašnica. In addition to its natural tourist values, this mountain has rich anthropogenic tourist motifs, such as the Jermenčić Monastery (from the 14th century).

The Sokobanja basin represents a typical tectonic basin, formed in the Tertiary Period by lowering the terrain along several faults. The basin consists of the Sokobanja and

Dugopolje enlargements separated by the Sokograd Gorge. The mountain pass and the Skrobnik Gorge connect it with the Knjaževac basin (in the east), and the connection with the Aleksinac valley and Pomoravlje (in the west) is provided by the Moravica Bovan Gorge (Jovanović, 1923).

In the limestone region of the Sokobanja basin, there are numerous caves, sinkholes and ice-holes. Known, but insufficiently valorized are the Seselačka and Rujiška caves, then two passable Milušinačka caves and Čitlučka cave, 107 m long. On the south side of the Rtanj Mountain, in one big sinkhole, there is an ice-cave, the so-called. "The Evil Hole." Its depth is about 57 m and is filled with ice throughout the year. Another significant, but insufficiently investigated ice-hole is the so-called. "Vlaška Pećura", at the foot of the Golem Peak, on Devica. One should not ignore an attractive cave – a bridge cave on the river Zarvina, as well as a unique, legally protected window-like opening called "The Doors of God" (Jovanović, 1923).

### 3.2 Climate touristic characteristics

"The collection of climatological data for spa and climatic sites can be done in two ways: Firstly, the results of meteorological measurements and observations from the existing network of meteorological stations should be used. Second, by installing special bioclimatic stations in spa-climatic sites" (Mörikofer, 1955). Spatial-functional complementarity of balneological and climatic qualities is at work in Sokobanja, which is the basis for the development of tourist-recreational, health-preventive and healing functions (Radović and Marić, 1997). In a well-known discussion on "Sokobanja Climate", from the point of view of climate therapy, it was emphasised that Sokobanja "is similar not only in temperature but also in many other climatic details, with the well-known climatic site Hornberg, near Schwarzwald" (Radoković, 1907).

Sokobanja is characterized by moderate-continental climate. Summers are not too hot, and winters are mild. Autumn is warmer than spring. Relative air humidity is 75% (Dunić, 1936). The average annual cloudiness in Sokobanja is 57%, which means that insolation decreases in this relationship, which is an important element of recovery. Cloudiness is not evenly distributed. Rain is rare, and there are 25 days a year with snow. The small representation of extremely high temperatures, relatively small daily temperature amplitudes, the constant vertical flow of air from the surrounding mountains, as well as the increased presence of ozone in the air, especially after the splash of rain, make this spa very pleasant (Radović and Marić, 1997). Sokobanja is one of the

largest balneological centres in Serbia, which is best evidenced by the healing properties of the spring water (Romelič, 2008). The air temperature in the territory of Sokobanja is conditioned by the air currents of the Moravska and Timočka basin, the position of mountains, vegetation, water surfaces, etc. The mean annual temperature in this area is 10.2°C (Đukanović, 1960).

The gridded data for this purpose is sorted between 12 series. The first grid belongs to January and presents the average value of data for each January, the twelfth belongs to average data from December, for each December. All grids were presented with normal dispersion of meteorological data. The climatological data is in the resolution of 30 m or 1 km<sup>2</sup> (Fick and Hijmans, 2017; Valjarević et al., 2018). From the official page of climate data with included IPCC reports we were downloaded gridded data of climate properties for the all territory of Serbia (<http://worldclim.org/version2>). After that, we included coordinates of the meteorological station of Sokobanja on a grid.

**Table 1.** Average annual air temperature in the territory of Sokobanja municipality, for the period 1988-2018.

Year	Temp (°C)	Year	Temp (°C)	Year	Temp (°C)
1988	10.5	1999	11.5	2009	10.8
1989	10.6	2000	12.3	2010	9.6
1990	11.3	2001	11.7	2011	9.4
1991	9.8	2002	11.6	2012	10.4
1992	11.2	2003	10.7	2013	10.2
1993	10.3	2004	10.6	2014	10.3
1994	12.0	2005	10.1	2015	10.7
1995	10.6	2006	10.6	2016	11.1
1996	10.0	2007	10.1	2017	11.2
1997	10.1	2008	9.9	2018	11.3
1998	11.2				

Source – Valjarevic et al., 2018.

