**Let it flow – Remove barriers, restore river ecosystems!**

Draft for public consultation

Our rivers are in a bad state. According to the latest EEA's State of the Water (<https://www.eea.europa.eu/publications/state-of-water>), only 44% are in a good or high ecological state. Apart from chemical pollution (airborne or from waste water) or through nutrient deposition (from agriculture), built alterations are one of the heaviest pressures for these important ecosystems.

River continuity is important for migratory species such as salmon to be able to reproduce.

Artificially created water surfaces at dams are not natural lakes and do not necessarily bring whiten their ecological benefits, but stop the formation of natural lakes.

Furthermore, dam removal is much cheaper than enhancing the ecological status through construction of fish passages which help migratory species, but only marginally improve sediment transport.

Research has shown that by removing obsolete, unsafe or socially and environmentally unacceptable structures, rivers can rapidly return to a more natural and healthier state.

Last year, the EU Horizon 2020 project Adaptive Management of Barriers in European Rivers (AMBER) found (after walking 2,700 km of streams in 28 countries) more than one million barriers in our rivers, with 10% of them being obsolete.

**Often, bottlenecks are lack of awareness, knowledge, support, and funding for dam removals. That's why we have to follow a holistic approach**

We have to act!

**First things first:**

**1. STOP fragmenting**

**We must halt the current rates of senseless fragmentation. Barriers must be generally removed and not just moved along the river. Small hydropower plants contribute only marginally to clean energy production, but have massive adverse effects on biodiversity. Therefore, only existing large hydropower plants should continue to operate and subsidies for small and large hydropower plants should be phased out. All new plants should be excluded from the list of renewable energies eligible for state aid and hydroelectric power plants in protected areas should be banned.**

**2. Reconnect**

**Just 5 % of the barriers in our rivers cause 50% loss of connectivity. Let’s start with the low hanging fruit! We need to target weakly fragmented rivers first, as this would bring more benefits considering limited resources.**

**Acting on just 2 % of obsolete barriers might mitigate the impacts of 3,000 obstacles and free up to 30,000 km of rivers (1 barrier = 10 km gain).**

**We have to promote and incentivisze free-flow for small, local projects and stakeholders.**

Improve Knowledge and Protection

**Goals:**

**Stop destruction, ecological deterioration and habitat conversion**

**Improve protection status, ecological functioning and climate change adaptation**

**Increase knowledge on status and ecology**

**River barriers often tend to become forgotten and overlooked, especially where the erstwhile mill, fishpond or micro-power plant has long ceased to operate and no one feels responsible for the corresponding weir.**

**We need an outreach campaign to get in contact with Communities, local authorities, NGOs or even individuals. A common accessible platform where people can find more information about the importance of free flowing rivers and also about blueprints/ best practice projects/success stories for dam removals as well as funding opportunities.**

**Provide information about natural-based solutions when dam effects are necessary.**

<https://www.eea.europa.eu/publications/nature-based-solutions-in-europe/>

Remove and Restore

**Goals**

**Adopt ambitious legislation**

**Secure EU funding**

**Instruments**

***EU Nature restoration plan***

**Set specific legally binding targets for restoration of rivers in the EU, if possible, related to the individual situation in each member state. Ensure commitment of member states to fulfil these targets. Also add a “no deterioration” clause and set up additional provisions for environmental impact assessments when it comes to building barriers in rivers. Rehabilitation/ restoration of natural floodplains for flood prevention, slowing flows, reducing impact of fertilisation, as well as biodiversity benefits. Relocation support to liberate floodplains from old developments/ineffective land uses.**

***Implementation of EU Law***

**The Commission has to diligently persecutefollow up the breach of EU nature law and provide corresponding monitoring mechanisms to measure the progress on the 25.000 km of free flowing rivers goal**

***LIFE and ESIF Programmes***

**Set aside sufficient funding in LIFE and ESIF for the removal of barriers in rivers.**

**Set up  a low threshold small grant scheme together with a platform where local authorities, NGOs and individuals can flag problematic barriers and ask for a grant to finance feasibility studies for the removal of barriers and/or to finance the removal itself, given a plan/study already exists.**

**Set up exchanges between communities and civil services to share best practice for removing operations. Find synergies between re-wilding initiatives and reintroduction of keystone species (e.g. beavers as hydrological system engineers). Invest EU/public funds in community initiatives including conflict mediation (wildlife vs forestry); find synergies for tourism to benefit local communities.**

**Look at nature based solutions for floodplains, e.g. ecosystem engineering using reintroduced species like beavers, slowing flow and preventing flooding, creating wetland habitat benefitting many other species.**

**Rehabilitation/ restoration of natural floodplains and wetlands/peatlands as part of drainage basin re-wilding; hydrological and biodiversity benefits. Relocation support to liberate floodplains from old developments/ineffective land uses.**

People’s Part

**Goals**

**Raise awareness for the importance of healthy rivers**

**Support bottom-up community initiatives to create ownership for ecological targets**

**Share beauty and specialty of these ecosystems**

**Instruments**

***PR Campaign***

**Create public attention through videos on social media, photo competitions, advertising, events etc. Focus on the role for climate and biodiversity or sustainable livelihoods. This must be a long-term exercise in order to get the message across.**

***Adopt a river***

**Support and stimulate partnerships of businesses/groups/families/communities to engage in river protection and restoration. Create projects for hands-on experience within youth programmes.**

***Green Tourism***

**Support initiatives for sustainable use and gentle exploration of these ecosystems. For example, trails with information boards can combine nature experience with scientific knowledge and guided canoe tours can show beauty and abundance of life in healthy ecosystems.**

***Bottom-up community initiatives***

**Use existing EU/MS co-funded approaches such as the EU Structural funds (European Maritime and *Fisheries Fund* and the Cohesion fund) and the LIFE programme to bring communities together to protect their rivers and find sustainable income streams; deciding together on planning optimal reintroduction of species previously lost e.g. beavers - link to eco-tourism.**

**Other topics to be touched upon -**

Chemical pollution (airborne or from waste water)

Nutrient deposition (from agriculture) and eutrophication.. (how to replace aeration effects of weirs, to prevent fish kills?)

Waste pollution (Microplastic, )

 Alien invasive species

… also trans-european waterways, eg. E40 linking Black sea to Baltic (invasive spp via shipping and transport waterways, mixing salty and almost sweetwater, cutting through Pripet marshes biodiversity hotspot on the PL-Ukariane-Belarus border)