

Intradisziplinäre Doktoratsschule HR21 der BOKU - Forschungsansätze für gesellschaftliche Herausforderungen

ONE Water 15.Mai 2025

Thomas Hein

**BOKU University, Institut f. Hydrobiologie und
Gewässermanagement**

**Science
for a
[cooler
future]**

Gesellschaftliche Herausforderungen

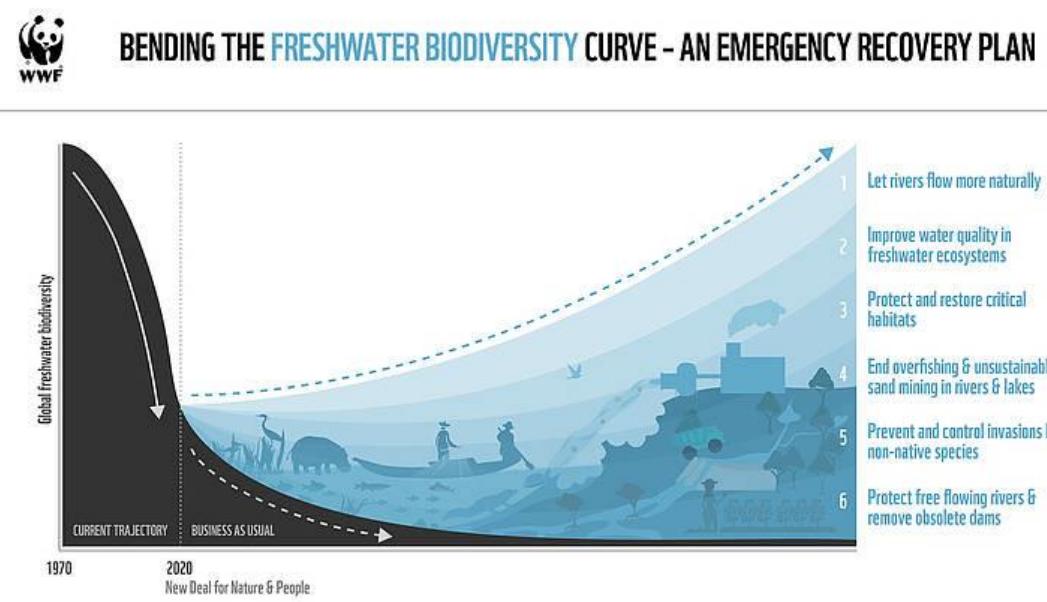


Dürren und Hochwasser
3 Milliarden Menschen betroffen
zw. 2000 und 2019 (World Bank, 2021)



Wasser bezogene Katastrophen

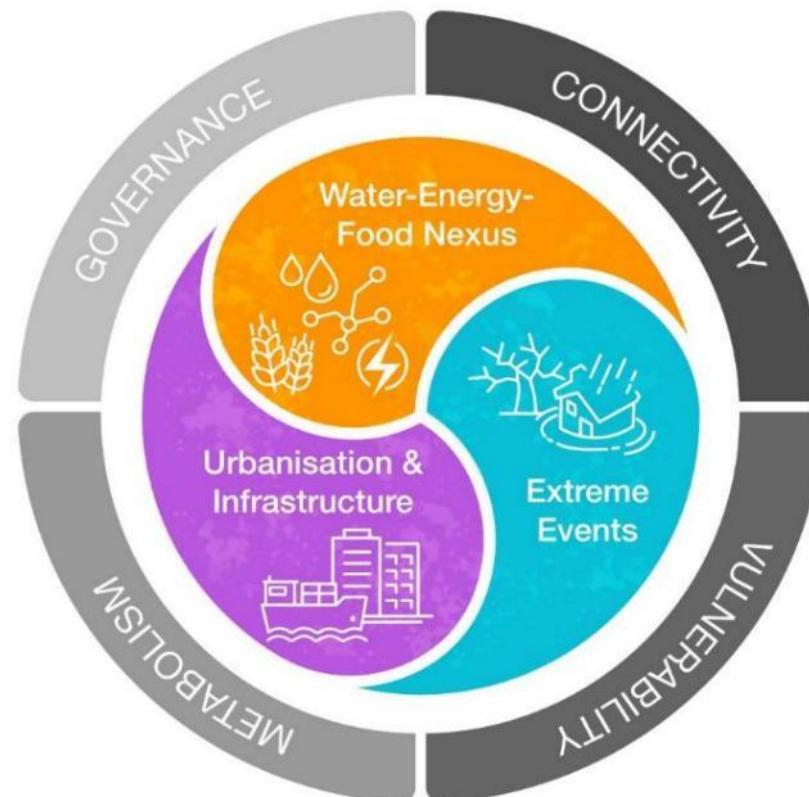
- **Verlust an Menschenleben verdoppelt**
- > 90% Schäden Infrastruktur in den letzten 10 Jahren (Sendai Framework Monitor)



