

NO MORE NEW HYDROPOWER IN EUROPE: A MANIFESTO

For decades in Europe we have been building hydropower plants along our rivers, damaging one of the most precious resources for all life on earth: rivers and freshwater ecosystems. The time has come to put an end to the expansion of hydropower in Europe before we wipe out entire ecosystems and all the services they provide to people and nature. New hydropower is of negligible benefit in transitioning to climate neutrality in the EU and its irreversible impacts on biodiversity, landscapes and even sometimes water supply¹ can no longer be justified.

GREEN HYDROPOWER IS A MYTH

Hydropower severely impacts freshwater ecosystems, which are already under threat. Only 40% of surface waters in the EU (rivers, lakes, wetlands, transitional and coastal waters) are in good ecological condition² and populations of migratory freshwater fish species have plummeted by 93% in Europe since 1970.³

Building hydropower plants in Europe, including small and run-of-the-river plants, has negative consequences on rivers' flow, fish migration, habitat loss, sediment transport and on erosion, to quote only its most direct impacts, and runs directly counter to the commitments expressed in the EU Biodiversity Strategy's proposal to restore 25,000 km of free-flowing rivers.

A recent study on the effects of dams in the Mediterranean basin shows that hydropower, including small projects, is the most important driver of potential fish species extinction. The study states that "should hydroelectric expansion in the region go ahead as planned, 74% (186) out of all (251) threatened freshwater fish species will be negatively impacted, with 65% (163) set to decline due to small projects alone."⁴ Building a hydropower plant across a river is almost like suffocating it, sometimes to death. There is no green hydropower.

THE BENEFITS OF NEW HYDROPOWER IN EUROPE ARE NEGLIGIBLE

The expected contribution of planned hydropower to the energy transition is negligible. Even if all of the 5,500+ hydropower plants planned in the EU (in addition to the 19,000+ existing ones) were built, the share of the EU electricity generation provided by hydropower would go from 10% to 11.2-13.9%.⁵ And this contribution will become even less significant as we move to the near-full electrification through wind and solar – whether directly or indirectly – of sectors such as transport, heating and industry.

Hydropower is also losing its comparative financial advantage, as stricter regulations, land availability and growing recognition of its serious environmental impacts are increasing installed costs, while the costs of alternatives such as solar, wind and various forms of energy storage are dropping rapidly.⁶ The potential of hydropower to contribute to mitigating

¹ WWF, [Seven sins of dam building](#), 2013.

² EEA, [European waters: Assessment of status and pressures](#), 2018.

³ IUCN, WFMF, WWF, TNC, ZSL, [The Living Planet Index \(LPI\) for migratory freshwater fish](#), 2020.

⁴ Freyhof Jörg, Bergner Laura, Ford Matthew, [Threatened Freshwater Fishes of the Mediterranean Basin Biodiversity Hotspot](#), 2020.

⁵ Eurostat, 2017.

⁶ IRENA, [Renewable power generation costs in 2019](#), 2020.

climate change is also limited. Life-cycle carbon emissions are generally underestimated, as the emissions from building the plants and from methane emissions are typically disregarded.⁷ In addition, water scarcity could reduce overall hydropower production in Europe⁸, while river fragmentation created by hydropower plants reduces the capacity of rivers to mitigate the impact of droughts or floods⁹, with negative impacts on climate adaptation.

SMALL IS NOT BEAUTIFUL

91% of existing and planned plants in Europe are small, meaning they have a capacity of less than 10 MW¹⁰, and yet do and will have dramatic environmental impacts. As noted by the Regional Strategy for Sustainable Hydropower in Western Balkans commissioned by the European Commission (2018), the contribution of small hydropower plants of a capacity of 10 MW or less to the global energy production is “extremely limited” while “their impacts on the environment are disproportionately severe.”

