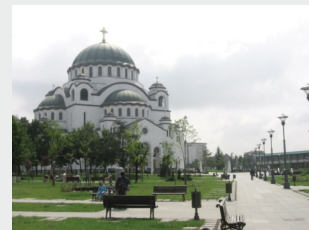




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3rd International Conference
Higher Education in Function of
Sustainable Development
of Tourism in Serbia and Western Balkans



3rd International Conference Higher Education in Function of
Sustainable Development of Tourism in Serbia and Western Balkans

CONFERENCE PROCEEDINGS

within
9th International Conference
Science and Higher Education in Function
of Sustainable Development - SED 2016.



SED 2016

ISBN: 978-86-83573-81-3



SED 2016



Editors:
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Third International Conference
*Higher Education in Function of Sustainable Development of Tourism
in Serbia and Western Balkans*

within

9th International Conference
“Science and Higher Education in Function of Sustainable Development – SED 2015”

PAPER PROCEEDINGS

September 2016, Užice, Serbia



3rd International Conference: "*Higher education in function of development of
tourism in Serbia and Western Balkans*"

Page i



MODERNIZATION AND
HARMONIZATION OF TOURISM
STUDY PROGRAMMES IN SERBIA

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Co-funded by the
Tempus Programme
of the European Union

Publisher

Business and Technical College of Vocational Studies, Užice
34 St. Sava' Square
31 000 Užice, Serbia
www.vpts.edu.rs

For publisher

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Design

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Printed by

“GRAFOPLAST PLUS”, Užice

Circulation

250

ISBN 978-86-83573-84-4





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PREFACE

The Third International Conference “Higher Education in Function of Development of Tourism in Serbia and Western Balkans”, that will be held within the SED 2016 Conference, is one of the results of the TEMPUS project No. 544543-TEMPUS-1-2013-1-RS-TEMPUS-JPCR entitled “Modernization and Harmonization of Tourism Study Programs in Serbia” (MHTSPS), implemented by:

- Business and Technical College of Vocational Studies, Uzice, Serbia, lead partner,
- University of Kragujevac, Faculty of Hotel Management and Tourism, Vrnjaska Banja, Serbia,
- Business College of Vocational Studies, Leskovac, Serbia,
- Regional Chamber of Commerce, Uzice, Serbia,
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- Tourism Organization of Western Serbia, Uzice, Serbia,
- Tourism Organization of Leskovac, Leskovac, Serbia,
- University of Greenwich, London, United Kingdom
- Technological Education Institute of Piraeus, Athens, Greece, and
- University of Agricultural Sciences and Veterinary Medicine, Cluj-Napoca, Romania.

Project is funded by the European Union, while EACEA - Brussels, and Tempus Office - Belgrade, provided a great help in its implementation through valuable suggestions that enabled achievement of desired quality level of both implementation process and project results. Work plan of this TEMPUS project has envisaged organization of three International conferences, with the objective of successful dissemination of project results.



The aim of this International Conference is that scientists and experts in the field consider and clarify the role of higher education in the development of tourism in the Western Balkans and Serbia. Beside the researchers from partner institutions participating in the MHTSPS project, the representatives of eight European countries took part in the Conference work. Participation of talented students is of special importance and will contribute to the sustainability and dissemination of the project and its results. 5

This Conference resulted in two Paper Proceedings. Conference Proceedings encompass articles of scientists and experts in the field, while the Students Papers Proceedings is a collection of student papers. All the papers have been reviewed, and authors themselves bear the full responsibility for the quality of papers and translation.

Užice, September 2016

Editors



PROTECTED NATURAL ASSETS AS A TOURIST OFFER OF BELGRADE

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Abstract: *Protected natural assets have a significant role in urban areas. Daily influence of anthropogenic factors reduces the environmental quality of the cities. The social awareness of nature conservation for the present and future generations is becoming more developed. Therefore, the green zones are significant on the one hand for the daily functioning of the population, and on the other hand as part of the tourist offer. The aim of this paper is inventarization and valorization of protected natural assets in the City of Belgrade, in order to create integrated tourist offer. We used the available domestic and international literature dealing with the issue of tourism development in urban areas, as well as existing spatial planning legislation. The results showed that, with adequate management, natural resources in urban areas could sustain the ecological function, but also could develop additional, such as tourism function. This paper analysis will help the organization of tourism activities by relevant state institutions.*

Key words: *natural assets, Belgrade, protection, valorization, tourist offer*

1. INTRODUCTION

When we consider nature protection, it refers mostly to remote and large areas with small population density and well-preserved ecosystems. Less attention has been given to the conservation of the urban areas. A first systematic urban ecological research has been conducted about 60 years ago. It has the longest tradition in Central Europe and the United Kingdom. From Europe interest for this type of researches were spread around the world (Breuste, J., 2008).

