

IMPLEMENTATION OF THE ECOTOURISM CONCEPT IN THE NATIONAL PARK DJERDAP - BUSINESS IMPROVEMENT

*Ivana Veličkovska, Maja Stanujkić, Ana Stanujkić, Dijana Gavrilović,
Dragana Dimitrievska*

*University of Belgrade, Technical Faculty in Bor, Engineering Management Department
Bor, Serbia*

Abstract

This paper presents the basic results of research conducted with the aim to enable sustainable development and improving living standard in Southern and Eastern part of Serbia. The main objective of this article is to define possibilities for business improvement in the National park Djerdap (NP Djerdap) through the analysis of the current state in the NP Djerdap and potentials that could contribute to a better business and further sustainable development. In this article, NP Djerdap is considered as a possible development basis of the municipalities Kladovo, Majdanpek and Golubac. The current and further position of NP Djerdap is analyzed using SWOT analysis. On the base of the result obtained by using of SWOT analysis aims and possible development strategies of the NP Djerdap, as well as activities that contribute to the implementation of the strategies which are in accordance with the available resources, are created. Implementation of the activities leads to the enriched tourist offer of the NP Djerdap through the simultaneous introduction of the ecotourism concept. As a result, there is a long-term sustainable development of the aforementioned municipalities as well as the region.

Keywords: *National park, Djerdap, ecotourism, natural resources, sustainable development*

1. NATIONAL PARKS

A national park is a place where human activity is restricted or strictly monitored with the aim to reduce, or even minimize, the human influence on the natural environment, as well as endangered animal or plant species.

In Serbia, by the Law on Nature Protection in the article 30 national park is defined as “area with a large number of different natural ecosystems of the national importance, esteemed characteristics of the area and cultural heritage in which man lives in harmony with nature, all meant for conservation of the existing natural values, and for satisfying the scientific, educational, spiritual, aesthetic, cultural, touristic, health-recreational needs and other activities according to the grounds of the protection of the nature and maintainable development”. [2]

Although Serbia is a small country, it is very rich in natural beauties, so it has 5 national parks, 10 nature reserves, 12 caves [3], and so on. Some of the most important characteristics of Serbian national parks are given in Table 1.

Table 1. Characteristics of national parks in Serbia (Source: Djordjevic et al. (2013) [1])

National park	Area (ha)	Manager-Public enterprise national park	Region of Serbia	Year of Establishment	Year of establishment of the current position	IUCN category
Fruska gora	25393	PENP "Fruska gora"	AP Vojvodina	1960	1993	V
Djerdap	63608,45	PENP "Djerdap"	Central Serbia	1974	1993	IV
Tara	19175	PENP "Tara"	Central Serbia	1981	1993	II
Kopaonik	11809,91	PENP "Kopaonik"	Central Serbia	1981	1993	V
Sar planina	39000	PENP "Sar planina"	AP Kosovo i Metohija	1986	1993	II

Biodiversity could be identified as one of the most significant characteristics of each ecosystem. Biodiversity is the variability among living organisms from all sources, including terrestrial, marine, and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species, and of ecosystems. [3] [4]

In order to preserve life on the planet Earth, it is necessary to give special attention to the preservation of biodiversity. This is one of reasons because three zones of protections are established in the National park Djerdap. The first zone of protection includes 18 units which represent the most valuable and well preserved part of the national park. The second zone of protection includes 14 units on the total surface of 130 km² and it represents beauties of the tributary of the Danube valley. The third zone represents the rest surface of the National park Djerdap, around 449 km². [6]

The main reason for this is to ensure protections of many varieties of animal and plant species.

2. POTENTIALS FOR DEVELOPMENT

Area of National park Djerdap is positioned in a Southern and Eastern part of Serbia, and it is aligned with a border of Romania, or, to be exact, it is occupying parts of the following municipalities: Kladovo, Majdanpek and Golubac. Complete surface area of National park Djerdap is 63 786, 48 ha, and it is also the biggest National park in the Republic of Serbia. [5]

National park Djerdap is rich with natural beauty and scenery. On its territory, you can see an exquisite canyon that originated with perforation of Danube river through Carpathians. Besides Danube river, National park Djerdap is enriched with Dobranska river, Boljetinska, Zlatica, Kosovica and Brnjicka river. Within this National park, you can find tremendous number of animal species and plants: 736 types of insects, 13 types of amphibians, and 65 types of fish. 187 types of birds and around 60 types of mammals are documented. 70% of park's surface is covered with trees, and there is identified 50 types of forest community from which 35 are relict and 6 are developing vegetative series, and that is unique in Europe. Along variety of plants and animals, National park Djerdap, contains valuable historical and archaeological sites from which you can single out Trajan's table (I century), remains of Trajan's bridge, Golubac fortress (XIV century) and prehistoric settlement Lepenski Vir (7000-6000 BC). [5] Favorable position of National park Djerdap

represents another advantage, because it is near Pan- European corridor VII, as well as vicinity of international airports in Belgrade and Nish, and a smaller airport in Bor, which can be used for charter flights.