In the observed period it can be concluded that in 2000 was recorded the highest average annual air temperature (12.3°C), while in 2011 was the lowest average annual air temperature (9.4°C). Based on the table (Table 1) it should be noted that the average annual air temperature is very favorable for tourism development in Sokobanja.

The coldest month is January (-1.2°C), and the hottest is July (19.5°C). Precipitation is usually caused by western winds. They are more abundant in the surrounding mountains than in the basin itself. There are no real rainy days, while dry periods have been more frequent in the recent years. The average annual precipitation amounts to 667 mm (Đukanović, 1960). Insolation is expressed in the number of hours of sunshine during a day. The average annual sunshine in the Sokobanja area is 1,861 hours, with the maximum in July (267) and the minimum in December (48) (Stanković,

1989). Fog also plays an important role in the development of tourism. Annually in Sokobanja, there is an average of 77 foggy days, with great fluctuations, which is explained by the influence of Bovan Lake (Dunić, 1936). The Sokobanja basin is surrounded by mountains on all sides. The layout of the mountains is such that there are intense currents to the basin from the south-west, south, east and southeast, while the northern, northwestern, northeastern and western winds are less frequent. The strongest wind of this region is Košava (a cold, very squally southeastern wind found in Serbia and some nearby countries), while the air pressure does not have any sudden and strong changes and stays around 736 mb (Đukanović, 1960).

### 3.3 Hydrographic tourist characteristics

Sokobanja is characterised by a diverse hydrographic network. Springs of hot and cold mineral water are fundamental qualities and a starting point for its touristic development. There are numerous hydrographic objects that independently or complementarily contribute to the overall attractiveness of the wider spa area, as well as the tourist-recreational and health function of the spa. The springs of thermo-mineral water, wells, lakes and rivers stand out (Radović and Marić, 1997). Thermo-mineral springs most often appear at the foot of mountains, that is, along the edges of the basin, but there are many in valleys because they are most often predisposed by faults (Mačejka, 1985).

The main river flow in the Sokobanja basin is Moravica. Cutting its riverbed in the southern edge of the basin, after the withdrawal of the neogene lake, it formed a distinct asymmetric river basin. From its start to the mouth to the South Morava (near Aleksinac), Moravica is 45 km long. Its upper part is famous for its numerous rapids and giant pots, which locals call "barrels" and there are numerous beaches: "Gentleman", "Six Barrels", "Čoka", etc. Tourists, who like to walk along the path above the Moravica bed, can enjoy the Sokograd Gorge (in the upper part) and Bovan Gorge (in the lower course of the river) (Stanković, 2000).

The following attractive hydrological facilities are distinguished:

#### *Moravica Springs*

*Waterfall Ripaljka* is located on Ozren, on the river Gradašnica. Ripaljka is the highest among them, with the height of 17 m. This waterfall is the first natural monument in Serbia, protected by law since 1948.

*Bovan Lake*, built in the system of regulation of the Morava river basin and the hydroelectric power plant "Djerdap". It is 8 km long, about 400 m wide and about 50 m deep. At its 33rd

km, Moravica enters the Bovan Gorge, building an artificial reservoir, Bovan.

*Vrmdža Lake* is located close to the village of the same name, at the southern foot of Rtanj (Stanković, 2000).

Thermomineral springs have the greatest significance. They appear along the Moravica flow, in the bordering zone of the complex Ozren fold belt and Devica anticline, that is, on the route of the great Sokobanja fault. Sokobanja springs belong to the group of mineral and thermal waters. They are characterized by increased mineralization and radioactivity, which gives them a special balneological significance (Protić, 1995).