Today humanity is faced with rapid growth of urban population. In urban areas lives 54 per cent of world's population and according to existing projections, it will increase up to 66 per cent by 2050. The highest growth is expected in India, China and Nigeria (37%). Between 1950 and 2014 the urban population has grown from 746 million to 3.9 billion. Together with the increase of the urban population, it is expected that after 2020 rural population will decline. This data shows that only sustainable urbanization could lead to successful development of all urban areas (United Nations, 2014). A man with its activities puts the pressure on the environment, so the modification of landscape structures and functions is obvious, especially in the urban areas. Five major types of global environmental changes are present – climate changes, land use/cover changes,



biogeochemical cycles and biodiversity (Grimm, N. B., 2008), so conservation of autochthonous ecosystems depend on anthropogenic interventions. In most cases, protective measures are applied when degradation of ecosystem has already occurred. Urban landscapes represent mosaics of autochthonous covers (geological, hydrological, vegetation), modified by urban population's actions and land consumptions (Đurđić, S., 2011). Due to population growth, increasing rates of land consumption and global threats to biodiversity, protection of natural assets became crucial for preserving urban environment (Bryant, M. M. 2006).

The social awareness for environment protection is becoming more developed. Many conferences and summits dedicated to conservation of the nature are organized in the previous period, but there isn't uniformed terminology which should enable comparison in global context. Similar situation we can find in Serbia. Protection of the nature is regulated by the relevant laws, strategies and sub laws. Categorization of the protected natural resources is carried out, protected zones and permitted activities are defined, but the main problem is that mentioned legislation isn't completely in accordance to EU recommendations. This incompatibility, except the impossibility of comparison the results with other countries, it impedes application of their successful methods to this area.

The aim of this research is valorization of protected natural assets in the City of Belgrade, as a part of integrated tourist offer. Firstly, we emphasized the importance of protected natural assets in the urban areas for the daily life of their dwellers, but also for developing tourism function of the city. Secondly, functions of these assets were analyzed. Furthermore, classification of the assets was presented. Finally, we asserted current tourist offer and issues in valorization of assets and their presentation on the national and international tourism market.

2. IMPORTANCE OF PROTECTED NATURAL ASSETS IN THE URBAN AREAS

Concept of the sustainable development is adopted worldwide. Everybody agrees that it is crucial to meet the needs of the present generations without compromising future generations to meet theirs. Combination of the socio-economic and environmental aspects of this concept brought many debates, especially about the relation between socio-economic and environmental issues (Giddings, B., 2002). Despite the existence of many definitions of the sustainable development, the one is certain – because of the growing global population, there is an increase in degradation of the nature, so protection of the natural resources is essential. Since the urban areas are everyday environment for more than half world's population, conservation of the nature does not imply only protection of remote areas and their biodiversity. It includes protection of the urban areas, which should become imperative of the contemporary society.

As it is pointed out at forum *The nature of the cities* (<http://www.thenatureofcities.com/>), cities represent ecosystems of nature, people and infrastructure. Due to the rapid expansion of the urban areas, anthropogenic pressures on



the environment are higher, and the negative implications are more obvious. Numerous types of issues are present, therefore the process of the conservation is more difficult to implement. International Union for Conservation of Nature (IUCN) defined urban protected areas as “protected areas in or at the edge of larger population centers”. They are important because beneficial effects that nature has on people and because urban population is critical for the nature at all levels (Trzyna, T. 2014). The beneficial effects that nature has on people are reflected through opportunities that offer for performing different cultural and recreational activities by dwellers. Further, psychological and social role of nature is substantial (Maddox., 2017, in press). It is reflected through relief of stress, caused by urban way of living, relaxation thanks to connection with nature or social cohesion of isolated urban inhabitants. Urban ecosystems are valuable habitats for many species (insects, birds, bats, etc.), but urban residents represent a huge threat to the biodiversity, because of the fires, water, pollution, etc. Urban dweller’s activities do not pollute their environment – their actions reflect on the environment out of this area. For example, wastewater that is discharged into the river flow in some big city, pollute the environment of the other settlements through which this river flows. Importance of the protected natural assets is visible through supporting local economy thanks to tourism development. Tourists, who visit urban destinations, beside traditional urban tourist offer, they also expect attractions which could provide relaxation and recreation. Many protected natural assets are attractive for both domestic and international tourists (such as Royal National Park in Sydney, Australia or Golden Gate National Recreation Area in San Francisco, California, USA), as a part of integral tourist offer of the city. These assets also attract tourist demand of the cities in their surroundings (<http://www.thenatureofcities.com/>).

