Natural Management and the Development of Protected Areas as Sustainable Tourism Spots in Bosnia and Herzegovina

Lejla Žunić

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Abstract: Bosnia and Herzegovina’s Nature Protection Law complies with significant European directives and conventions intended to safeguard habitat and biodiversity. The objectives of the paper are to investigate Bosnia and Herzegovina’s legal framework for managing natural resources and to identify protected areas as the spots of sustainable tourism. Bosnia and Herzegovina is home to a wide range of biodiversity due to its three distinct geographical zones, the Mediterranean, Euro Siberian-Bore American, and Alpine-Nordic Highlands. As a result, more protected areas are being established, with Sarajevo creating the first protected area that adheres to IUCN guidelines. Recently, new protected areas have been added to Bosnia and Herzegovina’s tourism supply to meet the rising demand for natural places. Bosnia and Herzegovina is perceived as an ecotourism destination by the majority of its citizens, hence the trend toward protected areas is seen as favorable.

1. INTRODUCTION & THEORETICAL BACKGROUND

According to Muralikrishna & Manickam (2017), natural Resource Management (NRM) refers to the sustainable utilization of major natural resources – ecosystem services (land, water, air, minerals, forests, fisheries, and wild flora and fauna) that provide a better life. IUCN is considered one of the most influential conservation organizations and, together with WWF and the WRI, is seen as a driving force behind the rise of environmental organizations at the UN and around the world. The EU has been committed to the protection of nature since the adoption of the Birds Directive in April 1979. The Habitats Directive was adopted in 1992 to help maintain biodiversity. It also established the EU-wide Natura 2000 network of protected areas. Major EU international agreements related to nature & biodiversity are Bonn CMS Convention (1979), Bern Convention on European Wildlife and Habitats (1979), Alpine Convention (1991), Ramsar Convention (1971), etc.

IUCN protected areas are important not only for conserving ecosystems and habitats, as well as associated cultural values and traditional natural resource management systems, but they are also very valuable in terms of tourism. Protected areas are focal points of ecotourism, with „returning to nature“ as a popular trend globally. Protected areas are recreational sites and tourist destinations, and they are also nodes of sustainable tourism in terms of legal foundation, protection regime, and management control.

Since 2003, Bosnia and Herzegovina has been working to implement and expand its protected area system in accordance with IUCN guidelines. It recently recorded about 4% of protected territory, whereas the third category is mostly represented in the overall structure of protected
areas. Protected areas are viewed as destinations for sustainable tourism, and their significance in this context is growing not only on a global scale but also on a state level in Bosnia and Herzegovina.

Table 1. IUCN protected area management categories with tourism exploitation options

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Exploitation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ia - Strict Nature Reserve</td>
<td>Origin nature; strict protection; limited use</td>
<td>Science, scenic</td>
</tr>
<tr>
<td>Ib - Wilderness Area</td>
<td>Nature without human habitats; strict protection; limited use</td>
<td>Science, restricted tourism</td>
</tr>
<tr>
<td>II - National Park</td>
<td>Nature, ecology, and culture; extensive ecosystem protection; wider use</td>
<td>Science, education, recreation, organized tourism</td>
</tr>
<tr>
<td>III - Natural Monument or Feature</td>
<td>Smaller natural areas, single forms or features; protection of specificity only; wider use</td>
<td>Science, education, recreation, significant tourism</td>
</tr>
<tr>
<td>IV - Habitat/ Species Management Area</td>
<td>Certain habitat or species; management interventions; specific use</td>
<td>Biodiversity conservation and restoration</td>
</tr>
<tr>
<td>V - Protected Landscape/ Seascape</td>
<td>Area of nature and human interactions; conservation of integrity; wider and alternative use</td>
<td>Promotion, education, massive tourism, organic agriculture optional</td>
</tr>
<tr>
<td>VI - Protected area with sustainable use of natural resources</td>
<td>Large areas with natural, cultural and traditional systems; sustainable use of natural resources</td>
<td>Non-industry activities: forestry, agriculture; presence of people allowed</td>
</tr>
</tbody>
</table>

Source: Author

2. METHODOLOGY

The main objectives of the paper are to: a) research and present Bosnia and Herzegovina's legislative system of environmental and natural protection and management; b) investigate the tourism importance of protected areas; c) identify IUCN protected areas as tourism spots in the country. Spatial documentation and other secondary sources, as well as data collected during terrain work (observation, survey, interview), were used for the complex geographical and tourism analysis, identification, and evaluation related to the nature protection and tourist importance of protected areas. The survey on ecotourism in Bosnia and Herzegovina (157 respondents: locals and tourists) inquired about ecotourism awareness and demand. EU policies were observed, and the main acts and directives were presented to gain a better understanding of the nature of Bosnian laws, and the position of the country in the global efforts to protect nature and to increase its tourism exploitation.

