



ETELÄ-
KARJALAN
LIITTO

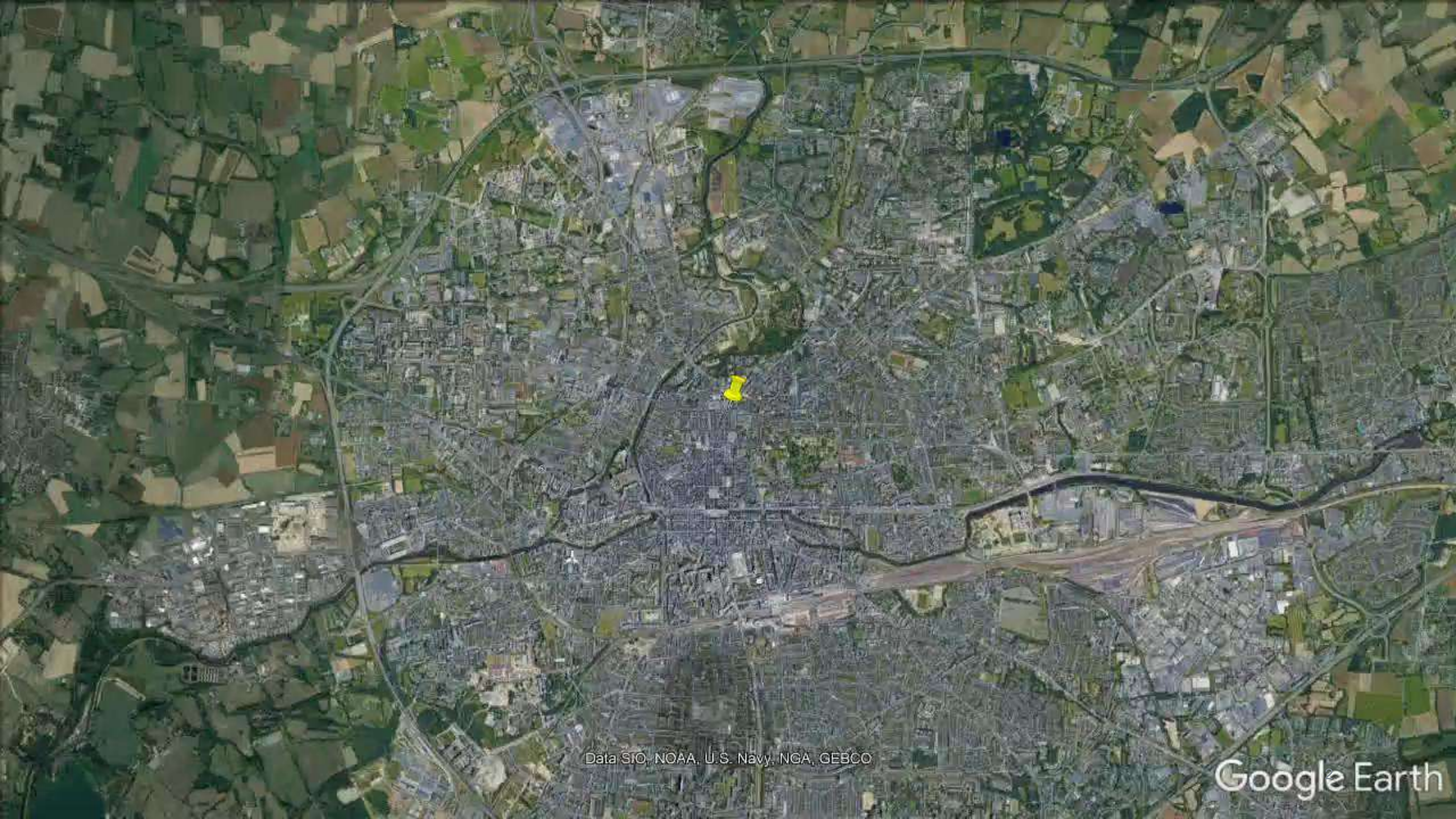
THE LARGEST DAM REMOVAL IN FINLAND, RIVER HIITOLANJOKI PAVING THE WAY FOR NEW ERA IN RIVER RESTORATION