2.1 Functions of the protected natural assets

According to the Law on Environmental Protection of Serbia (2009), protected natural asset is „preserved part of the nature with specific values and characteristics (geological diversity, biodiversity, landscape, etc.) with permanent ecological, scientific, cultural, educational, health and recreational, touristic, etc. importance, and because of that as an asset of common interest has specific protection.“ (Zakon o zaštiti životne sredine). In short, protected natural asset could have many functions.

Ecological function of protected natural assets is reflected in their importance for conservation of species, genetic diversity, certain biotopes and other natural heritage (Zakon o zaštiti prirode). This significance may range from the local to global level. It is defined by the state laws, which should be in accordance with international. Scientific function is crucial for conducting researches within protected area, in order to ensure adequate protection of all ecosystem functions. Educational and cultural functions imply education of the general public about necessity and importance of the conservation of the whole ecosystem. The aim of these functions is not only rising of public awareness about preservation of the protected nature, but also about preservation of their everyday environment. Health and recreational functions of the natural ecosystems are essential,



because they contribute to the maintenance of the people's health. They help in stress relief, cognitive development, improving work performance recreation, aesthetic experience, etc. (de Groot, R.S., 2002).

By the Law on Nature Protection, permitted activities in the protected areas are defined. In the protected zone I only conducting scientific researches, educational, recreational and cultural visits are permitted, as well as, activities connected to protection and recovery of the protected area. Within the protected zone II, beside activities linked to protection, performing of the traditional activities and limited usage of the natural resources are allowed. In the protected zone III, construction of the touristic infra and supra structure, hunting and fishing, making forest and agricultural monocultures are restricted (Zakon o zaštiti prirode).

Every state has the limited financial resources that could be used for protection of the nature. This activity is constantly fighting with others, like health, education, transportation, etc. for the budget. On the other side, protected natural assets could ensure financial resources thanks to different functions they have. These assets can provide many different biological goods and services to different types of the customers, according to sustainable use of natural resources (Task Force on Economic Benefits... 1998).

Touristic function of protected natural assets is vastly important, because it combines conservation and utility value of the nature. Their valorization through eco-tourism is inestimable, not only because financial effect, but also because of its educational and health functions. Eco-tourism is fast growing tourist market, because tourist demand has become more oriented to the nature, especially to the complexes which combine cultural-historian heritage and well-preserved natural assets. Among distant untouched goods, urban areas also represent attractive tourist destinations, mainly due to the presence of both natural and anthropogenic attractions. According to UNWTO, two main goals that tourism has to achieve in the XXI are employment increase and protection of the nature. It will confirm fact that protection of the nature could help with solving problem of unemployment, increasing in living standards and subjective satisfaction of people (Jovičić, D. 2008).

3. METHODOLOGY

For the purpose of this paper, the authors conducted research of protected natural assets in the Belgrade urban area, in order to create integrated tourist offer. An inventory and valuation of these assets were carried out. As a data source, domestic and international literature dealing with the issues of sustainable tourism development within urban area were used. Also, data from state laws, strategies and regulations which define the field of natural protection, international ratified laws, as well as existing spatial planning legislation (Master Plan of Belgrade to 2021, Regional Spatial Plan of the Administrative Territory of the City of Belgrade) were collected. Besides, during the comparison between state and international laws, we found out that our legislation is not fully complied with international and that recommendations of EU is not quite implemented. For example, in



categorization of the protected natural assets, defined in accordance with national law, there are seven categories, but IUCN differentiate six categories. We presented the one that is construed according to the national laws. Among the protected assets of the City of Belgrade, we segregated those that are important as a part of integrated tourism offer.

4. CLASSIFICATION OF NATURAL ASSETS

Complete protected area in Serbia occupies 6.51% (575,310 ha) of the territory. It includes 247 areas, 230 dotted objects (mostly individual trees) and 38 areas of cultural-historian importance (defined by Law on Nature Protection and Law on Protection of Cultural Monument). There are five National Parks, 16 Landscapes of Outstanding Features, 17 Nature Parks, 69 Nature Reserves, 325 cultural monuments and three Protected Habitats (<http://www.zzps.rs/>, <http://indicator.sepa.gov.rs/>, <http://www.protectthenature.org/>). According to the IUCN classification, most common protected areas are V (44%), IV (37%) and I category (141 ha).

Seven categories of protected areas are segregated by the Law on Nature Protection of Republic of Serbia. These are: 1. *Strict Nature Reserve*; 2. *Special Nature Reserve*; 3. *National Park*; 4. *Natural Monument*; 5. *Landscape of Outstanding Features*; 6. *Nature Park*; 7. *Protected Habitat* (Zakon o zaštiti prirode).

According to the same Law, those areas have significant geological, biological, ecosystem and landscape diversity. Due to their values and importance, they are classified into three categories: 1. *I category* – area of international/national or vast significant; 2. *II category* – area of provincial/regional or big importance; 3. *III category* – area of local importance. Within these categories I, II and III protection regimes are established.

