



FACTSHEET

AMAZON OF EUROPE MURA-DRAVA-DANUBE

MURA AT RISK OF DESTRUCTION

PLANNED HYDROPOWER DAMS IN SLOVENIA THREATEN THE „AMAZON OF EUROPE“

The Slovenian energy lobby plans to build a hydropower plant on the Slovenian side of the Mura at Hrastje-Mota, close to the Austrian border. This section of the Mura is a Natura 2000 site to protect numerous endangered habitats and species. It is part of the planned 5-country Transboundary Biosphere Reserve "Mura-Drava-Danube", also known as the "Amazon of Europe" – an area stretching from Austria, Slovenia and Croatia to Hungary and Serbia. The construction of a hydropower plant would be an irreversible impact on this unique riverine ecosystem. The planned use of the Mura for electricity production is not compatible with EU nature conservation and water law. Moreover, this hydropower plant would only be the beginning: there might be seven more dams to come, which would destroy the entire free-flowing section of the Slovenian Mura forever, transforming it into a chain of reservoirs.

Ecological value: Unique river landscape

Slovenia's biggest floodplain forests with numerous oxbows, gravel banks and riverine islands cover an area of more than 7,000 hectares

Unique biodiversity which includes white-tailed eagles, black storks, kingfishers and 64 fish species

EU protection through Natura 2000; part of the planned 5-country Biosphere Reserve "Mura-Drava-Danube"

The wild and natural floodplains along the Mura with their maze of oxbows, river islands, hidden gravel banks and flooded forests remind us very much of the Amazon. They contain the largest floodplain forests of Slovenia. Their rich biodiversity includes the sparkling blue Kingfisher, the secret inhabitant of the floodplains, the black stork, and the majestic white-tailed eagle. Rare sand martins breed in the natural steep banks and also beaver, otter and 64 species of fish, including the king of the rivers - the Danube salmon - are part of the remarkable biological wealth of the region. The free-flowing Mura and its floodplains are a guarantor for clean water and healthy forests. Above all, the riverine landscape serves local communities as a natural flood protection and is a valuable recreational area.



The Mura - one of the last retreats for the Danube Salmon (© Andreas Hartl)

A chain of eight hydropower dams

The Slovenian electricity company "Dravske elektrane" (DEM) plans to convert the Slovenian Mura into a chain of eight hydropower plants, with estimated project costs of 800 million Euros. The first six barrages are planned at the Austrian-Slovenian border stretch between Spielfeld and Radenci and two more planned on Slovenian territory between Radenci and the Croatian border.

While Austria is against the building of hydropower plants in this area, the plans are pursued vigorously by the Slovenian side: Back in 2005, the Slovenian government granted concession to DEM for the construction of these eight power stations. Since 2012, the environmental impact assessment for the first plant at Hrastje - Mota is underway. Also upstream, along the border stretch to Austria a concrete push towards new power plants was undertaken by Slovenia already. In 2005, DEM acquired a small, already dilapidated diversion power station including water rights in Ceršak. There are several variants for reconstruction, such as the damming of the Mura. These plans have already been presented to the Austrian side.

Planned Slovenian hydropower plants along the Mura (numbers rounded):

Name	Storage level (m)	Installed output (MW)	Annual output (GWh)
HPP Sladki Vrh	8	16	77
HPP Cmurek	8	16	77
HPP Konjšče	8	16	77
HPP Apače	8	16	79
HPP Radgona	8	17	82
HPP Radenci	8	17	84
HPP Hrastje - Mota	8	17	96
HPP Veržej	8	17	105
Total		132	677

Facts:

Storage level:
8 m

Installed output:
17 MW

Annual output:
96 GWh

Directly flooded area:
ca. 600 ha

Reservoir length:
8 km

Costs:
100 million € (estimated)

