

Citizen-generated data for water management in Malawi

Donald JC Robertson^[1] Prof Tracy Morse^[1], Dr Rowan Ellis^[1,2], Dr Chris White^[1]

^[1] Department of Civil and Environmental Engineering, University of Strathclyde, James Weir Building, 75 Montrose Street, Glasgow, G1 1XJ, *email: donald.j.robertson@strath.ac.uk

^[2] The James Hutton Institute, Craigiebuckler, Aberdeen AB15 8QH

1. PhD Research - 'Citizen Science' for Water Monitoring in Malawi

- ‘Citizen science’** = non-specialist participation in science
- ‘Citizen’ participation in water management is common practice in Malawi
 - Numerous co-benefits of citizen science approaches

Water Monitoring

- Core function of government-led bodies, yet **under resourced**
- Provides crucial information for resource management and climate change mitigation
- Current **conventional network**, like groundwater monitoring (figure 1), is **not in working order**

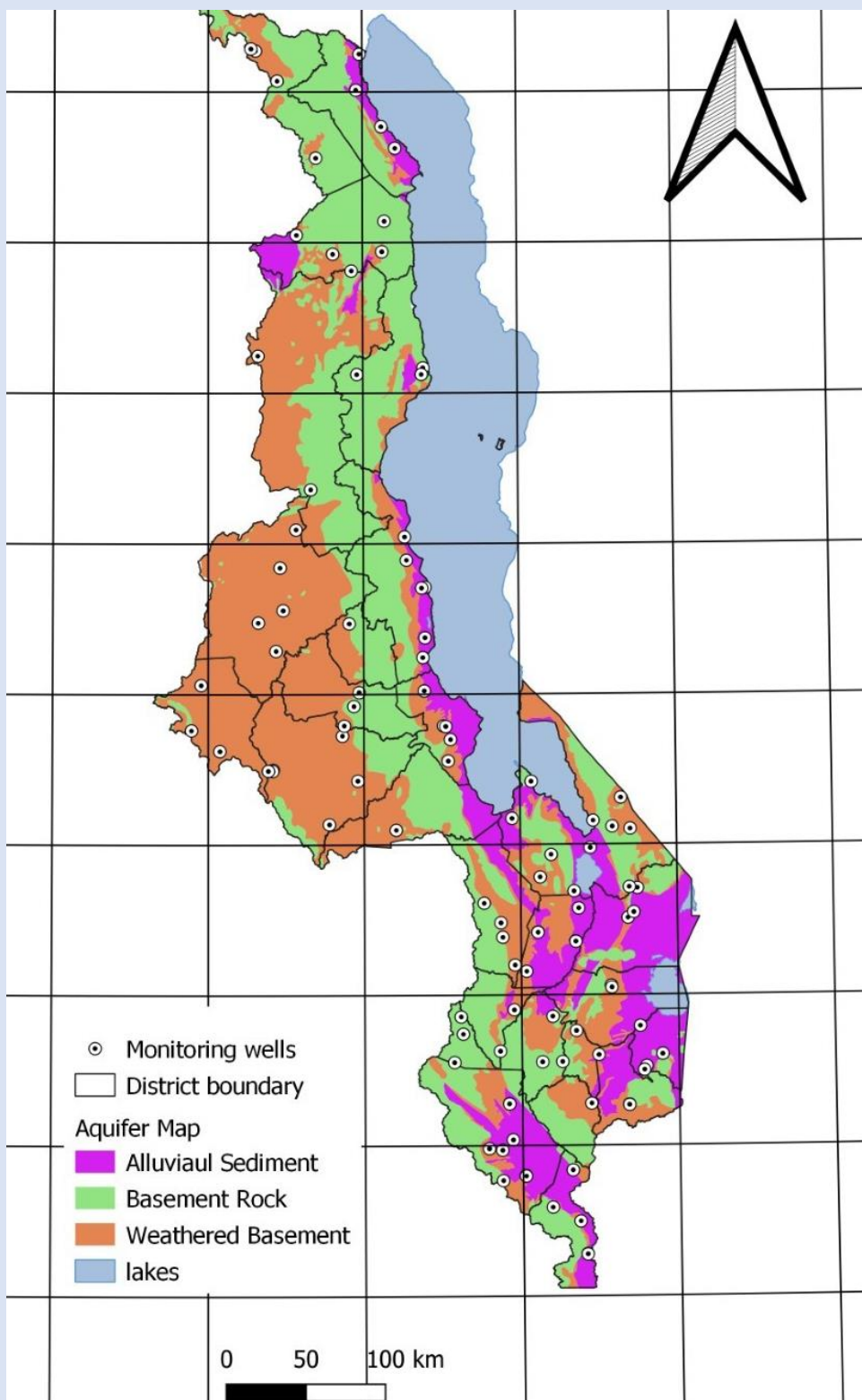


Figure 1. Map of Malawi with major water-bearing geological units and locations of monitoring boreholes. (Government of Malawi et. al, 2022)

