

A European national river continuity restoration policies review

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27/06/2023

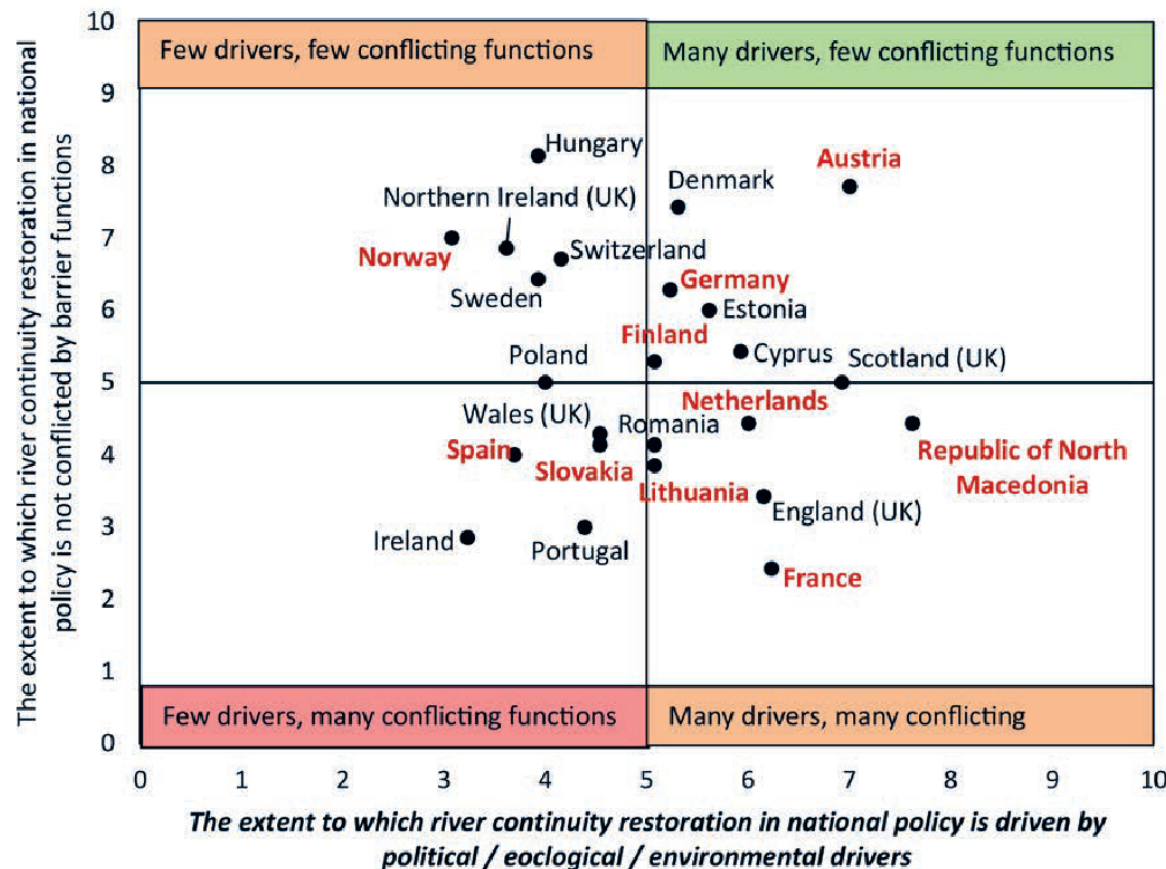
The logo for Stowa, featuring the word "stowa" in a bold, lowercase, sans-serif font. The letters are dark blue, and a thick, dark blue wavy line runs underneath the text, suggesting a river or water.The logo for the European Centre for River Restoration (ECRR). It features a stylized blue wavy line representing a river, with a light blue horizontal bar behind it. To the right of the wavy line, the text "The network for best practices of river restoration in Greater Europe" is written in a small, dark blue font. Below the wavy line, the acronym "ECRR" is written in a large, bold, dark blue font, and the full name "European Centre for River Restoration" is written in a smaller, dark blue font below it.

General



Policies viewed:

Countries interviewed:



➔ River continuity restoration is not the topic of a single policy but part of the national water policy in each country.

Categories examined



(1) Issues identified

- a) Goal definition
- b) Definition river (continuity) restoration

(2) Policy prerequisite

(3) Restoration Tools

- a) Planning of measures
- b) Barrier data base
- c) Prioritisation method WB
- d) Prioritisation method barrier
- e) Available plans and measures
- f) Technical knowledge

(4) Consultation

- a) Stakeholder involvement
- b) Public participation

Results



Summarised categories:

- Policy Design and Administrative Structure
- Restoration Tools
- Stakeholder Involvement
- Financing
- Monitoring and Evaluation



Source: Jukka Jormola, ECRR

Policy Design and Administrative Structure



- **Main driver:** Fish migration - sediment transport, habitat connectivity, and environmental flow are mentioned
- All policies **identify issues** regarding river fragmentation and **define goals** for river restoration
 - Austria, France, Germany and Spain mention specifically river continuity restoration
- All policies evolved through the years or were newly induced by the implementation of the WFD

