Durmitor National Park

SITE INFORMATION

Country: Montenegro
Inscribed in: 1980
Criteria: (vii) (viii) (x)

Site description:
This breathtaking national park was formed by glaciers and is traversed by rivers and underground streams. Along the Tara river canyon, which has the deepest gorges in Europe, the dense pine forests are interspersed with clear lakes and harbour a wide range of endemic flora. © UNESCO
SUMMARY

2014 Conservation Outlook

Significant concern

Due to serious financial constraints and lack of personnel, in particular field personnel, and the limited capacities of all staff, the current management of the site cannot effectively address all present threats, such as illegal logging, uncontrolled urban and tourism infrastructure development, growing impact of tourism activities, which are serious but rather localized. Pollution from former mining upstream the Tara River is of serious concern, as is introduction of non-native fish species and poaching of large fauna. On the other hand, there are high concerns regarding potential threats, particularly new hydropower project, which could not be controlled or even mitigated by the park authorities and which could have a much larger and potentially irreversible impact on the sites’ values and integrity.

Current state and trend of VALUES

High Concern
Trend: Deteriorating

Urban development (scattered constructions on large area), skiing area and power lines have had a serious impact on the landscape beauty of the site. Biological values of the site appear to be stable, but threatened by some localized activities (illegal and legal logging, tourism activities in the Tara canyon). However, pollution from former mining upstream the Tara River is of serious concern, as is introduction of non-native fish species. Geological features of the site appear in good condition and stable, however, new hydropower projects represent a high potential threat to the canyon and the underground karst system.
Overall THREATS

High Threat

The current threats, including growing urban and tourism infrastructure development, pollution from mining and impacts of power lines, are serious and also have a serious visual impact. The current management does not appear to be able to adequately address the threats. However, these threats are affecting only a small portion of the site. On the other hand, potential threats, particularly the hydropower projects, could have a much larger and potentially irreversible impact.

Overall PROTECTION and MANAGEMENT

Serious Concern

The management is insufficient due to the lack of personnel and financial resources, and particularly field personnel, as well as the lack of political support and poor integration of local communities in the protection of the site. Legal framework appears adequate, however its enforcement and control of illegal activities are limited by the lack of resources. Education and interpretation programmes are practically nonexistent and monitoring and research activities are very limited.
FULL ASSESSMENT

Description of values

Values

World Heritage values

▶ Exceptional natural beauty
  
  Criterion:(vii)
  
  Formed by glaciers and traversed by rivers and underground streams, the Park is particularly known for the Tara river canyon, which has the deepest gorges in Europe, as well as for its dense pine forests, interspersed with clear lakes, and a wide range of endemic flora (IUCN Evaluation, 2005). The River Tara, one of the last wild rivers in Europe, has pure, clear waters, a gorge 1,300 m deep and notable floristic and faunistic diversity. The 16 glacial lakes of the Durmitor and the canyons of the Tara, Susica and Draga rivers were formed during the Quaternary period, following the sudden thaw of the snow and the formation of glaciers on the Durmitor and neighboring mountains. There are numerous examples of weathering processes, rock shapes and land features characteristic of karstic erosion, fluvial erosion and glacial erosion (UNESCO website, retrieved January 2014).

▶ Geological features
  
  Criterion:(viii)
  
  Geologically, Durmitor and Tara canyons are made up of rocky massifs of the Mesozoic era (from the Lower Triassic to the Upper Cretaceous), Tertiary and Quaternary periods. The dominant features are the limestone formations of the Middle and Upper Triassic, the Upper Jurassic and the Upper Cretaceous, especially the so-called Durmitorean flysch. There are displays many karst features: rugged peaks, limestone plateaus, deep canyons, caves, dolines,
etc. (UNESCO website, retrieved January 2014).

▸ Rare and endemic species
Criterion:(x)

The park supports a rich karstic flora with many rare and endemic species. Durmitor together with the Tara Canyon represents one of the most important refugium of arcto-terciar flora on which indicate the large number of endemic, relict and endemic-relict species. Endemic flora of Durmitor comprises of 175 species which represents 12% of the total of the flora of this massive. To high mountain endemics belong 122 species, which is 77% of the total endemic flora of this massive, and 15 % of the total high mountain flora. The park contains one of the last virgin black pine forests in Europe, on soils that would usually develop beech woodland. The Tara and its tributaries, as well as the lakes, contain a large number of salmonidae. Forest fauna includes brown bear, wolf, wild boar, wild cat, chamois, various species of eagle, capercaillie, black grouse and rock partridge (UNESCO website, retrieved January 2014).