In order to increase awareness of importance of saving environment and promoting mentioned potential of protected areas, as initiator of regional sustainable development, from management of National park Djerdap, it is expected advancement of quality and more efficient use of all available resources. Towards that purpose, in January 2017, management of National park Djerdap presented new proposal of Plans to manage National park Djerdap for period 2017-2026. [7] As support to realization of mentioned plans, basic motive for making this research is to ensure systematic approach to accomplishing following developing goals of National park Djerdap:

1. Saving biodiversity and cultural heritage,
2. Increasing employment and population living standard,
3. Responsible behavior of population, tourists and economy towards NP,
4. Developing sector of small and medium sized companies,
5. Sustainable use of resources,
6. Enrichment of tourist offers and increased number of tourists,
7. International cooperation.

To accomplish mentioned goals and to achieve sustainable development of tourism in this region, the need for implementation of concept of eco-tourism in NP Djerdap is imposing, modeled by the most developed national parks in the world. [5] Unique and untouched nature and rich historical and cultural heritage, in conjunction with implementation of concept of eco-tourism, will enable dynamic improvement in this region, which would have far-reaching effects on economic development, most of all municipalities Kladovo, Majdanpek and Golubac, but also development of whole region of Southern and Eastern Serbia. Tourism development and enrichment of offer for tourists creates conditions for development of small and medium sized companies in areas of catering, traffic and manufacturing and processing of organic food, craftsmanship (for souvenirs production), and other complementary activity. Additional option for development in this region is presented in re-building marina in Kladovo, which would provide better use of potential for transportation on Danube river.

Danube river is natural border between Serbia and Romania, where, with cooperation with partners from the other side of Danube river, National park Djerdap can expand tourist offer, whereby a much bigger number of tourists can be attracted. This cooperation would be conceived on organization of tourist journeys which would be contained of visitation of natural and cultural - historical locations on both sides of Danube river, which would provide much better differentiation and far better market competitiveness. [6] Having in mind that Romania is fully accepted member of European union, cooperation on international level would provide opportunity for using European funds, and that would further accelerate development of tourism and it would provide sustainability of defined project idea in this research.

Realization of planned activities should happen in a period not longer than 5 years.

3. ACHIEVED LEVEL OF DEVELOPMENT OF MUNICIPALITIES IN NP DJERDAP

Municipalities in which spreads the Djerdap NP (Golubac, Majdanpek and Kladovo) belong to the Southern and Eastern Serbia. This region is the least developed region in Serbia, which is confirmed by the latest available data from the Republic Institute for

Statistics, [8] by which this is the region participated in the creation of the national GDP in 2014 with only 14.1%, and the GDP per capita in the same year was for even the 35.8% lower than the national. One of the main causes of such unfavorable situation are the poor results of privatization and restructuring and the slow development of the SME sector. The former economic giants in the region were closed or working at reduced capacity after the privatization process and restructuring. The number of new business entities is relatively small too.

This has led to significant migration to more developed parts of the country or abroad, so in this region, and especially in the above mentioned municipalities, the population was continually decreasing a number of years (Table 2).

Table 2. Number of population and natural population growth in the municipalities covered by the National Park Djerdap and the Region of Eastern and Southern Serbia
(Source: Republic Institute for Statistics [8])

	2011		2012		2013		2014		2015	
	Number of population	natural population growth	Number of population	natural population growth	Number of population	natural population growth	Number of population	natural population growth	Number of population	natural population growth
Kladovo	21142	-12.3	20416	-12.6	20136	-13.6	19834	-15.0	19532	-14.6
Majdanpek	19854	-7.0	18454	-8.0	18127	-10.6	17775	-10.9	17431	-9.7
Golubac	8654	-12.2	8210	-12.1	8091	-17.7	7940	-15.4	7795	-16.2
Region of Southern and Eastern Serbia	164167	-7.6	1594594	-8.0	1579367	-7.4	1567010	-7.7	1551604	-8.3

Natural growth was negative in all monitored areas, but also at the level of the whole region. The worst situation is in the municipalities of Golubac and Kladovo, where over the past five years is recorded a negative rate of natural increase. The situation in the municipality of Majdanpek is better, but even in this municipality since 2013, negative population growth rate was above the regional average. In addition to significant migration, in the territory of the municipality of NP Đerdap have unfavorable age structure of the population (Figure 1).