Despite this, small plants continue to benefit significantly from public finance. In 2016-2017, EU Member States gave more than 4.2 billion euros of public support to hydropower projects, mostly in the form of feed-in tariffs and premiums, but also through green certificates and investment grants, with the blessing of the European Commission.¹¹ In 2018, 70% of renewable energy support in the Western Balkans went to small-scale hydropower, which generated only 3.6% of total electricity supply.¹²

THE ENERGY TRANSITION AND NATURE PROTECTION MUST GO HAND IN HAND

The climate and biodiversity crises must be tackled together. And in many ways require the same action to be taken. We cannot stop runaway climate change – something that would itself be catastrophic for much of life on Earth – without protecting and restoring natural ecosystems. Equally, we cannot have a sustainable energy transition that is oblivious to nature. Climate and nature protection must be addressed in tandem if we are to provide a sustainable future for our planet and for human societies.

Rivers, as common goods, should be the basis for social development and the benefits they provide should be shared. There is therefore no point building and operating a hydropower plant to supply a community with electricity if the same plant deprives that community of its source of subsistence and well-being: a healthy river which provides drinking water, cools the bordering towns or cities and enables people to fish and swim in its waters or to walk along its banks.

⁷ Recent studies suggest that methane emissions from reservoirs even in temperate climates could fall in the range of emissions previously reported for tropical reservoirs. Maeck, A. et al., [Sediment Trapping by Dams Creates Methane Emission Hot Spots](#), 2013.

⁸ Turner, S.W., J.Y. Ng and S. Galelli, 2017, [Examining global electricity supply vulnerability to climate change using a high-fidelity hydropower dam model](#), Science of the Total Environment 590-591, 663-675.

⁹ Grill G., Lehner B., Zarfl C., [Mapping the world's free-flowing rivers](#), May 2019, Nature 569.

¹⁰ EuroNatur, GEOTA, RiverWatch, WWF, [Hydropower pressure on European rivers: The story in numbers](#), 2019.

¹¹ Extracted from: CEER, Status Review of Renewable Support Schemes in Europe for 2016 and 2017, 2018.

¹² Bankwatch, Euronatur, RiverWatch, WWF, [Western Balkans hydropower: Who pays, who profits?](#), 2019.

OUR DEMANDS

We call on the EU institutions to stop supporting the construction of new hydropower plants:

- Public finance for new hydropower in Europe needs to stop. In light of the commitments in the European Green Deal, public subsidies and loans that are harmful to biodiversity and nature protection are unacceptable. In particular, hydropower – including small hydropower – should no longer be eligible for State Aid, and EU financial institutions should no longer finance new hydropower projects in any way.
- Public finance for hydropower should be redirected to the ecological refurbishing of existing plants¹³; to the removal of obsolete dams; and to investment in low-cost, low-carbon, low-impact alternatives such as appropriately sited solar and wind power, combined with energy efficiency, demand side response and the many forms of energy storage. Transparency over project approval and investments should be enhanced, including for projects financed by financial intermediaries.



¹³ As required under the Water Framework Directive, Birds and Habitats Directives and Environmental Impact Assessment Directive





Ab Ovo Association
 AEMS-Ríos con Vida
 AEPIRA - Asociación en Defensa del Piragüismo y el Uso Público del Agua
 Alliance of Associations Polish Green Network
 Allier Sauvage
 Alsace Nature

Anglerverband Niedersachsen
ANP em Associação com a WWF
APROAM - Asociación Profesional de Agentes Medioambientales de Organismos
Autónomos del Ministerio de Medio Ambiente
Arnika
Asociación Acuíferos Vivos de Almería
Asociación Asturiana de Amig@s de la Naturaleza
Association for Nature, Environment and Sustainable Development Sunce
Association for Nature and Environment Protection - Green Osijek
Association of Friends of the Ina and the Gowienica Rivers
Association Protectrice du Saumon pour le bassin de la Loire et de l'Allier
Balkan River Defence
BIOS Moldova
BirdLife Europe
BirdLife Montenegro
Balkanka Association
BUND
CAN-Europe
CEEweb for Biodiversity
Club of the Friends of Dunajec
Coalition Clean Baltic
Colectivo Ecologista de Aviles
Comito Peraltretrade Dolomiti
Comitato per lo sviluppo sostenibile dell'Alta Val Brembana
Comitato Tutela Fiumi di Biella
Coordinadora Ecoloxista d'Asturies
Cuenca Azul
Danube Environmental Forum
DEPANA, Lliga per a la Defensa del Patrimoni Natural
Deutscher Naturschutzring
EcoAlbania
EcoContact, Moldova