Categorization of protected natural assets in Serbia (Zakon o zaštiti prirode):

1. *Strict Nature Reserve* – is defined as strict protected area abstracted because of protection of the biodiversity, but also geological/geomorphological features, where the visits, utilization of the space and the other influences are controlled.

2. *Special Nature Reserve* – is defined as an area with unchanged or slightly modified nature, of high importance because of its uniqueness, rarity and representativeness. Within these areas economic and other activities are forbidden.

3. *National Park* – is defined as an area with special natural values and characteristics, which has ecological, scientific, cultural, educational and health and recreational significance.

4. *Natural Monument* – is defined as recognizable and unique object, with representative geological, geomorphological, hydrological and other characteristics, as well as, botanical value that is made by human labor and it has scientific, aesthetic, cultural and educational importance.

5. *Landscape of Outstanding Features* – is defined as an area with important natural, biological, ecological, aesthetic, cultural-historic values, traditional way of living and cultural-heritage is present.



6. *Nature Park* – is defined as an area with mostly preserved natural ecosystems and vivid landscapes whose purpose is conservation of geological, biological and landscape diversity, as well as, satisfaction of scientific, aesthetic, cultural, touristic and health and recreational needs. All activities are in accordance to traditional way of living and principles of sustainable development.

7. *Protected Habitat* – is defined as an area that includes one or more types of natural habitats for preservation of one or more population of wild species and their biocoenosis.

IUCN has defined protected area as "a clearly defined geographical space, recognized, dedicated and managed, through legal or other effective means, to achieve the long-term conservation of nature with associated ecosystem services and cultural values" (Dudley, N. 2013). After detailed researches, IUCN has established following categories of protected goods: *I. Ia – Strict Nature Reserve and Ib – Wilderness Area; II – National Park; III – Natural Monument or Feature; IV – Habitat/Species Management Area; V – Protected Landscape/ Seascape; VI – Protected area* (Stojanović, V. 2011).

5. REGULATIONS AND MANAGEMENT OF NATURE PROTECTION

In the Republic of Serbia question of nature protection is defined by different legislation (Law on Environmental Protection, Law on Nature Protection, Law on National Parks, and Law on Forests) and strategies (National strategy for Sustainable Development, Biodiversity Strategy of the Republic of Serbia for the period 2011-2018 and National Strategy for Sustainable Use of Natural Goods and Resources). Many sub-laws have direct role in protection (Decree on the protection regimes, Decree on Ecological Network, Code on the categorization of protected natural areas, Code on the content and manner of keeping the register of protected natural areas, Code on conditions to be met by the managing authority of protected area, Code on the conducting of professional supervision). At the same time, Serbia has signed numerous international conventions (Law on the Ratification of the Convention on Biological Diversity, Law on the Ratification of the European Landscape Convention (<http://www.zzps.rs/>)).

Natural protected assets management is activity of common interests. It could be performed by legal entities (specialized companies/agencies) or institution as additional activity (Jovičić, D. 2010). This cyclic process is usually contained of few stages: 1. site condition assessment; 2. defining of the management goals; 3. activity planning and 4. implementation and monitoring (Alexander, M. 2013.; Appleton, M. R., 2007). The most important activity of the controlling company is adoption of management plan, implementation of the protection regimes, record keeping (natural processes and activities of visitors) and promotion of protected areas. According to the Law on Nature Protection (Zakon o zaštiti prirode) several financing forms are defined. Most common are fund of Republic of Serbia and local governments, fund for protection of the environment and the others, such as fees and income from performing activities.



In accordance to valid legislation (Law on Environmental Protection, Law on Nature Protection, Law on Forests, The Law on Local Self-Government and the Law on the Capital City) City Assembly of Belgrade delivers act of protection of natural assets which are located within territory of the city (Antonijević, S., 2009). Management of the protected areas has been entrusted to the public enterprises („Srbijašume“; „Zelenilo“ Beograd; Public Enterprise for protection and advancement of environment Obrenovac) and public faculties (Faculty of Biology and Faculty of Forestry) (<http://serbianoutdoor.com/>). Some assets don't have specific controller (Miocene shelf "Tašmajdan", "Mašin Majdan" Senonian shelf and Sea Neogene shelf "Kalemegdan"). All activities are defined by annual management programs are funded from the budget of City of Belgrade, through the Secretariat for Environmental Protection.

6. PROTECTED NATURAL ASSETS IN BELGRADE

Geographical position of Belgrade in the contact zone of Pannonian Plain and Balkan Peninsula conditioned a variety of natural resources (Regionalni prostorni plan AP grada Beograda). Protected natural assets attract particular attention. According to Central register of protected natural assets, 69 assets are protected within administrative area of Belgrade (322,200 ha). They occupy 4,332.70 ha or 1.34% of the administrative area. Currently there is ongoing protection of 35 natural assets and nine have been proposed for putting under protection. It is expected that in the future period protected area will extend over 5,309 ha or 1.74% of the territory (*Program zaštite životne sredine grada Beograda - prvi nacrt*, 2013).