3. BIOGEOGRAPHICAL PROFILE OF BOSNIA & HERZEGOVINA

Bosnia and Herzegovina is located on the Balkan peninsula (land: 51,187 sq. km; water: 10 sq. km) and bordering with Croatia, Serbia, Montenegro. Bosnia and Herzegovina is a developing country with a dominant tertiary-sector economy, including tourism as one of its strategic activities. It's a "blooming" tourist destination with a significant rate of tourism growth. The administrative constitution of Bosnia and Herzegovina is made up of two entities (FBiH, RS), and Brčko District, and is frequently referred to as "the world's most complicated system of government" (Nardelli et al., 2014).

The country is distinguished by the presence of highly diverse ecosystems, distributed from sea level in the European Mediterranean belt to the highest mountain peaks in the Alpine belt (Mt.
Maglić, 2386 m; Adriatic Sea, 0 m). There are three main biogeographical regions in Bosnia and Herzegovina: Mediterranean, Continental, and Alpine regions, which resulted in very rich and diverse ecosystems. „Bosnia and Herzegovina is one of the European hot-spot countries with a very high level of species and ecosystem diversity and high endemism rate“ (Đug & Drešković, 2012).

Figure 1. Political-administrative map of Bosnia & Herzegovina
Source: Author (based on Nardelli et al., 2014)

Figure 2. Map of biogeographical regions in Bosnia & Herzegovina
Source: Author (based on the map of the EEA, 2017)
According to the principles of the Convention on Biological Diversity, Bosnia and Herzegovina's biodiversity is based on gene diversity, species diversity, and ecosystem and landscape diversity. The country's topography is distinguished by a variety of landscapes: Dinaric (Alps) mountains, basins, and valleys (center); Pannonian flats and hills (in the north); Mediterranean karst (in the south). Its species diversity is characterized by the highest level of endemism in Europe, as well as an extremely high level of landscape diversity, which encompasses all forms of geological and biological diversity in the broadest sense. The country has a wide range of flora and fauna ecosystems:

- natural forests cover 44% of the total land area;
- 5200 taxon of vascular plants;
- 500 endemic plant species and over 400 endemic animal species (reptiles, birds, mammals, etc.);
- 11 cartilaginous fish species and 194 bony fish species, among others.

There are numerous development centers, endemic centers, and relict centers—refugium of tertiary flora and fauna—on BiH's territory that have survived to this day under specific climatic conditions. "Considering the number of species and its relatively small country size, the species density and diversity in Bosnia is among the highest in Europe" (Đug & Drešković, 2012). "Bosnia and Herzegovina's flora, fauna, and fungi are among the most diverse in Europe, and its high degree of endemism and relitcntness makes it important in terms of global biological diversity" (Federal Ministry of Environment and Tourism). "It is estimated that there are about 500 endemic plant species" (Đug & Drešković, 2012). Bosnia and Herzegovina is home to 30% of the Balkan endemic flora.

Considering the country's surface area and the number of geological rarities discovered thus far, Bosnia and Herzegovina is one of Europe's most diverse countries. Geodiversity is still locally preserved despite pronounced anthropogenic influence, and it should be placed under an appropriate system of sustainable management. A high level of landscape diversity exists throughout the country as a result of the coexistence and high level of interactions between biological and geological diversity. Various landscapes can be distinguished: Mediterranean; Submediterranean; Mediterranean-mountainous; Peripannonian; Mountainous. Ecosystems with high natural values confer a special seal of uniqueness on the area of Bosnia and Herzegovina:

1. **High-mountain landscapes** are dominated by ecosystems of mountain meadows, and pre-mountain ecosystems of juniper pine, beech, fir, etc.;
2. **Diverse and polydominant landscapes in the refugia of Bosnia and Herzegovina**
   a) landscapes of relict pine forests with Illyrian pine and munika ecosystems;
   b) landscapes of relict-refugial ecosystems in the canyons and gorges (e.g. Una, Drina, etc.), which contain the greatest diversity of ecosystems and all forms;
3. **Marsh landscapes** (e.g. Hutovo Blato, etc.), mountain lakes (e.g. Prenj, Šator, etc.), and marshy mountain areas in the form of islands (e.g. Vranica);
4. **Complex ecosystems in karst fields and other karst forms** (e.g. Popovo field with hydrogeological and morphological phenomena—Vjetrenica cave, etc.).

