



WORLD FISH MIGRATION
FOUNDATION

Annual Report 2023

World Fish Migration Foundation

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A decade boosting up awareness and scaling up dam removal

As we reflect on another impactful year at the World Fish Migration Foundation, I am heartened by the collective dedication of our team and global community to safeguarding free-flowing rivers across the world.

During the last almost 10 years, it has been truly rewarding to see the growing awareness on the importance of preserving aquatic ecosystems and promoting the free movement of migratory fish. Above all, it has been impressive to witness what connecting people can do when they act together. We have scaled-up the dam removal movement in Europe to paths beyond expected. As one of the pillars of our action and one of the key tools to restore free-flowing rivers, we hope that this movement keeps expanding to new countries in every continent. In 2023, we were able to secure a €1.2 million grant from the European Open Rivers Programme. Together with our partners we will scale up dam removal in the Balkan region and beyond. A big step forward!

As we navigate the challenges and opportunities ahead, I am confident that our shared commitment will pave the way for healthier rivers, thriving communities, and a legacy of successful dam removal projects for the benefit of people and nature. In 2024, for the first time in our short history, our annual budget will be higher than €1 million. We are super proud of where we stand with WFMF and our role as inspirator, broker and facilitator. We truly connect fish, rivers and people!



Herman Wanningen,

*Founder & Director of
the World Fish Migration
Foundation*



Our vision

All life on Earth needs water – but this natural resource is not infinite.

Our long-term vision is to see yet again 'Rivers full of fish for the benefit of nature and people', and our mission to achieve this is to 'mainstream dam removal as the key tool to restore river ecosystems'.

We aim to build an inspiring international dam removal movement to scale dam removals and restore and maintain free-flowing rivers, catalysing broader environmental conservation efforts and enhancing the natural values and socioeconomic aspects of the places we call home.

Our values at WFMF inspire and enable the work we share with river practitioners and the world's changemakers, and the public needed to support both. By creating excitement, sharing knowledge, being inclusive and growing the feeling of pride in collective accomplishments, we are enabling and inspiring people to safeguard rivers.

Removing dams for the benefit of people and rivers

Healthy freshwater ecosystems are fundamental to the subsistence of humans, plants and animals, but these have been under increasing threat in the past decades. Among the various pressures, artificial barriers stand as the great contributor to fragmenting and damaging our rivers, lakes and wetlands.

We want a future with freer-flowing rivers, and that's why our main mission is to break rivers free from the obstacles that obstruct their natural free-flowing course. Removing dams represents a bold and transformative step towards restoring the delicate balance between people and rivers.

The Nature Restoration Law, which included a critical target for the restoration of 25000 km of river, is currently in limbo, as it failed at the final hurdle when it was unable to secure enough votes in the Council of Europe. But the dam removal movement shows no signs of slowing down, with increasing numbers of barriers removed in Europe each year, as shown in the latest [**Dam Removal Progress Report**](#).

This movement that we started is gaining significant momentum. We believe rivers should flow free and connected to be healthy and full of life. Free-flowing rivers are much safer for humans, so by removing obsolete dams and weir we are not only protecting nature, but also saving people's lives by mitigating risks associated with these old structures.

There is an immediate imperative to address the loss of nature, with the World Fish Migration Foundation playing a pivotal role in this endeavour. What sets our approach apart is the creation of an international movement advocating for dam removal with enthusiasm and positive narratives.



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Benefits of dam removal



Removing obsolete river barriers solves several negative impacts such as:

- Deltas disappearing, due to the lack of sediment deposition, and coastal erosion (beach shrinking or disappearing)
- Greenhouse gas emissions e.g. methane
- Decline or extinction of extraordinary freshwater fish populations (as fish can't migrate to their feeding and reproduction grounds)
- Deteriorating water quality



Dam removal can stimulate local economies and create job opportunities!

- Restoration projects often require skilled labour for engineering, construction, and environmental monitoring, providing employment opportunities for local communities
- Revitalized rivers can attract tourists, boosting revenue for businesses such as restaurants, hotels, and outdoor outfitters.



Removing unmaintained dams is more economically viable than upgrading them!

- Climate change has resulted in higher variability and occurrence of extreme weather events, but dams built in the 1950s to 1970s were not designed for such conditions and are aging.
- Major upgrades are required to remain in or regain compliance with new engineering and environmental standards, however, maintenance of dams is often a low priority, due to costs, lack of expertise, bias from water managers, or the dam owner being unknown.

Dam removal promotes community engagement and fosters a sense of ownership over local water resources!

- Restoring rivers enhances recreational opportunities such as fishing, kayaking, and wildlife watching, benefiting residents and visitors alike.
- Reconnecting communities with their natural environment can improve mental and physical well-being.