In the Belgrade city core zone there are few natural assets with different importance and the degree of preservation (Generalni urbanistički plan Beograda 2021, 2003). At the same time, most of them represent marshy and moist areas of Sava and Danube rivers, as well as wooded area of central Šumadija (nearby mountains) (Đurđić, S., 2007). In the administrative territory of Belgrade three Landscapes of Outstanding Features (Avala, Kosmaj and Great War Island), two Strict Nature Reserves (Forest of oak and hornbeam at Hajdučka fountain and Silver linden forest), 37 Natural Monuments (five objects of geological heritage), 10 green areas and 22 areas with individual and groups of trees were segregated (*Program zaštite životne sredine grada Beograda*, 2011). During the future period, activities on forest protection are planned (Kovilovo, Lipovica Forest and Šumica), but also Danube left coast foreland (1,700 ha) (Regionalni prostorni plan AP grada Beograda, 2009). By the Decree on Ecological Network (Uredba o ekološkoj mreži), as ecologically important areas stand out:

1. *Confluence of Sava and Danube* (RS 017BA) – moist area, important bird area (IBA), with area of 9,808 ha, including confluence (10 km) and 39 km of Danube flow. It is known as a habitat of white-tailed eagle (*Haliaeetus albicilla*) and pygmy cormorant (*Microcarbo pygmeus*).

Table 1: List of protected natural assets in the Administrative area of Belgrade

No.	Protected Asset	Status	ha	Year	Category	Location	Management
1.	Kosmaj	LOF	3,514.5	2005	III	Mladenovac, Sopot	PE Srbijašume
2.	Avala	LOF	489.13	2007	III	Voždovac	PE Srbijašume
3.	Great War Island	LOF	211,37	2005	III	Zemun	PUC Zelenilo
4.	Jevremovac Botanical Garden	NM	4.82	1995	II	Stari Grad	Biološki fakultet
5.	Pioneer park	NM	3.60	2007	III	Stari Grad	PUC Zelenilo
6.	Academic park	NM	1.46	2007	III	Stari Grad	PUC Zelenilo
7.	Topčider park	NM	29.46	2015	III	Savski venac	PUC Zelenilo
8.	Arboretum of the Faculty of Forestry	NM	6.69	2011	III	Čukarica	Šumarski fakultet
9.	Banjica forest	NM	58.65	1993	III	Voždovac	PUC Zelenilo
10.	Košutnjak forest	NM	265.26	2014	III	Čukarica, Rakovica	PUC Zelenilo
11.	Bojčin forest	NM	670.79	2013	III	Surčin	PE Srbijašume
12.	Lipovica forest – Dugi rt	NM	241.68	2013	III	Čukarica, Barajevo	PE Srbijašume
13.	Miljakovac forest	NM	84.72	2010	III	Rakovica	PE Srbijašume
14.	Zvezdara forest	NM	80.57	2013	III	Zvezdara	PUC Zelenilo
15.	Obrenovački zabran	NM	47.77	2013	III	Obrenovac	PE Obrenovac
16.	Forest of oak and hornbeam at Hajdučka fountain	SNR	3.40	1981	-	Čukarica	-
17.	Silver linden forest	SNR	-	1983	-	Čukarica	-
18.	Miocene shelf "Tašmajdan"	NM	-	1968	-	Palilula	-
19.	"Mašin Majdan" Senonian shelf	NM	-	1969	-	Savski venac	-
20.	Sea Neogene shelf "Kalemegdan"	NM	-	1969	-	Stari Grad	-
21.	Fungi of Ada Ciganlija	PH	21.25	2013	III	Čukarica	PE Srbijašume
22- 55.	Protected trees	NM	> 1.5	1949-	III	-	PUC Zelenilo

Source: (<http://serbianoutdoor.com/>; <http://www.srbijasume.rs/zastprirdob.html>)



1. *Košutnjak* (proposed for protection)
2. *Avala* (RS 0000058) and *Kosmaj* (RS 0000059) – important bird area (IBA) and part of European ecological network for preserving wild flora and fauna and their habitats.

Special role in system of protected nature have wild flora and fauna habitats. The most important are – Swamp near Besni Fok (Palilula), Glogonjski and Kovilovski swampy region (Serbian "rit"), channel Sebeš, Big Mug, Reva swamp, Ada Huja, Milić hill and Velikoselski swampy region (*Program zaštite životne sredine grada Beograda*, 2013).