Verlust der Artenvielfalt in Gewässern
83% seit 1970 (WWF, 2022)

Human River Systems in the 21st century (HR21)

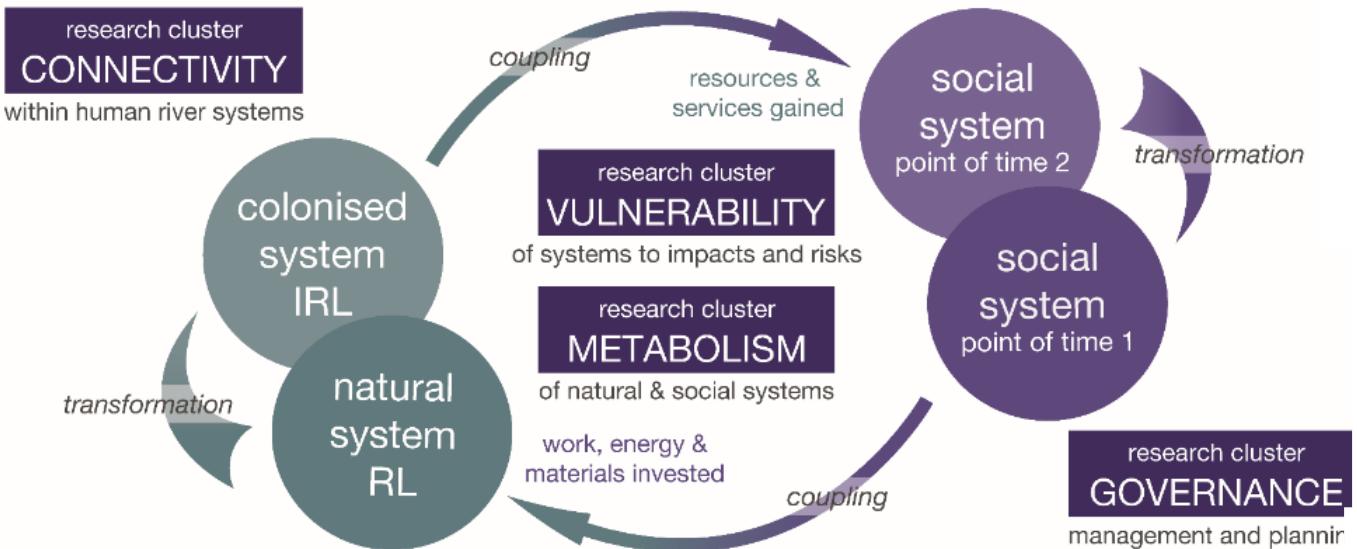
hr21.boku.ac.at – Zusammenarbeit von 4 Departments an der BOKU



Internationale Zusammenarbeit



Sozial-ökohydrologische Systeme



HR21 – Conceptual Framework

Hein et al. 2021

Themen

International Journal of Disaster Risk Reduction 96 (2023) 103993



Contents lists available at [ScienceDirect](#)

International Journal of Disaster Risk Reduction

journal homepage: www.elsevier.com/locate/ijdr



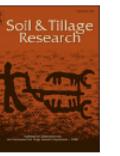
Multidimensional resilience - flood recovery on private land

[Soil & Tillage Research 231 \(2023\) 105732](#)



Contents lists available at [ScienceDirect](#)

Soil & Tillage Research

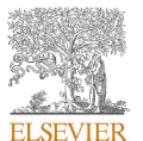


journal homepage: www.elsevier.com/locate/still



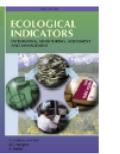
Quantification of water fluxes and soil water balance in agricultural fields under different tillage and irrigation systems using water stable isotopes

[Ecological Indicators 164 \(2024\) 112130](#)



Contents lists available at [ScienceDirect](#)

Ecological Indicators



journal homepage: www.elsevier.com/locate/ecolind

Original Articles

River continuum disruptions in a highly altered system: The perspective of potamodromous fish

Johannes L. Kowal ^{a,*}, Andrea Funk ^a, Günther Unfer ^a, Damiano Baldan ^b, Gertrud Haidvogl ^a, Christoph Hauer ^c, Maria T. Ferreira ^d, Paulo Branco ^d, Rafaela Schinegger ^e, Thomas Hein ^a

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Zusammenarbeit

- Ausrichtung auf gesellschaftlich relevante Fragen
- Sektorenübergreifende Fragestellungen
- HR21 PhDs – 3rd Austrian Participation Day 2024
- HR21 – BOKU Zukunftskonferenz Wasser
- Zusammenarbeit mit unterschiedlichen Stakeholdern



Danke!

