



Measures to Restore Migratory Fish and free flowing rivers in Finland

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Background in Finland



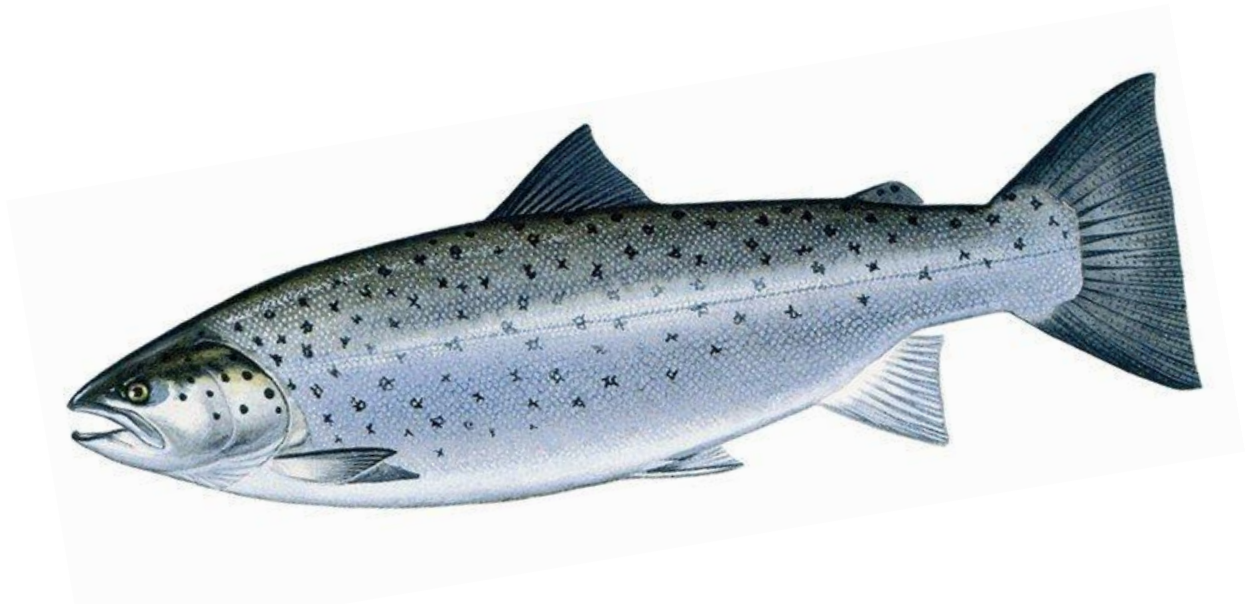
Watercourses modified in different ways and for different purposes throughout history: damming, perking, flood protection, agriculture and forestry, fishing pressure, etc.

Hydromorphological alterations significant pressures in 983 waterbodies. The WFD PoMs for 2022-2027:

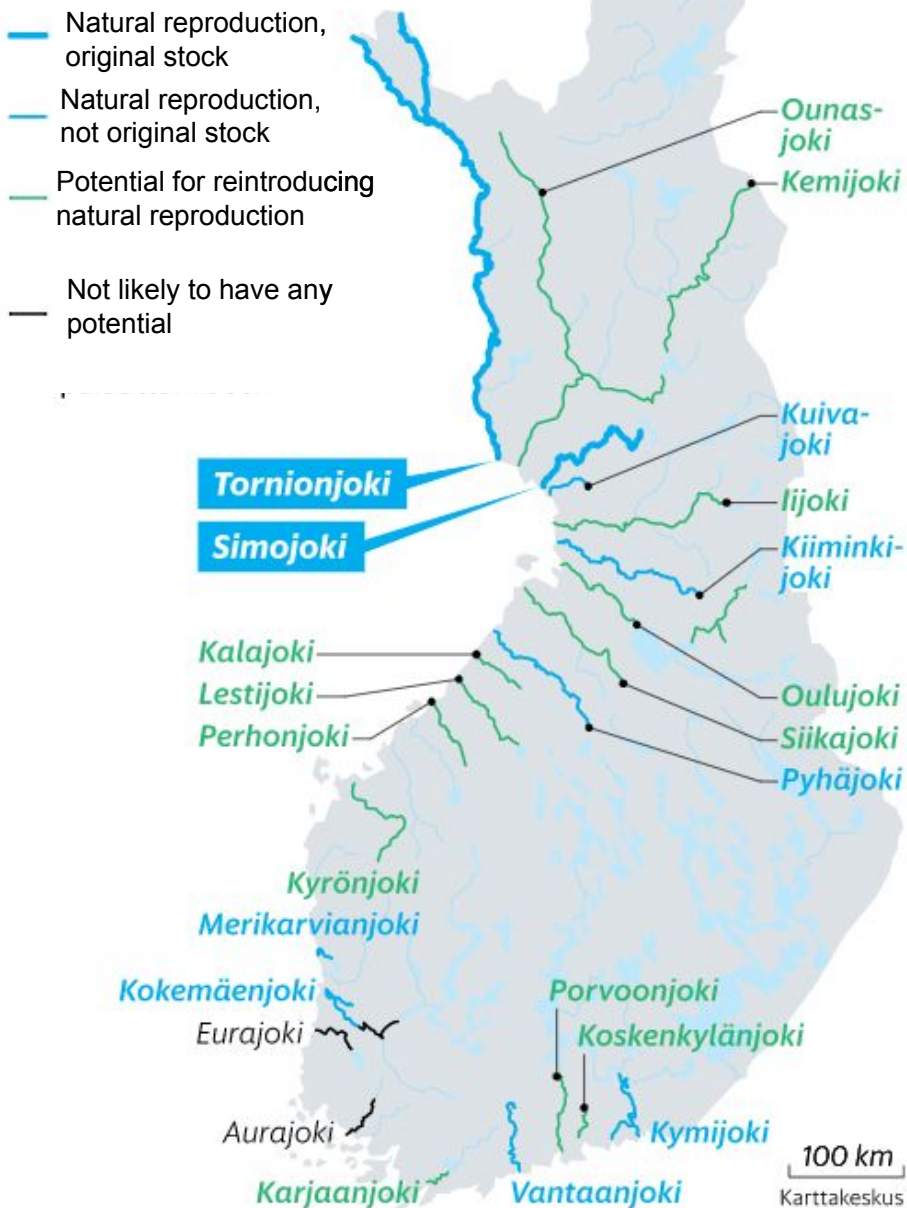
- Stream channel restorations needed in over 500 waterbodies
- Flow regulation measures in 158 waterbodies
- Fishpasses in almost 400 waterbodies

Overview of the presentation

- Migratory barriers in Finland
- A decade of policy steps
- Government Programmes 2019 -
- How "NOUSU" works
- Showcases for further reading



Only two salmon rivers remain



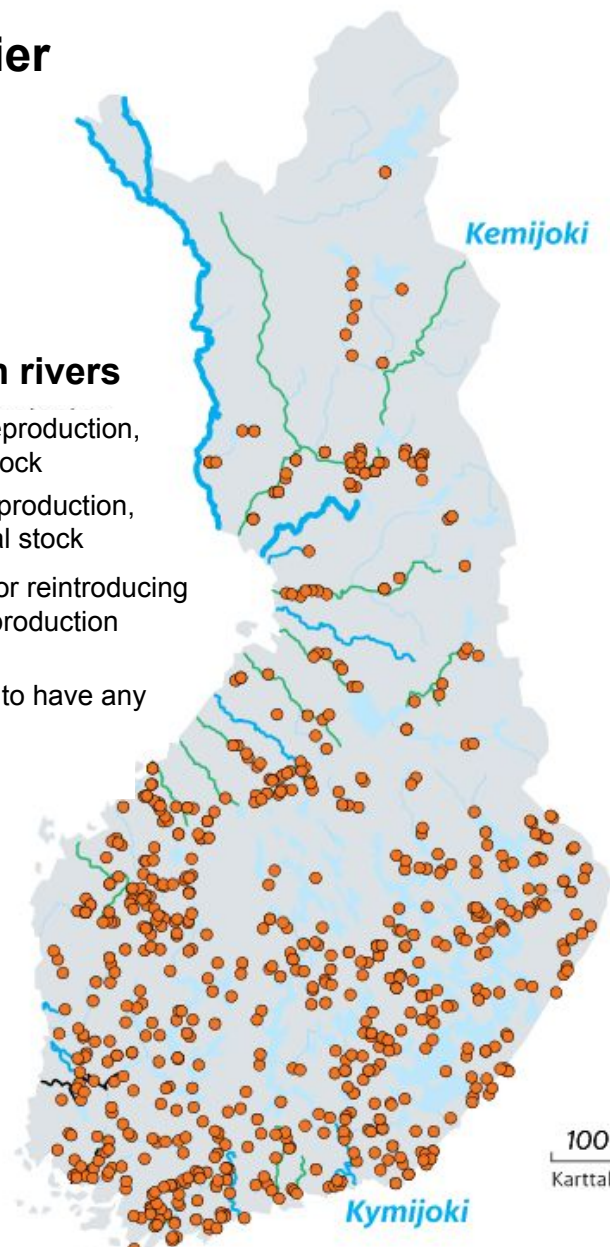
Source: Helsingin Sanomat

Largest barriers in Finland /mainly hydropower

Barrier

Salmon rivers

- Natural reproduction, original stock
- Natural reproduction, not original stock
- Potential for reintroducing natural reproduction
- Not likely to have any potential