City of Belgrade has a long tradition of nature protection. The first protected natural asset in Belgrade was four specimens of Himalayan pine (*Pinus excelsa*). They have been protected as a natural monument since 1949. Most of protected natural monuments have botanical character (33 individual trees) (*Program zaštite životne sredine grada Beograda*, 2013). Most of them are located within inner city zone (municipalities Stari Grad, Vračar, Čukarica, Savski venac and Zemun). Several protected trees are located in parks (Kalemegdan, City Park in Zemun, Stara Zvezdara Park, etc.) (*Plan upravljanja spomenici prirode - pojedinačna stabla 2012-2016.*, 2011) . Few of them are located in the periphery of the city (Obrenovac, Barajevo, Mladenovac and Sopot). Some trees represent part of the cultural and historical sites, such as plane tree (*Platanus acerifolia*) at the residence of Prince Miloš in Topčider, two magnolias (*Magnolia x soulangeana* Soul. *Lennei* forma) and a yew tree (*Taxus baccata* L.) in Botičeva street. Among these, there are magnolia at Petar I Karadjordjević memorial house, cypress (*Cupressus arizonica* Greene) in Dedinje and ginkgo (*Ginkgo biloba*) tree in the Stara Zvezdara Park. The oaks (*Quercus robur* L.) are protected at four sites. Protected trees belong to the III category of protection (<http://www.zzps.rs/>).

In the category of natural monuments, 12 assets are protected as spatial areas: Banjica and Miljakovac Forest “Jevremovac” Botanical Garden, Arboretum of the Faculty of Forestry, Academic and Pioneer Parks, Košutnjak and Zvezdara forests, Topčider, Obrenovački zabran, Lipovica Forest – Dugi rt and Bojčin Forest (*Program zaštite životne sredine grada Beograda*, 2011., *Plan upravljanja spomenikom prirode „Bojčinska šuma“ 2014-2023.* 2014., *Plan upravljanja spomenikom prirode „Lipovička šuma - Dugi rt“ 2014-2023.* 2014). The only protected habitat of local importance is the fungi *Myriostoma coliforme* habitat at Ada Ciganlija Island. It has a narrow range because of extreme anthropogenic impacts (*Plan upravljanja zaštićenim staništem „Gljive Ade Ciganlije“ 2014-2023.* 2014). In the urban core the most important nature protected asset is landscapes of outstanding features Great War Island and Kosmaj and Avala in the peripheral zone.

Great War Island (167.90 ha) – it is located within Zemun municipality in undefended flood zone of the Danube, without direct influence of Belgrade urban zone (Malinić, V. 2015). Forest ecosystems of white willow (*Salicetum albae*) and the white and black poplar (*Populetum alba - nigrae glory*) represent main characteristic of this asset. Part of the island is under cultural steppes (the result of land cultivation), while other parts are under invasive native species. Humid, swampy habitat is suitable for development of



the reed and sedge. At the same time, the island is rich in fauna. There are 163 species of birds, including the white-tailed eagle (*Haliaeetus albicilla*), black stork (*Ciconia nigra*) and seven species of herons (*Ardeidae*). Ichthyofaunal richness is reflected through the presence of 42 species. Herpetofauna is represented by amphibians (*Amphibia*) – large green frog (*Rana ridibunda*) and small green frog (*Rana lessonae*), and the main representatives of *Reptilians* are terrapin (*Emys orbicularis*) and water snake (*Natrix natrix*). There are 37 species of mammals: seven species of insectivores (*Insectivora*), 10 species of rodents (*Rodentia*), 13 species of bats (*Chiroptera*), five species of carnivores (*Carnivora*) and two species of ungulates (*Artiodactyla*) (*Plan upravljanja predela izuzetnih odlika „Veliko ratno ostrvo“ 2011-2020.*, 2010).

Avala (489 ha) – Hungarian and Turkey oak forests (*Quercetum frainetto-cerris*), sessile oak and hornbeam (*Quercus-Carpinetum*), black ash tree (*Orno-Quercetum petraeae*) and beech with white linden (*Tilio-Fagetum submontanum*) are represented on the mountain [38]. Over 70% of the area is covered by forest, among which the Guberevac Forest and Stepin Lug Forest are the most famous. Over 597 plant species are protected, while 15% are medicinal plants. Besides, more than 67 bird species deserve special attention (*Prostorni plan područja posebne namene predela izuzetnih odlika „Avala-Kosmaj.*).

