



## Dam Removal in the EU's Covid-19 recovery agenda

Given the growing concern about the health consequences of biodiversity loss and change<sup>1</sup>, it is time for the EU to commit to nature protection and restoration in upcoming initiatives aimed at longer-term recovery from Covid-19 and to rebuild and sustain economic recovery in line with the objectives of the European Green Deal.

**Freshwater ecosystems need special attention in the EU's recovery agenda.** 83% of freshwater species numbers have declined globally since 1970, worse than other ecosystems. Rivers are increasingly disconnected due to dams and other hard infrastructure, trapping an estimated > 25% total global sediment load that formerly reached the ocean.<sup>2</sup> Within Europe, it is estimated that there is almost one barrier per kilometre of river.<sup>3</sup> As a result, 36% of Europe's freshwater species are threatened. This is especially the case for Europe's migratory fish, which, according to IUCN's Red List, are among the worst impacted of any region of the world. Field studies show that up to 15% of barriers in rivers serve no function anymore.<sup>4</sup>

**Dam removal-based river restoration is a powerful tool for bringing freshwater ecosystems back into good health and provides for tangible and fundable business action.**<sup>5</sup> We believe removal of dams and other obstacles should be an integral part of the EU's economic recovery agenda. Based on our collective experience and research:

- **Dam removal supports job creation and a restoration economy.** Dam decommissioning and removal can also lead to new economic benefits. A 2012 study in the USA found that every \$1 million spent on Massachusetts Division of Ecological Restoration projects resulted in 10 to 13 jobs created or maintained ([Industrial Economics Inc. 2012](#)). Similar to road / bridge construction or water infrastructure project construction. A 2010 study in Oregon finds that every \$1 million spent on forest and watershed restoration results in 15-23 new jobs and \$2.1-2.3 million in economic activity ([Nielsen-Pincus and Moseley 2010](#)).
- **Dam removal is a one-time investment that permanently restores natural stream functions, habitats and increases climate resilience.** We would like to state that dam removal is a viable solution to restore rivers to a "good ecological status", hence making progress towards the objectives of the EU Water Framework Directive, and is often the best option for doing so ([DRE 2018](#)). Research has shown that by removing obsolete, unsafe or socially and environmentally harmful structures, rivers can rapidly return to a more natural and healthier state.
- **Dam removal is cost-effective.** There are also numerous studies indicating that dam removal can be the most cost-effective solution as opposed to retrofitting or upgrading the degraded structure. Specifically, a recent U.S. study found that removal could be 10 to 30% less expensive than ongoing maintenance and repair ([Zbigniew et al. 2018](#)). We have identified a number of scalable business models for dam removal.
- **Dam decommissioning can be a critical tool for community safety and climate adaptation.** Strategic dam removals have been incorporated into climate adaptation strategies to reduce

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<sup>1</sup> <https://www.un.org/en/observances/earth-day>

<sup>2</sup> [http://www.wwf.eu/campaigns/living\\_planet\\_report\\_2018/](http://www.wwf.eu/campaigns/living_planet_report_2018/)

<sup>3</sup> It has been estimated that there are over 1 million dams, weirs and sluices in European rivers but there may be many more: <https://damremoval.eu/wp-content/uploads/2019/03/DRE-policy-Report-2018-digitaal-010319.pdf>.

<sup>4</sup> Data following forthcoming study by [AMBER](#).

<sup>5</sup> "Dam removal is a wise investment, especially during economically challenging times", says Beth Lambert, Director of the Massachusetts Division of Ecological Restoration [https://www.youtube.com/watch?v=sPvJhS8J\\_Xs&feature=youtu.be](https://www.youtube.com/watch?v=sPvJhS8J_Xs&feature=youtu.be)



the risk of loss of life, property and income during flood events or from exacerbation of critical water supply and quality conditions during dry seasons or drought conditions. For example, in the U.S., the state of Massachusetts hosts several programs that include and fund dam removal as a community climate adaptation tool ([SHMCAP 2018](#)).

Therefore, we recommend European and national leaders to:

- Ensure that non-utilised support from the **European Structural and Investment Funds** (ESIF) (2014-20) can be mobilised for **setting up large scale freshwater ecosystem restoration** programmes which help tackle the economic effects of the pandemic in the medium- to long-term and ensure a green and sustainable recovery, including dam removal measures.
- Propose the uptake of river restoration measures as part of the reallocation of financial resources within the **European Maritime and Fisheries Fund** (EMFF) programmes using the flexibility introduced under the EU Coronavirus Response Investment Initiative Plus (CRII +).
- Earmark funds for dam removal in the sub-programme “Nature and biodiversity” of the **Multannual Work Programme for LIFE’s** next programming period (2021-2024)
- Endorse at the EU Council and Parliament **the proposed EU Biodiversity Strategy to 2030 target for opening 25,000 km of rivers** through dam removal. Whilst we are happy with the declared ambition of the European Commission towards restoring European rivers, we recommend adopting binding restorations targets under a new Restoration Directive and supporting implementation of dam removal measures by the Member States through ring-fenced funds. These could be reoriented existing funds (including ESIF, EMFF) or new capital.
- Make financial support to the energy, agriculture and transportation sector **conditional to biodiversity objectives** and the Green Deal ‘do no harm’ principle, favouring investment in green infrastructure and dam removal for ecosystem restoration.
- **Include dam removal as a key river restoration measure in the next cycle of River Basin Management Plans for the period 2022-2027**, under the Water Framework Directive. The European Commission should facilitate this by providing adequate support, such as: developing new tools or expanding existing tools to better define obsolete infrastructure and developing governance principles for successful dam removal.

### **About Dam Removal Europe**

Dam Removal Europe is a partnership of seven leading international environmental organisations: World Wildlife Fund (NL, FI, CH), Rewilding Europe, Wetlands International, The Nature Conservancy, European Rivers Network, The Rivers Trust and World Fish Migration Foundation. Our consortium consists of many experts with a rich diversity of skills from engineering and policy, conservation and field biology, to science. We have direct access to a global network of international experts and leaders on freshwater-related topics.

### **More information**

The [Dam Removal Europe website](#) contains an overview of resources including scientific references on the economic benefits and positive effects of dam decommissioning and case studies from different countries in Europe.