Dam removal restores natural river processes and habitats, benefiting diverse aquatic and terrestrial species!

- Opening up river systems allow migratory fish to access spawning and rearing habitats, supporting their populations and the ecosystems they inhabit.
- Restored rivers promote biodiversity by providing habitats for native plants and animals, contributing to ecosystem resilience and adaptation to environmental changes.



Dam removal can mitigate safety risks associated with aging infrastructure and potential dam failures!

- Removing obsolete dams eliminates the threat of catastrophic dam breaches, which can cause property damage, loss of life, and environmental degradation.
- Restoring free-flowing rivers reduces the likelihood of accidents and injuries associated with hazardous conditions downstream of dams, such as swift currents and submerged structures.



Our targets for 2028

Over the last decade, the WFMF has successfully supported and influenced practitioners, governments, and decision-makers across various societal levels. The focus has been on reconnecting rivers and people with nature, supporting the recovery of long-lost fish migration pathways and spawning grounds, and building a robust network of experts to expand the movement across Europe further. But we aim to do more.

By 2028 we hope that:

Dam removal as a nature-based river restoration solution is incorporated into legislation in all EU countries.

All EU countries have implemented dam removals as a river restoration tool.

An average of 2 dams/day will be removed from European rivers.

WFMF will have initiated 25 European dam removals (showcase projects) and be actively involved in the removal process.

By 2030, we aim that Europe has a minimum of 25.000 km of restored free-flowing rivers compared with the May 2020 level. The metric for this indicator is the number of km of free-flowing restored rivers. This is an objective set at the EU level, which we contribute to through our strategies.

2023 highlights – scaling up dam removal takes off

The dam removal movement has emerged as a significant global initiative advocating for the restoration of free-flowing rivers. This movement unites practitioners, funders, NGOs, students, and river authorities from all over the world. In Europe, the movement is at full speed, thanks to the collaborative efforts of these active stakeholders. As a result, a robust network has emerged, known as the Dam Removal Europe network, which connects over 6,000 individuals united by a common goal.

The collective impact of this movement goes beyond ecological gains. It brings a new hope for nature and people, safeguarding communities from disasters associated with obsolete river barriers (like dam collapses) and protecting the rich biodiversity that inhabits in our rivers.

Another record-breaking year for dam removal with over 300 barriers removed in 2022 and a new country joining the movement. Luxembourg recorded its first-ever barrier removal by removing a weir, as part of a bigger project to restore the ecological continuity of the Pétrusse River. **The reported 325 river barriers** removed across the continent represented a 36% increase on the previous record set in 2021.



And the good news keep coming in 2024! **The latest Dam Removal Report**, launched in April 2023, shows dam removals hitting another all-time high with a 50% increase in barriers removed across Europe!

This annual report serves as a key tool for the dam removal movement, offering a comprehensive overview of the progress made, showcasing impactful case studies, and serving as an indispensable resource for policymakers and practitioners. As the topic of dam removal continues to gain media attention, this report plays a crucial role in amplifying our message and drawing attention to the importance of restoring free-flowing rivers.

In 2023, we took another step closer to free rivers in Southeastern Europe leading a 1.2 million euros project for dam removals. Together with local partners, expert NGOs, and supported by the European Open Rivers Programme, the main goal of the three-year project is to bring more dam removal projects to life, by giving new practitioners the know-how and confidence to develop dam removal projects, and inspiring neighbouring countries to join the movement. We hope that national legislation and policies are improved in a way that dam removal projects start being facilitated instead of blocked. Another important aspect of this project focuses on the economic constraints to dam removal, with the objective of identifying and releasing other funding sources for dam removal.

The first Dam Removal Europe Course was made possible thanks to the sponsorship from Open Rivers Fund (USA), US Forest Service (USA), Dutch Postcode Lottery (NL), Forest Peace Foundation, WWF Netherlands and TNC. The focus for this course was to train participants in how to scale up dam removal in their own countries. The course team selected 16 participants from 14 countries, true change-makers, who wanted to start removing barriers. The main goal of this course was to form confident individuals who understands the journey they need to take, and help building their own roadmap, as each country has a completely different situation and each of them needs to face very different challenges. Half a year after the course was celebrated, some of these change-makers are already applying for funding to remove river barriers and others, like MedINA (Greece) started the necessary meetings with National Administration to help implement dam removal in their legislation and River Basin Management Plans.

At the ***first international dam removal conference in Romania***, we explained the efforts from different national governments in Europe are doing to remove barriers, and the safety, economic and environmental benefits these countries are getting. After the conference, supported by Romania environmental authorities, a significant increased interest and support for DR was achieved. The impact of the National Workshop is a clear result of the work that has been done, of which one of the most important gains is the collaboration that has developed between FFI and the National Administration of Romanian Waters (the main governmental actor in water management in the country).