Assessment information

Threats

Current Threats
High Threat

The current threats, including growing urban and tourisma infrastructure development, pollution from mining and impacts of power lines, are serious and also have a serious visual impact. The current management does not appear to be able to adequately address the threats.

▸ Housing/ Urban Areas
High Threat
Uncontrolled development of the town of Zabljak, inside and outside the property. The absence of spatial planning or the lack in its enforcement has led to many illegal constructions (mainly holiday houses) scattered especially around the town of Jablak (R14, R17, R18, R19, R21).

The town of Zabljak with its immediate surroundings have become interesting for investors in the recent years; a large number of holiday homes were built in the protection zone of the national park", often built without any prior plans and adversely affecting the overall image of the space (R8). The government adopted a decision on developing a new Spatial Plan for Special Purposes for Durmitor.

Future urban development in municipalities within the Park, in particular in Zabljak, should be urgently regulated through adequate plans, considering the rehabilitation of the entire area, in particular, such infrastructures as sewage and waste disposal systems should comply to international environmental standards. (R10)

▶ Tourism/ Recreation Areas

High Threat

Construction of ski runs and lifts inside the property (R10, R14, R17). Jablak is one of the most important ski resorts in Montenegro, easily accessible from Podgorica. A medium-size skiing area has been developed inside the property, including chairlifts and ski run preparation, placing additional inadequately planned growth pressure on the area (R10). Pressure for further developments exists.

▶ Mining/ Quarrying

Low Threat

A mining area with polluted reservoir is located upstream on Tara (R10). The lead mine tailings and toxic waste disposal are located 32 km upstream of the National Park borders. The lead and zinc mine in Mojkovac, was in operation from 1976 to 1991. The floatation of ore was part of the technology. The waste which was stocked in an area of 19 hectares
(altogether around 2 million m³) was purified, but after closure of the company, the floatation and other waste devices are no longer functioning, therefore the situation today is far more dangerous for the environment and in particular for the Tara River, in comparison to the time when the mine was in operation. Today the waste storage includes: 20% lead, 30-40% zinc, 10% copper, 4-5% pig iron and 10-12% sulphur, with traces of cadmium, antimony and mercury. The sewage system of Mojkovac terminates in this waste storage, as well as the waters from the main road and the petrol station; the area is now used as an open waste disposal area. (R10) A plan to reactivate the mines apparently still exists (R17). The mine tailings have been solidified through the remediation project so the threat has decreased.

► Utility / Service Lines

Data Deficient
Inside site
Outside site

Corridor transmission lines crossing the National Parks Lovcen and Durmitor, including and the Tara canyon. Threat to red list species. (R20). The Detailed Spatial Plan (DSP) for the corridor of 400 kV transmission line with the optical cable from the Montenegrin coast to Pljevlja and 500 kV submarine cable with optical cable, Italy - Montenegro, which was adopted by the Government of Montenegro at the meeting of 28 July 2011, includes parts of the Municipalities of Budva, Kotor, Cetinje, Niksic, Pluzine, Savnik, Zabljak and Pljevlja. In order to create a connection between the coast and Pljevlja, it is inevitable for the future corridor to pass through the area of National Parks Lovcen and Durmitor (R8)

► Tourism/ visitors/ recreation

Low Threat
Inside site
Outside site

Heavy road traffic and canyoning along the Tara gorges (personal observation). The main highway along the Tara river is an important communication road in Montenegro; it gives easy access to some section of the Tara river with risk of pollution and deterioration of the naturalness character of the gorges.
IUCN World Heritage Outlook: https://worldheritageoutlook.iucn.org
Durmitor National Park - 2014 Conservation Outlook Assessment (archived)

► Logging/ Wood Harvesting
   High Threat
   Inside site
   Outside site

Illegal logging inside the park; heavy logging in old forest at the park borders (R16, R19, R20, R21). Repeated concerns about logging of valuable old growth subalpine forests have been recorded. These forests constitute one of the key values of the Park.

► Dams/ Water Management or Use
   High Threat
   Inside site
   Outside site

Dam on Piva river impact on fish populations (R10). The dam was constructed on the Piva river at the western border of the park. The important artificial variations of the downstream water flow are a major threat for fishes and other aquatic animal and plant species. Furthermore a very large dam project on the Tara itself with potentially irreversible damages has been discussed since the late 90's.

