

Intradisziplinäre Doktoratsschule HR21 der BOKU - Forschungsansätze für gesellschaftliche Herausforderungen

ONE Water 15.Mai 2025

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Gewässermanagement

Science
for a
[cooler
future]

Gesellschaftliche Herausforderungen



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

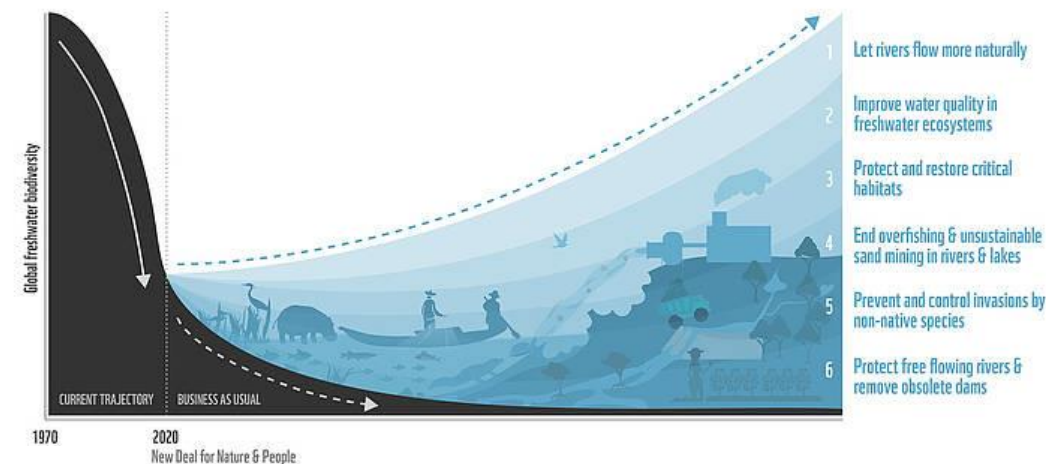


Wasser bezogene Katastrophen

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



BENDING THE **FRESHWATER BIODIVERSITY** CURVE – AN EMERGENCY RECOVERY PLAN



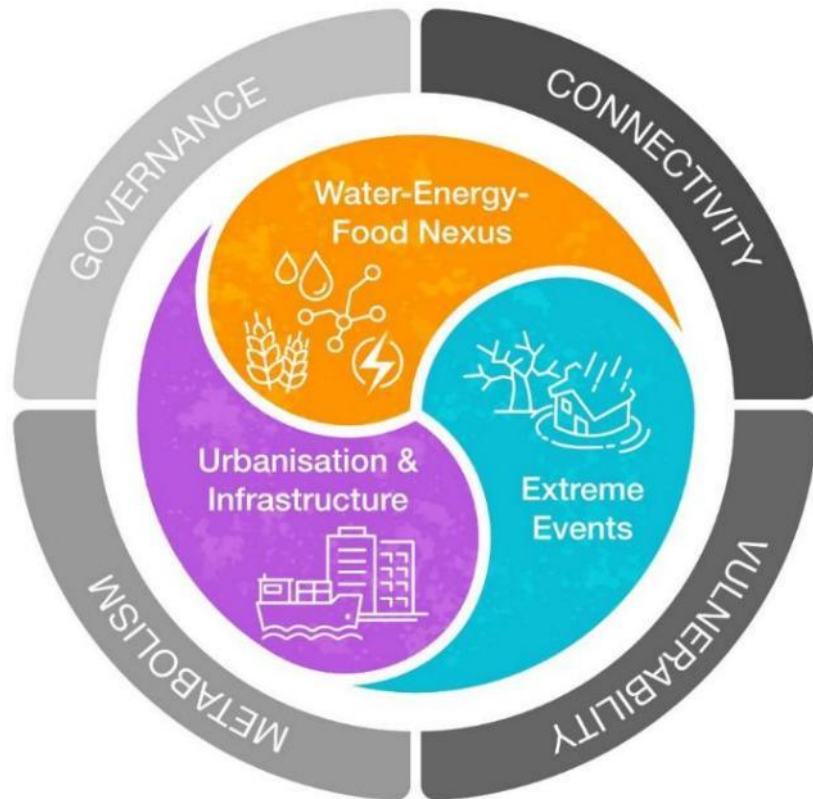
Verlust der Artenvielfalt in Gewässern
83% seit 1970 (WWF, 2022)