On the basis of the hydrogeological division, the Sokobanja Thermo-Mineral Springs belong to the Carpathian-Balkanides, and in the tourist-geographical view they are classified into the East-Serbian Spa Zone (Stanković, 2000). Based on the temperature, most of these waters belong to the group of thermal waters (20-25°C), while only a smaller number belongs to the group of homeothermic or hypothermic waters (Filipović, 2003). Warm spring water comes from a depth of about 1,000 m and springs along the faults, at the contact of clays, marlstone, conglomerates and limestone. Cold springs with a temperature of 16°C emerge from shallow layers (Vujanović and Teofilović, 1983).

The oldest expert data, related to the analysis of thermo-mineral springs of Sokobanja, come from the Baron Sigmund von Heder, the mining captain of the Austrian army, who came to Serbia in 1835 to examine ores, minerals and mineral waters. He states that there are three groups of warm springs in Sokobanja:

1. hypothermia springs (20-34°C), such springs are "Banjica I" and "Banjica II" and the spring "Pijaca"
2. homeothermal springs (34-38°C)
3. hyperthermal springs (above 38°C), such springs are "Park" and the spring "Transfiguration"

The chemical analysis of Marko Leko shows that the Sokobanja thermal springs are similar and with the exception is silver and strontium to a certain extent. When comparing the chemical composition of hot springs with the spring of cold water from the "Zdravljak" fountain, significant deviations are observed in the content of silver in the cold spring, then chromium, iron, titanium and vanadium. Interestingly, the cold water "Zdravljak" contains molybdenum, copper, nickel, lithium and rubidium, as well as a large amount of potassium, which is much higher than in warm springs (Leko, 1922).

### 3.4 Biogeographical tourist characteristics

An exceptional advantage for the development of tourism (especially recreational) in the Sokobanja area is the diverse biogeographical tourist qualities. The ambience, recreational and landscape quality of this area is increased by rich mountain vegetation, which covers the entire Sokobanja basin. Large areas of deciduous and coniferous forests, meadows and pastures, regulated parks and resorts allow for long, and light walks along marked paths, through unspoiled nature or biking around mountainous terrain. Regulated parks in Sokobanja and in the immediate surroundings contribute greatly to the psycho-physical recovery of tourists. Famous parks are Central City Park, park "Banjica", park on Vrelo (Borići), park "Čuka I" and "Čuka II" (Marjanović, 2017). Special biogeographical quality of Sokobanja lies in wild medicinal herbs. This region has been known for medicinal herbs since ancient times (Rtanj tea, thyme, St John's wort). The research has identified 200 species. Medicinal plants have multiple touristic qualities, both for the area of Sokobanja (health function, the aesthetic attractiveness of the area), as well as for the activity of tourists (picking medicinal herbs in an environmentally preserved area). Harvesting of medicinal herbs and the collection of forest fruits are specific and insufficiently utilised tourist and recreational opportunities for enriching the tourist stay or even the primary motive for certain segments of demand (Radović and Marić, 1997).

In addition to the mentioned qualities of the flora of the Sokobanja region, it should be pointed out that diverse fauna is a significant biogeographical feature of this spa. White Falcon is a true rarity because, except in Italy and the Sokograd Gorge, it cannot be seen anywhere else in Europe anymore (Mišić, 1982). The importance of this space is also reflected in numerous habitats of wild hunting game (wolf, deer, wild boar, fox) and wildlife poultry (pheasant, partridge, wild bird, wild duck). Fishing is also important for tourism and the development of fishing tourism, and apart from the Moravica River, it is also contributed by Bovan Lake, located near Sokobanja (Jovanović and Radivojević, 2006).

### 4. Anthropogenic Touristic Characteristics of Sokobanja

According to the attractiveness of the impact, the anthropogenic tourist qualities are complementary and contribute to the enrichment of the content of the stay of tourists. Based on the tourist qualities, the possibilities of valorisation and forms of occurrence, they can be divided into cultural-historical monuments and cultural-tourist manifestations (Jovanović and Radivojević, 2006).

The most attractive anthropogenic tourist motifs which are valuable cultural and historical monuments are:

Sokograd is located in an ecologically preserved ambience of an attractive picnic site Lepterija in the gorge of the river Moravica. The fort was built during the period of the conquest of these territories by the Romans (1st century BC). Sokograd represents a cultural monument of national importance. The viewpoint from the towers of this ancient city allows seeing particular visual qualities of this area (Jovanović and Radivojević, 2006).

