



The United Republic of Tanzania
Ministry of Health, Community Development, Gender, Elderly and Children

**Ground Water Resources and Rain Water Harvesting for
WASH improvement in Tanzania**

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Section**

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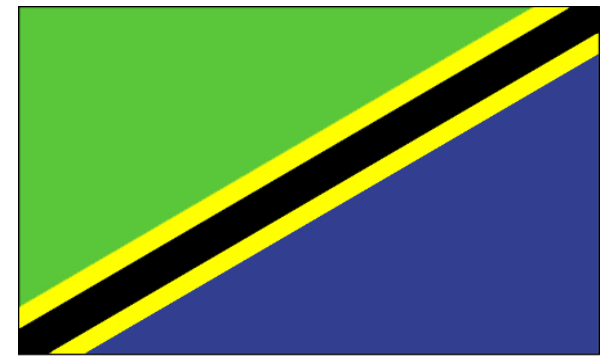


1. Introduction

Location and Profile



TANZANIA the Land of Kilimanjaro, Serengeti & Zanzibar



About Tanzania

- Tanzania, the land of Kilimanjaro, Serengeti, and Zanzibar.
- Current population is estimated at 58 million
- Is the largest country in East Africa
 - To the North, it borders [Kenya](#) and [Uganda](#)
 - To the South north, borders [Zambia](#), [Malawi](#), and [Mozambique](#)
 - To the East, borders the [Indian Ocean](#)
 - To the West, borders [Rwanda](#), [Burundi](#), and the [Democratic Republic of the Congo](#)

Mt. Kilimanjaro



2. Background

Tanzania has abundant surface and groundwater resources, including wetlands, natural streams, rivers and lakes and is also receiving a substantial good amount of rainfall.

Groundwater is an important source of water supplying more than 25% of the domestic water consumption in Tanzania (Gossling 2001; JICA 2002)

The need for a balance between ground water recharge, rain water harvesting and improvement in Water, Sanitation and Hygiene (WASH) is increasingly receiving attention

2. 1 Background cont....

