

Transformations to Groundwater Sustainability

Learning from local initiatives to care for, share, and recharge aquifers.

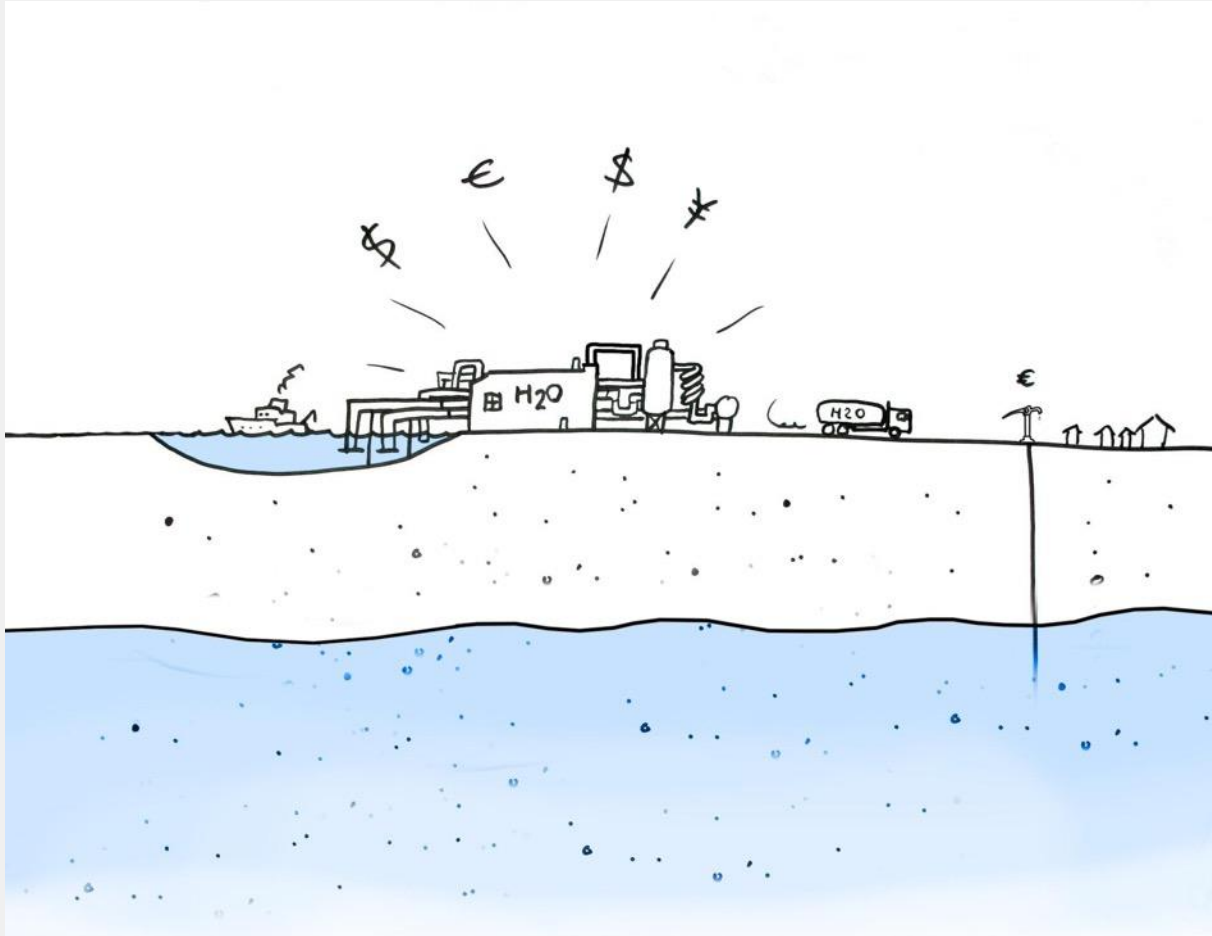
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Why is groundwater relevant?