The remnants of the Antique period in Sokobanja are numerous. The most important are: Tetomir Town, Rujevica, Trubarevac Gradište, Latin City and Lipov Trap.

The Turkish bath "Amam" is located in the central spa park with a bath which was used by Prince Miloš Obrenović. The bath is from the period of the Romans, as evidenced by material traces – fragments of ancient bricks. The bathroom has been renovated several times to keep its historical value, tourist appeal and its health-recreational functionality.

Monastery Saint Archangel (known as "Jermenčić") is 8 km away from Sokobanja. It is located on the northern slope of Ozren, at about 850 m above sea level, in a natural and picturesque setting, surrounded by beech forest. Near the monastery, there is a large number of springs, two of which were captured by Hajduk Veljko. There are various folk tales about the origin of this monastery. The memorial fountain next to the monastery was built in 1874 and the bell tower in 1875. The monastery was restored during the First Serbian Uprising, at the order of Karađorđe. The last reconstruction was in 1992. Every year on July 26, on the day of St Archangel, there is a traditional fair held there (Petrović, 2004).

The building "Milošev konak" was built for the needs of the administration of the Principality of Serbia. It was adapted, and it is a catering facility now, which is directly included in the tourist offer of Sokobanja.

The Church of the Transfiguration of the Lord was built in 1892 beside the remains of the old church, which was built by King Milutin. The church has a gospel from 1836, with the original signature of Prince Miloš, and has an archive from 1835.

The memorial fountain of Miloš Obrenović is located at the entrance to Sokobanja, next to the archaeological site Trebič. It was built in 1860. Although it was renewed several times, it retained its authentic appearance.

The monument to the fallen soldiers in the wars from 1912 to 1919 is located within the central city promenade, not far from the "Amam" bath.

During the summer tourist season in Sokobanja, numerous manifestations are organised within the Banja Cultural Summer, which complement the content of the stay of tourists. The level of attractiveness and appeal to tourists is especially high for the following manifestations: The First Accordion of Serbia, Golden Hands – the fair of national handicraft, customs, forgotten national dishes (the manifestation has a local tourist attraction contractive zone), then St. Jovan Biljober (manifestation, organizing picking of medicinal herbs on the slopes of the mountain Rtanj). St. Jovan Biljober manifestation has gained significance in recent years, and its contraction zone is expanding (Radivojević, 2005).

**5. Touristic Turnover**

The spa tourism of Serbia has two critical characteristics: relatively long stay and seasonality. It is a period when 45% of arrivals and 55% of overnight stays are realized. According to its seasonality, Sokobanja belongs to the category of centres where, apart from the summer season, the winter season

is also important (September-April), when more than 20% of annual turnover takes place (Jovičić, 2008).