The specific topography—relief, geological and pedological bases, hydrology, and climate, also contribute to Bosnia Herzegovina's extremely high level of biotope diversity. "Ichtyofauna with 11 species of cartilaginous and 194 species of bony fish represents a unique European biological resource considering both total richness and presence of numerous interesting endemic forms" (Đug & Drešković, 2012). "The fish and reptiles have the highest degree of endemism" (Dalmatin et al., 2008).
4. LEGISLATION ON NATURE AND ENVIRONMENTAL PROTECTION IN BOSNIA & HERZEGOVINA

4.1. Environmental Protection Framework in Bosnia and Herzegovina

Based on the Constitution of Bosnia and Herzegovina, the legal framework & responsibility in the field of environmental & natural protection is not institutionalized at the state level, but within the organizational structure of 2 entities’ governments and Brčko District:

•  *In the Federation of Bosnia and Herzegovina*, responsibility for environmental protection mostly belongs to the Ministry of Environment and Tourism of FBiH, but also to other institutions, including the partial responsibility of cantonal ministries;

•  *In the Republika Srpska*, the competence mainly belongs to the Ministry of Spatial Planning, Civil Engineering and Ecology of RS, but also to other institutions;

•  *In the Brčko district*, environmental protection policy is under the direct responsibility of the district government through the sector for communal activities and the sector for agriculture and forestry.

As defined by the Law on Ministries, the relevant authority for environmental issues at the state level is the *Ministry of Foreign Trade and Economic Relations* (MOFTER). More specifically, MOFTER is responsible for carrying out tasks related to defining policies and basic principles, coordinating activities, and harmonizing plans of the entity authorities and bodies at the international level for environmental protection, development and the use of natural resources. Based on decisions of RS and FBiH governments, an *Inter-entity environment body* deals with environmental issues which require a consolidated approach of both entities and it’s in charge of the development of an inter-entity environment protection plan.

Bosnia and Herzegovina has signed and ratified major international environmental treaties, conventions, and directives (*EU Habitats Directive, SPA and Biodiversity Protocol, Conv. on wetlands of Intl. importance, UN Conv. on Biological Diversity and Climate Change, Montreal and Kyoto Protocol, Aarhus Conv., the Birds Council Directive*, etc.) in order to ensure a more comprehensive approach with the primary goal of reducing human pressure on sustainability and directing this activity toward a more harmonious relationship between meeting human needs and environmental quality. The key documents related to environmental issues at the state level are: *NEAP BiH (2003), UNEP MAP BiH, Strategy for Biological and Landscape Diversity of BiH (2008), Strategies for Environmental Protection* (at the entity, district, canton, and municipality levels), with the compatible set of environmental laws (2000-2003) at the entities’ level. The environmental protection legislation of Bosnia and Herzegovina (since 2003) includes: “The Law on Environmental Protection”; “Law on Nature Protection”; “Air Protection Law”; “Law on waste management”; “Law on Water Protection”; “Law on the Environmental Fund”.