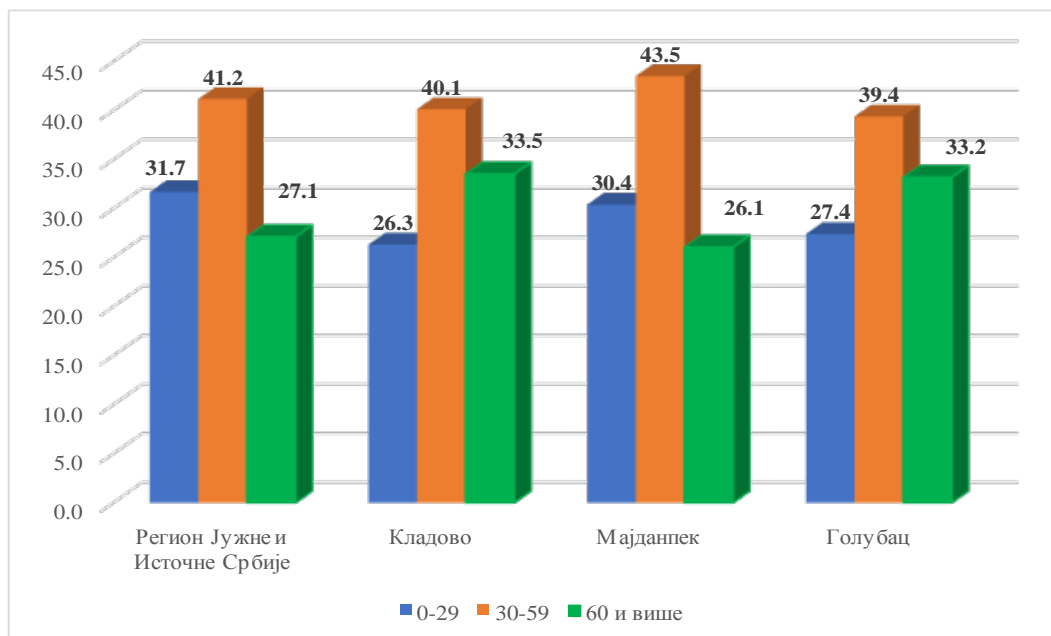


Figure 1. Age structure of population in municipalities situated in the territory of the Djerdap NP. Southern and Eastern Serbia and the Republic of Serbia in 2015

(Source: Republic Institute for Statistics [8])

This is particularly the case in the municipalities of Golubac and Kladovo, where the population aged over 60 years has significantly higher share of the total population in relation to the participation of young people aged up to 29 years. Having in mind that a large number of young leaves this region, and that this was mainly residents with higher degree, in the qualification structure of the population in the region and territory municipal NP Iron Gate: the share of the population to the mean primary and incomplete degree (Figure 2).

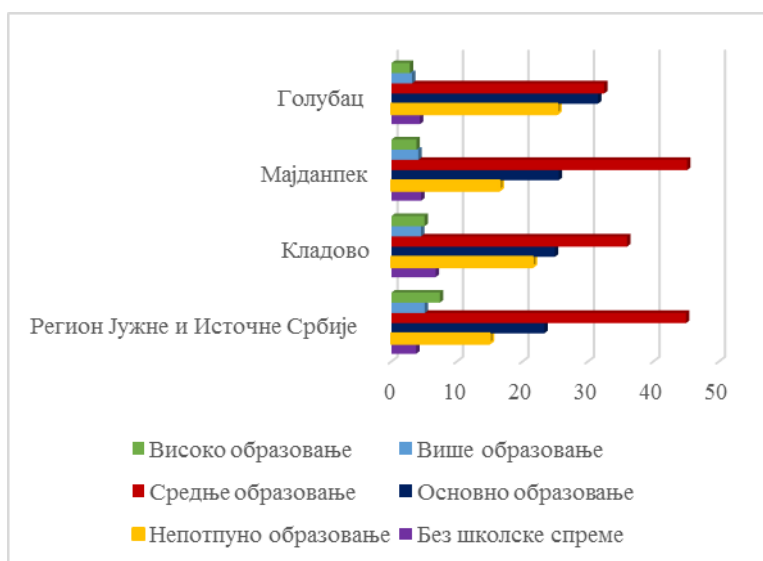


Figure 2. The qualification structure of the population in the municipalities situated in the territory of NP Djerdap and Southern and Eastern Serbia according to the 2011

(Source: Republic Institute for Statistics [8])

Unemployment is also one of the major problems in this region (Table 3).

