

7 ways to make groundwater more visible



Groundwater – making the invisible visible is the theme for World Water Day 2022.

Dr Jenny Grönwall of SIWI discusses 7 ways to make groundwater more visible.

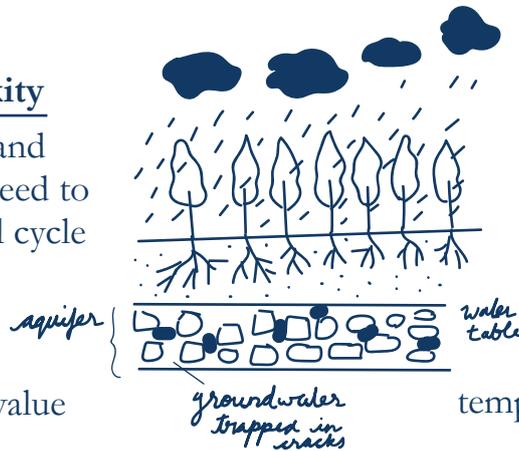
Demystifying

Being underground makes groundwater seem “mysterious”. Groundwater is not a flowing river, but water that exists in cracks, pores and fractures. Better visualisations can help to bust some common myths.

Understanding the complexity

Groundwater is the resource, and the aquifer its “host” – both need to be protected. The hydrological cycle affects how quickly water is recharged after extraction.

Understanding these complex processes can help us see the value in this invisible resource.



Unlocking potential

Harvesting rainwater and investing in structures to enhance aquifer recharge improves food security, human health and aquatic biodiversity. It also highlights how underground reservoirs act as “banks” or buffers during dry spells.

Seeing the impacts of climate change

Climate change is silently affecting groundwater quality and quantity, and we need more studies to assess its future impacts. High temperatures increase evaporation and decrease recharge.

Data on hidden use

Data and understanding of who is using, how much water, for what, at which time is missing in most countries. Seeing individual use and access means all water resources are included in management. Such data can also help reduce power asymmetries where an aquifer is shared across countries.

Highlighting its role for biodiversity

Groundwater is as vital for human use as it is for supporting ecosystems such as wetlands. Over-pumping is already driving biodiversity loss. Making such connections will go a long way in making groundwater visible, and uniting to protect aquifers.

Joining hands

Multiple disciplines need to come together to shine a light on groundwater. We need everyone’s help – the social scientists, the lawyers, the modellers, the engineers and communicators to make groundwater visible.