Rennes

24.9.2019

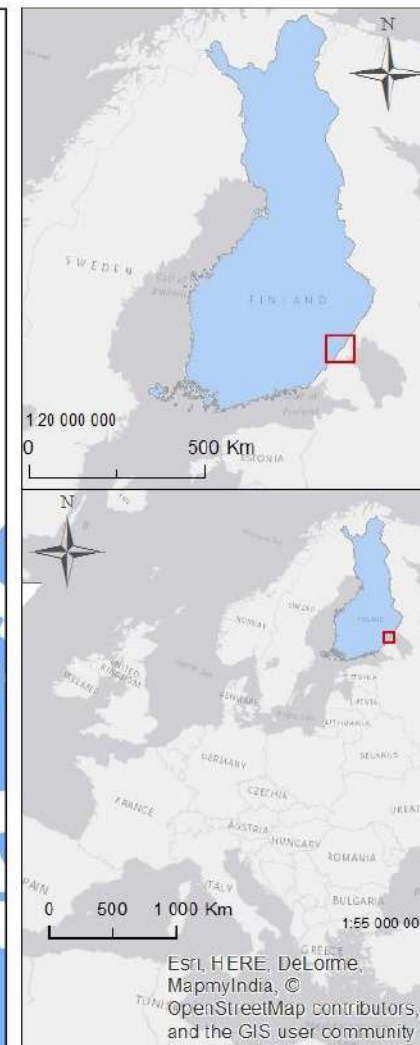
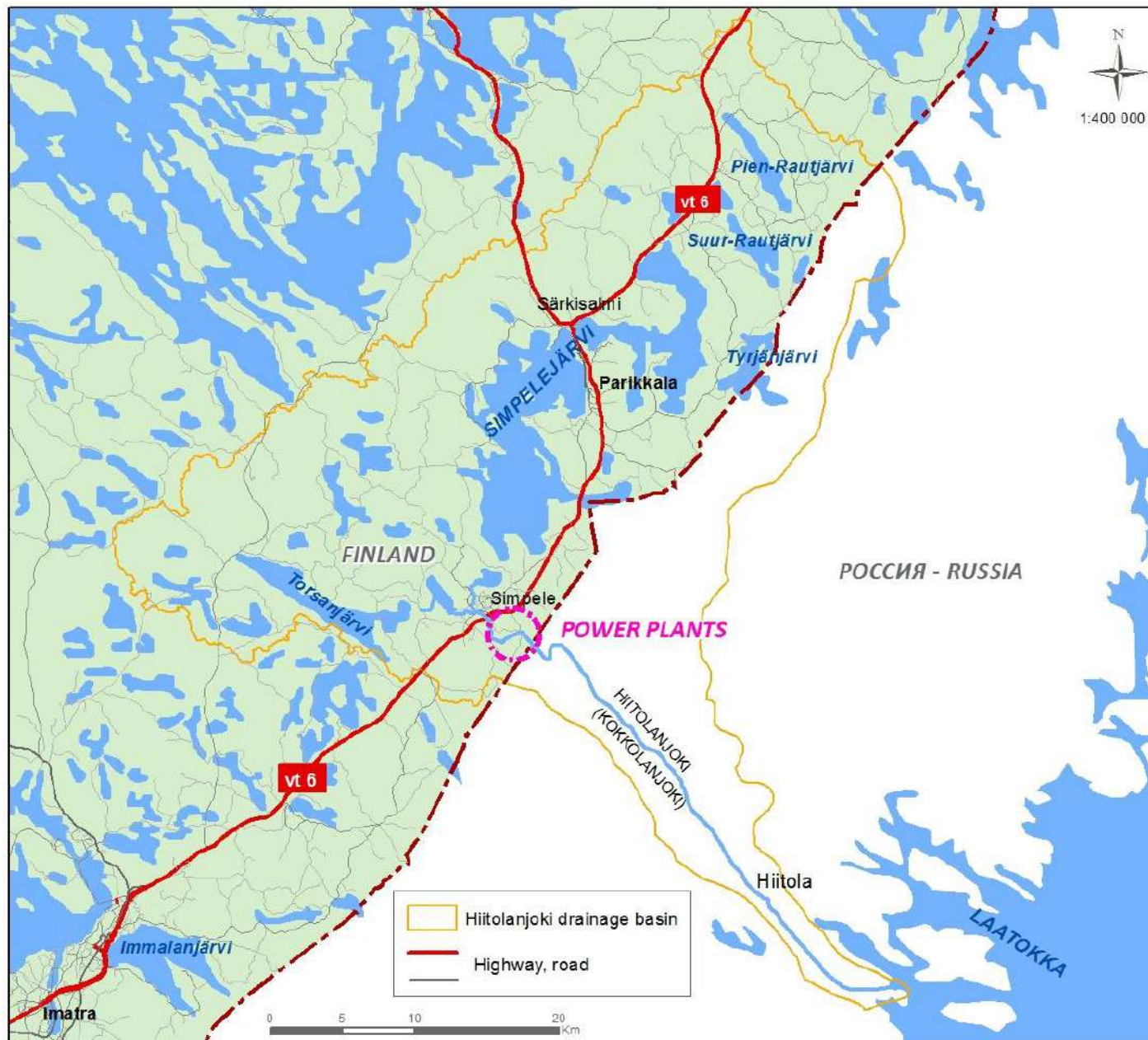
Executive Manager Hanna Ollikainen





Data SIO, NOAA, U.S. Navy, NGA, GEBCO

Google Earth



MAP©
Regional Council of South Karelia 2019,
Basemap materials ©
National land survey of Finland 2018 and
Finnish Environment Institute 2018

ENDANGERED SPECIES IN THE RIVER HIITOLANJOKI

Land-locked salmon

Salmo salar m. sebago Girard



Brown trout

Salmo trutta



MIGRATION OBSTACLES IN RUSSIA

Drainage basin of the River Hiitolanjoki

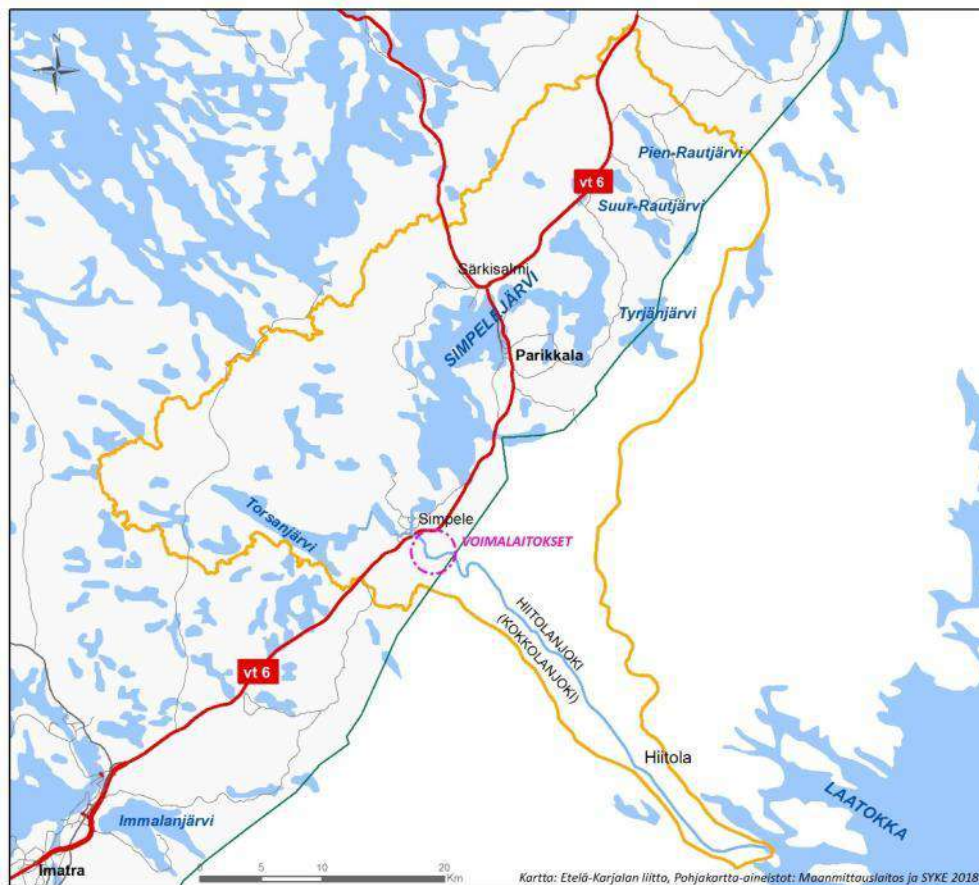


Iron fence in the Russian side of the border
(removed 2001)

