



# WG: Stepwise Ecological Restoration of Watersheds

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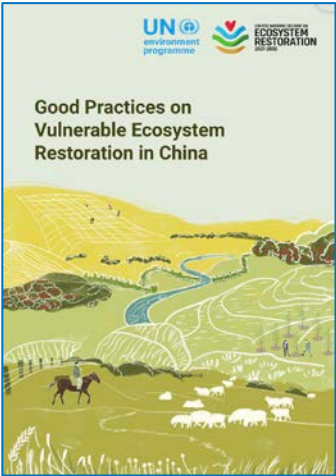
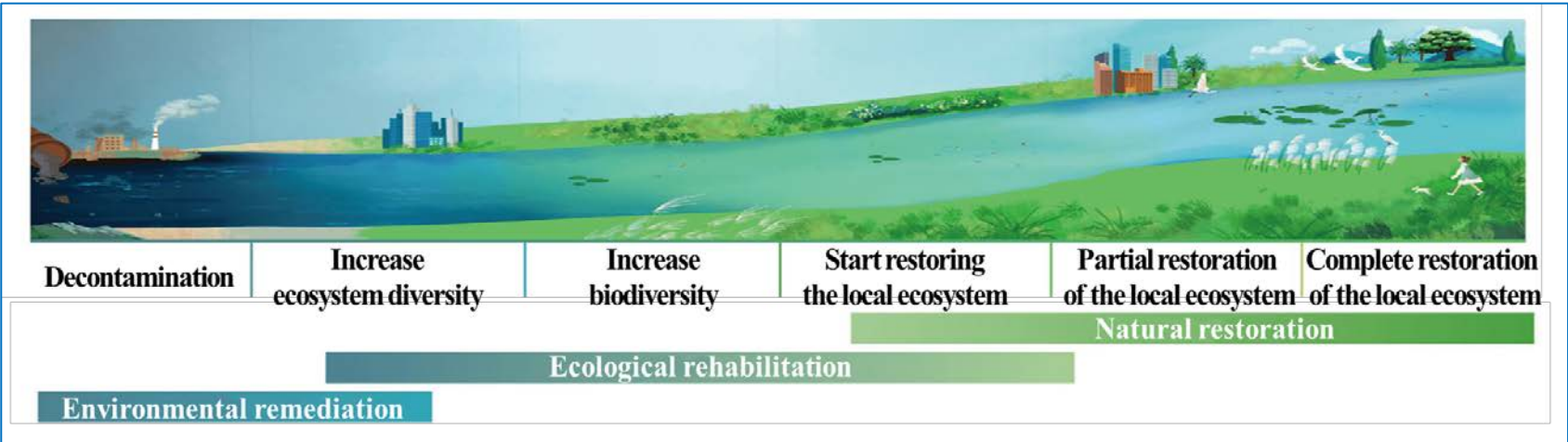
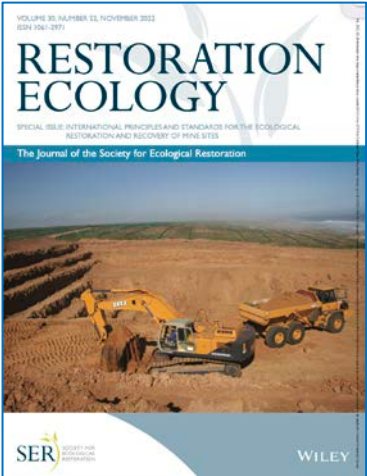


IAHS

# WG: Stepwise ecological restoration of watersheds

## What is the stepwise ecological restoration (STERE)?

- About 48% of rivers worldwide are degraded due to varying degrees of reduced connectivity. One main challenge in restoring degraded river ecosystems is a *lack of comprehensive scientific knowledge* concerning changes of hydrological and ecological processes in large watersheds
- **Stepwise ecological restoration:** integration of three restorative modes: *environmental remediation* for seriously degraded ecosystems, *ecological rehabilitation* for moderately degraded ecosystems, and *ecological (even natural) restoration* for slightly degraded ecosystems.
- STERE is used by the Int. Society for Ecological Restoration (SER) and promoted by UNEP



# GOALS

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**Synthesizing case studies from diverse countries to demonstrate how a deeper understanding of hydrological and ecological processes contributes to stepwise ecological restoration**

- **Short term goal:** Develop a **water and ecosystem simulator** to understand hydrological and ecological processes of degraded or restored watersheds
  - **Long term goal:** Develop an advanced **decision support system for the watershed restoration**
  - **Ultimate results:** Establish and apply **a robust tool** for water security and watershed restoration
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# WORKPLAN

- 2023 – Establish WG (including the WG leader, secretary, members and etc.)
  - Hold the first WG symposium
- 2024~2032 – Hold the WG symposium every year in China or other countries.
  - Integrate different approaches, e.g. watershed models, data-driven modelling, remote sensing, case study analyses, synthesis of cases, and stakeholder involvement
  - Publish summary report of progress every year
  - Organize events at IAHS/IUGG/AGU/EGU, and publish special issues and papers
- 2033 – Hold summary meeting and publish final summary report