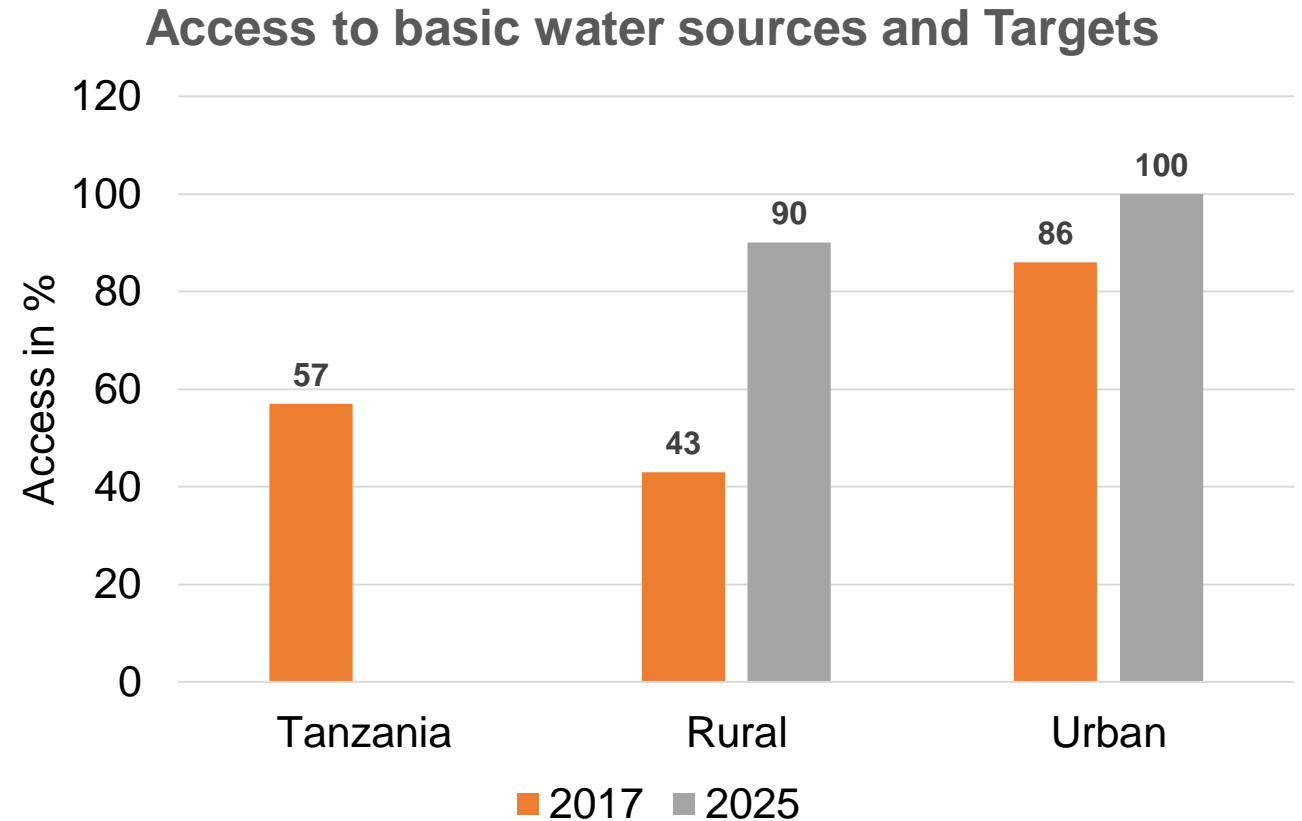
- There is a positive trend toward utilization of **groundwater** as the main water source for domestic purposes (*Mjemah et al. 2011; Kashaigili 2012; Mtoni et al. 2012, 2013*).
- Groundwater resources are mainly used in the form of shallow wells for domestic purposes mainly rural areas
- They are also commonly used in the peri-urban suburbs where there is no distribution network and in places with unreliable supply
- In Dar es Salaam alone, there are more than 10,000 groundwater supply sources (*Mjemah et al. 2012; Mtoni et al. 2013*)

3. Factors affecting ground water quality

- The quality of ground water is affected by both natural and human made factors (*Nkotagu 1996, Tredoux et al., 2000; Reynolds-Vargas et al., 2006*)
- **Pollution** is identified as one the major problems facing ground water resources in the country (*Mato, 2002; Sadiki, 2008; Kongola, 2008*)
- Mining activities, onsite sanitation, agriculture, industrial effluents, leachate from solid waste dumpsites, automobile and repair garages, industrial workshops are common sources of ground water pollution (*Baird 1995; Nkotagu 1996; Tredoux et al. 2000; Reynolds-Vargas et al. 2006; Kiptum and Ndambuki 2012*).