4.2. Nature Protection in Bosnia and Herzegovina

“Nature conservation in Bosnia and Herzegovina began in the second half of the 19th century with the protection of certain types of venison. The Perućica was established as the country’s first protected area (1954). Two months later, the National Institute for the Protection of Cultural Monuments and Natural Rarities of the Republic of Bosnia and Herzegovina, declared Prokoško Lake on Mt. Vranica a natural rarity. Sutjeska became the first national park (1962), and Perućica became the nucleus zone of this area” (*Žunić, 2022*). Nowadays, the jurisdiction
in the field of nature protection in Bosnia and Herzegovina is regulated at the two entities and Brčko District level. The basic legal acts on which nature protection is based, including categories of protected areas and protection procedures, are: “Law on Nature Protection of the Federation of Bosnia and Herzegovina”, “Law on Nature Protection of the Republic of Srpska”, and the “Law on Nature Protection of the Brčko District of BiH”. Documents related to the development of protected natural areas at the entities’ level, in general, are: Spatial plan (FBiH, RS), Amendments to the Spatial Plan (RS), Environmental protection Strategy (FBiH, RS), Tourism development strategy (FBiH, RS). The management of PAs is more closely regulated at the cantonal level (FBiH) by regional self-government units' strategic development plans and at the proven level by spatial plans. Competencies at the state level (refers to the implementation of international agreement obligations) belong mainly to the Ministry of Foreign Trade and Economic Relations of Bosnia and Herzegovina, and to the Ministry of Civil Affairs (e.g. UNESCO Convention). “The Law on Nature Protection in Bosnia and Herzegovina” regulates principles of restoration, protection, preservation and sustainable development of landscapes, natural areas, plants, animals and habitats, minerals and fossils, and other components of nature, as well as competences of bodies that perform nature protection activities and planning, etc. It complies with international directives: Bonn CMS Convention, Bern Habitat and Ramsar Wetlands Convention, The Birds Directive SPA, CITES, CBD Convention, among others. Nature protection is accomplished by preserving biological and landscape diversity and protecting natural values. The law defines the preservation of biological and landscape diversity, forest and karst ecosystems, water and wet habitats, habitats and ecologically significant areas, as well as the European network of SPA (NATURA 2000). The law also defines regulations regarding the prohibition and risk of introduction of species and subspecies, protection of internationally protected species, transboundary trade in protected wild species (CITES), keeping, breeding, and trade of wild species, special protection of wild species and subspecies, identification of the endangered species („Red Lists“), protection measures of strictly protected species and subspecies, genetic diversity, autochthonous species and subspecies, and other related matters.

5. PROTECTED AREAS IN BOSNIA & HERZEGOVINA AS TOURISM SPOTS

5.1. Contemporary Trends and Evolution of Pas in the Country

Since its independence (1992), Bosnia and Herzegovina has established two national parks: NP Una (FBiH, 2008), as the first national park on the entity level – the largest one by its area and the most visited national park in the country, and NP Drina (RS, 2017). Since 2003, the implementation of the Nature Protection Law, which made the IUCN model of categorization of protected areas mandatory, has encouraged the development of protected natural areas in Bosnia and Herzegovina. Until the 1990s, protected areas were classified according to the Law on the Protection of Cultural, Historical, and Natural Heritage. Because some previous legal categories were not recognized by the IUCN, they were incorporated into a new category (for example, "nature park" and "regional park" correspond to the IUCN-V category of "protected landscapes"). The first new protected areas based on IUCN criteria were established in Sarajevo Canton ("Vrelo Bosne", "Skakavac", "Trebević", etc.). The total identified protected areas coverage in Bosnia and Herzegovina is now 3,46% of the country's territory, with 45 protected spots. If we add this to the IBA and RAMSAR protected territory, it's about 4,57% of the protected country's area. According to UN-EP-WCMC (2022), there are 65 PAs with coverage of 4,06% and management effectiveness evaluations of 1,35%. According to the official statistics, out of the total number of identified protected areas in the country (45), RS accounts for 73.3% and FBiH for 26.7%. However, the protected
areas in the FBiH are larger by their area than those in the RS, occupying 58.6% of the total protected territory in BiH. The majority of SPA about 70–75% is in FBiH (Hutovo blato, Livanjsko polje, Boračko jezero), while only 25–30% (Baraća) is in RS.

**Figure 3.** Map of protected areas in Bosnia and Herzegovina  
**Source:** Author

From the map of identified protected areas in Bosnia and Herzegovina, regarding their spatial distribution, it's evident that they are dominantly present in the Alpine region.

**Figure 4.** IUCN PA in Bosnia & Herzegovina (2022)  
**Source:** Author (based on the official statistics of BiH PA)
From the chart above, the most represented categories in the Bosnia and Herzegovina PAN are III (natural monument or feature) with 44% and V (protected landscape) with 29%, accounting for 73% of the country's total protected area. There's no PA in the category Ib.