Table 3. Changes in the number of unemployed and the share of those seeking their first job in the overall unemployment rate in municipalities situated in the territory of NP Djerdap and Southern and Eastern Serbia in the period 2011-2015. (Source: Republic Institute for Statistics [8])

	2011		2012		2013		2014		2015	
	number of unemployed	the number of those seeking their first job (%)	number of unemployed	the number of those seeking their first job (%)	number of unemployed	the number of those seeking their first job (%)	number of unemployed	the number of those seeking their first job (%)	number of unemployed	the number of those seeking their first job (%)
Kladovo	2065	31.2	2132	31	2100	30.8	2076	31.2	1942	31.3
Majdanpek	1949	28.9	2055	26.4	2022	27.1	2029	28.4	2006	29.2
Golubac	648	28.4	786	28.9	700	27.7	640	30.3	637	31.1
Region of Southern and Eastern Serbia	197690	38.6	203287	36.7	202798	36.1	192773	35.1	185926	34.2

Even it is noted a decrease in unemployment since 2014. (at the regional level and by the observed municipalities), it should be mentioned that it is partly a result of migration of the population, especially young people, in the Western European countries in search of work. The worse is the fact that almost a third of the unemployed are those who are looking for their first job. This situation is present for a longer period of time and if economic activity doesn't revive in this part of the country soon the situation will aggravate further.

The above-mentioned negative tendencies can be stopped by development of tourism in the NP Djerdap, based on the concept of ecotourism. It will provide an integrated approach to development (having in mind that generates all the available resources and increase the efficiency of their use), this type of tourism will enable long-term sustainable development of the municipalities in the national park, and also to whole region. The realization of this project through a public-private partnership with an experienced private company in this field, should provide improving the infrastructure necessary for the development of tourism, but also to involve all interested stakeholders in the process of implementing the standards of ecotourism.

Taking into the account that tourism is characterized by a heterogenous set of accompanying jobs and activities, such as: hospitality, agriculture, traditional crafts and retail sales, a number of possibilities for further development of existing as well as forming new traditional crafts and retail sales could be identified.

It could be assessed that the faster economic development of this area, as well as the entire region, could be achieved on the basis further usage of reasonable and controlled usage of natural beauties.

It could be especially interesting for the municipality of Kladovo where the percentage of entrepreneurs in the total amount of employed are below 15%, as it is shown in Figure 3.