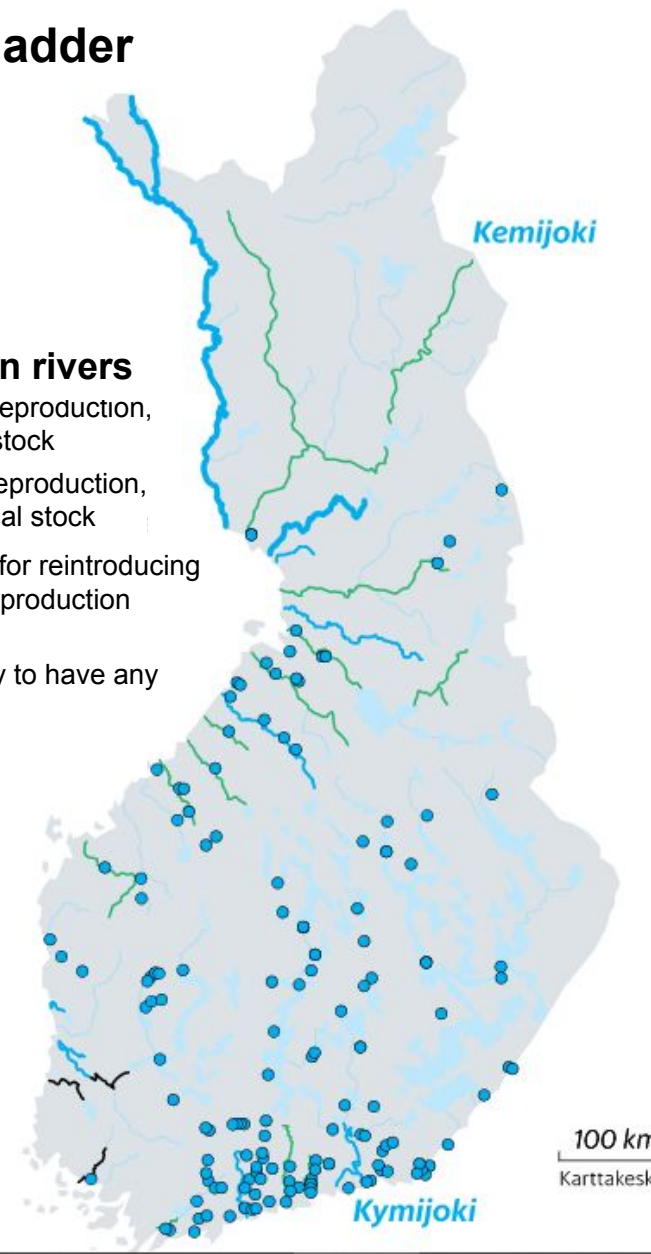


Existing fish passages

Fish ladder

Salmon rivers

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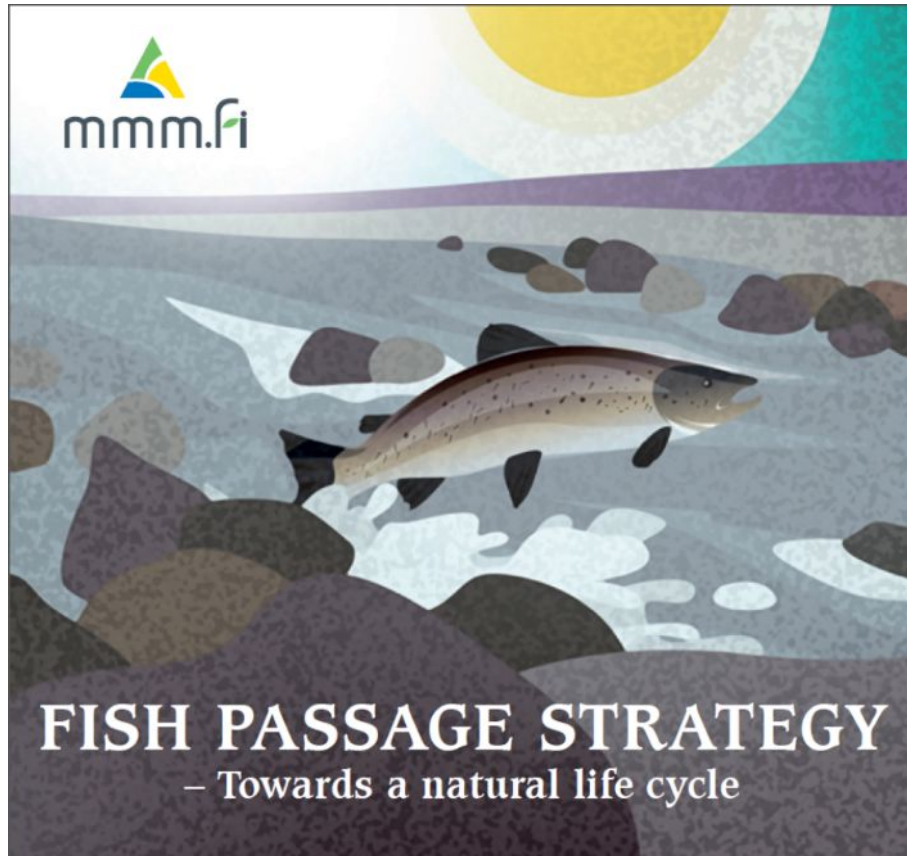
A decade of policy steps