► Commercial hunting
   High Threat
   Inside site
   Outside site

Poaching of chamois, as well as bears and wolves (R21, R20). Illegal hunting is often mentioned as one of the key threats to the area. Illegal fishing and inadequate fishing policy, including restocking with alien species, is a major threat to the aquatic life of the Tara River and the lakes within the Park (R20). Illegal fishing involves use of harpoons with scuba equipment.

► Invasive Non-Native/ Alien Species
   Low Threat
   Inside site
   Outside site

Restocking of the river and lakes with non-native fish species (rainbow trout)
Several lakes, not connected with the river system and originally without fish, have been stocked artificially.

**Potential Threats**

**Very High Threat**

There are extremely serious potential threats to the site’s values and integrity. The potential flooding of the Tara canyon due to hydropower projects is the most serious one. There are high risks of pollution and of deep modification of the river Tara as well. The uncontrolled urban development of Zabljak is threatening the landscape, and to a certain extent the biological values of the site. Another exclusion of some areas from the territory of the national park does not appear as a solution to solve this problem.

**Dams/ Water Management or Use**

**Very High Threat**

- **Inside site**
- **Outside site**

Recurrent threats of dams construction in the Tara canyon in Montenegro or Bosnia and Herzegovina with flooding of the major part of the canyon and/or water diversion from the Tara river to Moraca river have been recorded since the mid-80’s (R10, R15, R17, R20).

**Proposed Hydropower Project Buk Bijela (HPBB):**

The project, started in 1957 with a project proposal submitted by the Belgrade-based company “Energo projekt”. Despite the designations of the Tara River Basin Biosphere Reserve (1977) and the Durmitor National Park World Heritage site (1980) and the decisions of the World Heritage Committee (1985 and following sessions), the project was reactivated again in 1988 by the Elektraprivređa company of Montenegro and Bosnia. In 1998, a Memorandum was signed with the Montenegro authorities and their counterparts, and in 1999 a financial study was completed. From 2000 to 2002 discussions for a public tender took place and the process was completed on 30 April 2004. The environmental impacts of the HPBB project would directly affect the geological, hydrological, climatic and biological features of the area concerned (R10).

The project was stopped under the pressure of the NGOs and of the
international communities; however its realization appears still to be possible (R20).

Regarding the capture of the water from the upper Tara Basin to be used for the Moraca hydroelectricity project, the threat is still present (R17, R20). However the impact for Durmitor would be less significant and not irreversible.

The government of Montenegro has initiated a Detailed Spatial Plan for the area of multipurpose reservoirs on the Moraca River; which has to take into account defined strategic guidelines, in particular the "Full preservation of the entire flow of the river Tara in accordance with the Declaration adopted by the Montenegrin Parliament, which represents a substantial confirmation of the constitutional commitment to the development of Montenegro as the ecological state "(R8)

**Other**

- **High Threat**
- **Inside site**
- **Outside site**

A first boundary modification was adopted by the WHC in 2005 adjusting the borders to theses of the National Park, thus excluding the Town of Zabljak. A possible extension to include the whole Tara River Canyon as suggested by the 2005 monitoring mission was not considered (R10)

A new initiative for border modification appeared recently:

The Public Enterprise for National Parks of Montenegro (PENPMNE), as the administrator of National Parks in Montenegro, referred an initiative to the Ministry of Sustainable Development and Tourism (former Ministry of Tourism and Environment) to exclude some particular parts devastated by illegal construction (Razvrsje, Moticki gaj and Virak) from the National Park Durmitor..I It was indicated that the area proposed for exclusion lost its essential natural properties which made it qualify for the protection, so that it was difficult for the PENPMNE to implement measures to preserve, protect and promote the Durmitor NP.(R8)

The Institute for Nature Protection provided a Draft Study to the Ministry of Tourism and Sustainable Development (formerly the Ministry of Spatial Planning and Environment) in September 2010, and an updated Study in November 2011.

The Study includes a proposal for inclusion of certain parts of the wider zone
of Komarnica, including: Canyon Nevidio, Grabovica, the forest complex of Dragisnica and Bolja and a proposal for excluding some areas in the zone of Zabljak: Razvrsje, Virak, Moticki gaj, Poscenski area, Poljane, etc. (R10)

Temperature changes

- Low Threat
- Inside site
- Outside site

Increasing forest fires, threats to habitat of endemic species (R11). Some valuable stands of old pines and location of endemic species in the Tara canyon could be threatened by fire in case of global temperature increase.

Protection and management

Assessing Protection and Management

- Relationships with local people
  - Serious Concern

There is a lack of involvement of the local people and the civil society into the planning and management. There is almost no communication between park authorities and local communities. Discussion tables were organized in relation to the hydroelectric construction project but they were considered insufficient (R10). Public access to data is needed (R20) as well as improvement of the communication with local stakeholders (R21).

