



The Mavrovo National Park, Macedonia

Dam construction plans put national park at risk!



Location of Mavrovo National Park in Macedonia
(Kerstin Sauer)

The Mavrovo National Park in Macedonia is one of Europe's oldest national parks. It is famous for its extensive beech forests, alpine meadows, pristine rivers and streams. A huge variety of species, such as rare trout species, wolves, bears, and otters, live in the park. One species is outstanding though: the Balkan Lynx (*Lynx lynx balcanicus*). The Mavrovo National Park is the centre of the remaining population of this critically endangered subspecies of the Eurasian Lynx.

The park hosts more than 1,000 different plant species. It is part of the southernmost section of the European Green Belt - an outstanding ecological network that has developed undisturbed along the former iron curtain.

The threats



LUKOVO POLE

Two large scale hydro-power projects (HPPs) are planned inside the park - "HPP Boskov Most" and "HPP Lukovo Pole". Both projects depend on funds from international financial institutions and are undermining the very idea of a national park. If these two projects - or even one of them - will be implemented as foreseen, severe negative impacts on the biodiversity of Mavrovo National Park will be the consequence. Moreover, these projects risk the revocation of the national park status.

The location of the HPP project sites Lukovo Pole and Boskov Most inside the national park
(Source: Stakeholder Engagement Plan, Project: "Hydropower Plant Boskov Most", prepared by GEING KuK Skopje)

BOSKOV MOST

Hydropower Plant Boskov Most



HPP Boskov Most: two rivers that would be affected by drainage and daily flush, the Mala River (left) and Radika River (right) (Romy Durst).

The dam project Boskov Most is located in the upper Mala Reka valley in the southernmost part of the national park. The main source of funding for this dam project is the EBRD - the European Bank for Reconstruction and Development. The HPP is designed to produce peak energy. For that purpose the discharge of Mala River as well as its two major tributaries and several smaller streams in the area will be diverted into a reservoir via pipes and canals. On demand, the water will be released once a day. This will mean daily flushes, which have enormous negative impacts on biodiversity and species populations in the river sections below the power-house - and all this in a national park. Furthermore, riverine ecology of the entire valley will severely suffer from the diversion of the majority of its natural water supplies.

Facts & Figures

Dam height:	33 m
Output:	68 MW
Max daily flush:	22 m ³ /s in 5h per day (average discharge of Mala Reka: 5.75 m ³ /s)
Construction/widening of new roads:	16.4 km
New supply channels:	19.70 km
Directly affected area inside Mavrovo NP:	935 ha
Investment:	84 Mio EUR, 65 Mio. EUR provided by a EBRD loan

The final evaluation of HPP Boskov Most's compliance with the funding criteria of the EBRD is not yet finished.

In contrast to the official conclusion of the “Biodiversity Survey” commissioned by the Macedonian Energy Group ELEM, the HPP Boskov Most would result in severe destruction of biodiversity and in population decline of endangered species. Internationally renowned experts analysed the biodiversity survey and came to the following conclusions:



The European Otter (*Lutra lutra*) is an internationally protected species.
(Wolfgang A. Bajohr)

“The proposed drainage of the streams, detailed in this report, will have an immediate negative impact on the fish habitats and fish populations in these watersheds.

In our opinion this biological diversity survey remains superficial, incomplete and misleading with regards to the otter, clearly not taking the risks to this threatened species seriously.”

Dr. Nicole Duplaix, Chair of the IUCN-SSC Otter Special Group

“The proposed actions in the National Park will have strong negative effects on the native trout populations which will largely vanish from the reservoir area as well as from the downstream sections of the dam...”

Dr. Jörg Freyhof, Leibniz-Institute of Freshwater Ecology and Inland Fisheries Berlin and European Chair of IUCN SSC/WI Freshwater Fish Specialist Group



The endangered Balkan Lynx (*Lynx lynx balcanicus*).
(MS Scopes)

“Overall, there seems to be the view that ..., the negative effects can be easily mitigated. This is not a view that I can... share, and ...I strongly feel that it is in stark conflict with the primarily management goals of an IUCN Category II National Park.”

