End-user engagement in WASH research in low-income urban communities: the AfriWatSan experience

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www.afriwatsan.org
• rapid urbanisation in tropical Africa constrains realisation of UN Sustainable Development Goal 6

annual urban growth rates (2020-2025)

- >5.0%
- 4.6-5.0%
- 4.0-4.5%
• untreated urban groundwater provides low-cost access to safe water

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• on-site technologies (pit latrines, septic tanks) provide quick, low-cost access to sanitation
aligned surveys & monitoring protocols across 3 urban observatories
**WASH research challenge:** sustaining conjunctive use of the subsurface for on-site water supply and sanitation facilities

**end-user engagement:**

**KISUMU (Kenya):**
- Ministry of Water and Irrigation
- Kenyan Water Institute
- Kisumu Water and Sewerage Company

**DAKAR (Thiaroye):**
- Ministère de l’Hydraulique et de l’Assainissement
- Société Nationale des Eaux du Sénégal (SONES)
- Service National d’Hygiène,
- Sénégalaise des Eaux (SDE) / SenEAU
- Direction de la Gestion et de la Planification des Ressources en Eau (DGPRE)

**Lukaya Town (Uganda):**
- Ministry of Water and Environment
- National Water and Sewerage Corporation
- Lukaya Town Council
outcome number 1

- end-user engagement has informed practical regulatory measures on urban groundwater use and highlighted inadequacies in regulatory compliance and maintenance of on-site water and sanitation facilities

Keur Massar (Dakar)  

Lukaya Town (Uganda)
outcome number 2

- created educational opportunities with schools (Director, teachers, pupils) to understand how rain gauges operate rainfall monitoring, and the relationship between rainfall and groundwater – a key source of water supply to Dakar
end-user engagement has supported the development of an instantaneous method of detecting faecal contamination of water supplies, enabling rapid reporting and corrective action such as boil-water advisories.
interdisciplinary team including end users has promoted co-production of knowledge and capacity-strengthening, breaking down barriers to communication and dismantling hierarchies within research teams and among end-users