- Legal framework and enforcement
  - Serious Concern

Durmitor is one of the 5 National parks of Montenegro under the authority of the Public Enterprise for National Parks, based in Podgorica. Since 1952, the area of the Durmitor region is legally protected as a National Park. In addition, in 1967 the Tara River Canyon was declared a Nature Reserve and Nature Monument (Decree 1/12/1977, Republic Institute of Nature Conservation). This represented the legal basis for both UNESCO designations: the Biosphere Reserve in 1977 and the nomination and inscription of the site to the World Heritage List in 1980.
In its Constitution (Article 1), the Republic of Montenegro has declared itself an “ecological state”, to give high priority to its important number of natural assets. Based on this premise, a comprehensive protected area system was established and reinforced with four existing national parks, as well as numerous nature reserves and other protected areas. New designations are also planned, including in the Durmitor region, such as extensions to Durmitor National Park proposed in the Special Plan of the Area of Durmitor (1997).

Legal basis appears to be sufficient but its implementation and control of illegal activities are considered as largely deficient (R16, 17, 18, 20, 21).

Integration into regional and national planning systems

Data Deficient

No information available; recommendations for extension of the protected area to the West including collaboration with BiH (R10) have not been followed upon.

The drafting of a new management plan was supposed to be completed by 2012 and would integrate the outcomes of the Strategy for Sustainable Development (R8).

Management system

Some Concern

The National Park is managed by the Public Enterprise for National Parks, based in Podgorica. The Enterprise carries out activities which involve the function of protecting and improving the national parks. Mechanisms for the protection of the site are carried out through spatial planning documents. The following documents guide the management: a Special Purpose Spatial Plan in accordance with the law; a five-year management plan and the annual management program based on the five-year plan.

**Management effectiveness**

Some Concern

No data available, but management generally considered as largely deficient by NGOs and experts (R17, 18, 19, 20, 21). Management plans (5-yr) are ok, and are being prepared according to the latest standards. It is their implementation, monitoring and evaluation that needs to be improved. Adaptive management is lacking.

**Implementation of Committee decisions and recommendations**

Some Concern

Decision partially implemented (R2, R3). Dam projects currently stopped; some efforts to include NGOs in discussions (R4, R6, R11).

**Boundaries**

Some Concern

Boundaries of the site were modified to correspond to the new boundaries of the National Park, which in fact accommodates urban development in the area (R10).

Various recommendation for extension and inclusion of the whole Tara canyon (R10) have to date not been followed, though discussions are ongoing as about potential extensions as a compensation for further exclusion of territories around Zabljak (R8). Buffer zone situation is unclear (R13).

**Sustainable finance**

Some Concern

Limited finances; park has to generate its own income (R19, R20). There is a tax on canyoning and some other services, but the generated money becomes the part of the central budget and is not used solely for funding activities of the NP Durmitor.

According to the Law on National Parks, funding for the Public Enterprise for National Parks of Montenegro, and consequently the Durmitor National park, is provided from the following sources: 1) the State budget, 2) fee for the use of resources, i.e. their own income; 3) donations and, 4) other sources in
accordance with the Law (R8 – no figures).

**Staff training and development**  
*Some Concern*

NP of Montenegro have 130 employees for 5 parks. Most of these are administrative staff and very few are actually working in the field (R20). There are no systematic and targeted staff training and capacity development programs.

**Sustainable use**  
*Data Deficient*

No information available.

**Education and interpretation programs**  
*Serious Concern*

Sporadic (ad hoc) and very limited in scope.

**Tourism and interpretation**  
*Some Concern*

One interpretive trail; small outdated exhibition in the visitor center. Information materials limited. Public information regarding the World Heritage designation is limited.

**Monitoring**  
*Serious Concern*

No serious monitoring – only info from NP administration with very scattered scientific data (R17, R20, R21). According to the SP report several activities are ongoing (R8), but no results are currently available.

**Research**  
*Serious Concern*

Some research activities are ongoing, but there is no coordination. Research findings usually not available to the public or park authorities, nor are utilized...
Overall assessment of protection and management
Serious Concern

The management is insufficient due to the lack of personnel and financial resources, and particularly field personnel, as well as the lack of political support and poor integration of local communities in the protection of the site. Legal framework appears adequate, however its enforcement and control of illegal activities are limited by the lack of resources. Education and interpretation programmes are practically nonexistent and monitoring and research activities are very limited.