Responsible Authority: in several countries more than one

- Ministry of Environment in charge of ecosystem restoration ↔ Ministry of Agriculture and Forestry in charge of fishery sector or
- Ministry of Environment ↔ Ministry of Energy regarding hydropower dams

Policy Design and Administrative Structure



- **Administrative structure influences policy effectiveness** since it determines on which level decisions are made, which stakeholders are involved, and what financial tools are available
- Different historically grown water management structures in each country lead to conclusion that **the development of a general policy framework might be less useful than general recommendations for effective tools and approaches** under certain circumstances



Source: Jukka Jormola, ECRR

Restoration Tools



Plans and measures

- Plans and measures (e.g.: WFD implementation) to be used are included in some policies
- If they are mentioned, they differ very much in details
- How to gain and share technical knowledge is only described in a few policies

(Barrier) data base

- Almost all countries maintain a data base with information on water bodies
- Austria, France, Germany, Lithuania, and Spain have a specific barrier data base
- France and Spain use data base also for barrier removal, equipment, and progress tracking

Restoration Tools



Prioritisation Water Bodies

- Half of countries prioritize restoration of water bodies
- Common prioritization criteria: Fish migration, fish biocenoses, protected areas (Natura 2000, Ramsar sites, Red List species etc.)
- Hydromorphological aspects , water flows and sediment transport are only sometimes mentioned

Prioritisation Barriers

- More than half of the countries prioritize barriers
- Main criteria: (highest) ecological impact
- Other criteria: km of river length, (spawning) habitats, obsolete dams, hydro-morphological aspects
- Combination with other measures (flood protection, floodplain restoration) are often sought-for
- Sediment transport, (ecological) flow regimes, nutrients etc. are hardly mentioned

Stakeholder Involvement



- Described in all policies, but implemented differently:
 - Stakeholder consultation rounds or their participation in working groups during the development process of the policy
 - Consultation and involvement in individual restoration projects
 - So-called “river dialogues” and similar activities on social media
 - Water Round Tables for face-to-face interaction
 - Annual national conferences and workshops for water professionals
- **Participatory approach with the advisory boards** of local public services as well as authorised board associations of private structures and landowners is prevailing

Financing



- Included in all policies; funding amounts are highly dependent on the political constellation
- Distinguished between regional, national and European funds; private funds not mentioned
- Aimed for result determines the funding strategy
 - Fast and high number of restoration projects reached through general funding independent of projects being legally enforced or conducted on voluntary basis
 - Not most needed barrier restorations are targeted through voluntarily based approach since prioritisation follows not ecological impact criteria
 - Different subsidy rates may lead to disagreements and resentment by the affected stakeholders
- **Time horizon** of funding budget is important factor for the policy effectiveness

Monitoring and Evaluation



- Part of all policies, however, adjustment of policy to monitoring restoration results and/or policy performance is hardly mentioned
- Different monitoring levels and purposes exist
- In general, monitoring funding and a standardised method are often missing
- The lack of human resources also constitutes a constraint for monitoring

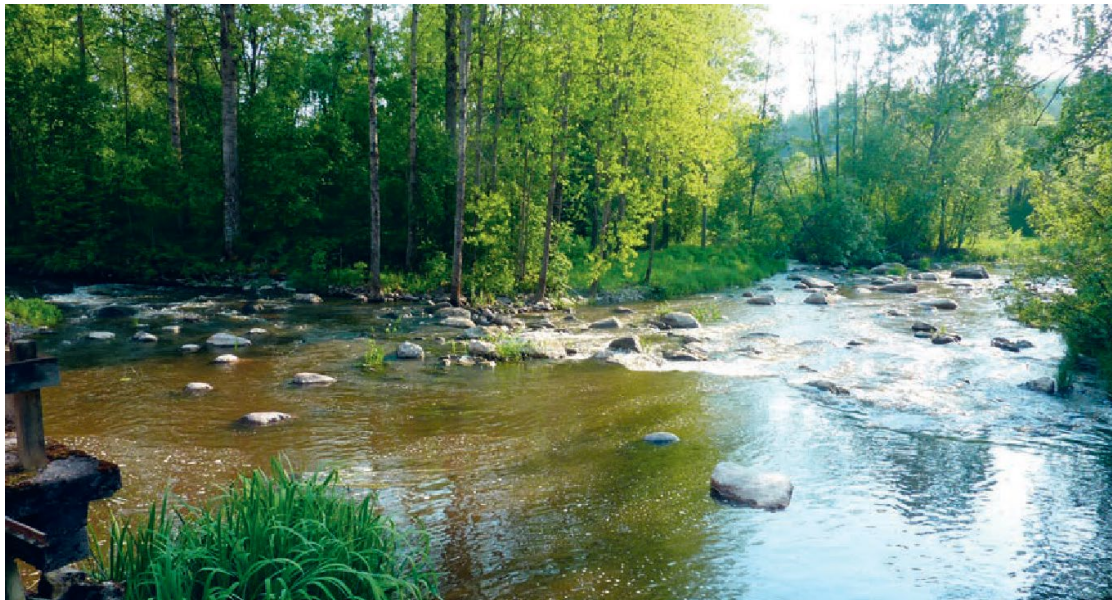


Source: Jukka Jormola, ECRR

Synthesis



➤ What does it all mean?