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With the financial support of the Mulago Foundation, **WFMF is creating the path for the implementation of the barrier removal initiative in Africa.** We aim to mobilize partners in the continent to form a fully established coalition with a proven track record of river restoration projects and become involved in the process of scaling up dam removal in Africa.

In the Netherlands, **we organised a workshop on Free-Flowing rivers** together with research institute STOWA, Water Authority Dommel and Water Authority Aa and Maas. **Over 130 river practitioners joined the discussion on the future of free-flowing rivers and finding opportunities to scale up.** We launched the first map with free-flowing river stretches in the Netherlands. This map will form the basis for further discussion on how to get Dutch rivers flowing again.

WFMF is supporting the Water Agency of Luxembourg (AGE) with the implementation of barrier removal in Luxembourg, through preparatory and advisory work for the first five dam removal sites across the country in the coming years, selected based on the ongoing restoration projects in Luxembourg.

WFMF and Fauna & Flora **facilitated a work exchange of river and fish experts from Romania and Georgia to the USA.** The team met up with governmental officials, and experts from NGO's and river keeper groups. The topics addressed were dam removal, culvert replacement river restoration, sturgeon protection and recovery. The tour started in Washington and ended in Boston.

The second edition of the **Dam Removal Europe Award** granted Ríos con Vida for the removal of the weirs of the Molino Bajo and Molino del Cabrillas, in the Cabrillas River!

This year's winner is also known already: **GEOTA was crowned the 2023 winner** thanks to the removal of the Vaqueiros Weir in the Alviela River, in Portugal.



#Dambusters screened in 9 countries and 3 film festivals! Each screening helped grow the Dam Removal Europe network which is directly enabling to remove more barriers. One of the screenings was organized by the Ministry of Environment of Lithuania and another one was organized by the Swedish HP Association who was interested in understanding the necessity to remove obsolete barriers.

The premiere screening of Dambusters had a significant impact in Kosovo. The film depicted successful dam removals and their positive effects on ecosystems, sparking discussions among decision makers and stakeholders. Deputy Minister Linda Çavdarbasha expressed support for dam removal initiatives, stressing the importance of thorough environmental impact assessments. Following the screening, a panel discussion involving various stakeholders emphasized the need for cooperation and coordination to assess the condition of Mirusha dam and explore sustainable solutions. Avni Morina, from the municipality of Malisheva, also voiced support for finding appropriate measures for Mirusha. Materials distributed during the event further contributed to raising awareness about the impact of dams on rivers in the region.



The Happy Fish travelled across 10 locations! The two fish in North America travelled to 2 countries (USA and Canada). In the USA, they visited restoration projects in 9 states (New Jersey, Massachusetts, Alaska, Michigan, Washington, South Carolina, Rhode Island, Connecticut, New York). The European Happy Fish visited Spain and was hosted by AEMS-Ríos con Vida, the Dam Removal Award 2022 winner. Get to know the stories of river heroes and free flow champions.

Dam Removal Europe makes waves in the media

Over 140 articles published in several international media outlets:



The Guardian

Dam fine work: record number of barrier removals helps restore rivers across Europe



Nature Today

Record number of dams removed in Europe



Euronews

Restoring European rivers: a win-win scenario for humans and nature



Science Magazine

After the flood / historic-dam-removal-poses-challenge-of-restoring-both-river-and-landscape



The Green Journey

Meet Dam Removal Europe



Trouw

Thousands of dams can go. That is good for trout and salmon, and also for human safety



BBC

Wildlife: Why are dams being removed across Europe?

Who made it possible

Besides the hard-working motivated individuals who work every day to make the Foundation grow and thrive, we extend our heartfelt appreciation to all our partners, supporters and donors who have played a pivotal role in advancing our shared mission. As we reflect on the past year's accomplishments, we recognize that none of it would have been possible without their support. We express our gratitude for their contributions, which have enabled us to make a meaningful impact and create positive change for people and nature.



Financial balance 2023

Income 2023	
Private donations	€ 22.100,-
Donations companies	€ 41.800,-
Lottery organisations	€ 160.000,-
Governmental organisations	€ 232.500,-
Grants non profit organisations	€ 262.000,-
Assignments	€ 18.800,-
Total income	€737.200,-

Expenditures 2023	
Dam Removal Europe	€ 276.100,-
World Fish Migration Day	€ 33.000,-
Free Flow	€ 77.400,-
Dam Removal Luxembourg	€ 3.900,-
Danube4all	€ 14.200,-
ORP	€ 131.200,-
Dam Removal Africa	€ 6.200,-
USGS Balkan Dam Safety	€ 4.900,-
Management and administration	€ 191.000,-
Total Expenditures	€737.900,-

Where to find us

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