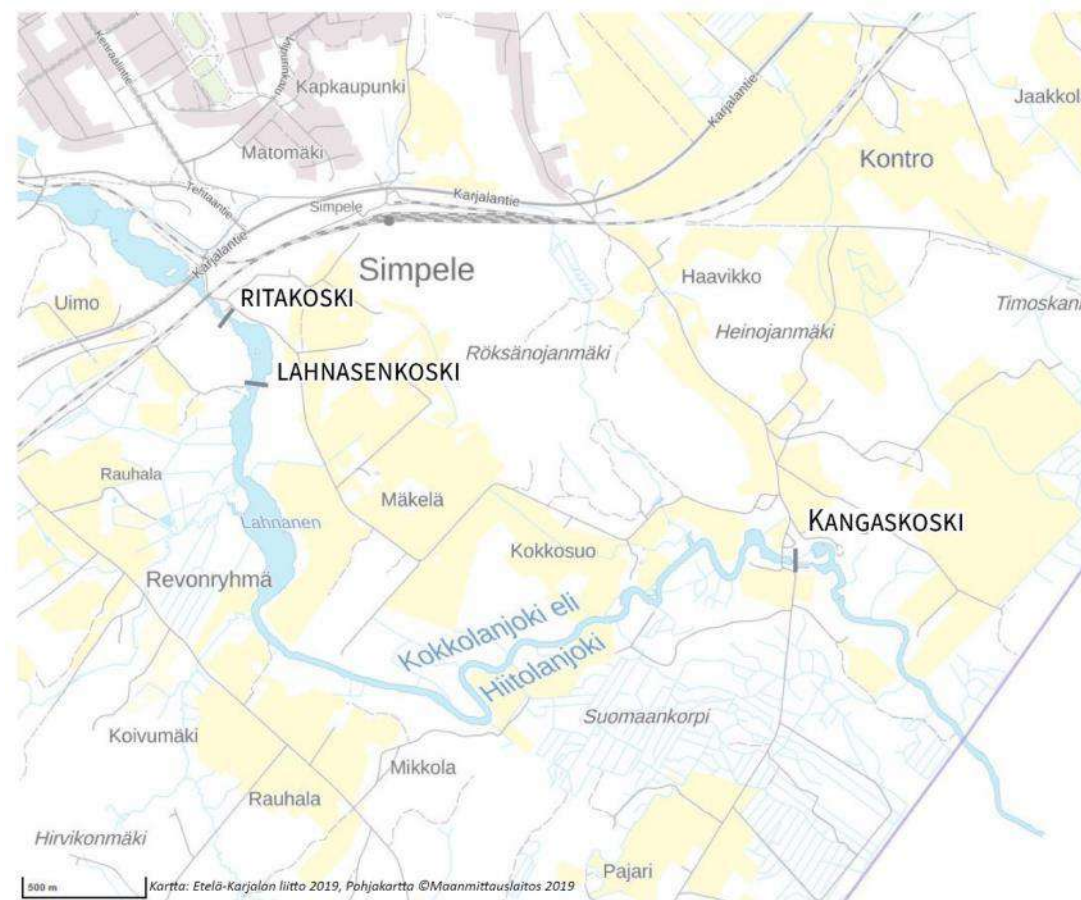


MIGRATION OBSTACLES IN FINLAND

Drainage basin of the River Hiitolanjoki



Hydropower plants



Dams to be removed

PROCESS TOWARDS FREE RIVER

Migration obstacles in Russia were removed 2001

Salmonids arise to Kangaskoski dam

Need for fish migration pass the dams was clear



PROCESS TOWARDS FREE RIVER

Fishway obligation for hydropower plants
in 2019

Investment too costly for the company –
opportunity for purchase & removal

Negotiations for purchase and funding

Closing the deal in summer 2019!



FINANCING

Government

Regional council and municipality

Foundations

Private donors



DAM REMOVAL SCHEDULE

Kangaskoski dam 2021

Lahnasenkoski dam 2022

Ritakoski dam 2023

New era begins for River Hiitolanjoki!