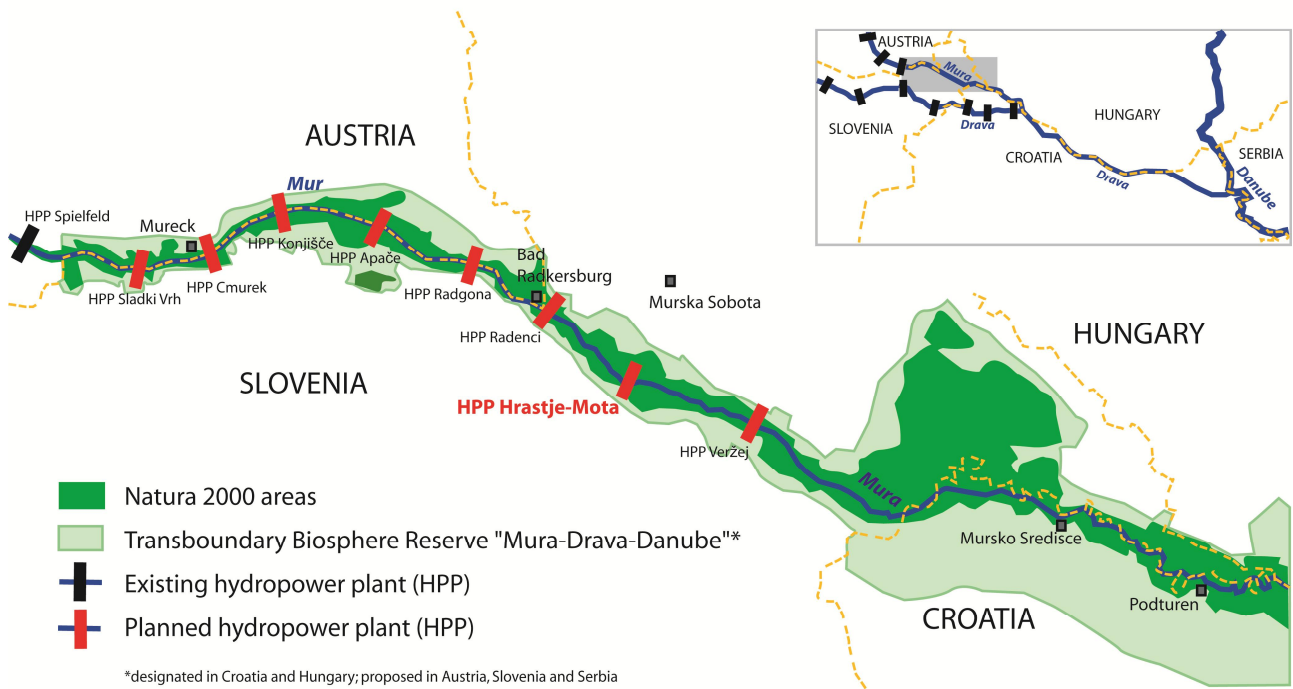
Hydropower plant „Hrastje - Mota“

The first hydropower plant is planned at the Slovenian village of Hrastje-Mota, affecting an eight kilometres long river stretch, which extends to the Austrian border. The area is a designated Natura 2000 site and also the Slovenian core zone of the planned 5-country Biosphere Reserve "Mura-Drava-Danube".

Since 2012, the national spatial plan for the construction of the hydropower plant is being prepared in Slovenia. A comprehensive Strategic Environmental Assessment (SEA) is being conducted. It examines whether the plant is compatible with Natura 2000 and it also looks at potential environmental effects on e.g. water, soil or climate. The investors' environmental report is expected in 2016, which should then be opened for public comments by the Slovenian Ministry of Environment and Spatial Planning. Austria, Hungary and Croatia are involved in the process according to the ESPOO obligation, as it is expected that the plant will have transboundary environmental impacts.