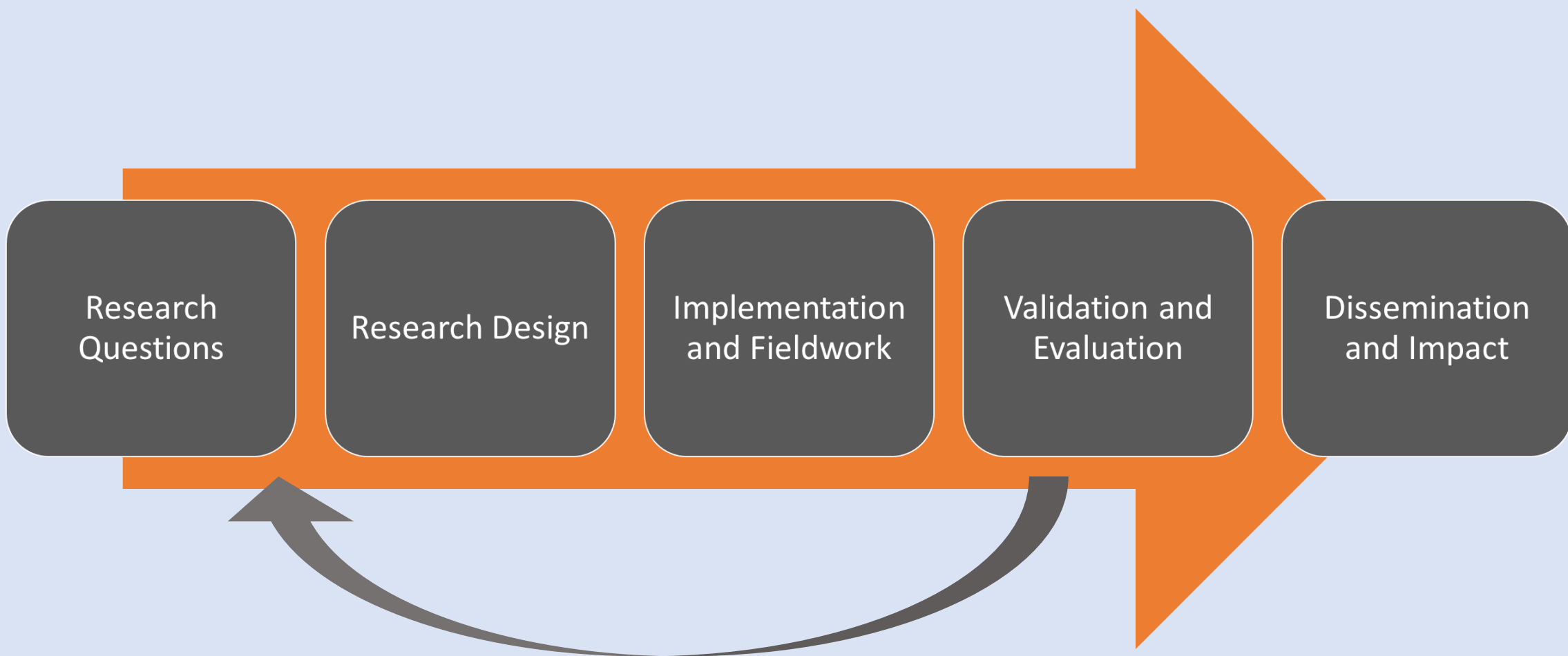
2. Partnerships – Research Advisory Group (RAG)



RAG – non-supervisory group of Malawian stakeholders with interest in research project established in Year 1

Involved individually and as a collective at key research stages

Provides basis for more equitable partnerships



3. RAG - Opportunities

- Network and making connections
- Provides recognition for those who help influence and shape the research
- Identify research and practical challenges early
- Ensure research is ‘impactful’
- Provides voice for non-researchers

4. RAG - Challenges

- Time commitments, long-term partnership building
- Voluntary participation
- Changes to availability and suitability
- Divergent priorities and interests through time
- Schedules and capacity