

# Groundwater in Africa

Climate change is leading to unpredictable weather in parts of Africa. People are adapting to this by using groundwater for drinking water and irrigation. Groundwater is now the main source of drinking water for half the African population.



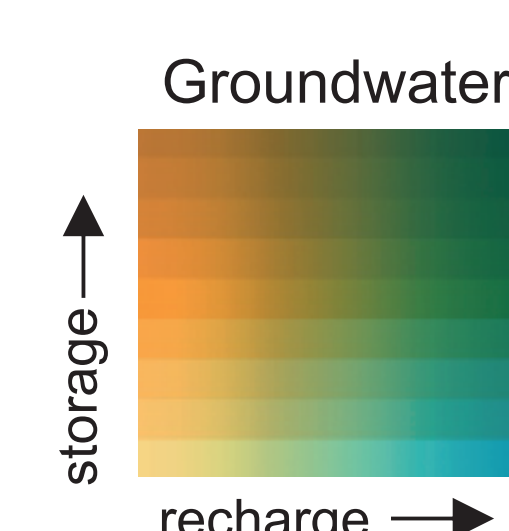
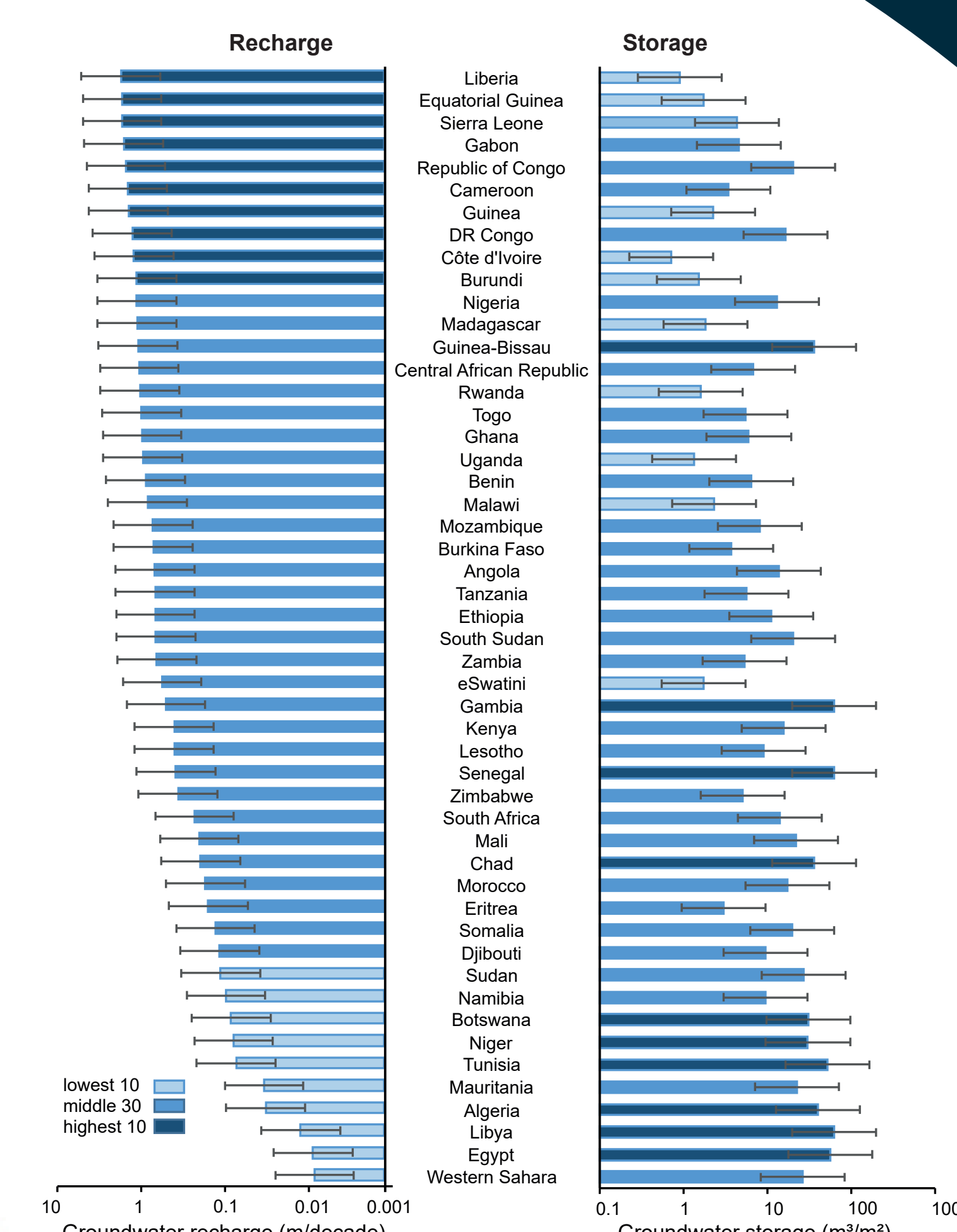
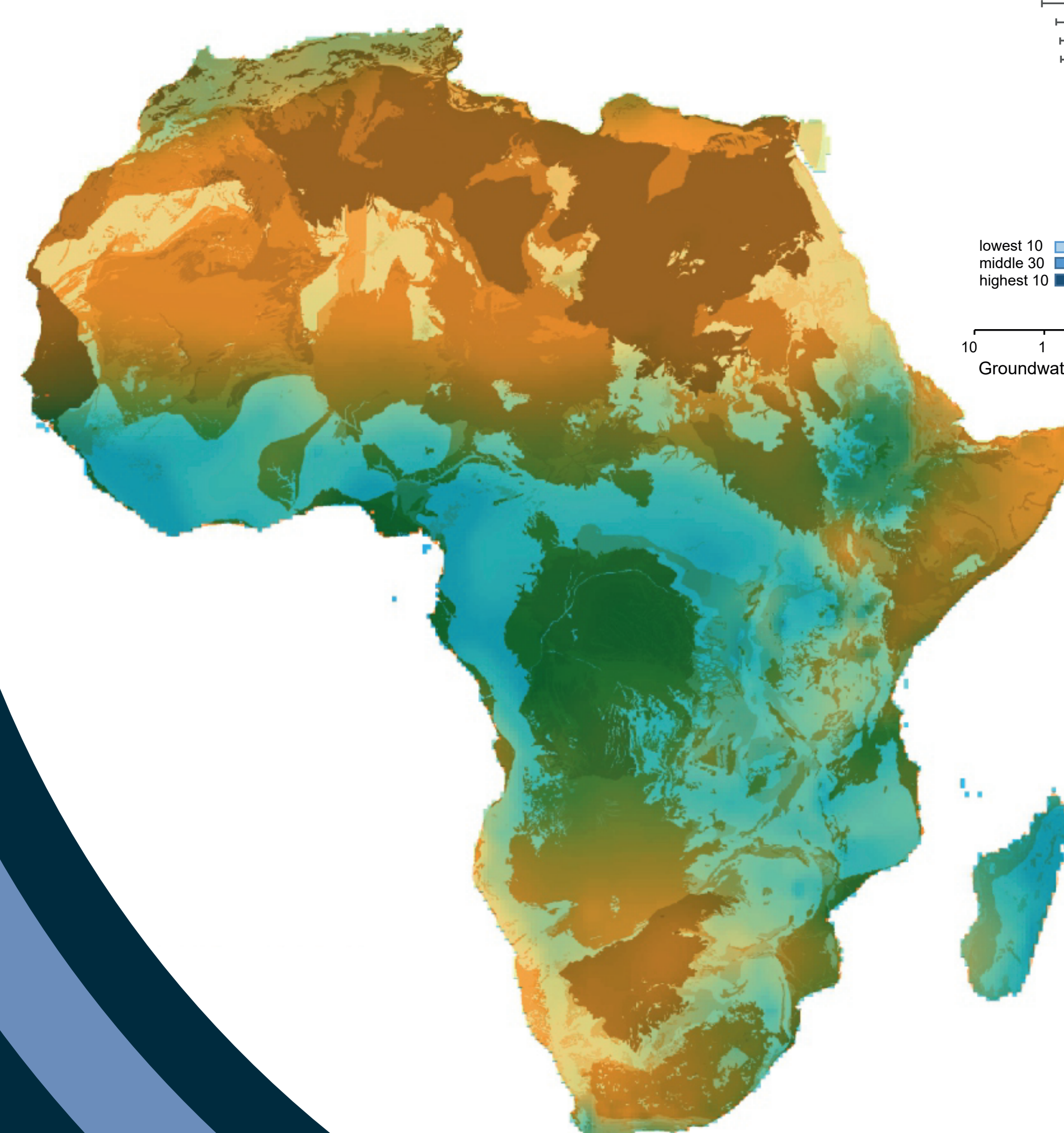
*Groundwater is much more resilient to changes in weather than rivers or lakes.*

Rain water leaks down beneath the ground and accumulates in the pore spaces and cracks in rocks, where it flows slowly towards rivers or springs over decades and even centuries.

BGS scientists have discovered that, despite climate change, groundwater is actively being replenished across much of the continent. Average groundwater storage is 20 times greater than water in rivers, lakes and reservoirs, so there is enough storage to buffer at least five years of drought and often more.



In rural areas, people access groundwater through boreholes equipped with hand pumps. These need to be sited, managed and maintained properly for a sustainable supply. © iStock.



MacDonald et al. 2021. Environmental Research Letters  
<https://doi.org/10.1088/1748-9326/abd661>  
British Geological Survey © UKRI 2021

Groundwater is actively being renewed with rainfall across much of Africa and most countries have enough storage to buffer five years of drought.



There is considerable potential for groundwater to support small-scale irrigation in many places. Ethiopia © UKRI 2022.