



TRIWA LIFE

Sofia Perä, County Administrative board of Norrbotten
SWEDEN



Medfinansieras av
Europeiska unionen



Länsstyrelsen
Norrbotten





TRIWA- from mountain to coast

Project area: Torne river watershed-
the same size as Switzerland

Budget: 21 million Euro

EU co-funding: 60%

Project time: 2023-2030





County Administrative Board of Norrbotten



Centre for Economic Development, Transport and the Environment



Metsäkeskus Forest Centre



METSÄHALLITUS FORSTSTYRELSEN



LUONNONVARAKESKUS

Nine partners

Coordinating beneficiary is the County Administrative Board of Norrbotten



UNIVERSITY OF OULU



Swedish Agency for Marine and Water Management



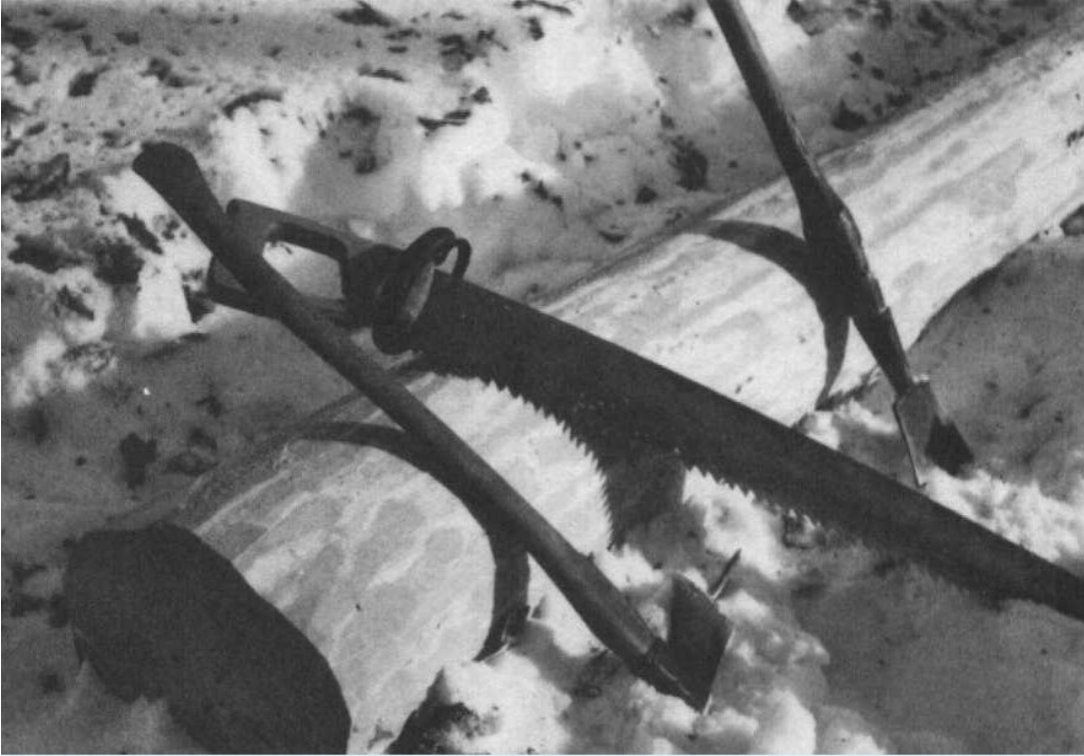


Human impact on nature

1. Straightened streams
2. Ditched wetlands
3. Migration barriers- culverts
4. Migration barriers- dams

Timber floating





Forestry and the transportation of timber



Timber got stuck

- Financial loss
- Dangerous working environment



Streightening and removing boulders

- Habitat loss
- Increased water velocity
- No exchange between terrestrial and aquatic environments