**5.1 Trends in the tourist market Sokobanja**

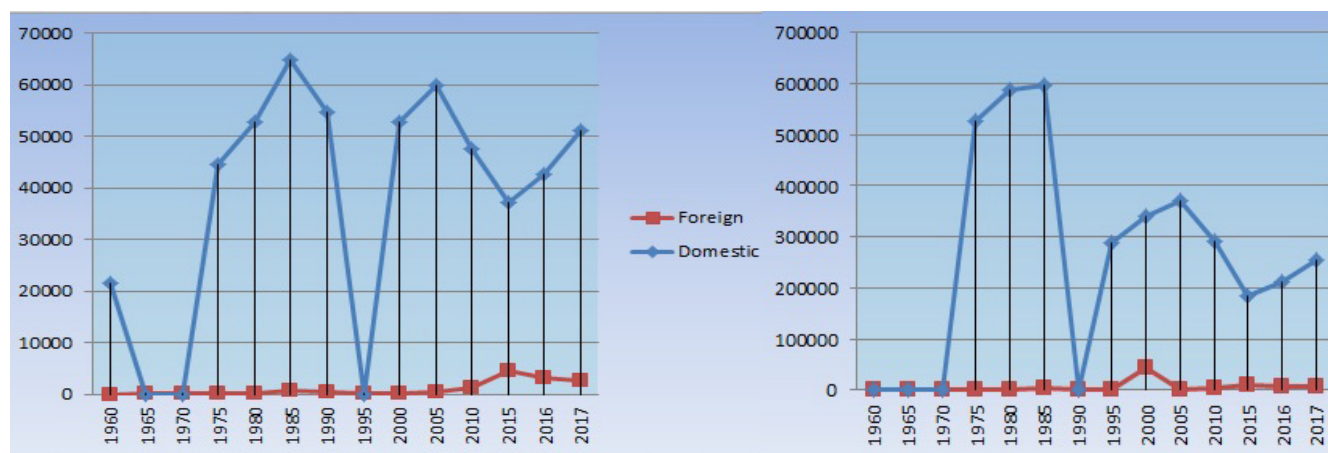
In the period 1955-1970, Sokobanja tourism had significant oscillations. Until 1959, the number of guests did not exceed 10,000. In the early 1960s, the number of guests grew from 14,009 to 34,146 (1970). At the beginning of the 1970s, the trend of growth continued, with 1970, 1971, 1972, and 1973 when the number of guests exceeded 30,000, In the next three years it was 40,000, and in 1977, 1978, and 1980, 50,000. The most successful year was 1979, with the record of 64,834 arrivals. Almost the entire turnover is made up of domestic guests, and the number of foreign guests is minor (Denda, 2015).

In the eighties, spa tourism in this area reached its peak. The high level of tourist visits was the result of the already formed positive image of Sokobanja, as well as favourable socioeconomic circumstances and an increase in the living

**Table 2.** – Tourist arrivals and overnights in Sokobanja in the period 1960-2017.

Year	Arrivals			Overnight stays		
	Domestic	Foreign	Total	Domestic	Foreign	Total
1955	5,732	-	5,732	81,219	-	81,219
1960	21,609	7	21,616	386,860	58	386,918
1965	19,460	192	19,652	241,000	469	241,469
1970	34,000	146	34,146	367,200	800	368,000
1975	44,642	189	44,831	527,116	937	528,053
1980	52,869	256	53,125	587,828	995	588,823
1985	64,848	893	65,741	597,111	4,161	601,272
1990	54,812	487	55,299	482,520	2,256	484,776
1995	40,340	143	40,483	289,016	418	289,434
2000	52,895	281	53,176	339,115	1,040	340,155
2005	59,911	630	60,541	369,581	1,852	371,433
2010	47,572	1,265	48,837	290,575	4,523	295,098
2015	37,154	4,522	41,676	184,022	10,874	194,896
2016	42,725	3,193	45,918	212,213	7,011	219,224
2017	51,268	2,647	53,915	255,150	6,780	261,930

Source – Data from the Statistical Office of the Republic of Serbia



Average number of tourists in Sokobanja, 1960-2017

The average number of overnight stays in Sokobanja, 1960-2017

standard of the population. The most important accommodation facilities in Sokobanja were built at that time. The best results were achieved in 1987 when the spa was visited by 96,771 guests (mostly in the period 1955-2016). The first negative tendencies were recorded at the beginning of the 1990s, with the peak in 1993, when only 28,837 guests stayed in the resort, which is 29.8% of the arrivals in 1987 (Denda, 2015). In the period 2000-2016, the situation changed, as a continuous decline in 2008 was recorded. During 2010 and 2012, the number of tourists was minimal (around 49,000). The rule is that there is a continuous decline in the number of domestic visitors, and the number of foreign visitors is growing slightly (2013 – 1,588, 2014 – 2,756, 2015 – 4,522, 2016 – 3,193, 2017 – 2,647).

