

# Access to Geological Data and Expertise is Critical for Delivering Clean Water and Sanitation in Eastern Africa

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Groundwater has the potential to help meet the water needs of vulnerable communities in eastern Africa. To ensure such groundwater resources are managed sustainably, robust geological knowledge, of groundwater and the subsurface that contains it, must be available and utilised by those managing groundwater. Research supported by Geology for Global Development included interviews with small non-governmental organisations (NGOs) to understand the barriers to, and enablers of, the use of geological data and expertise in the delivery of water projects in eastern Africa.

Here we present the key findings, articulating what is needed to deliver effective and sustainable water and sanitation programs:

## 1. Support access to quality geological databases.

Small NGOs working in eastern Africa have access to several sources of geological data. Government institutions and open online sources, such as the BGS Africa Groundwater Atlas, provide relevant borehole and groundwater monitoring data. However, these datasets are often incomplete, unreliable and/or outdated, with high variability across countries. Bureaucracy (difficulty navigating government processes) means obtaining data can take time. Access to complete and accurate geological records will help small NGOs successfully site boreholes and provide sustainable groundwater resources. In eastern Africa economies of scale favour organisations delivering larger scale water programs.

**Investment is needed to make geological data usable, accessible, and affordable to small NGOs, in the context of underfunded government services and lack of investment in data management.**

**2. Increased awareness of and planning for geological expertise.** Access to high quality geological data and expertise can help improve the planning, implementation, and monitoring of water programs. Funders' apparent lack of understanding of

the role that geological data can have in the successful delivery of water projects affects the ability of small NGOs to budget for and include the time needed to collect or access geological data.

**Engagement is needed to strengthen the awareness of those working in or with small NGOs on the relevance of geological expertise to the delivery of water programs.**

**3. Training and support for local expertise to build geological capacity.** Capacity building is required in eastern Africa to assist collection, management, monitoring and storage of geological data. As databases such as the BGS Africa Groundwater Atlas are digitised, training is required to ensure their long-term viability as well as support for local geological expertise working offline in remote areas. Investment and championing of geological and hydrogeological education is critical to ensure the availability of local, affordable and reliable expertise for water resource decision making.

**Support for existing local expertise is needed to facilitate cooperation between organisations and promote the benefits of data sharing and transparency.**

Together with Actions 1–3, the professional geological community should consider what steps they can take to ensure their expertise is readily available to small NGOs. By strengthening the science-policy-practice interface through greater collaboration, geologists and NGOs can work together to support implementation of SDG 6 in eastern Africa. See [#SDGAction50632](#) for further information on how GfGD will support this work.

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