Planned hydropower plants along the Mura in Slovenia



Vision of the future:

Non-reversible environmental destruction

5 countries—3 rivers—
1 Biosphere Reserve

A hydropower plant at Hrastje-Mota would have severe impacts on the whole ecosystem along the Mura and its unique biodiversity:

Europe's largest riverine protected area with an overall size of almost 100.000 ha which corresponds to the twelvefold size of the Slovenian Triglav national park

First biosphere reserve worldwide which is commonly shared and managed across 5 countries

Flagship of international understanding and regional cooperation between EU and non-EU countries, based on a green vision

- "Decoupling" of rivers and floodplains: The constant interplay between floods and droughts within the floodplains, as well as accompanying groundwater tables ("wetland breaths") would be stopped due to the river's different water levels (high and low water). Therefore, the basic requirements for an intact floodplain and its biodiversity would be lost.
- Destruction of endangered habitats such as floodplain forests, as well as gravel banks, natural river banks, shallow water areas etc. due to retention of the reservoir.
- Displacement of typical riverine species such as kingfisher, sand martin, common sandpiper or sterlet.
- Loss of dynamic groundwater levels, thus high quality drinking water.
- Destruction of recreational areas e.g. for rafting, swimming, fishing.



Black stork and Kingfisher – typical inhabitants along the Slovenian Mura (© F.Hahn4nature, © R.Hoelzl4nature)

The dam would have transboundary impacts on the Mura floodplains upstream and downstream in the countries Austria, Slovenia and Croatia:

- Interruption of the European unique 700 km free-flowing river stretch of Mura, Drava and Danube, as well as the unbroken chain of 15 Natura 2000 sites. Obstacle for migratory fish.
- Riverbed deepening downstream of the dam. Massive increase of falling of groundwater tables and thus drying out of riparian forests and floodplain waters in Slovenia, Croatia and Hungary.
- Loss of floodplains as natural retention areas and thus increase of flood risk further downstream.

Conflicts with EU environmental legislation & int. commitments

The planned hydropower plant is in conflict with the objectives of the EU Water Framework, - the Floods, - and the Birds and Habitats Directive. It would jeopardise the realization of the proposed Transboundary Biosphere Reserve "Mura-Drava-Danube", which is cited as a key project for the implementation of the environmental part of the EU "Danube Regional Strategy". The biosphere reserve, a "project of the century" for the region in terms of cross-border conservation, sustainable development and peace keeping would be threatened.

Jeopardises restoration of the Mura and waste of EU funds

The dam would thwart the restoration efforts undertaken along the Austrian-Slovenian border Mura. Over the past 15 years, with financial support of the EU, Austria has invested about 8 million in the widening of the river bed and the re-creation of gravel bars and side arms. With these measures the further deepening of the river bed has successfully been stopped. In 2014, these achievements were awarded with the European Riverprize of the „International River Foundation". Also in Slovenia, within the EU LIFE project "BIOMURA", around € 2 million were invested in the re-creation of typical river habitats. The construction of dams would jeopardise these efforts and be a waste of the already invested funds. As a result, a conflict with the EU would be inevitable.

"Hrastje-Mota" would be a door opener for seven more dams planned along the Mura. It would be the first dam in a Natura 2000 area. The signal would be disastrous and the pressure on other riverine Natura 2000 sites in the EU would increase.



Enjoyable swimming along natural river banks (© Gregor Domanjko)



EU funding helped to achieve successful restoration along the Mura in Austria and Slovenia (A. Vorauer/WWF)

Conclusions

- The hydropower dam “Hrastje-Mota”, as well as the seven other ones planned are the biggest threat to Mura’s ecosystem.
- They are in conflict with the preservation of Europe’s unique 700 km long free-flowing river section of the Mura, Drava and Danube, spanning over five countries.
- The dams are in conflict with EU environmental laws. They are incompatible with the planned Transboundary Biosphere Reserve “Mura-Drava-Danube”, which should guarantee sustainable development based on the protection of a unique European riverine landscape – the “Amazon of Europe”.

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WWF and partner call for:

- No approval of the “Hrastje-Mota” dam and a halt of the planning of further dams by the Slovenian Ministry of Environment and Spatial Planning. Swift nomination of the Mura and Drava in Slovenia as a Biosphere Reserve, as part of the 5-country Biosphere Reserve “Mura-Drava-Danube”, to which Slovenia has internationally committed. Implementation of the reserve via the Slovenian National Development Programme.
- Development and implementation of a river restoration programme for the Mura in cooperation with the neighbouring countries to stop riverbed deepening, increase flood protection and preserve endangered habitats and species.

Partner



Further information:

www: www.amazon-of-europe.com
Fb: www.facebook.com/AmazonOfEurope
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