Kosmaj (3,514.50 ha) – Hungarian and Turkey oak forests (*Quercetum frainetto-cerris*) are present at 250-400 m of elevation and sessile oak and hornbeam (*Quercus-Carpinetum moesiicum*) are present at 400-500 m of elevation. The mountain peaks Little Kosmaj and Great Kosmaj (500-626 m) are covered with beech forests (*Fagetum moesiicae montanum nudum*) (<http://www.srbijasume-sgbgd.co.rs/>). The “Cherry” is the most famous forest complex. There are 557 plant species (25 species are endangered). The fauna includes 51 mammal species and 96 species of ornitofauna. This area is inhabited by 13 species of amphibians and 11 species of reptiles (total number of species in Serbia is 44). The foothill of Kosmaj characterizes cultural landscapes (dominated by arable land) (*Prostorni plan područja posebne namene predela izuzetnih odlika „Avala-Kosmaj, 2014*).

7. TOURISM BASED ON NATURAL RESOURCES

In urban areas, tourism in protected areas is an additional activity. A similar situation is in the City of Belgrade. Six key tourism products were allocated by The Belgrade Tourism Development Strategy (*Strategija razvoja turizma grada Beograda. 2008*): 1. *Business tourism + MICE (seminars, fairs, exhibitions and conferences)*, 2. *City breaks*, 3. *Round trips*, 4. *Events*, 5. *Special interest tourism* and 6. *Tourism along Danube River*. In this respect tourism of “special interests” represents “a vacation activity in an unusual, exotic, remote or wild environment”.

Within administrative territory of Belgrade, there are potentials for ecotourism development. The original meaning of ecotourism is "environmentally responsible travel and visitation to relatively undisturbed natural areas, in order to enjoy and appreciate nature



(and any accompanying cultural features – both past and present), that promotes conservation. It has low visitor impact and provides socioeconomic benefits for dwellers who are actively involved in ecotourism business" (Milenković, S., 2012). However, in urban areas there is no possibility of full application of this concept. First of all, we should consider meaning of urban ecotourism. Some authors identify urban ecotourism as "sustainable way for traveling in urban areas". For others it is "a form of tourism which respects the natural ecosystem of the city". According to the most comprehensive definition, it is "travel and exploration in and around the city, providing the visitors and residents better understanding of the cities' natural and cultural resources" (Higham, J., 2002.; Wu, Y.-Y., 2010). Recently in the literature has been present idea of urban green tourism. It includes environmental responsibility, local economic support, cultural diversity and experiential richness (Dodds, R., 2001).

8. TOURIST OFFER OF BELGRADE ADMINISTRATIVE AREA

City of Belgrade represents I (first) rank tourist zone with specific forms of tourism, based on natural, cultural and economic structures. In accordance with several criteria, it could be identified five tourist zones: 1. *Urban zones* (Old Belgrade core, The Old Zemun core, Sava amphitheatre and the coastal area of the Danube), 2. *Aquatic zones* (waters of the Sava and Danube river, Duboki potok Lake in Barajevo), 3. *Park and recreational zones* (Academic and Pioneer parks, City Park in Zemun, Kalemegdan, Tašmajdan and others), 4. *Ecotourism zones* (Ada Ciganlija Island, Ada Medica Island, Great War Island, Ada Huja Island, Avala with Zavojačka River valley) and 5. *Rural zones* (Podavalsko-gročanska and Lipovičko-obrenovačka) (*Strategija razvoja turizma grada Beograda*. 2008).

On the natural basis exists several forms of tourism (Regionalni prostorni plan AP grada Beograda, 2009):

1. *Ecotourism* – it is developed on the islands of Sava and Danube (Great War Island), Avala, Lipovica and Guberevac Forests, as well as northern parts of Mladenovac, Sopot and Obrenovac municipalities and the southern region of Barajevo and Lazarevac.

2. *Youth tourism* – it is presented through schools in nature at the immediate surroundings of Belgrade (Grocka, Lazarevac, Barajevo), mountains Avala and Kosmaj, areas of Lipovica and Guberevac Forests.

3. *Sports and recreational tourism* – it implies daily activities in maintained natural ambiance (Košutnjak, Avala, Kosmaj, Miljakovac, Banjica and Bojčin Forests, Lipovica and Obrenovački zabran)

4. *Hunting and fishing tourism* – this form of tourism is particularly present in the zone of the Kosmaj-Guberevac Forest ("Cherry" Hunting Ground), "Lipovica Forest" Hunting Ground and on the left bank of the Sava River ("Crni Lug" Hunting Ground)

5. *Excursion tourism* – it is linked to the peripheral part of Belgrade (Grocka, Mladenovac, mountains Avala and Kosmaj)



Rural tourism has been developed (villages of Avala and Kosmaj), while the richness of thermal mineral waters caused the development of health tourism in the municipality of Mladenovac (Koraćica Spa and Selters Spa). There are different types of accommodation. For exemplum, mountain lodges "Čarapićev dom" on Avala or Hunting Lodge "Varovnice" on Kosmaj. There are also hotels "Avala" and "1000 Roses", as well as, Student Resort "Avala". Country-club hotel "Babe" on Kosmaj is one of the newest facilities in the tourist offer. Hospitality offer is more diversified (restaurants "Mitrovićev dom" and "Stari Majdan" on Avala, restaurants "Picnic", "Tennessee", "Tresije" and "Verona" on Kosmaj) (Malinić, V. 2015).