- **National Fish Passage Strategy 2012**
- **National Salmon and Sea Trout Strategy 2013**
- **Government "Spearhead Project" 2015-2019**
 - *strengthening threatened and endangered migratory fish species (state fund 8 M€)*
- **National Migratory Fish Programme 2019-**
- **Renewal of national Fish Passage Strategy 2026**
- **National restoration plan according to EU Nature Restoration Regulation 2026**

Background: public debate, NGO's and activists, local level activity, Corporate Social Responsibility, cross-party support, research...



Finlands National Fish Passage Strategy



- Strategy was adopted as a Government Resolution in 2012
- The need for the strategy arose from requirements of the Water Framework Directive
- The strategy aims to steer the development towards better reconciliation of the partly conflicting objectives
- Will be updated 2026

mmm.fi/en/fisheries/strategies-and-programmes/fish-passage-strategy

Statements of the Government programme



OBJECTIVE: Improving living conditions of migratory fish and restore natural cycle in running waters

National programme NOUSU (Ministry of Agriculture and Forestry)

MEASURE 1: Building fish passages and structures for downstream migration

MEASURE 2: Removing migration barriers and promoting projects in which small hydropower plants will be shut down

MEASURE 3: Restoring rivers and streams and building artificial reproduction areas

WAY OF ACTING 1: COOPERATION

- Migratory fish projects will be implemented through broad cooperation. State fund will be allocated to the projects with high commitment by stakeholders.

WAY OF ACTING 2: RENEWAL OF OBLIGATIONS OF LEGAL PERMITS

Fisheries obligations will be updated by the public authorities

Updating the Water Act (Ministry of Justice)

MEASURE 4: Updating the Water Act to extend the fisheries obligations to plants with a “zero obligation” (old water permits with no obligations to compensate harm to fish stocks)

Migratory fish programme NOUSU were launched in 2020

- Partnership and co-operation
- Wide range of actions
- Key principles for funding projects:
 - Real impact
 - Broad support and coopeartion
 - Capable actors: project manager is needed, the authority doesn't carry out the projects itself
 - Max 50% state aid
- Updating of fisheries obligations
- 15 M € funding for 2019-2023, 8 M € for 2023-2027