Ecological Society Rzav
Ecopana
Eco-TIRAS – Association of Dniester River Keepers
EAA – European Anglers Alliance
ECO-Team Montenegro
EFFATA – Polish Association of Social Initiatives
EKOEnergy Ecolabel
EcoKosWomen - EKW
EkoZ - Youth Ecological and Security Zone
Environmental Citizens Association "Front 21/42"
ERA - Environmentally Responsible Action, Kosovo
ERN – European Rivers Network
Euronatur
EEB - European Environment Bureau
Finnish Association for Nature Conservation
Flow : Europe
Foundation for Sustainable Development, Poland
Fondacioni Jeshil
France Nature Environnement
Fédération FNE- Auvergne-Rhône-Alpes
Fédération FNE - Midi-Pyrénées
Free Rivers Poland
Free Rivers Italia
Friends of the Earth Croatia
Fundacja Strefa Zieleni
GAIA, Kosovo
GegenStrömung
Generation Earth
GEOTA
Green Heart of Europe - National Park Region Danube-Moldau
Green Home
Green Light Foundation

Greenmind Foundation
Green News Poland
Grune Liga
Gruppo 183 Onlus - Association for the defense of soil and water resources
International Association for Danube Research
Institute for Promotion and Protection of Aquatic Ecosystems - Leeway Collective
Italian Alleanza Pescatori Ricreativi
Italian Centre for River Restoration
Italia Nostra Lazio
Justice and Environment, Croatia
Klub Gaja
Coalition for fight against environmental corruption, Serbia
Konkretino Odgovorno Dostojanstveno
Kosovo Advocacy and Development Centre
Kosovo Civil Society Consortium for Sustainable Development
Kosovo Democratic Institute (Transparency International Kosovo)
Kosovo Environmental Education and Research Center
Kosovo Foundation for Open Society
Kosovo Wildlife Care
Lašišos dienoraštis
Legal-Informational Centre for NGOs, Slovenia
Let's Do It Peja
LIPU, Italia
Lithuanian Environmental Coalition
Małopolska Ornithological Society
Dr. Martin Schneider Jacoby Association
MedINA
NABU
National Ecological Center of Ukraine
Nature Friends International
Naturpuunt
NVO Nasa akcija

North Atlantic Salmon Fund - Germany
Olive Society Boka
Österreichischer Fischereiverband
Our Beaver, Poland
Pindos Perivallontiki
Pishtarët Kosovo
Plataforma Contra la Privatización del Canal de Isabel II
Plataforma en defensa de l'Ebre
Plataforma de Toledo en Defensa del Tajo
Polish Society for the Protection of Birds
Pro Natura - Friends of the Earth Switzerland
Pro Open Coalition, Kosovo
ProTejo - Movement in defense of Tagus
Qytetarët Aktivë, Kosovo
Raba's Friends
Red del Tajo
Red Tree Heritage Institute
BROZ - Regional Association for Nature Conservation and Sustainable Development
Reptile Amphibian Fish Conservation Netherlands
Revivo
Rewilding Europe
Riverwatch
Salmon & Trout Conservation
Save the Rivers Coalition, Poland
Societas Europaea Herpetologica
SEPANSO Aquitaine
Sharawatch
Slovenian Dragonfly Society
Slovenian Native Fish Society
Stowarzyszenie Przyjaciele Doliny Dunajca
Society for Ecological Restoration Europe
Sources et Rivières du Limousin

Spinning Club Italia
Sportvisserij Nederland
Sustainability Leadership Kosovo
The Ecological Association EKO-UNIA
The Society for Earth, Poland
Toka: The Organisation to Conserve the Albanian Alps
Friends of Slonsk Society
Umweltdachverband
UNIPESCA
Vogelbescherming Nederland
World Fish Migration Foundation
WWF European Policy Office
Za Zemiata – Friends of the Earth Bulgaria
Zelena Akcija – Friends of the Earth Croatia