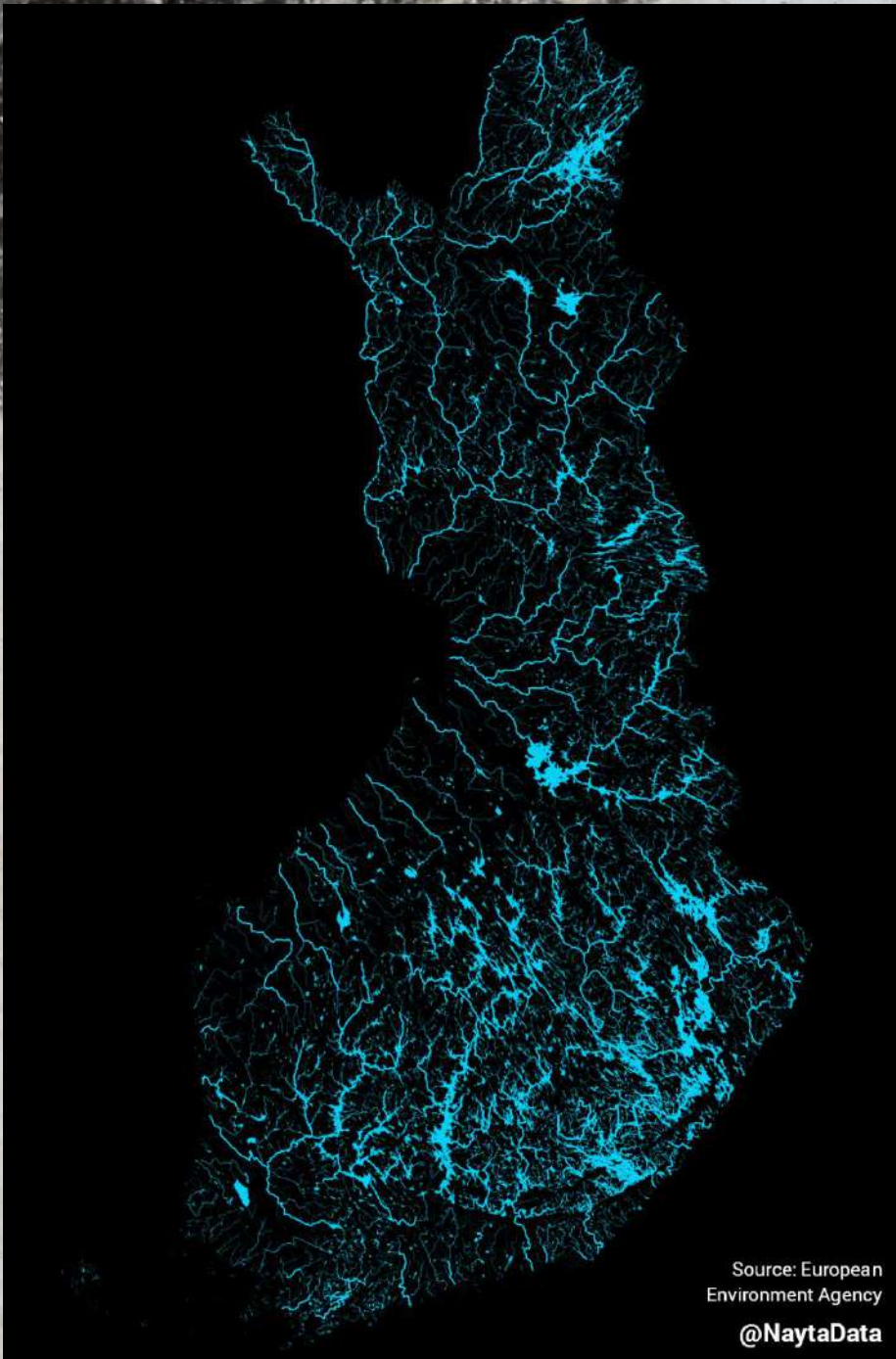




Then what about the
“...new era in river
restoration” ??



Petteri Hautamaa / WWF



Source: European
Environment Agency
@NaytaData

Finland

- Fennoscandian country
- Neighboring country to Russia, Sweden, Norway, Estonia
- 188 000 lakes
- Thousands of rivers
- 5 M people

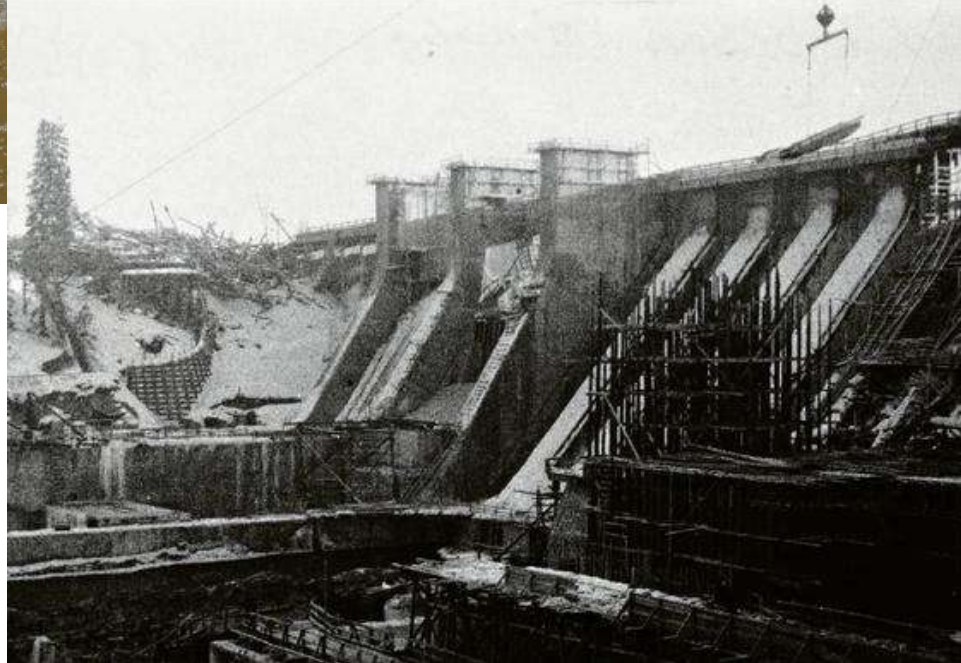
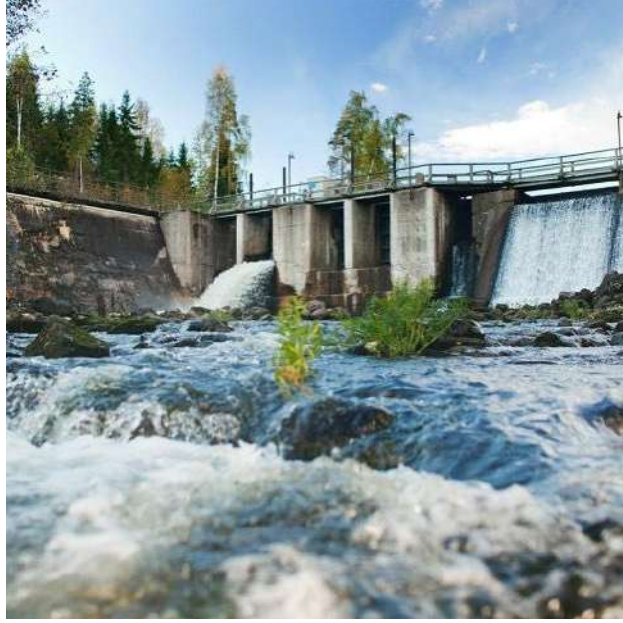
Kuva: Petteri hautamaa / WWF