According to the spatial documentation, it is planned to protect about 16% of the state territory (FBiH: 17% of the total area, RS: 15.5% of the total area). However, Bosnia and Herzegovina is among the countries with the least formal protected territory in Europe. The main impediments to the efficient implementation of planning goals aimed at protecting nature are: anthropogenic pressure; fragmentation and destruction of habitats; excessive exploitation of natural resources; lack of sustainable and synchronized PA management due to the complicated political-administrative constitution; no PA in Brčko District; irrelevant evaluation of certain PA in Bosnia and Herzegovina, due to the lack of scientific approach. The IUCN recommends that each country protect at least 10-30% of its territory, whereas the global average is 14.7%, placing Bosnia and Herzegovina below both the international standard and the global average. However, „the regional average is 7%, so the goal is to expand PA and use their development potential, which has recently been supported by international institutions in Bosnia through various initiated projects. In accordance with the foregoing, Bosnia and Herzegovina doubles the proportion of its land area that will be designated as protected, from 2% to at least 4%“ (UN Environment Programme, 2017). According to data for 2022 (WDPA, UNEP-WCMC, Protected Planet), Bosnia and Herzegovina's reached 4% of its protected territory. Thus, it indicates some progress in the field of environmental and nature protection. Lately, there's been a positive trend in the growth of protected areas, mostly in the tourism categories (III, IV, V), and the number of protected areas increased from 29 IUCN PA (2016) to 45 IUCN PA (2022) in Bosnia and Herzegovina. „In addition to the existing national parks in BiH, it is planned to effectively protect the mountain areas as a key zone in the network of protected areas: a) the Olympic mountains (Igman, Bjelašnica); b) the mountains of Herzegovina's endemic center (Prenj, Čvrsnica, Čabulja); c) Mt. Vranica; Šator; Grmeč; d) the mountain complexes of Konjuz-Zvijezda-Tajan; e) Livanijsko field. Other areas proposed in the physical plans of both entities would serve as islands and corridors in PAN of Bosnia and Herzegovina“ (Drešković & Mirić, 2017). The main reasons for establishing PAN are sustainable tourism and the protection of biodiversity of global importance, as well as the economic development of protected areas, local communities, and the country as a whole.

5.2. PAs as (Eco)Tourism Spots

Spot (site) is a particular point, place or area, especially one that has a particular character or where something particular happens, or that is used for a particular purpose (Oxford). Protected areas are green sites and tourism spots at the same time. „Ecotourism is tourism in protected areas“ (IUCN), it is based on nature and sustainable activities:

• green exercises (walking, hiking, recreation, forest bath, „feeling the nature“);
• science and education;
• conservation and preservation;
• managed visits (small guided groups) and sustainable tourism;
• generating benefits (socio-cultural, economic, environmental).

As the foundation of sustainable development, protected areas imply controlled access, healthy activities, limited anthropogenic effects, and targeted management to preserve the natural heritage and enable other benefits (socio-cultural, economic, and ecological). Protected areas are the primary sites of ecotourism, which is the main form of sustainable tourism. “All nature-based forms of
tourism in which the main motivation of the tourists is the observation and appreciation of nature as well as the traditional cultures prevailing in natural areas” (UNWTO). “Benefits derived from ecosystems services coming from tourism and value derived from nature is estimated 17 billion EUR a year” (IUCN). PAs are recreational sites and tourist destinations, and they are also nodes of sustainable tourism in terms of legal foundation, protection regime, and management control. "Ecotourism focuses on nature but also includes rural and cultural aspects of tourism“ (Košić, 2012). Protected areas, as ecotourism destinations, focus on experiencing nature; they provide activities in nature (education and research, enjoyment and recreation), conservation, and guided visits in small groups, including local participation. „Ecotourism is generally, but not exclusively organized by specialized tour operators for small groups. Service provider partners at the destinations tend to be small, locally owned businesses. It minimizes negative impacts upon the natural and socio-cultural environment“ (UNWTO). Well-planned tourism, primarily "ecotourism", brings numerous benefits for locals living near protected areas. Increasing the standard of living can be achieved with the improvement of infrastructure and telecommunications, education and training, and health care. Tourism in PAs promotes sustainable development through the valorization of local arts and crafts, culture, ambient sites and motifs, and wildlife; altogether, they generate tourism in the area. Ecotourism encourages and strengthens the local community through skill development and government support. Ecotourism infrastructure promotes local craftsmanship to increase local income and employment. Tourism can be a mechanism for health benefits, social infrastructure, and local development in the remote management of protected areas (Leung et al., 2015). „Ecotourism supports the maintenance of natural areas which are used as ecotourism attractions by:

• Generating economic benefits for host communities, organizations and authorities managing natural areas with conservation purposes;
• Providing alternative employment and income opportunities for local communities;
• Increasing awareness towards the conservation of natural and cultural assets, both among locals and tourists“ (The British Ecotourism Market, UNWTO, 2002).