As for the number of overnight stays, by 1961, the number of overnight stays steadily increased from 81,219 (1955) to 386,918 (1960). In the period 1964-1970, 200,000-300,000 nights were realized. During 1967, the largest number of overnight stays of foreign guests was recorded (1,317), which was only surpassed in 1979. At the beginning of the 1970s, an intensive trend of increase in the number of overnight stays continued, ranging around 400,000, and in 1975 it reached as many as 528,000. It is disturbing that the number of foreign overnight stays decreased and did not exceed the threshold of 1,000 overnight stays per year. An upward trend characterized the end of the 70's and the 80's. During 1986, a record number of overnight stays was recorded (818,556). Compared to 1985, it was an increase of about 220,000 overnights or 36.1% (Denda, 2014). In 1982, the largest number of foreign overnight stays were recorded (15,327). Since the 1990s, the total number of overnight stays steadily declined, reaching a minimum of 208,260 (1993). Nevertheless, the number of nights spent by foreign guests did not fall to such a pace; it even reached an increase in 1990. The historical minimum was recorded in 1994 (only 145 nights). Since 1995, we cannot speak about a significant number of overnight stays. In the period until 2010, the number of overnight stays did not exceed 400,000, except in 2007, when 409,000 overnight stays were recorded. Since 2010, the total number of overnight stays ranges between 200,000 and 300,000 per year (Denda, 2014). A positive indicator is the continuous increase in the number of foreign overnight stays until 2015 – 2010 (4,523), 2013 (5,327), 2014 (10,697), 2015 (10,874). Over the next two years there is a decline in the number of foreign overnight stays – 2016 (7,011), 2017 (6,780).

## 6. SWOT analysis of further tourism development in Sokobanja

SWOT or TOWS is an acronym for the initial letters of the English words: Strengths, Weakness, Opportunities, Threats. The purpose of this analysis is to help identify present and future opportunities, as well as surrounding threats (external factors), on the one hand, and strengths and weaknesses that can threaten the development of programs and projects (internal factors), on the other. The basic idea behind SWOT analysis is to enable such developmental behaviour in the tourism, which will ensure maximum use of strengths and opportunities, on the one hand, and minimize threats and weaknesses to such development, on the other (Stefanovic, 2010).

## 7. Conclusion

To position Sokobanja as highly ranked at the tourism market in the future, it is necessary to take some necessary measures and activities. More effort should be invested in improving infrastructure (quality of accommodation, traffic and communal infrastructure, etc.). Then, it is necessary to enrich the tourist offer of this spa with cultural contents, but also to work on the promotion of Sokobanja on the international market. To increase the number of visitors, especially foreign ones, it is necessary to invest in accommodation capacities, which means replacement of obsolete capacities with new ones. Construction of modern wellness and spa centres is also significant.

The complementary development of mountain and spa tourism in Serbia, which is well designed, synchronized, and planned in the long term, should be viewed in accordance with the functional division of the mountains, conditioned by the basic attractions and opportunities for certain types of tourist movements.

It is very important to emphasise the complementary development of mountain and spa tourism, as the two most important motivational factors for tourists. Considering that this spa is surrounded by mountains, the development of those forms of tourist turnover should be promoted, which are in line with the concept of sustainable tourism development (eco-tourism, rural tourism, sports and recreational tourism). The work on the awakening of ecological awareness among tourists has and will have a leading role in the future.

We should not neglect the economic effects of the future development of the spa. Local self-government activities have to be on a much higher level, which means that local self-government, and therefore the tourism industry, must

invest much more in the construction of new infrastructure in Sokobanja.