Removal of boulders and stones

1. By hand
2. Winch
3. Bulldozer
4. Dynamite







Measures with excavators

- Larger structures
- Deep pools
- Open up side-channels





Manual measures

- Spawning beds

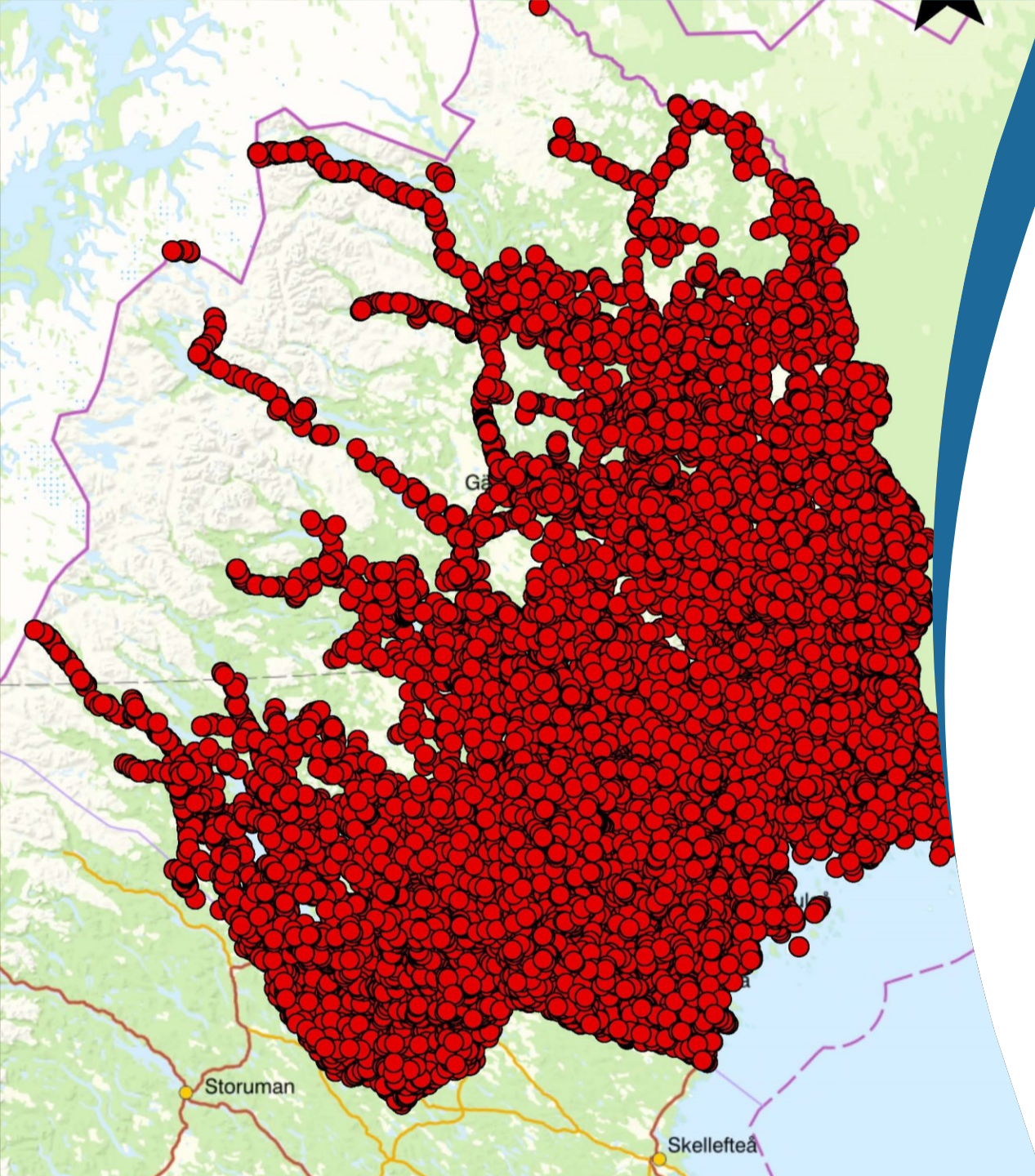


Restore 96 km of streams



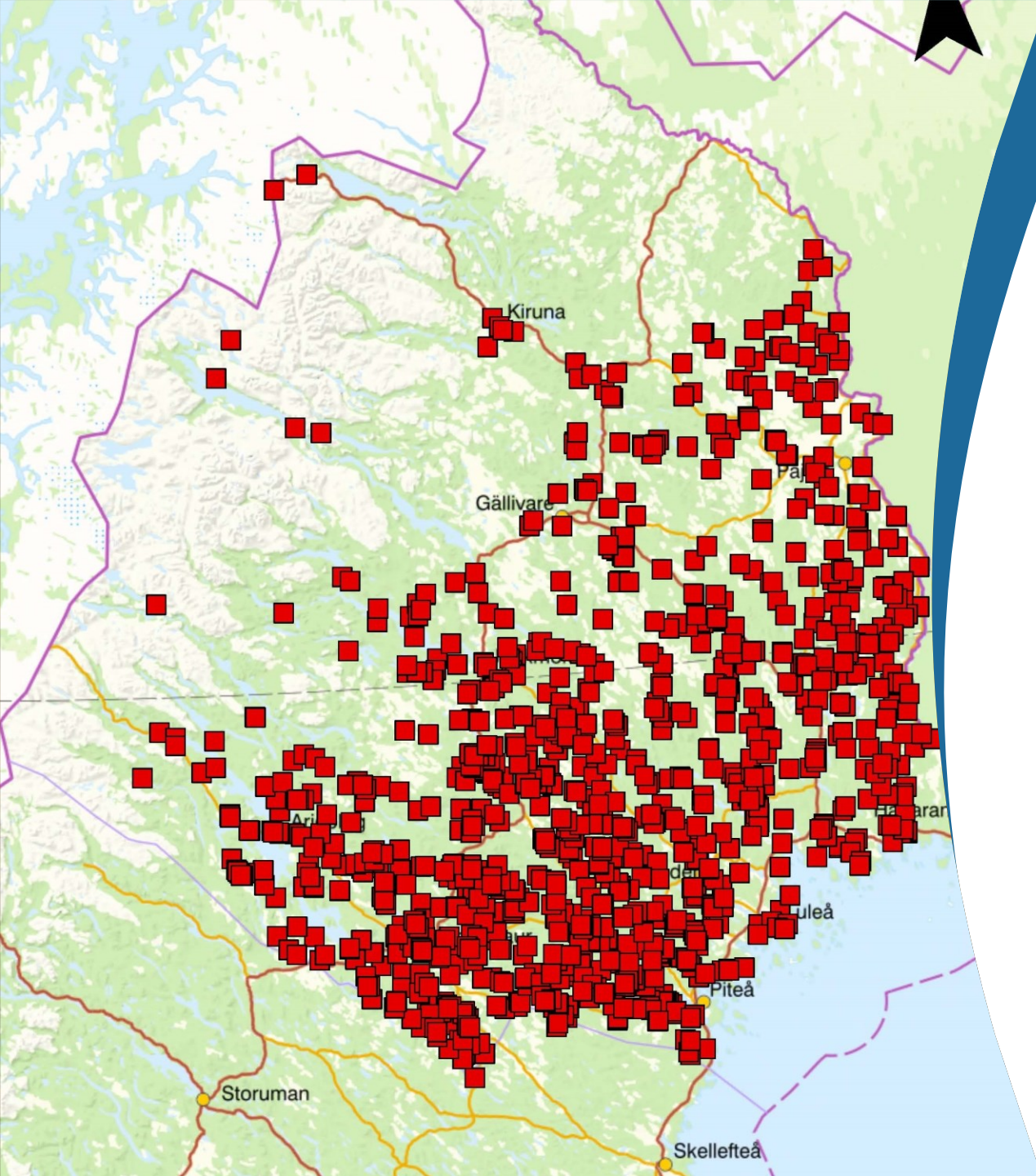


Migration barriers



Road water crossings

- About 20 000 in Norrbotten
- 30% are migration barriers



Dams

