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 supply[1] 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 condition[2] 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 Europe[8], while river fragmentation created by hydropower plants reduces the capacity of rivers to mitigate the impact of droughts or floods[9], 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 MW[10], 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.

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[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 plants[13]; 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

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DEUTSCHER NATURSCHUTZRING
EcoAlbania
ECONTACT
ecopana
Eco-Tiras
EAA
European Anglers Alliance
EFFATA
EKOenergy ecolabel
EKW
ECOZ
FRONT 21|42
Environmentally Responsible Action group
ERN
EUROPEAN RIVERS NETWORK
euronatur
EEB
European Environmental Bureau
FRANCE NATURE ENVIRONNEMENT
AUVERGNE-RHÔNE-ALPES
flow : europe
for the love of water
WOLNE RZEKI
FREE RIVERS ITALIA
Fundacja EkoRozwoju
FONDACIONI jeshil
FRANCE NATURE ENVIRONNEMENT
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Friends of the Earth Bulgaria
pro natura
Friends of the Earth Switzerland
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JUSTICE AND ENVIRONMENT
European Network of Environmental Law Organizations
KADC
KOSOVO ADVOCACY & DEVELOPMENT CENTRE
KLUB GAJA
Koalicija organizacija protiv korupcije u zaštiti životne sredine
KO
KOSOVA DEMOCRATIC INSTITUTE
KEERC
Lašišos dienoraštis
pic
Let's do it Peja!
LIPU
Environmental Coalition
MSJA
MedINA
NABU
National Ecological Centre of Ukraine
NATURFREUNDE
AMIS DE LA NATURE
NATUREFRIENDS
natuurpunt
NVO "Nasa akcija"
Radi danas za bolje sjutra.
WANDER FISCHE
ohne Grenzen
NASF DEUTSCHLAND
ÖSTERREICHISCHER FISCHEREI VERBAND
PINDOS
PERIVALLONTIKI
LUMBARDHI
NUK FALET
PISHTAREC
Plataforma contra la Privatización del Canal de Isabel II
Plataforma de Toledo en Defensa del Tajo

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 Acuiferos 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 Peraltrestrade 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 Rivieres 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