



## Hydropower Plants in the Western Balkans: Protecting or destroying nature?

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**Abstract:** 'We don't call water a resource; we call it a sacred element. [I]t's about reciprocity. That's the only way we are going to learn how to shift our culture from an extraction culture to a balanced and harmonious culture with the land.' (Xiye Bastid, Mexican climate activist)

The [2011-2020](#) decade was the hottest on record, with average global temperatures 1.1°C above pre-industrial levels (before 1750) in 2019. Fossil fuels, cutting down forests and farming livestock are producing enormous amounts of greenhouse gases such as CO<sub>2</sub>, the largest contributor to global warming; by 2020, atmospheric concentration had risen 48 per cent above pre-industrial levels. Burning coal, oil and gas are among the worst offenders, making the energy sector one of Europe's major polluters.

The EU has the ambitious aim of becoming [climate-neutral by 2050](#) — an economy with net-zero greenhouse gas emissions, the first carbon-free continent. This means increasing renewable energy sources and reducing fossil

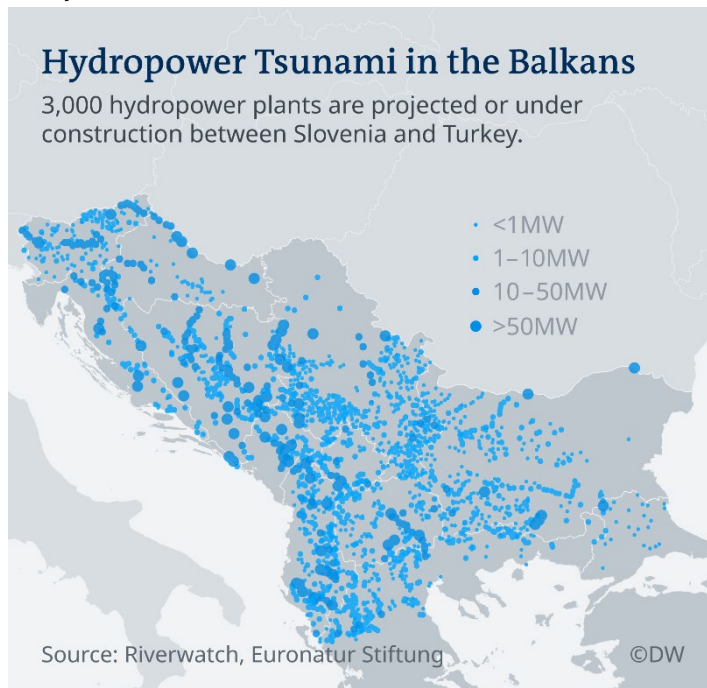
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fuels: one way to achieve this is by building more hydropower plants (HPPs), including small hydropower plants (SHPPs).

### Is nature really being protected?

Thermal power plants in the Balkans are among Europe's biggest polluters. Most EU funding for renewable energy ([70 per cent](#)) in the Western Balkans has been spent on SHPPs. [Studies](#) show 490 new SHPPs were built 2009-2020 and 3,000 more EU-funded HPPs are currently being built or planned between Slovenia and Turkey.



At first glance, hydropower sounds like a great way to reduce CO<sub>2</sub> emissions and prevent climate change but is that really the case?

The Balkans are home to some of the last wild rivers in Europe. For SHPPs to function, water is diverted into pipes, leaving a bare minimum in the river stream. Hydropower plant construction interferes with the terrain by cutting down trees and permanently damaging the ground; it also endangers water supply for local communities, biodiversity and the entire ecosystem—causing irreversible damage to nature.

Many SHPPs have already been built in, or are designated for, protected areas and national parks. A [2015 study](#) of 1,640 planned HPPs found 532 (32 per cent) were earmarked for strictly protected areas and another 282 (17 per cent) for areas with weaker protection status, so a total of 49 per cent would exploit nature reserves rich in flora and fauna.



Photo: Eko-svest – North Macedonia – top - Kriva Kobila River, bottom - Brajchinska River: the two photos on the left show normal water flow above SHPPs, the two on the right show how SHPPs have disrupted water flow, leaving the river basins below them barren.

Many [studies](#) on Balkans HPPs have raised controversial issues. In 2017, Bankwatch inspected eight EU-financed hydropower projects in Albania (2), Croatia (1) and North Macedonia (5): in all cases, it [reported](#) that SHPPs are rarely subject to comprehensive environmental impact assessments. In 2021, the State Audit Office of North Macedonia [report](#) on 'Exploitation of Water Resources in Electricity Production' 2012-2021 found construction approval for many SHPPs had been granted without proper environmental impact assessment. Moreover, SHPPs are generating very small amounts of electricity, hugely disproportionate to investment in their construction and destruction of nature. The Bankwatch [report](#) revealed that by the end of 2020, they produced only 2.2 per cent of Bosnia and Herzegovina's electricity, 3 per cent in Montenegro, 4 per cent in North Macedonia and just 0.62 per cent in Serbia. In 2021, SHPPs generated 2.5 per cent of electricity in [Bosnia and Herzegovina](#), 4.1 per cent in Montenegro and a mere 0.1 per cent in [Serbia](#).



*A construction site of the Ulog hydropower plant on the Neretva River, Bosnia and Herzegovina. © Robert Oroz*

### **The fight for Europe's last wild rivers**

Nor have local communities welcomed SHPPs, instead staging numerous protests. [Save the Blue Heart of Europe](#) and [The Fight for Europe's Last Wild Rivers](#) are two such campaigns raising awareness about SHPPs' negative influence on nature and negligible contribution to renewable energy. In some cases, local people have fought back and won, for others the fight continues.