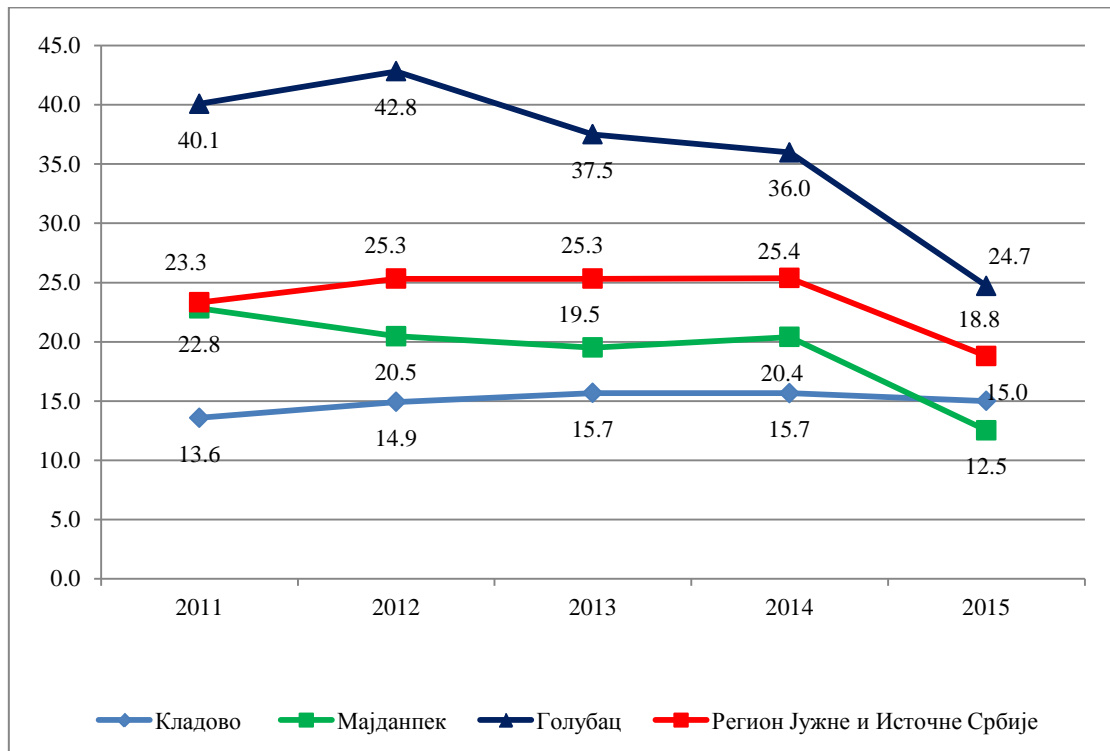


Figure 3. The percentage of entrepreneurs, and its employee, in total number of employees in municipalities on which surfaces the NP Djerdap is located (Source: Republic Institute for Statistics [8])

The realization of this project should increase the number of tourists, which could have an impact on higher number of entrepreneurs, as well as the higher number of employed in related business. It could be assessed that the majority of these activities will be based on the selling on national specialties, souvenirs and other products with characteristics of NP Djerdap. The forming of SMEs, primarily in craft and agricultural production, could be identified as a reasonable solution for reaching such goals.

The development of existing, as well as opening new entrepreneurial firms, based on the tourism, could lead to its high impact on the total market, from approximately 5% in 2015 to the expected 20%.

By using this approach, the tourism, and activity based on the tourism in the NP Djerdap, could become the main initiator of the economic activities, as it is shown in Figure 4.

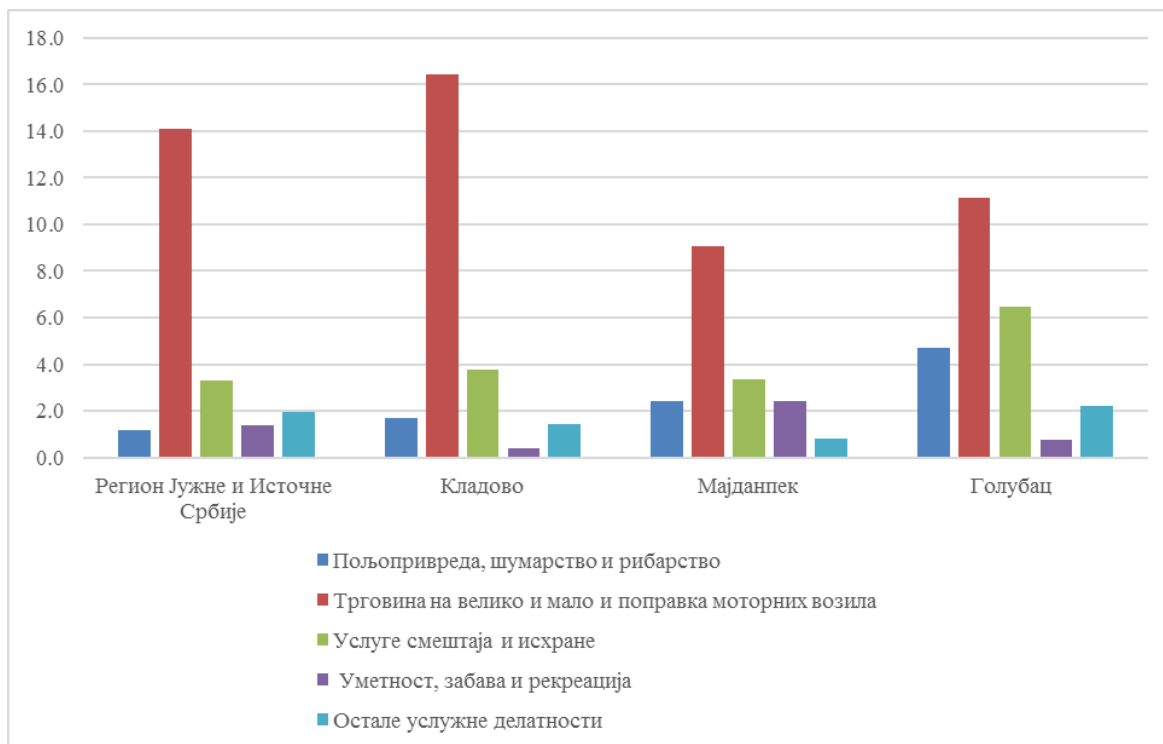


Figure 4. The influence of particular economic activities in employment in municipalities on which surfaces the NP Djerdap is located (Source: Republic Institute for Statistics [8])

At the end of this project, it is important to highlight that successful realization of this project could be achieved by using public-private partnership model, which could obtain necessary funds for further investments.

