



TERMS OF REFERENCE FOR A SOLICITED WRC PROJECT

THEME:	Water Availability
TITLE:	National atlas of community-led domestic water supply schemes
TOR NUMBER:	

1. Rationale for the study

Access to safe and reliable water remains one of the most pressing development challenges across South Africa. Despite significant post-apartheid investments in water infrastructure, millions of people, particularly in rural, remote, and peri-urban areas, still experience inadequate or inconsistent water supply. This challenge is compounded by growing pressures such as climate variability, infrastructure ageing and under-maintenance, rapid urbanisation, and limited municipal capacity. In response to these persistent gaps, many communities have taken initiative to secure their own water supply through small-scale, decentralised, and often informal water schemes, which function either independently from public schemes or are linked to public schemes. These community-driven self-supply schemes, ranging from boreholes and spring protection systems to rainwater harvesting and small gravity-fed piped systems, play a vital role in meeting domestic, agricultural, and livelihood needs. Many times, these schemes are planned, financed, operated, and maintained by communities themselves, with varying degrees of technical and financial support from local government, NGOs, or private actors.

However, the extent, distribution, management, effectiveness, and sustainability of these systems remain undocumented at a national or regional scale. There is currently no consolidated or geo-referenced inventory of community-led water supply initiatives, making it difficult for government agencies, researchers, and development partners to identify gaps, coordinate support, align investments, or learn from successful models. This lack of visibility not only hampers efforts to strengthen local water governance and resilience, but also results in missed opportunities to integrate these grassroots innovations into broader water security and service delivery frameworks. Without robust data, it is difficult to assess the cumulative contribution of these schemes to achieving national development targets, including the Sustainable Development Goals (SDGs), especially Goal 6 on clean water and sanitation.

The proposed project seeks to fill this critical knowledge gap by systematically identifying, documenting, and mapping community-driven self-supply water schemes across South Africa,



with the potential to extend to other countries in the Southern African Development Community (SADC). By creating a national atlas and digital repository of these initiatives, the project will:

- Enhance visibility of grassroots water infrastructure and local innovation;
- Support evidence-based policymaking and targeted investment;
- Facilitate coordination among stakeholders, including government departments, NGOs, researchers, and funders;
- Identify areas of technical and managerial vulnerability or unmet need;
- Promote peer learning and scale-up of successful models;
- Inform guidelines, standards, and support mechanisms tailored to community-managed systems.

The proposed project contributes to a more inclusive and resilient water sector by recognising and supporting the agency of communities in securing their water needs, particularly in underserved and hard-to-reach areas.

2. Main objective

To develop a comprehensive, geo-referenced, and publicly accessible national atlas and digital platform that documents, maps, and analyses community-led water supply schemes across South Africa, in order to enhance visibility, inform policy and planning, and support more effective coordination and investment in local water security solutions.

Specific objectives

- To systematically identify and document existing community-led water supply schemes using field surveys, stakeholder engagement, and secondary data sources;
- To classify and analyse these schemes based on key criteria such as technology type, water source, governance and management models, functionality, population served, and sustainability challenges and enablers;
- To develop a GIS-enabled digital platform and national atlas that spatially visualises the schemes and their attributes, enabling integration with other planning and service delivery tools;
- To provide a knowledge base for policymakers, development partners, researchers, and communities to improve coordination, align investments, and support replication and scale-up of successful models; and
- To generate insights and recommendations on the role of community-led water supply in achieving inclusive, resilient, and sustainable water access in underserved areas.



3. Deliverables

- Inception report detailing the methodology, stakeholder engagement approach, data sources, classification framework, and implementation timeline;
- National geo-referenced database of community-led water supply schemes, with standardised metadata covering technology, governance, functionality, and sustainability attributes;
- Interactive GIS-enabled atlas and digital platform, providing spatial visualisation and searchable access to mapped schemes, with potential integration into national water information systems; and
- Print-ready synthesis report presenting key findings, insights, and policy recommendations.

Budget: R1 200 000

Year 1: R600 000

Duration: 2 years