The current efforts of the developed world and international organizations to increase the percentage of protected territory up to 30%, clearly reflect the positive development tendencies of the world's ecotourism, which is stated in the literature to be the fastest growing form in the tourism industry, because protected areas serve as the home to the realization of numerous sustainable activities, and selective forms of tourism: photo safari; bird watching; animal observation; rafting; paragliding; cycling; skiing; riding; recreation and wellness; hiking; mountaineering; educational tours; forest meditation; volunteering; ecotourism; natural tourism; religious tourism; geotourism; rural tourism; cultural tourism; health tourism; scientific tourism, etc.

Protected areas in Bosnia and Herzegovina are funded through regular budget funds as well as private contributions. Entrance and various fees, the provision of tourist services, and the sale of wood mass after sanitary felling, generate revenue (Report-Regional Overview, 2021). Direct (e.g. tickets, transport, food and drink, etc.) and indirect tourist consumption (e.g. accommodation and infrastructure buildings, etc.) are important sources of income as well. According to Hrelja (2022), despite being "threatened" by the dynamic growth of tourism and congestion, Bosnia and Herzegovina's national parks have a high degree of preserved natural vegetation cover, i.e. „high“ and „very high“ forest area ranging from 75 to over 90%; they also have high creditworthiness for socioeconomic valorization (tourism, agriculture, forestry, and construction), with the participation of the „most valuable“ and „very valuable“ terrain in the total structure about 16-18%. Thus, national parks in Bosnia are perfect spots for sustainable tourism and green activities.
According to the data of several market research centers (Grand View Research; MMR; Million Insights), the global expansion of ecotourism has the following characteristics:

- The global ecotourism market has impressive value USD 176.03 billion (2020) and is expected to expand at a compound annual growth rate of 10.3% from 2021 to 2028;
- Growing travelers’ interest in primate ecology has amplified the market growth;
- The rising popularity of immersive and solo trips, and outdoor recreational activities in PAs;
- Wildlife tourism held the largest share of more than 33.0% in 2020 and is expected to witness the fastest growth from 2021 to 2028;
- Europe has the largest ecotourism market (Iceland, the Netherlands, Sweden, Denmark, France, Germany- the major countries driving the market for ecotourism);
- The survey results from 91 countries, including Bosnia & Herzegovina, confirmed the growing importance of ecotourism, with 95% positive responses: „ecotourism growing“ (1-5%) and „growing fast“ (5+%)(The International Ecotourism Society).

![Figure 5. The survey results from Bosnia & Herzegovina – ecotourism research (%)](source: Žunić, 2022)

The survey results about ecotourism in Bosnia and Herzegovina further confirmed the awareness and need for ecotourism in Bosnia and Herzegovina (dmtn. responses). Bosnia and Herzegovina is regarded as an ecotourism destination, its residents are practicing ecotourism forms and activities, and they have already visited some PA in the country.

Both tourism and ecotourism in Bosnia and Herzegovina have a positive trend, as the country had “positive tourism growth rate for the period of 2014-2018., a significant number of arrivals (dmnt. from SE Europe, Turkey, UAE, etc.), the longest overnight stays of Arabian tourists from Middle East (Kuwait, Qatar, UAE), including Malta and Ireland” (Žunić, 2022).