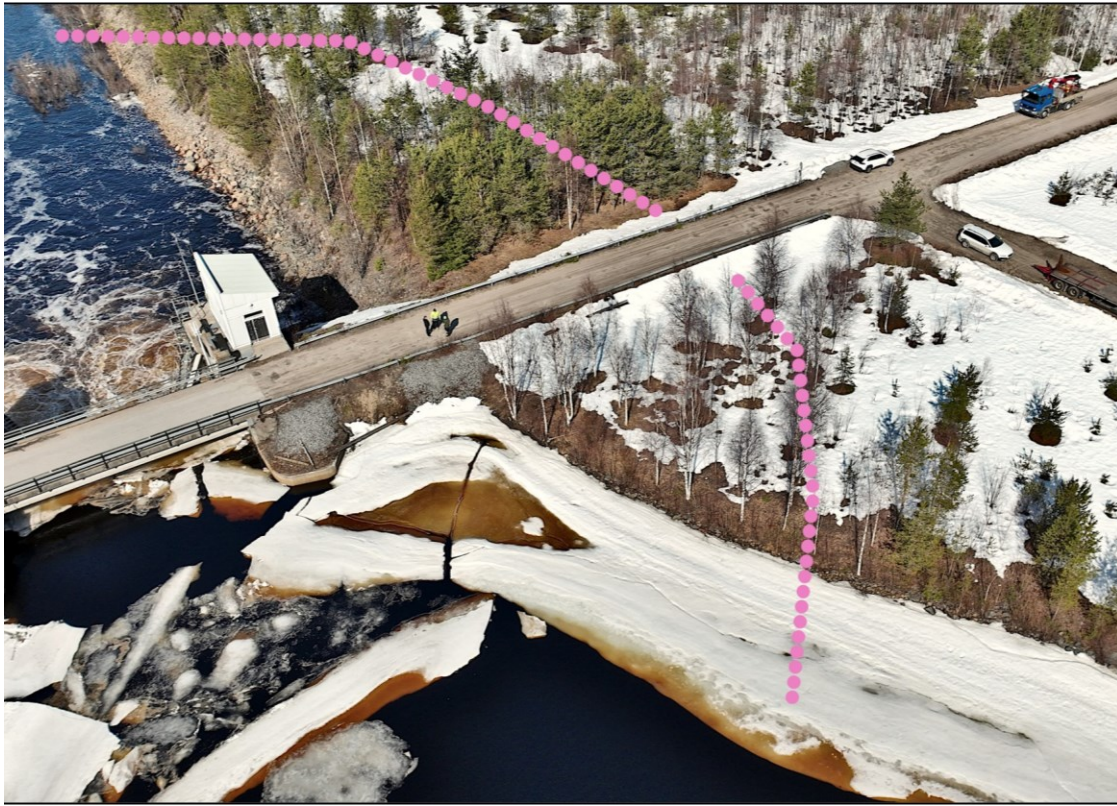
- About 1 000 in Norrbotten
- 50% are migration barriers



Replace culverts



Remove dams



Build two bypasses in Tengeliöjoki

Two hydropower dams





Remove 399 migration barriers



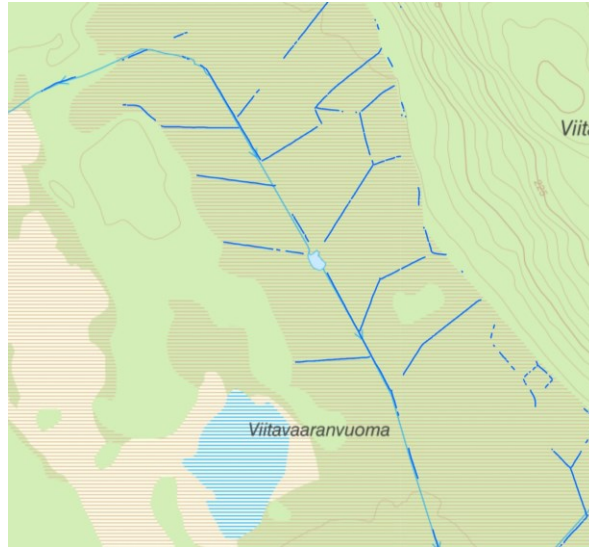


Wetlands



Ditching to obtain forest- and agricultural land

1. By hand
2. Ditches
3. The impact
4. Sediments from ditches to streams





Measures with excavators

Plugging ditches to restore the hydrology





Manual measures

- Reduce sedimentation to the streams
- Re-create wetlands



Restore 2 500 hectares of wetlands





Film

Mediaflow:

<https://share.mediaflow.com/se/?26KE0B79H0>

YouTube:

<https://www.youtube.com/watch?v=aFniJ8InW8E>



Thank you!



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NATURA 2000



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