Interdisciplinary seminar with international experts: **Dam Removal goes Alps 2021**

4 to 7 May 2021, Online seminar series Brief résumé by Georg Bayerle

















Up to 300 participants from more than 50 countries joined each of the four days of the international conference "Dam Removal goes Alps 2021". The conference was held on a digital platform and gave a deep insight into how far the idea of removing barriers and dams in our rivers has already spread. Experts, government officials and activists from all types of organizations presented different showcases and shared their learnings and key issues on successful river renaturation.

https://dam-removal-goes-alps.de/downloads.html

At the beginning there are the bare facts of 1.2 million instream barriers in Europe measured by the <u>AMBER project</u>, and the goal of the EU Biodiversity Strategy to reconnect at least 25,000 kilometers of rivers. Case studies in Bavaria, Switzerland and France at the Sélune River showed how fast especially the fish population is recovering when regaining their natural habitat after the removal of barriers.

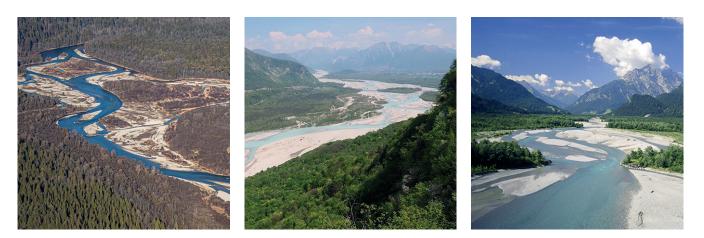


Concerning the tremendous number of barriers and the very poor ecological condition of European rivers, the conference participants discussed amongst others with Teppo Sakkinen, Finnish government adviser, how to start and push dam removal forward. As a result of intense talks in the chat and thematic sessions, it was emphasized that it is best to start with small and easy projects (low-hanging-fruits) to get first results, that can be used as models and tangible examples to inspire a broader public.

Images of restored landscapes in their natural richness of the aquatic ecology and visualizations of free-flowing rivers may change the public opinion in favor of renaturations as demonstrated by the "Bund Naturschutz" in the case of the German-Austrian river Salzach. Different methods were presented to identify obsolete dams and prioritize future projects. Amongst the criteria are expected habitat gains and the potential of increasing free flowing river stretches, but also the effects for the local economy and tourism. An interesting concept was presented on day three by Beth Lambert, Director of an ecological restoration unit of the Massachusetts Fish Department. She justifies the spending for renaturation by pointing out not only the ecological, but also the economic effects. A study revealed that taxpayers benefit from investing in river restoration, as barrier removals in Massachusetts created 12.5 jobs for every million dollars spent. Besides, it frees dam owners from maintenance and safety obligations. In three examined concrete cases, dam removal was 60% less expensive compared to costs for repair and sustainment over 30 years. Beth's conclusion: Dam removal supports the economic recovery from COVID-19 by creating jobs and helping people and nature adapt to climate change, while ameliorating the environment. Growth through greening can be the cue of that strategy, that emphasizes the social value of renaturation whereas regular economic growth continues to exploit natural resources. Like Beth Lambert, many participants reported difficulties when dam removal activities started for the first time. Once successful best-practice examples are demonstrated and an elaborated concept is provided, acceptance increases.



Sharing successful projects and demonstrating the feasibility of dam removals has been the main goal of the conference. Thus, examples from various regions in Germany, Austria, England, Denmark, Finland, Switzerland, and Lithuania gave an insight into what has already happened in Europe. The Lithuanian NGO-representative <u>Karolina Gurjazkaité</u> showed, impressively, how different aspects of a concrete dam removal can be brought into a successful public story, which convinced sufficient people to finance the project by means of a crowd funding action.



From the perspective of unspoiled rivers such as those in the Balkans, the discussions pointed out the importance of protecting these last reservations of river nature. Intact river ecosystems are more resilient to climate change, whereas impoundments, according to new research by Andreas Lorke from the University of Koblenz, increase the emissions of the climate gas methane.

As a result of the conference, it became clear that there are several obvious reasons to remove dams, according to the various local contexts. General conditions are given by political and financial frameworks. In Europe, the Water Framework Directive and the EU Biodiversity Strategy determine a clear guideline in different national implementations. Contradicting facts justified by the exit from nuclear and fossil-fuel and supposed needs of 'green' hydropower, as well as governmental subsidies in general are weakening the ecological goals. Klement Tockner, Head of the German Senckenberg Society, extrapolated that in Germany alone, environmentally harmful subsidies are adding up to 57 billion Euros per year. Consequently, we need a political discussion about subsidies as a general precondition of successful river renaturation. One of the latest small examples is the financial boost of subsidies for small hydropower plants (<500 kW) in Germany by 3 cents per kWh from 2021 onwards. In contrast, in Switzerland, in 2018 subsidies for small hydropower plants below 1 MW have been ceased in order to avoid negative impacts in river ecosystems.

Expiring concessions of hydropower plants all over Europe open opportunities to rebalance energy production versus nature conservation. In Sweden, all hydropower plants without modern permits need to be licensed to mitigate their environmental impact. Owners who decommission their power-plant get compensated and supported in the removal of the infrastructure. In Finland, by carrying out reverse auctions they try to locate and remove the cheapest and the most harmful dams at once. Plant owners are invited to submit bits indicating the compensation for which they will let the authorities remove the dam and restore their river. In Switzerland so called 'eternal rights' were abolished by the Supreme Court. By 2030, they must be replaced by regular concessions or decommissioned. When concessions expire and existing dams are evaluated, removals sometimes prove to be more cost-efficient and bring more benefits than maintenance combined with river restoration measures.

In addition to rational arguments for dam removals, people need to be touched emotionally. Examples from <u>World Fish Migration Day</u> show how deeply people are connected to their rivers. Creating excitement, searching for river ambassadors, and celebrating successes is crucial to spread the idea and

change perspectives on the values rivers can give. Emotional approaches combined with best practice examples and ecological as well as economic facts will help to inspire people, communicate knowledge and finally to reduce denegation in the public. Successful models of participation of the public as well as stakeholders were shown in examples from Finland and the USA.

In Europe, most of the barriers are smaller ones, so efforts to remove them are often manageable. However, even big dams of more than 30 meters can be removed as was shown by Roberto Epple, one of Europe's pioneers of dam removal. He presented the biggest dam removal so far happening in Europe, which is located on the Sélune river in France. In the summer of 2021, the second of the two high dams of 36- and 16-meters height will be eliminated. This coastal river near the world heritage site of Mont St.-Michel in Normandie stands as an initial and sustainable example that dam removal can become a big success.



The conference closed with a common vision for everybody, be it a government official, an NGO representative, or an owner of obsolete dam infrastructure, to stay connected in a joint struggle to free the rivers from barriers.



