



Water underground

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The world's largest assessable source of freshwater is hidden underground, but we do not know what is happening to it yet. In many places of the world groundwater is abstracted at unsustainable rates: more water is used than being recharged, leading to decreasing river discharges and declining groundwater levels. It is predicted that for many regions of the world unsustainable water use will increase, due to increasing human water use under changing climate. It would not be long before shortage causes widespread droughts and the first water war begins.

Improving our knowledge about our hidden water is the first step to stop this. The world largest aquifers are mapped, but these maps do not mention how much water they contain or how fast water levels decline. If we can add a third dimension to the aquifer maps, so a thickness, and add geohydrological information we can estimate how much water is stored. Also data on groundwater age and how fast it is refilled is needed to predict the impact of human water use and climate change on the groundwater resource.