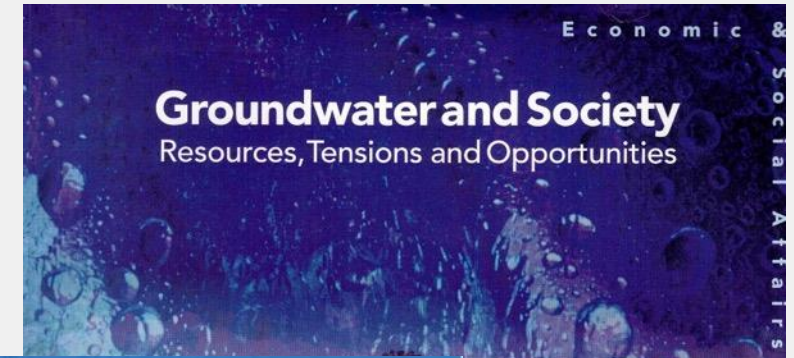


Drawing by Stressdafrican
www.hydrology.nl

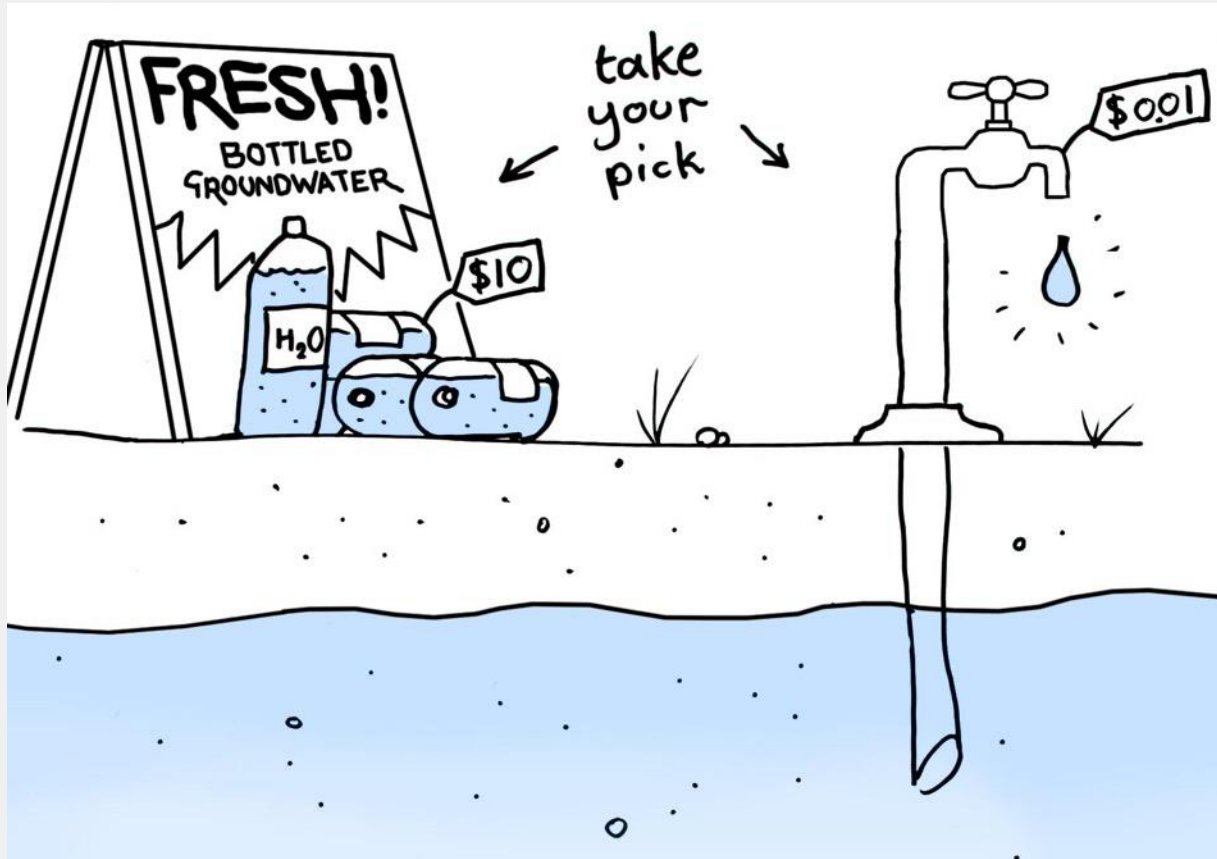
- Groundwater currently provides drinking water for about half of the world's human population and irrigation water for 42% of the world's irrigated lands.
- In agriculture, the availability of groundwater has allowed the expansion of the agricultural frontier.

International policy statements about groundwater

- Stress strategic importance of groundwater for current and future water, food security and climate resilience;
- Groundwater appears:
 - As a precious and untapped resource that can be harnessed for development, profit or as buffer against climate extremes
 - As a resource that requires (global) attention and actions because of rapid depletion



Groundwater governance



Groundwater is notoriously difficult to govern:

- Its invisibility makes it difficult to precisely know quantities and qualities
- Tensions between individual and collective interests and between short-term gains and longer-term sustainability

Current state of groundwater research

- Takes 'development' (or agricultural intensification) as a given.
- Dominated by scientific experts from fields such as engineering, hydrology and hydrogeology.
- Dominance of a few international organisations (IWMI, FAO, World Bank, OECD, ICRAF)
- Assumes that groundwater governance is a public affair and the responsibility of the state and public experts



Grassroots community-based initiatives



T2GS: The project's hypothesis



Hypothesis:

identified initiatives of grassroots mobilisation around groundwater supplies contain essential insights about forms of coordination, care, and solidarity that can provide the basis for more harmonious – sustainable and just - ways of living with, and making use of, groundwater.

The importance of recharge

- **Recharge** plays an important role in cementing local forms of collective care and solidarity.
- Consist of creative ways of capturing rain- and surface-water to recharge aquifers.
- Often based on **long traditions** of capturing water flows through wells and dams to store water for later use.



Our approach: joint learning:



- **Joint learning** in each of the project sites, bringing together researchers with farmers, NGOs, government officials and others to start a conversation about – and experiment with – ways of using, accessing and sharing groundwater in sustainable ways.
- Example: “**The California Dream**”, an imaginary of ‘making the desert green’

How is COVID-19 shaping the research?

- Crucial importance of the under-or unpaid labour of women and youth in creating forms of care, solidarity and resilience as well as their enormous precarity as farm workers.
- The costs of the pandemic and groundwater extraction are deeply gendered.

From groundwater to coronavirus: local community responses in two villages in Algeria and Morocco

BY FARAHHAMAMOUCHE · PUBLISHED 14/05/2020 · UPDATED 15/05/2020

The project “Transformations to Groundwater Sustainability” studies local grass-roots initiatives to protect and share groundwater in contexts of acute depletion and pollution. These practices are often spearheaded by marginal groups, thanks to a sense of territorial belonging and community identity. A similar spirit of solidarity has been activated to face Covid19 in two villages in Algeria and Morocco. Farah Hamamouche and Amine Saidani illustrate how women and youth played a key role in energizing these forms of care, often outside the formal economy.



Picture: M. Amine SAIDANI and Mostafa ACHELOUAW



Photo: Irene Leonardelli, 2019

Thanks