Parks in the city center have important recreational role. Besides the natural, they have numerous cultural values, and also are a part of the tourist offer. There are possibilities of organizing various events and event tourism development. The most important are Topčider Park (plane trees from 1866 and the residence of Prince Miloš from 1834) and Kalemegdan, as the oldest town park, dated from 1870's (four protected trees and cultural and historical complex "Lower and Upper city"). On the other side, Academic Park was built from 1886 to 1889 (monuments of Josif Pančić from 1897, Dositej Obradović from 1930 and Jovan Cvijić from 1994). Pioneer Park was decorated in the second half of the 19th century (eight individually protected trees and buildings of the "Old Palace" from 1882 and the New Palace 1922) (Milanović, H.,2006). City Park in Zemun deserves special attention, because it is a part of the cultural and historical site "The old core of Zemun". It was built from 1880 to 1899. At this site there are 15 protected trees and monument of Antoine de Lamartine from 1933. Tašmajdan Park was built from 1950 to 1954. Among the other stand out Karadorđev Park (1907) in Vračar, Manjež (1933) and Financial Park (1963) in Savski venac, Park of Friendship (1961) in New Belgrade, Park Cyril and Methodius (1996) in Zvezdara (Milanović, H.,2006).

Great War Island represents a remarkable ambient. It is contained of three zones: 1. Nature protection zone (Little War Island, the Shore of Great Island, forest area and wetlands), 2. Recreational zone and 3. Touristic zone (Lido beach with the tourist and recreational offer in the form of an amphitheater, rustic furniture and docks for boats) (*Plan upravljanja predela izuzetnih odlika „Veliko ratno ostrvo“ 2011-2020.*, 2010). "Jevremovac" Botanical Garden has a significant role for touristic and recreational purposes. It is located in the city center and it extends through area greater than five ha. It has about 1,500 plant species. Includes several parts: systemic plot (woody plants), greenhouse of Botanical garden (1,000 tropical, subtropical and Mediterranean species) and Japanese garden (stone, water and plants) from 2005 (<http://jevremovac.bio.bg.ac.rs/>)

Protected natural assets represent part of two touristic products made by Tourist Organization of Belgrade. Sightseeing tours are named "Walking tour around the city center" and "Beografija – Conquer the Fortress". They include presentation of the protected areas [(<http://www.tob.rs/>), (<http://www.belgradefreetour.com/>)]. Programme "Belgrade – your host" organized by "BS tours" is a very interesting open-bus tour. There are also boat and bicycles sightseeing tours ("City Centre Tour" and "Riverside Tour")



(<http://www.ibikebelgrade.com/>). Faculty of Biology and Faculty of Forestry, University of Belgrade organize daily visits to "Jevremovac" Botanical Garden and Arboretum of the Faculty of Forestry. During the weekends there is a possibility of "Avala tour", organized by travel agency "Lasta".

9. CONCLUSIONS

As majority of global population live in urban areas, nature protection of these became imperative. There are many positive aspects of green zones. Beside importance for preserving biodiversity and human health, they are significant for tourism development. This activity could provide funds for nature conservation. Further, it may ensure additional profit for the local economy.

Protection of natural assets in Belgrade has long tradition. They are protected according to the national laws. This should imply that awareness of necessity of nature conservation exists on the state level. But in most cases, natural assets are protected, but the activities on their maintenance haven't been completely implemented. Also, their potentials for the development of integrated tourism offer of Belgrade are not quite exploited. As we pointed out, there are only several organized activities connected to the presentation of protected natural assets. At the same time, there are many issues in the promotion of unified Belgrade tourist offer. The main problems are dispersion of the offer and lack of cooperation within local stakeholders. Firstly, there are several operators that control protection of the natural assets (PUC "Zelenilo", PE "Srbijašume" Faculty of Biology and Faculty of Forestry, and Fund for Ecology, Obrenovac). Secondly, promotion of the complete offer is carried by Tourist Organization of Belgrade, so they choose the priority among the attractions. The higher priority is given to the attractions that are located closely to the city center. Tourist attractions, which are located in the peripheral municipalities, are mostly neglected in the official promotion. Finally, there are not local tourist organizations in every peripheral municipality. Only municipalities of Lazarevac and Mladenovac have local tourist organizations. Their activities should be in accordance to the activities of TO of Belgrade and TO of Serbia, whereby it is necessary that they put the emphasis on the promotion of their own tourist attractions. Only if stakeholders at all levels are involved in tourism development, it could provide expected results.

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