It can be mentioned that between 2011-2015 there are not new investments in tourism and following sub activities in the municipalities of Majdanpek and Golubac, while similar investments in municipality of Kladovo are minor. As one proof for the above could be mentioned that funds available in 2011, in the amount of 27.390.000 RSD are reduced to 1.352.000 RSD, in 2015, which is 20 times less.

Development of any, as well as this economic activity, cannot be done without new investments. As evidence for that can be found in evident decreasing of visitors of NP Djerdap, local visitors as well as visitors from other countries, as it can be seen from Table 4.

Table 4. Overall presentation of trends of overnight stays of local and foreign tourist in NP Djerdap in a period of 2011-2015. (Source: Republic Institute for Statistics [8])

Number of tourists						
Year	Kladovo		Majdanpek		Golubac	
	Local	Foreign	Local	Foreign	Local	Foreign
2011.	28230	3336	22940	4329	4251	569
2012.	22875	2649	28200	4077	4706	710
2013.	20610	3136	20979	4583	4426	536
2014.	13293	2757	17795	4728	2152	614
2015.	18791	3556	16876	4631	1953	966
Number of overnight stays						

Year	Kladovo		Majdanpek		Golubac	
	<i>Local</i>	<i>Foreign</i>	<i>Local</i>	<i>Foreign</i>	<i>Local</i>	<i>Foreign</i>
2011.	79526	8111	46901	9095	6229	5627
2012.	60657	6315	62426	7204	6787	6056
2013.	55715	7862	42838	9086	8878	8120
2014.	30757	8345	34874	8722	4000	3258
2015.	40810	8516	31910	9841	3857	2739

In order to increase the number of overnight stays, it is necessary to make a systematic research about further development of this area based on its nature resources and beauties. The eventual realization of proposed strategies and activities could lead to breathtaking and extraordinary tourist experiences of natural, cultural and historical heritage of NP Djerdap. In addition, the previously proposed activities should lead to the increasing number of overnight stays and increasing the overall enjoyment of tourists without any compromising of protected ecosystems.

4. METHODOLOGY

The aim of this paper is to show different potentials in National park Djerdap and to define various strategies for development. Previously mentioned goals of National park Djerdap are considered from different aspect such as preservation of natural resources, living standards of local inhabitants, sustainable development and increase of profit. All considered goals are defined in such a way that contribute to the implementation of ecotourism concept in National park Djerdap.

In the first step, the most important goals of National park Djerdap are defined. Next step includes detailed SWOT analysis. On the base of SWOT analysis, adequate strategies are defined for further development of National park Djerdap. Section with strategies is decomposed into actions.

Based on analysis of current position of National park Djerdap and its potentials, strengths and weaknesses were defined. In the following table, all considered internal advantages and disadvantages are described. The most important opportunities and threats from external sources for National park Djerdap are showed in the next part of the table.

Table 5. SWOT analysis

Strengths	Weaknesses
<ul style="list-style-type: none"> - Unique ecosystems and the international character of the protected value of bio and geological diversity - The rich cultural and historical legacy of world importance - The favorable geographical position in the pan-European corridor VII and good connection with the airport in Belgrade - Rich by forest resources - The hydropower potential of the Danube river - Favorable conditions for organic production 	<ul style="list-style-type: none"> - Insufficient knowledge in the field of tourism and promotion potential of the NP - Underdeveloped infrastructure in the wider territory of NP - Poor cooperation of the NP Administration and the most important stakeholders from the surrounding municipalities - Degradation of biodiversity - There is no plan about managing the visitors - The low level of economic development of municipalities

	<ul style="list-style-type: none"> -Unsuitable system for waste water treatment and municipal landfills - Unfavorable demographic situation - Insufficient education of the population on the development of environmental awareness
<p><i>Opportunities</i></p> <ul style="list-style-type: none"> - Creating the unique tourist product (brand) -The potential of the Danube river which is an integral part of NP - Development of partnerships with SMEs in the region - Cross-border cooperation in order to implement projects from EU funds - Products of local character (organic food) - Foreign investment - Development of the production of energy from renewable sources 	<p><i>Threats</i></p> <ul style="list-style-type: none"> - Slow Serbia's EU accession and disrespect of EU standards - The unfavorable economic situation in the country - Failure to comply with regulations to protect sensitive sites and biodiversity in NP - Lack of an effective fight against the gray economy - The creation of a bad image due to poor visitor experience with infrastructure NP - Unplanned resource use NP - Lack of interest of investors to invest in this region

Based on the results of SWOT analysis, conducted for this paper, and by comparing SWOT factors: strengths, weaknesses, opportunities and threats, possible strategies for further development of National park Djerdap are showed in the next section.