Protected areas in BiH are strictly supervised as an official node of nature protection, and their management is governed by spatial planning documentation and other legislation. The entrance fee system governs access, while infrastructure includes connecting roads, pedestrian paths, and specific modes of transportation (e.g., Trebević cable car). There are marked trails and educational infoboard on the protected sites, while certain activities (e.g., barbecues) are prohibited depending on the management category. Organized visits (tour operators, schools) are conducted for groups of 5-30 people on agreed-upon dates, whereas individual visits are subject to the day use visitor access; it is shorter in winter due to the earlier sunset and the "awakening" of wildlife. Summer is the busiest season for tourists, with visitors staying for an average of 3-5 hours.
demonstrating Bosnian PAs' tourism importance. „Same-day / day visitors spend at least 3 hours away from home outside their usual environment for general leisure, recreational and social purposes but not staying away overnight, while even leisure day visitors, who spend less than 3 hours in a certain locality, also contribute to the local tourism economy“ (UNWTO; Office for National Statistics, UK). According to available statistics for certain protected areas in BiH (Internal Archive of FBiH PAs; business portal "Novosti Plus", and other cited sources), the number of visitors is increasing, as are tourist visits to the country. However, there is no networked monitoring or statistical transparency of protected area visits, and records are primarily limited to the number of tickets sold or parking utilization. To illustrate, the following indicators of tourist growth in selected Bosnian PAs show a positive trend in tourism growth and importance (except NP Kozara, RS):

<table>
<thead>
<tr>
<th>Name &amp; category of PA</th>
<th>Year</th>
<th>Visitors</th>
</tr>
</thead>
<tbody>
<tr>
<td>NP Una (IUCN-II)</td>
<td>2018</td>
<td>100.000</td>
</tr>
<tr>
<td></td>
<td>2019 (inc.)</td>
<td>119.000</td>
</tr>
<tr>
<td></td>
<td>2022</td>
<td>128.000</td>
</tr>
<tr>
<td>NP Kozara (IUCN-II)</td>
<td>2018</td>
<td>130.000</td>
</tr>
<tr>
<td></td>
<td>2019. (dec.)</td>
<td>122.000</td>
</tr>
<tr>
<td></td>
<td>2021</td>
<td>99.800</td>
</tr>
<tr>
<td>Bijambare (IUCN-V)</td>
<td>2018</td>
<td>64.645</td>
</tr>
<tr>
<td></td>
<td>2019 (inc.)</td>
<td>68.789</td>
</tr>
<tr>
<td></td>
<td>2022 (Jan-Nov)</td>
<td>56.900</td>
</tr>
<tr>
<td>Spring of Bosnia (IUCN-III); nucleus</td>
<td>2018</td>
<td>188.689</td>
</tr>
<tr>
<td></td>
<td>2019 (inc.)</td>
<td>275.089</td>
</tr>
<tr>
<td></td>
<td>2022 (Jan-Oct.)</td>
<td>267.651</td>
</tr>
<tr>
<td>Trebević (IUCN-V)</td>
<td>2019.</td>
<td>1.000.000</td>
</tr>
<tr>
<td></td>
<td>2022.</td>
<td>1.500.000</td>
</tr>
</tbody>
</table>

Source: Author

Mostly visited and most popular protected areas in Bosnia and Herzegovina are those in Sarajevo (the capital), led by the protected landscape of Trebević and the natural monument Spring of Bosnia. „Natural attractions in the vicinity of Sarajevo make an important addition to the basic tourist image of the city, which primarily refers to the mountains and the protected areas“ (Mirić et al., 2017).

6. FUTURE RESEARCH DIRECTION (FRD)

To ensure the most effective mode of managing visits, FRD should be oriented toward successful visitor monitoring in EU PAs and the feasibility of its implementation in BiH PAs. In the future, researchers should collaborate with PA agencies and other relevant offices to collect and present tourist statistics data for all PAs. Because there is no integrated visitor monitoring at protected sites, alternative methods could be used to complete the picture (e.g., visitor counting and surveys).

7. CONCLUSION

Even though Bosnia and Herzegovina hasn’t achieved its goal to protect about 16% of its territory, and the recent percentage is four times lower than what was planned, there's been a positive trend in the growth of PAs lately. Sarajevo, the country's most visited destination, is an example of the growing number of PAs as their importance in tourism is recognized. The fact is
that Bosnia is developing as a tourism destination with a significant tourism growth rate, which is followed by the popularization of PAs, especially because demand for ecotourism is growing too. As Bosnia tends to implement the international agreements' objectives in the field of nature and environment protection, governments at all levels will have to cooperate more efficiently. Furthermore, visitor management in PAs should be a priority for implementation, starting with Sarajevo PAs, as it’s the capital and most popular destination. The scientific foundation for the future development of PAs must be strengthened and supported through projects and other relevant documentation in the field of spatial and tourism planning. Once effective visitor monitoring in PAs is established, transparent statistics will explore tourism benefits. Thus it will stimulate the development of new protected areas, but it will also enable their more sustainable management.

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