Transdisciplinary pathways to sustainable and equitable access to water and sanitation

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Session 3E2: From research communities to end-users and citizens, enhancing cooperation through projects
Transdisciplinary pathways include non-academic stakeholders in the process of knowledge production.
message 1: early involvement of stakeholders improves the focus, performance and use of research
Access to resources, particularly by impoverished people, is controlled by a complex web of political, economic, cultural, social and physical factors. Narratives of resource availability are, however, often dominated by reductionist, physical evaluations of resources that embrace the ‘scarcity paradigm’ in which access or availability is inferred to be controlled predominantly or exclusively by its physical characteristics.”

(GroFutures, AfriWatSan)
integrating physical and social sciences

**Physical Science**
- Quantifying resources and assessing quality
- Test impact of *pathways* under land-use & climate change

**Social Science**
- Stakeholder-led construction of *pathways*
- Deliberative evaluation of *pathways* informed by physical science

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*Groundwater Development Pathways*
• in Dakar, density of on-site sanitation facilities relates directly to the magnitude of groundwater contamination by nitrate
pathways analysis: an inclusive, iterative approach to identifying a range of WASH futures

Develop a set of criteria

Score pathways under each criterion

Assign weight to each criterion

Reflect on outcome

Discuss pathways

Operational and Maintenance

Equitable Access

Environmental Sustainability?

???

develop WASH development pathways
stress test these with scientific evidence

Develop a set of criteria

Score pathways under each criterion

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???
message 3: distributed groundwater resources support community-based and climate-resilient self-supply
message 4: co-produced knowledge can inform community-based, self-supply but supportive, regulatory frameworks are needed to sustain these