Are rivers being restored in the Iberian Peninsula?

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Overview

i. Which are the priorities for the restoration of Iberian rivers?

ii. What has been done during the last decade?

iii. Which should be the focus of restoration initiatives in the coming years?

iv. Conclusions and proposals for action
i. Which are the priorities for the restoration of Iberian rivers?

- Full integration of WFD, FRD and BHD
- Water quality is not the big obstacle for restoration, but should be improved in specific segments
- Restoration of flow regimes and river dynamics are essential for success
- Large disconnection between scientists/managers and society
ii. What has been done during the last decade?

• Top initiatives:
  – Large projects developed under EU co-funding (esp. Life+ projects)
  – Spanish National Strategy for River Restoration
  – New flow exigencies in Basin Management Plans
  – Smaller actions developed by NGOs and public/private Foundations

• Bottom initiatives
  – Traditional bad practices (insistently) developed by Basin Authorities and Regional Governments: dredging, “river cleaning”, antropization of urban and peri-urban reaches
  – Additional regulation, bad and non-improving agricultural practices, urbanization of critical (flood-risk, coastal) areas
ii. What has been done during the last decade?

- Top initiatives

  - Restoration of riverbeds, riparian woodlands, floodplains, meanders and wetlands – Over 40 km
  - Flood risk reduction
  - SCI improvement

Life+ project “Mink Territory” (2010-2015)

Source: Government of Navarre
ii. What has been done during the last decade?

• Top initiatives
  - Floodplain reconnection, improvement of hydrogeomorphic processes
  - Flood risk reduction
  - Intense participative programme
  - Agents: Duero Basin Agency, Ministry of the Environment, Municipalities

Restoration of the Órbigo River (Duero Basin)

Source: Ministry of Agriculture, Food and Environment / Duero Water Agency
ii. What has been done during the last decade?

- Top initiatives

  - Channel connectivity, habitat improvement, geomorphic renaturalization
  - Agents: Government of Vasque Country (Gipuzkoa Administration)

Source: Gipuzkoa Administration and Alfredo Ollero
- New methodological approach: combination of hydrological and habitat-based procedures
- Design and establishment of Flood regimes
- Whole range of native fish species and conceptual incorporation of riparian plant species
- Many scientific and management gaps still to be filled
ii. What has been done during the last decade?

- Bottom initiatives

  River dredgings in large alluvial systems

Ebro River

Source: J.A. Pinzolas
ii. What has been done during the last decade?

• Bottom initiatives

“River cleanings” in agro-landscapes
ii. What has been done during the last decade?

• Bottom initiatives

Artificial, forgotten rivers in “modern” urban design

Carcavas Creek, Manzanares tributary

Manzanares River, Madrid downtown
iii. Which should be the focus of restoration initiatives in the coming years?

- Improve social recognition of ecosystem services
- Require participatory processes
- Demand initiatives give answer to WFD, FRD & BHD
- Oblige all initiatives to incorporate true cost-benefit analyses
- Strengthen public/private participation by technical and financial means, but under well-coordinated programmes
iv. Conclusions and proposals for action

• Iberian rivers need intensive hydrogeomorphological restoration
• Flood risk reduction must be actively managed
• Urban design must not block restoration
• Much work is to be done to increase social awareness on long-lasting problems and to provide long-term solutions