5. POSSIBLE DIRECTIONS OF DEVELOPMENT OF NP DJERDAP

Obtained results from SWOT analysis define seven strategies for implementation of ecotourism concept in National park Djerdap. Those strategies are showed on the next figure.

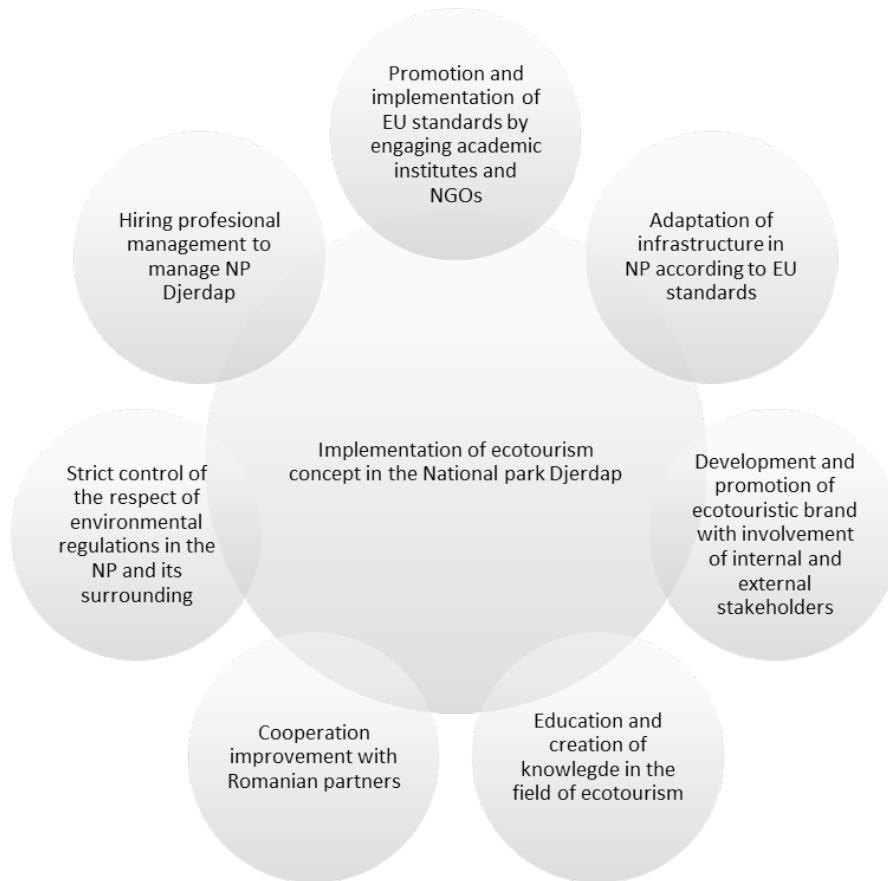


Figure 5. Strategies for implementing ecotourism concept in the NP Djerdap

Strategy 1. Promotion and implementation of EU standards by engaging academic institutes and NGOs is the first strategy among other six. It is the first step in the process of implementing ecotourism concept in the NP Djerdap. This strategy includes formation of a professional team responsible for the implementation of standards which are used in EU. After identifying related standards, following activity is its harmonization of the NP regulations with European standards. Final activity in this strategy is stakeholder's education about the importance and the method of introducing standards. First two activities have impact on saving biodiversity and cultural heritage, increasing employment and population living standard and responsible behavior of population, tourists and economy towards NP. Third activity, has impact among the aforementioned goals also on international cooperation.

Strategy 2. Adaptation of infrastructure in NP according to EU standards follows promotion and implementation of EU standards. First considered activity related to this strategy is reconstruction of the transport infrastructure along with adaptation of the pedestrian and bicycle paths and reconstruction of the Visitor center in Donji Milanovac. By realization of these three activities, enrichment of tourist offer and increased number of tourists can be accomplished. Increasing employment and population living standard and developing sector of small and medium sized companies can be obtained through construction of the ecohostel in the NP Djerdap. Having on mind the importance of nature conservation to implement ecotourism in the NP Djerdap, next activity is building center for collecting biomass and adaptation of the required infrastructure for collecting secondary waste by placing containers for waste separation. Another necessary activity are

adaptation of the sightseeing platforms and picnic areas and formation of the new sightseeing platforms and spatial planning of the main traffic roads and trails for tourists and opening of the new information points. Current infrastructure condition is not satisfactory, so further investments are needed. By improving basic aspects, like infrastructure, building sustainable accommodation and center for collecting biomass, tourist offer of the National park will improve, leading to higher number of visitors.