Kuva: Manu Vihtonen / WWF



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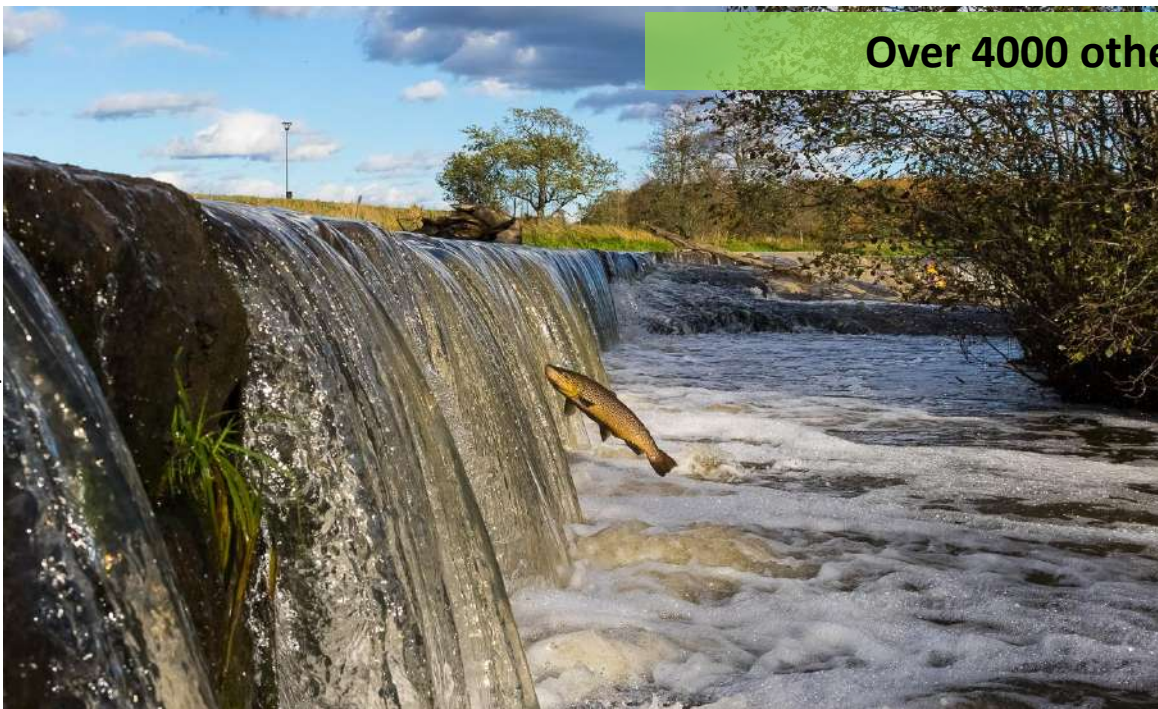


Kuva: Manu Vihtonen / WWF



Kuva: Jonnas Fritze / WWF

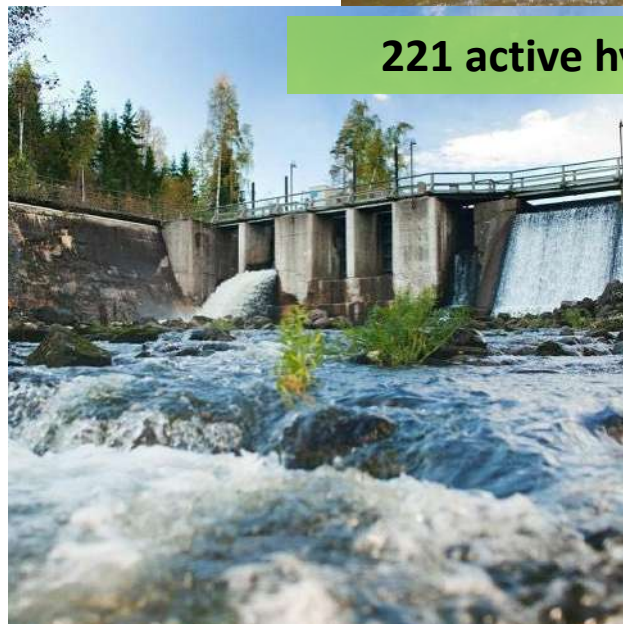




Over 4000 other dam structures



20 000 culverts that hinder migration

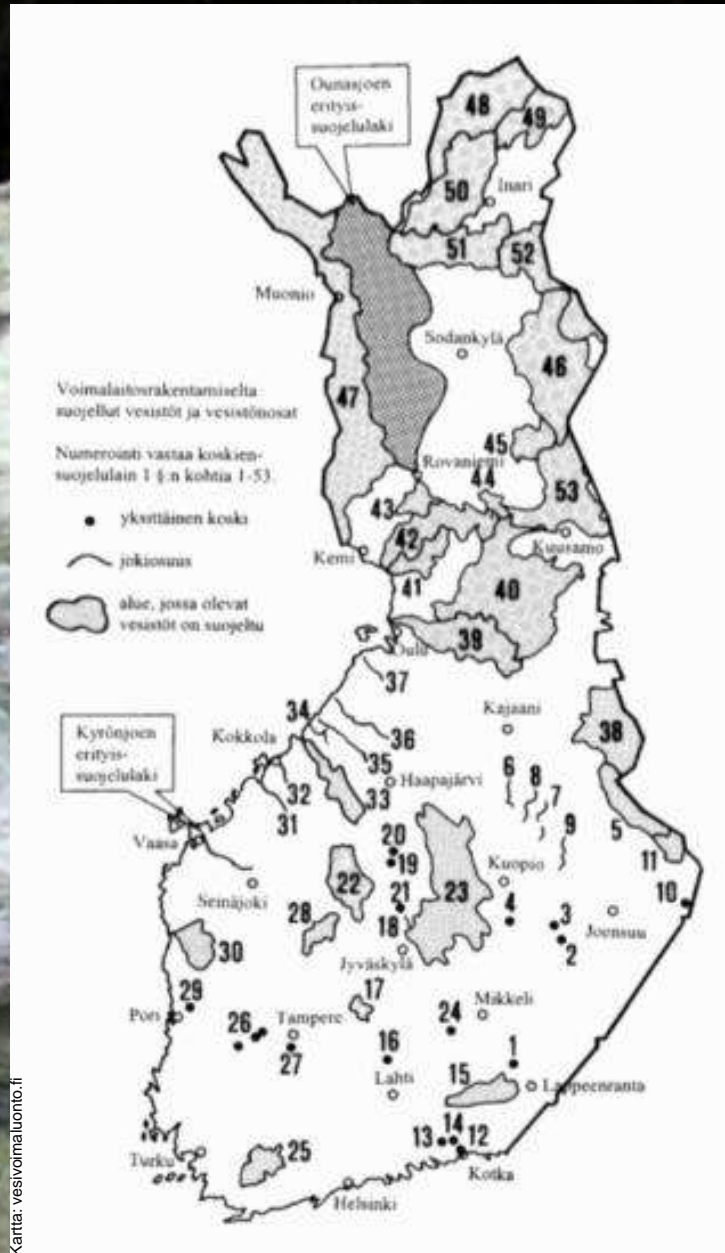


221 active hydropower dams



Special protection act for free running rivers and wild rapids (1987)