Dr. Steven Weiss IUCN Salmonid Specialist Group (SSG) & Red List Authority (RLA) for Salmonid Fishes in Eurasia

“Mavrovo hosts [...] the last source of population with reproduction of the Balkan lynx [...]. Putting any additional stress on this source population may lead to the extinction of one of the most threatened mammal populations in Europe.”

Dr. Urs Breitenmoser, Co-Chair, IUCN-SSC Cat Specialist Group



Hydropower Plant Lukovo Pole



The dam construction site - this area is to be flooded.
(Ulrich Eichelmann)

This project is planned to be constructed close to the Macedonian border with Kosovo. The main source of funding is the World Bank. The Lukovo Pole project shows many similarities with Boskov Most. The water will be diverted from several tributaries to the Radika River, which will be channelled to the reservoir through a pipe system.



Fritillaria macedonica on an official stamp (2008) as part of the Macedonian natural heritage.
(Source: <http://www.wnsstamps.ch>)

Initially, the Dlaboka Reka valley, characterized by unique ancient beech forests would have been among the affected areas. Just recently it was identified as a potential World Heritage site by an international expert delegation and excluded from construction plans by the financiers - a first success. Yet, the reservoir is to be constructed in one of the richest and most beautiful parts of the national park in terms of plant biodiversity, representing a niche for the specialists amongst Europe's plant species. According to PlantLife, the Lukovo Pole project would affect 17 threatened plant species, like the endemic fritillary *Fritillaria macedonica* and *Narthecium scardicum*. Furthermore, the site hosts 13 threatened habitats, such as alpine and boreal heaths (listed in Annex 1 of the EU Habitats Directive) and Balkano-Pontic fir forests characterized by high endemism.

Facts & Figures

Dam height:	71 m
Output:	6 MW, estimated at 159 GWh per year with respect to additional benefits from existing HPPs
Max daily flush:	6 m ³ /s
Construction/ widening of roads:	> 20 km road widening and bituminisation
New supply channels:	19.95 km
Directly affected area inside Mavrovo NP:	3,546 ha
Investment:	83 Mio EUR, 70 Mio EUR provided by a World Bank loan; the World Bank has not yet confirmed supplying the funds to start the construction of the project.

Conclusions



Portal of entrance of Mavrovo National Park close to the Boskov Most project area: "Welcome to National Park Mavrovo". (Romy Durst)

- A total of over 4,400 ha of natural habitats would be directly affected by the two dam projects.
- Both dam projects are violating national park guidelines.
- In other words, the EBRD and the World Bank are planning to fund the possible revocation of Mavrovo's status as a national park!



We Demand

- The ebrd and the world bank must retract their funding of these projects!
- The government of macedonia must stop and abandon the projects
- NATIONAL PARKS ARE FOR THE PRESERVATION OF NATURE, BIODIVERSITY AND RECREATION - NOT FOR DAMS!

Save the Blue Heart of Europe Campaign

The rivers on the Balkan Peninsula are among the best preserved in all of Europe. More than 60 % of all rivers in the region are in good or very good hydromorphological condition. Additionally, these rivers are major biodiversity hotspots. 69 fish species are endemic and more than 50 % of all European freshwater-mollusc species live on the Balkans.

However, this “Blue Heart of Europe” is threatened by hydropower development: more than 570 new dams (> 1 MW) are projected from Slovenia to Albania.

Therefore, the international NGOs Riverwatch and EuroNatur have launched the campaign “Save the Blue Heart of Europe” in cooperation with several national partner organizations, aiming to protect the most valuable rivers and river stretches in South Eastern Europe from destruction through uncontrolled hydropower development.

More information:

www.balkanrivers.net
www.riverwatch.eu/balkan-rivers
www.euronatur.org/Blaues-Herz-Europas
http://ppnea.org/albanian_rivers.html

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