## References

- Blagajac M. (1995). "Spa and Climate Places of Yugoslavia" – Sports Recreation and Sports Programs – Part of Contemporary Tourism Offer of Spa and Climatic Areas of Yugoslavia, Monograph, Association of Engineers and Technicians of Serbia, Belgrade
- Valjarević A., Djekić T., Stevanović V., Ivanović R., Jandžiković B. (2018). GIS Numerical and remote sensing analyses of forest changes in the Toplica region for the period of 1953-2013. *Applied Geography* 92, 131-139.
- Vujanović V., Teofilović M. (1983). "Spa and Mineral Waters of Serbia", Belgrade
- Dakić B. (1967). Sokobanja Basin, economic-geographic study, Geographical Institute "Jovan Cvijić", special editions, book 19, Belgrade
- Dunić M. (1936). "Sokobanja, a radioactive spa, climatic place, mountain resort", Belgrade
- Denda S. (2014). "Touristic Review of Sokobanja", University of Belgrade, Faculty of Geography, Belgrade
- Denda S. (2015). "Tourist Visits in Sokobanja 1897-2014", Collection of Works of Young Researchers of the 4th Congress of Serbian Geographers with international participation, University of Belgrade, Faculty of Geography, Belgrade
- Denda S., Stojanović J. (2017). "The position of Sokobanja on the tourist market of Serbia", original scientific paper, *Business economics*, No. 1, p. 253-271
- Đukanović D. (1960). "Microclimate testing in Sokobanja", Institute of Medical Hydrology, Belgrade
- Janjić M., Komatina M., Nikić Z., Timotić B., Nešić D., Knežević T., Stanojević S., Anđelski H., Bogunović N., Kerkez Ž. (2007). "Medicinal Waters and Spas of Serbia", Belgrade
- Jovanović P. (1923). "Spas, Settlements and the Origin of the Population", The Newsletter of the Serbian Geographical Society, book 17, Belgrade
- Jovičić D. (2008). "The situation and perspectives of the development of spa tourism in Serbia", The Newsletter of the Serbian Geographical Society, vol. 88 (4), p. 3-18, Belgrade
- Leko M. (1922). "Medicinal waters and climatic sites in the Kingdom of SCS", Belgrade
- Marković J. (1980). "Spas of Yugoslavia", Belgrade
- Maćejka M. (1985). "Climate of Serbia Spas", Faculty of Geography, University of Belgrade, Belgrade
- Mišić V. (1982). "Forest vegetation of gorges and canyons of Eastern Serbia", Institute for Biological Research, Belgrade
- Omerović J. (2014). "Touristic Turnover as an Inevitable Component of Tourism Development of Tuzla", Collection of Works of the Department of Geography, Tourism and Hotel Management, PMF, University of Novi Sad, vol. 43 (2), p. 174-184, Novi Sad
- Pavlović M., Radivojević A., Dimitrijević Lj. (2011). "Climate of Sokobanja basin and its influence on the development of agriculture", Collection of Works of the Geographical Institute Jovan Cvijić, SASA, p. 11-27, Belgrade
- Protić D. (1995). "Thermal waters of Serbia", Faculty of Mining and Geology in Belgrade, Belgrade
- Radivojević A., Jovanović J. (2006). "Tourist-geographical Presentation of Sokobanja", The Newsletter of the Serbian Geographical Society, Belgrade
- Radović M., Marić R. (1997). "Sokobanja – basics and concept of sustainable tourism development", Belgrade
- Romelić J. (2008). "Tourist regions of Serbia", Faculty of Sciences, University of Novi Sad, Department of Geography, Tourism and Hotel Management, Novi Sad
- Ršumović R. (1974). "Geographical Regionalization of East Serbia", Collection of Works of the Geographical Institute Jovan Cvijić, SASA, book 25, Belgrade
- Stanković S. (2000). "Tourism in Serbia", Faculty of Geography, University of Belgrade, Belgrade
- Stanković S. (2009). "Spas of Serbia", The Institute for Textbooks, Belgrade
- Statistical Office of the Republic of Serbia, Municipalities and Regions 1955-2018
- Stefanović V. (2010). "Tourism management", Faculty of Sciences and Mathematics, University of Nis
- Sustainable Development Strategy of Sokobanja Municipality 2015-2025, (2015), Sokobanja
- Filipović B. (2003). "Mineral, thermal and thermo-mineral waters of Serbia", Institute of Hydrogeology, Faculty of Mining and Geology in Belgrade, Belgrade
- Fick, S.E. and R.J. Hijmans (2017). Worldclim 2: New 1-km spatial resolution climate surfaces for global land areas. *International Journal of Climatology*
- Cvijić J. (1912). "Rtanj", The Newsletter of the Serbian Geographical Society, vol. 2, Belgrade
- <http://www.sokobanja.com/zanimljivosti/iz-sokobanje/planina-rtanj>