Strategy 3. Development and promotion of ecotourist brand with involvement of internal and external stakeholders is the next defined strategy. It is considered that developing and promoting ecotourist brand of the National park Djerdap among stakeholders can accomplish this strategy successfully. The main aim is to introduce current and potential tourist with ecotourism offer in the National park Djerdap. Developing ecotourism brand of NP Djerdap leads to responsible behavior of economy, employees, local inhabitants and tourists. On the other hand, these activities of developing and promoting ecotourism brand must be observed. All activities must be planned and systematic control must be conducted.

Strategy 4. Education and creation of knowledge in the field of ecotourism represents the next strategy. This strategy includes education of the local population about the importance of the ecotourism concept, education of the business community about the potentials of the ecotourism development and education of unemployed in cooperation with the National Employment Services from local municipalities. The aim is to raise the awareness of people, especially unemployed and business people about business possibilities in the field of sustainable use of resources. Ecotourism concept brings a lot of opportunities for startup businesses. Motivating people to start their own or to expand existing business in the National park Djerdap, tourist offer can be more complete.

Strategy 5. Cooperation improvement with Romanian partners represents strategy five. On the base of detailed analysis of current position of National park Djerdap on national and international aspect it is concluded that some way of cooperation is needed. The best cooperation partner is Romania which is the natural border of the National park Djerdap. In that case it is considered that establishing connections with Romanian partners can be very beneficiary for the National park Djerdap. Formation of a project team for the implementation of cross-border cooperation and organization of the round tables and workshops with partners from Romania in order to form joint project ideas are two most important activities. The idea is to this cooperation results with preparation of project documentation for applying for different EU projects. With joint offer, more tourist can be attracted to this area and offer will be improved and highly competitive. Cross-border cooperation can lead to recognizable ecotourism destination.

Strategy 6. Strict control of the respect of environmental regulations in the NP and its surrounding is a strategy used to ensure saving biodiversity and cultural heritage and responsible behavior of population, tourists and economy towards NP Djerdap. Increased control in a highly frequent location, biological monitoring of terrain and placement of the wooden boards with the behavior rules in the NP. It is necessary to follow the rules to respect implementation of the ecotourist concept in the National park Djerdap.

Strategy 7. Hiring professional management to manage NP Djerdap is considered as the final aspect in implementing ecotourism concept. The main idea is to organize trainings to improve managerial skills, hold round tables and workshops with representatives of other national parks and participate in various trade fairs, symposiums in the field of ecotourism. Top management of the National park Djerdap is the first and the last point in organizing

implementation of ecotourism concept. The necessity of implementing ecotourism concept in the NP Djerdap must be recognized by the top managers and the all process of implementation must be planned with details.

6. DISCUSSION AND CONCLUSION

Having in mind that National park Djerdap is an area under the government protection, its competitive disadvantage position in Europe and low investment rating of the country, reduced inflow of direct foreign investments, as well as the lack of government investments aimed for development of national parks, development opportunity of National park Djerdap can be seen through application of specific forms of public-private partnerships and creating an environment for its implementation, based on examples of good world practice.

Through public-private partnerships can be arranged abandoned and ruined infrastructure and build capacity gaps for the purpose of the ecotourism as an important prerequisite for long-term sustainable development of the National park Djerdap. Propose actions for implementation of the ecotourism concept require high amount of investments. Therefore, through cooperation of the public and private sectors, all necessary resources will be generated, and operation of all key stakeholders will be focused on initiating concept of ecotourism and long-term sustainability. In order to achieve this, it is necessary that private sectors companies are socially responsible, having on mind that realization of this project acquires numerous types of local community support through raising awareness about importance of ecotourism, environmental protection and cultural heritage conservation, education of population and other aspects of socially responsible behavior.

In addition, significant role for realization of these activities can have educational institutions (schools, universities, NGOs), by raising awareness of young generation with its own educational programs, about importance of conservation and responsible use of the resources of the national parks.

As a result of the implementation of the project ideas it is primarily expected to increase employment and the standard of the population in the studied region, with the fulfillment of the above and other objectives of this paper.

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