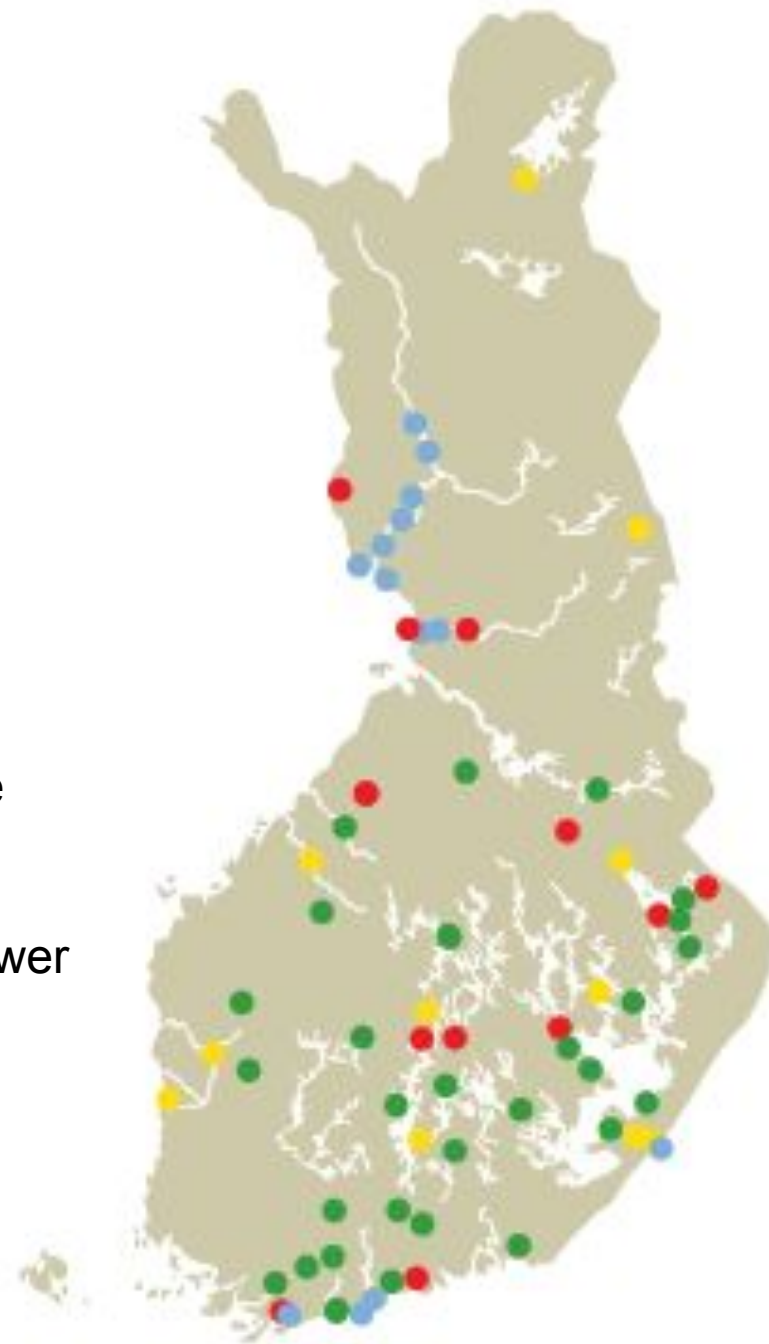
...*What have we achieved?*

Free kilometers	870 km
Freeing up kilometers	2527 (preliminary) Number of projects

Constructed water projects: (fishways, downstream structures)	18
Dam removal or alteration and renovations (no electricity production)	35
Decommissioning of small hydropower	13
Research & development	35
Other projects	4
Projects in total	105*

NOUSU projects that improved the migration and living conditions of migratory fish during the last five years

- Construction of fishway or -passage
- Dam removal or alteration
- Decommissioning of small hydropower
- Research & development





Key takeaways

- **Building a support base both nationally and locally**
- **Adopting supporting policies and strategies**
- **Working together with broad set of actors**
- **Multiplying state aid with fundraising**
- **Combining voluntary and regulatory measures**
- **Local successes can inspire nationally**
- **There are no major legal changes underway**

Hiitolanjoki 2019-2023



- 3,5 million euro project to restore Hiitolanjoki river and to abolish 3 hydropower plants
- Nationally recognized status, long-running local support
- Funding 50% from state + from local authorities, WWF, private donors, companies
- Obligation to build fish passages to owner
- Plants bought by a local foundation
- dams were removed during 2021-2023
Restoration of formerly lost rapids and spawning areas for brown trout and lake-migrating salmon.
Restored connectivity to spawning areas in headwaters
- Has been a great success, juvenile salmonid densities extremely high in the restored areas (> 400 ind./ 100 m²)





Saramojoki 2021

- 1,7 million euro project (50% statefunded) to restore Saramojoki river and to abolish 1 hydropower plant
- Opens 120 kilometers of potential spawning ground for brown trout
- Initiative from plant owner, Pohjois-Karjalan Sähkö, faced with the option of renovating the plant





Virtaankoski 2023-2024

- 2,5 million euro project to restore Tainionvirta river and to abolish 1 hydropower plant
- The River Tainionvirta is one of the most important watercourses discharging into Lake Päijänne
- Opens tens of kilometers of river system and potential spawning grounds for migratory fish
- Funding from local authorities, private donors, WWF, companies



Jyllinkoski 2023-2024

- 0,9 million euro project to abolish 1 hydropower plant
- The River Karvianjoki has its own wild brown trout population and freshwater pearl mussel population
- Initiative from plant owner, Vatajankosken Sähkö Oy, faced with the option of renovating the plant