- Result of 'river wars', strong citizen uprisings to protect free running rivers
- 53 whole river systems or single rapids in otherwise dammed rivers protected from further destruction
- 'No-go legislation' for HP development that remains unchanged with no exceptions
- Main successes in the history of nature conservation in Finland

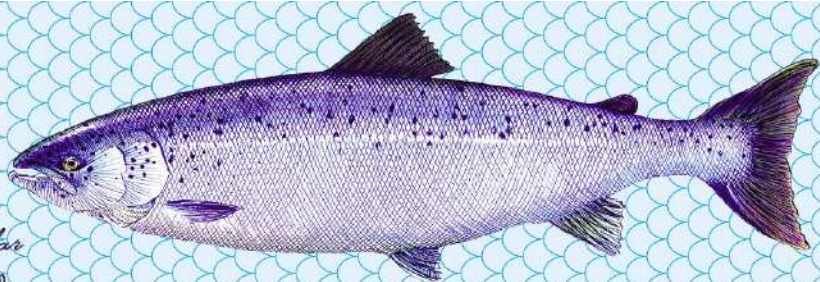




Salmo salar

Lohi (meri- ja järvi- lohi)

R: Atlantilax — E: Atlantic Salmon



Cobitis taenia

Rantanuoliainen

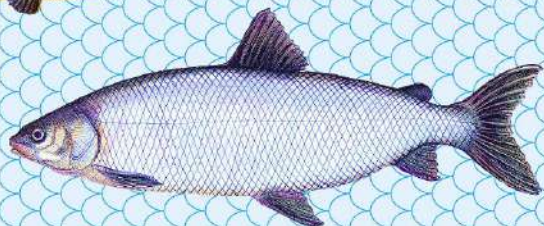
R: Nissöga — E: Spined Loach



Anguilla anguilla

Ankerias

R: Europeisk äl — E: European Eel



Coregonus lavaretus

Siika (vaellus-, kari- ja planktonsiika)

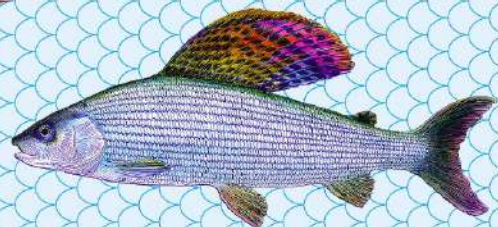
R: Sik — E: Whitefish



Salvelinus alpinus

Nierä (Saimaan nierä)

R: Röding — E: Arctic Charr



Thymallus thymallus

Harjus (merikuitiset kannat)

R: Harr — E: Grayling



Salmo trutta

Taimen (meri- ja järvi- taimen)

R: Öring — E: Brown Trout

Uhanalaiset kalamme



All migratory fish species became endangered in our waters

”Dams are the main cause for the poor conservation status of migratory fish species”

Also different river and stream habitats are all endangered

The start of a new era

From destruction to restoring



The important 2010s

- First the retailers and big restaurant chains dropped the endangered fish completely of their menu
- National Fishway Strategy (2012)
- Then full protection by law for the wild stocks of the critically endangered fish from 2016 (all fishing banned)
- Finally in 2019 new legislation, where endangered fish also received conservation values (to be confiscated to the State)



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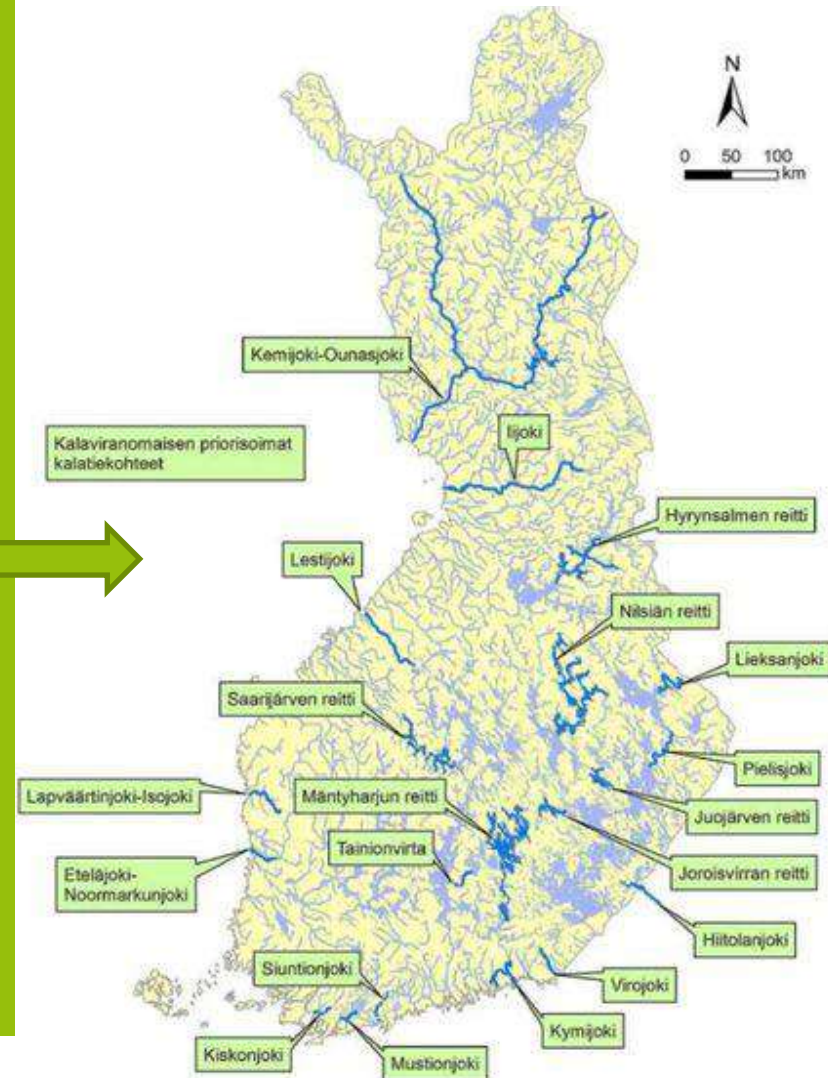
The last two governments have their eyes on rivers

Luckily on a positive way

Finnish government 2015 – 2019

- Migratory fish species listed as a strategical priority for the governmental programme.
- 9M euros spent for dam removals & by-pass solutions
- Via the implementation of the National Fishway Strategy

The targets of the National Fishway Strategy (2012)



Finnish government 2015 – 2019

- Migratory fish species listed as a strategical priority for the governmental programme.
- 9M euros spent for dam removals & by-pass solutions
- Via the implementation of the National Fishway Strategy
- New Private Roads Act
 - Only road projects that allow free passage of aquatic wildlife are entitled to receiving public money



And then the near future?