UNDRR United Nations Office for
Disaster Risk Reduction

Human River Systems in the 21st century (HR21)

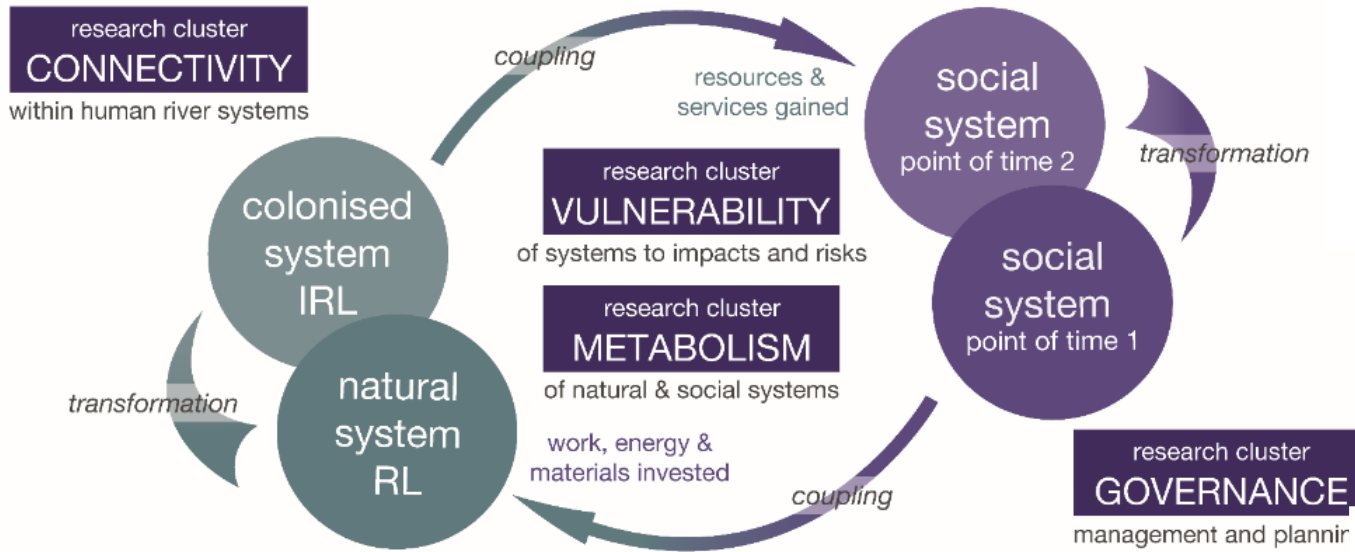
hr21.boku.ac.at – Zusammenarbeit von 4 Departments an der BOKU



Internationale Zusammenarbeit



Sozial-ökohydrologische Systeme



HR21 – Conceptual Framework

Hein et al. 2021

Themen

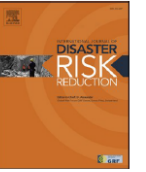
International Journal of Disaster Risk Reduction 96 (2023) 103993



Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

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](https://www.sciencedirect.com)

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

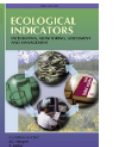
Ecological Indicators 164 (2024) 112130



Contents lists available at [ScienceDirect](https://www.sciencedirect.com)

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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 Haidvogel^a, Christoph Hauer^c, Maria T. Ferreira^d, Paulo Branco^d, Rafaela Schinegger^e, Thomas Hein^a

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



Danke!

Link: hr21.boku.ac.at

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