Source: Jukka Jormola, ECRR



Source: Jukka Jormola, ECRR

Conclusions



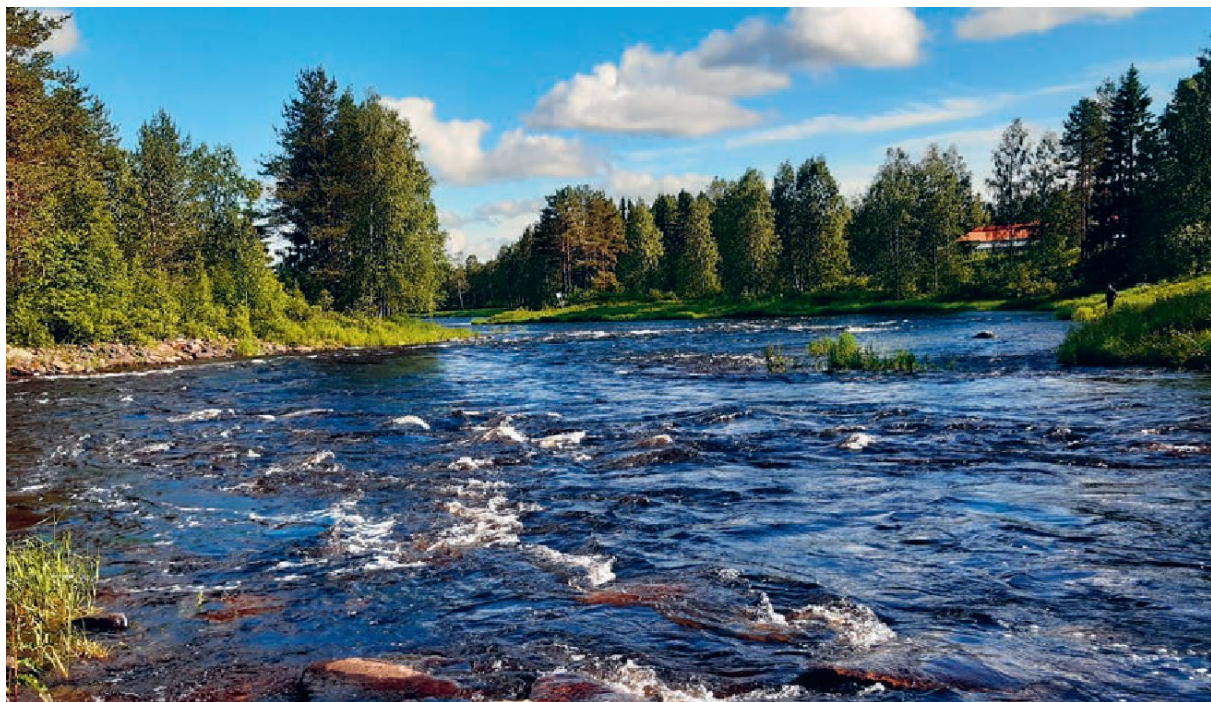
- **Completeness of a policy** less determining for policy effectiveness than circumstances
 - Obstacles and drivers need to be identified and suitable and effective solutions be found
- Investigation of **administrative structure** and interests of responsible authorities can be helpful
- **Prioritisation method** should be standardised and include all important aspects
- Comprehensive, maintained, and accessible **barrier data base** is the prerequisite
- **Stakeholder involvement** is inevitable (widely recognised), but exchange of project experiences, restoration data, and information on planned projects is important, too
- Important that **financing** mechanisms are transparent and act to incentivise river continuity restoration
- Two aspects of **monitoring and evaluation** need to be considered; the ecological result of the implemented restoration projects as well as the policy implementation process itself

Recommendations



- River continuity restoration policy needs to be **horizontally** (synergy with other national policies and laws) and **vertically** (effective on all administrative levels) **integrated**
- **Identify useful synergies**; combine river continuity restoration with other aspects of water management such as flood control and drought management
- Agreeing on **linguistic terms** and their **definitions** will help to set clear targets shared by all stakeholders and facilitates communication processes
- Functions that provide ecosystem services such as the maintenance of food webs or the transport of nutrients and sediments should be considered in view of financing strategies, prioritisation methods, or monitoring activities
- **Obstacles and drivers of river continuity restoration need to be identified to recognise windows of opportunities for either implementing river continuity restoration measures or to initiate a beneficial change of the prevalent circumstances (e.g., enabling legislation)**

Thank you for your attention!



Source: Jukka Jormola, ECRR