Dam removal Funding

Finland to include dam removal in their national policies!

By Roxanne | June 11, 2019 | No Comments

Two days after the removal of the Tikkurila Dam in Vantaa, Finland, the first Government of Finland

Finnish government 2019 – 2023

- Dam removals explicitly mentioned in the national programme
- Intention to spend 18M euros in 4 years for dam removals and by-pass solutions. 6M euros decided for 2020.

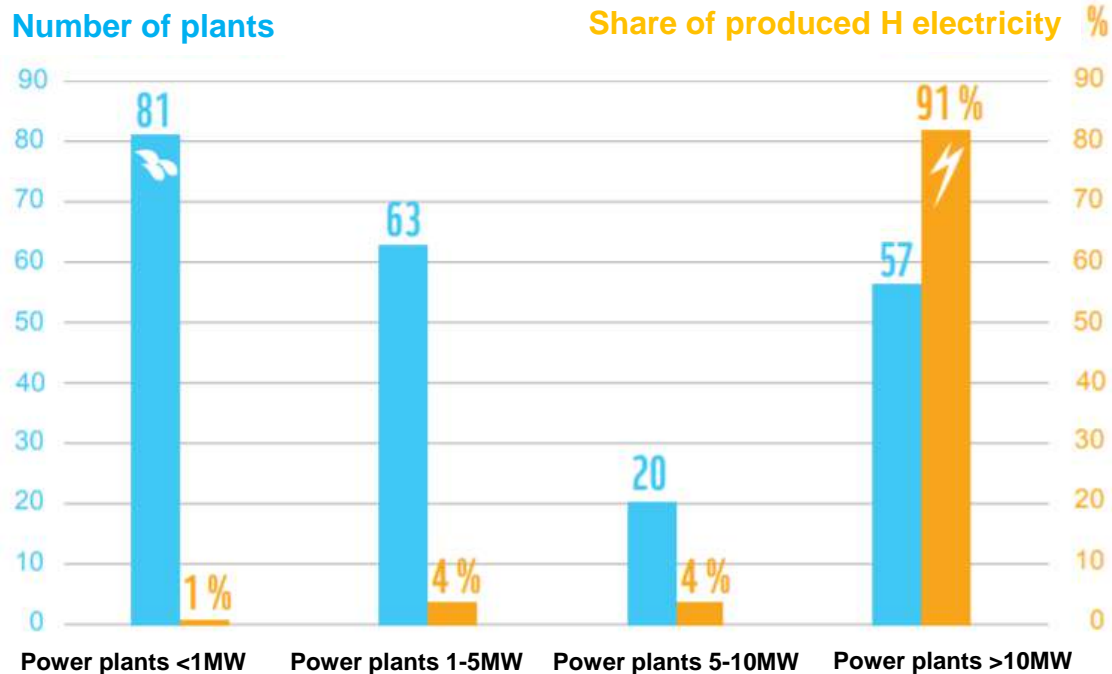


Finnish government 2019 – 2023

- Dam removals explicitly mentioned in the national programme
- Intention to spend 18M euros in 4 years for dam removals and by-pass solutions. 6M euros decided for 2020.
- A change in the water act: allows adding environmental obligations also for the smallest HPPs lacking any.
- Litigation continued to revisit the environmental obligations in the rest of the HPPs.



Hydropower production in Finland



Lähde: <http://www.vesirakentaja.fi/voimalaitokset/laitosluettelo.html>

© TERHI LIUNTO / WWF

A total of 221 hydropower stations in Finland.

164 of those, are either small- or microplants in size.

3/4 of all hydropower plants and their dams, contribute to only 9% of the total hydropower production

Most of the HPPs (144) are of microsize (<5MW), and count for only 2% of the total production of electricity in Finland

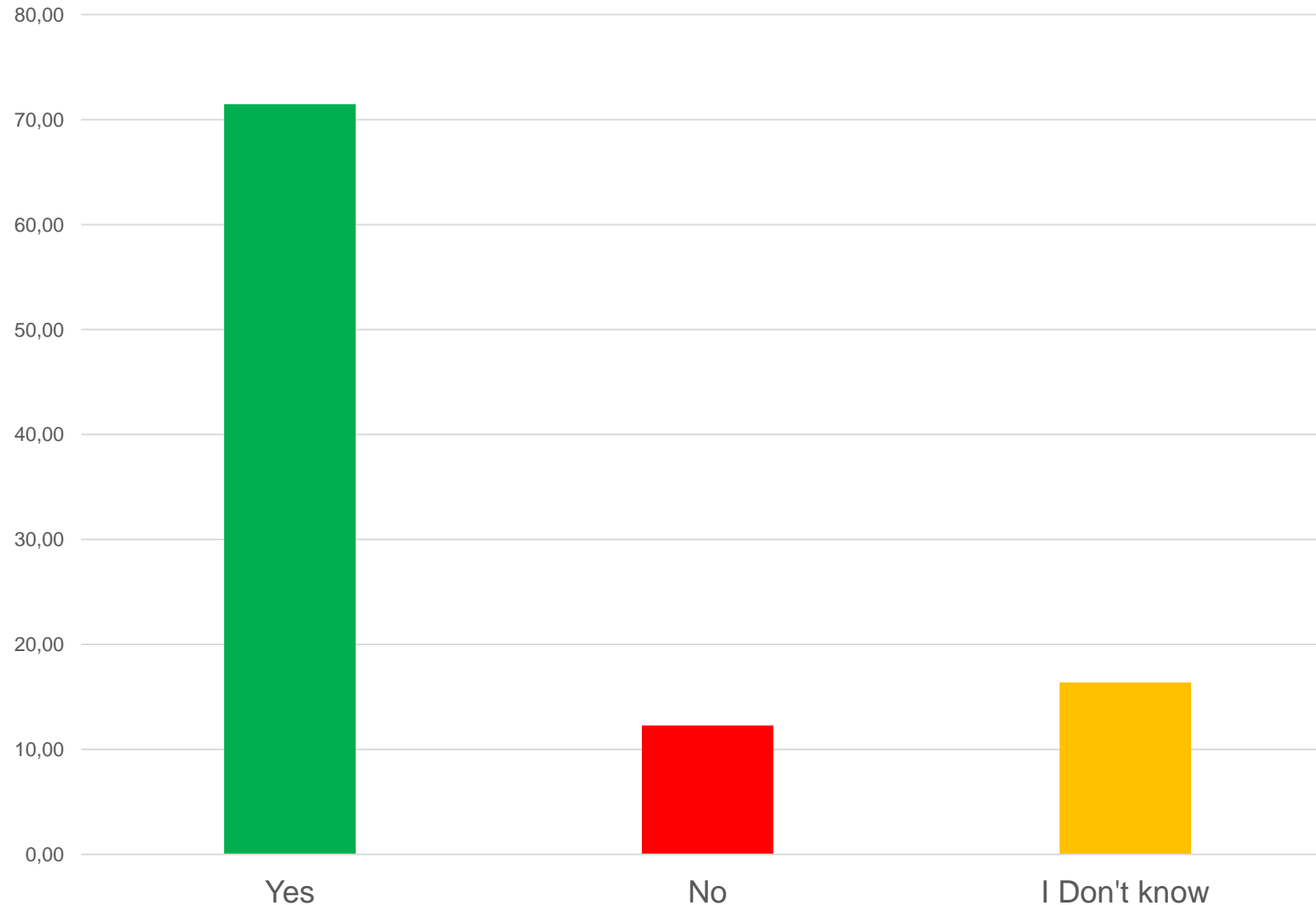
In comparison, the most modern windmills have a 10MW power capacity