Assessment of the effectiveness of protection and management in addressing threats outside the site
Serious Concern

There is a high risk of water pollution from upstream mining area; in addition, diversion of water from the Tara river into the Moraca would seriously threaten the integrity of the Park. Water pollution, diversion of water (Tara), dams, etc. The waste water treatment and waste management situation in the town of Zabljak are unknown; due to the karstic character of the area they present a serious risk and the capacity of the management to address these threats is very low.

State and trend of values

Assessing the current state and trend of values

World Heritage values

Exceptional natural beauty
High Concern
Trend: Deteriorating

The spectacular landscape formed by limestone mountains cut by rivers and canyon is suffering from serious impact from constructions (extension of
Jablak and holiday homes), infrastructure (power lines, roads), ski resort and associated infrastructure. (R10, R16-21). However a large part of the site is still largely intact. Dam construction downstream on the Tara would irreversibly affect the landscape value of the site (R10).

**Geological features**

- **Low Concern**
- **Trend:** Stable

The geological values of the site appear in good condition and stable, however the dam downstream on the Tara if constructed could irreversibly affect the canyon and the underground karst system (R10).

**Rare and endemic species**

- **Low Concern**
- **Trend:** Stable

Long-term impact of climate change would increase the risk of fire in the canyon and threaten rare species and their habitats; introduction of non-native fish species represents a threat to native species (R20). Pollution from former mining area upstream represents a serious threat to flora and fauna of the site. Old growth forests are logged legally just outside the park and also sometimes illegally inside. Heavy tourist use of the Tara canyon (rafting, picnicking, etc.) and fire may affect habitats of rare and threatened species. However the higher part of the mountain is currently still well preserved. (R16-21)

**Summary of the Values**

**Assessment of the current state and trend of World Heritage values**

- **High Concern**
- **Trend:** Deteriorating

Urban development (scattered constructions on large area), skiing area and power lines have had a serious impact on the landscape beauty of the site. Biological values of the site appear to be stable, but threatened by some localized activities (illegal and legal logging, tourism activities in the Tara
canyon). However, pollution from former mining upstream the Tara River is of serious concern, as is introduction of non-native fish species. Geological features of the site appear in good condition and stable, however, new hydropower projects represent a high potential threat to the canyon and the underground karst system.

**Additional information**

### Key conservation issues

▶ **Land use and EIA**

Local

An environmental impact assessments is needed for all potentially impacting projects and an effective land use planning should be established.

▶ **Participation and communication**

Local

Local communities need to be more involved in the management and planning.

▶ **Sustainable tourism**

Local

The focus from impacting tourism activities (ski) should be switched to sustainable tourism; careful monitoring tourism activities and their impact (e.g. canyoning on Tara) is required.

▶ **Financing**

Local

The park financing needs to be increased.
Understanding Benefits

- **Outdoor recreation and tourism**

  High potential for sustainable tourism (hiking, nature discovery, rural tourism); already used for canyoning (fee collection and control).

- **Commercial wells**

  Source of clean / drinking water for large areas. Dams and water diversion could severely affect this resource

- **Legal subsistence hunting of wild game**

  The park is certainly a significant reservoir for game species (chamois, deer) but also for large carnivores (wolf, bear).

- **Water provision (importance for water quantity and quality)**

  Forests and other vegetation provide watershed protection (especially on the steep mountain and canyon slopes)

Summary of benefits

Wild nature and spectacular landscape suitable for recreation and nature discovery activities. Water reservoir. Watershed protection

Projects

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<th>Organization/ individuals</th>
<th>Project duration</th>
<th>Brief description of Active Projects</th>
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<tr>
<td>1</td>
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### Compilation of potential site needs

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<tr>
<th>№</th>
<th>Site need title</th>
<th>Brief description of potential site needs</th>
<th>Support needed for following years</th>
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<tbody>
<tr>
<td>1</td>
<td>Capacity building</td>
<td>Creating targeted capacity building programs for continuous staff training (for financial planning, monitoring, species conservation actions, visitor management etc)</td>
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<td>2</td>
<td>Information / Education</td>
<td>Renovation of the tourism infrastructures (Visitor center, signs, etc); preparation maps and information material as well as interpretation and education programmes</td>
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<td>3</td>
<td>Communication and participation</td>
<td>Establish efficient consulting and scientific bodies in support to the Park administration and improve public participation and communication as well as cooperation with local communities</td>
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<tr>
<td>4</td>
<td>Management plan</td>
<td>Preparation and implementation of a long term (10 years) management plan according to international standards. Harmonize the designations.</td>
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# REFERENCES

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