### **#VjosaNationalParkNow**

The Vjosa in Albania is one of Europe's last wild rivers and a biodiversity hotspot. In its entire catchment area, 40 HPPs were planned, nine on the Vjosa itself, 31 on tributaries. An international campaign —Vjosa National Park Now— has gained huge support, including that of Hollywood actor [Leonardo DiCaprio](#). In 2021 a [global petition](#) was launched and a short film released, explaining the situation and calling upon Albanians and Europeans to help protect the river. In its [2021 Progress Report](#), the European Commission urged the Albanian government to minimise impact on biodiversity by stopping hydropower development in protected areas, particularly near the Valbona and Vjosa rivers, and to establish the Vjosa National Park, extending the whole length of the river, as soon as possible. The [2022 Progress Report](#) again emphasised the significant impact of SHPPs on the biodiversity and local communities, especially because 100 concessions are located or planned in protected areas. Noting that plans for HPPs have been challenged, as well as questioning the regularity of concession processes and the validity of EIAs, and that no SEAs have been conducted, the

European Commission called upon the authorities to ensure full compliance with the national legislation and the environmental and Energy Community *acquis*.



Source: *Balkan rivers* <https://balkanrivers.net/en/vjosanationalparknow>

The fight seems to have paid off. In June 2022, the Albanian government took an [important first step](#), signing a memorandum to establish a Vjosa Wild River National Park which will protect the entire Vjosa network, including its tributaries, from the Greek border to the Adriatic Sea.



*The Vjosa - Queen of European Rivers* © Gregor Subi  
(<https://balkanrivers.net/en/vjosanationalparknow>)

### **The 'Brave Women of Kruščica'**

The river Kruščica in Bosnia and Herzegovina is in a protected area and provides drinking water for local communities. For more than 500 days, Kruščican women defied police intimidation to defend the river, taking turns to block the bridge, the only route for SHPPs construction machinery. Their persistence paid off when the

regional court cancelled the plant's permits and the women received the [2019 EuroNatur Award](#) and the [2021 Goldman Environmental Prize](#) for their courageous actions.

In [July 2022](#) Bosnia and Herzegovina's parliament responded positively to public opinion by adopting legislative changes forbidding construction of SHPPs on its territory.



The 'brave women of Kruščica' guarded their beloved river round the clock. © Andrew Burr

### **Defend the rivers of Stara Planina (Odbranimo reke Stare planine)**

Despite the protected status of Stara Planina natural park in Serbia, the authorities granted permission for construction of 60 SHPPs. The local community strongly opposed this and Defend the Rivers of Stara Planina organised various [protests](#) for three years, gaining huge support throughout the country—although two HPPs have been built, another 57 were stopped. In 2022, the authorities began to establish a National Park Stara Planina, giving the region better protection and preventing wild mountain rivers being trapped in pipes.

### **National Park Mavrovo**

Protests have also been organised in North Macedonia against government plans to build dams and HPPs in the National Park Mavrovo, home of the Balkan Lynx. Activists stopped construction of two dams and were rewarded with the [2019 Goldman Environmental Prize](#). However, four SHPPs have been built in the National Park Mavrovo, four in the National Park Pelister and the state has issued permits for others: in 2022, it extended the deadline for some permits. In 2022, a [petition](#) to cancel subsidies for SHPPs was launched. The Standing Committee for the Bern Convention on the Conservation of European Wildlife and Natural Habitats in its [Recommendations 2021](#) called upon the North Macedonian government to suspend planning permission for HPPs, ban them from national

parks and protected areas and implement new international standards prohibiting them in World Heritage Sites including the beech forests in Mavrovo National Park.

Many legal proceedings are pending in all the aforementioned countries. Their outcome is uncertain, however protestors throughout the Balkans region have vowed to continue to fight for every river by stopping construction of planned HPPs and trying to prevent permits being granted for others.

### **Is there a better alternative?**

Hydropower energy has turned out to be a very invasive way of producing energy, leading to destruction of nature and river-reliant ecosystems. SHPPs' electricity production levels are disproportionate to investment and insignificant compared to the permanent damage to nature. Activists and scientists are campaigning to raise awareness about negative effects of HPPs and it seems their efforts are being heard. Some funds have been withdrawn, as in the cases of two large HPPs in North Macedonia and several in [Bosnia and Herzegovina](#). The switch to renewable energy should undoubtedly be a government priority. Yet, rather than destroying nature, it must be preserved and protected. Less invasive renewable energy sources—wind and sun—seem a better alternative. In [North Macedonia](#), an old coal mining site is earmarked for a new solar power plant. Some Balkan states have introduced new laws making it easier to generate solar and wind energy. However, caution is necessary. A regulated approach to the issuing and implementation of permits is needed, avoiding any manipulation and controversy which could lead to more damage to nature as was the case with SHPPs.

Nature protection is a human rights issue and must be a priority. The recognition of the right to a clean, healthy and sustainable environment in the UN Human Rights Council's [resolution 48/13](#) of 2021 and in the UN General Assembly's [resolution 76/300](#) of 2022 have generated important momentum for this approach. Ongoing attention must be given to the issues of human rights obligations relating to the enjoyment of such right as addressed by the UN [Special Rapporteur](#) on human rights and the environment.