There's no turning back

The public opinion is for free rivers



“Hydropower dams that are insignificant for energy production should be removed in order to improve migratory fish stocks” (TNS Gallup 2019, n = 1094)



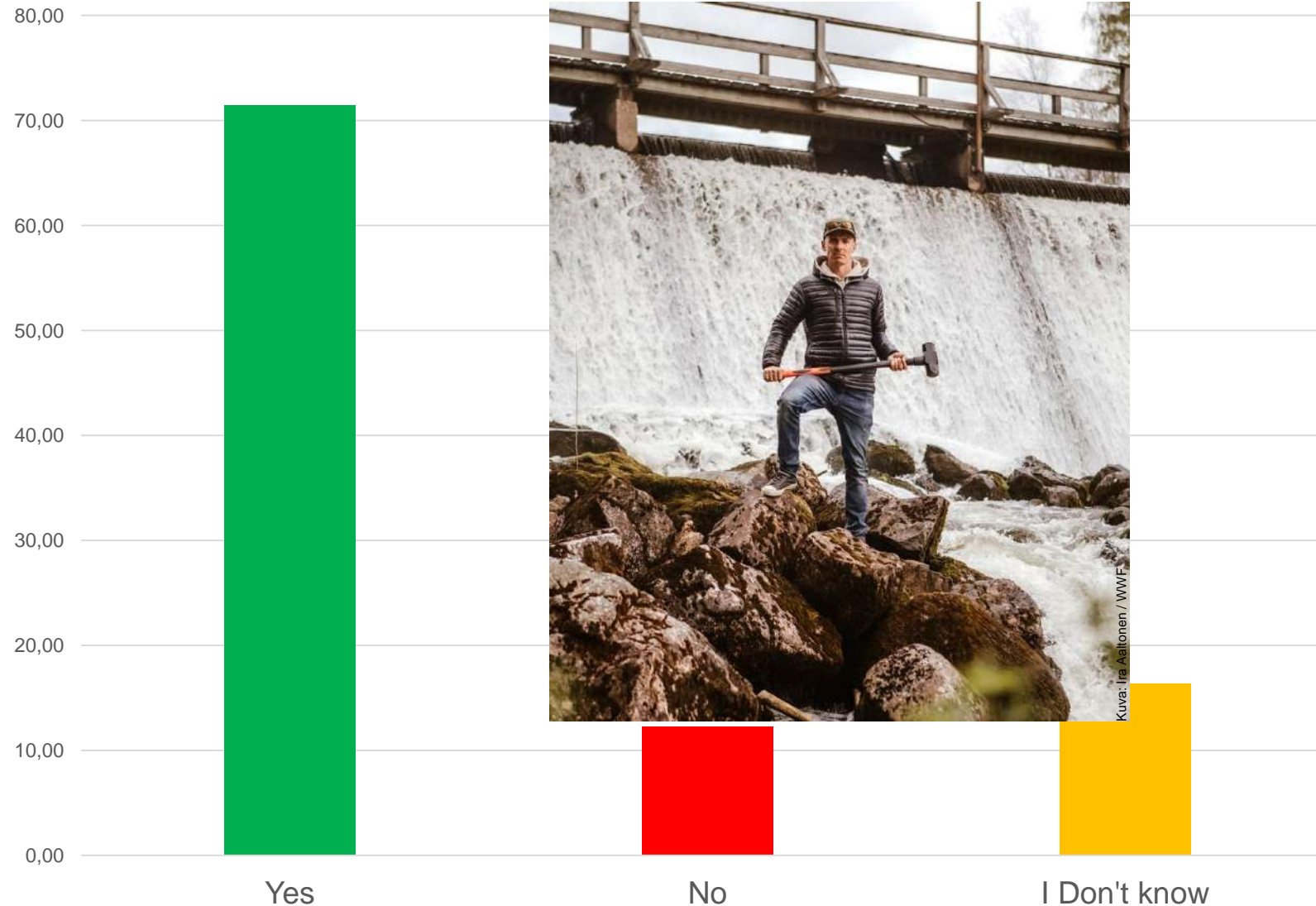
Citizen polls

~71%
|
(62% in 2018)

You can also ask whether the free running rivers should be protected from hydropower



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Let's go back to River Hiitolanjoki and check if anyone's home....

- [Live stream camera from Hiitolanjoki river capturing the landlocked salmon spawning](#)

Thank You! / Merci! / Kiitos!



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Recreation Areas**

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