4. Proportion of population accessing water sources

Proportion of population that rely on basic water supply sources is still low



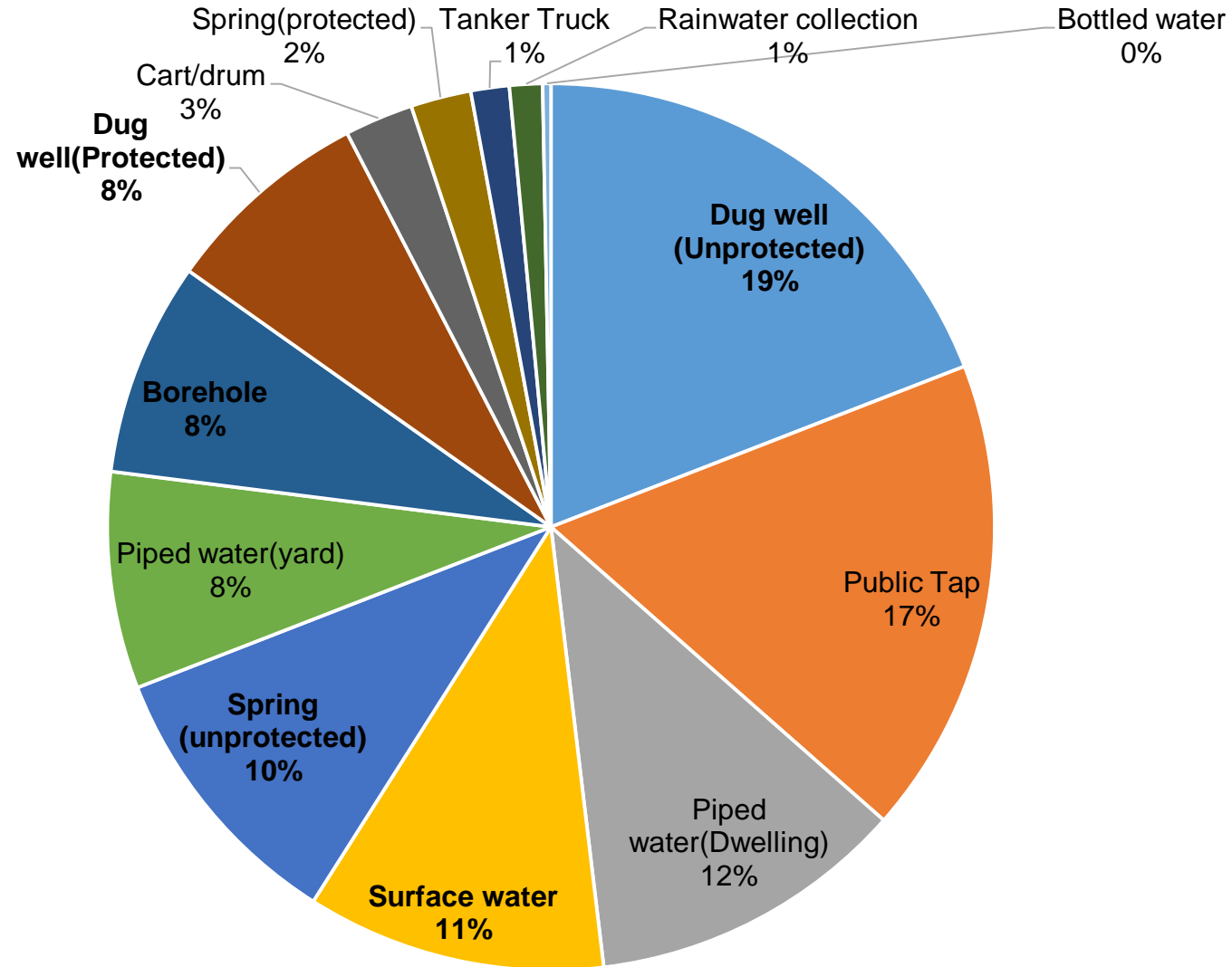
*JMP -2019 Updated
National 5 Yrs Dev.Plan 2016*

..demand for water supply is equally high in Healthcare facilities and Schools

- In Tanzania **68%** of Healthcare facilities use at least basic source of drinking water supply
- While **68.2%** of primary school have access to at least basic water source



5. Significant proportion of population that depend on groundwater as alternative sources



6. Initiatives to address inadequate water supply at household level, schools and healthcare facilities

- Construction of boreholes
- Rain water harvesting systems (RWHS)
- Over 1,500 Healthcare facilities will be supported on installation of RWHS or boreholes through implementation of the National Sanitation campaign (NSC)



7. Conclusion

- Groundwater is among the main sources of water in many parts of Tanzania
- Human activities are the main cause of the pollution of groundwater resources
- Initiatives to address inadequate water supply at household level, schools and healthcare facilities through rainwater harvesting systems offers an additional solution

8. Acknowledgement

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Thank you