



Buvuma District at a Glance



Ministry of Water and Environment

Water, Sanitation and Environmental Challenges as of April 2023

By

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Abstract

Islands and resident communities are hard to reach for service delivery due to their geo-location. They are surrounded by water with limited transportation options. Besides, their nature of soil is complex; rocky, loose or even swampy making it hard for socio-economic advancement initiatives. The communities have therefore, remained marginalized and unacceptably less developed. The case of Buvuma islands demonstrates beyond doubt the need for special consideration of these communities if we are to actualize the desired universal development emphasized by the Sustainable Development Goals agenda and Uganda Vision 2040.

The Ministry of Water through the ATC in partnership with Blue Planet Eco Solutions have plans to construct one compact safe water supply technology in Lukale LC1 to serve Nairambi Seed School and the neighboring communities. This is a pilot project for study purposes with hopes to have more replications in the scattered islands. Any other innovation is welcome to supplement efforts given that the district which has 52 islands. Each island requires an independent water supply system, sanitation and environmental protection interventions.

Introduction

Achieving Sustainable Development Goals (SDGs) calls for due attention to island communities. To date, they are predominantly characterized by socio-economic and environmental vulnerabilities with limited access to mainstream development services and this threatens their economic advancement (Mohan, 2022).

Buvuma, categorized as hard to reach and serve, is an economically disadvantaged island district located within Lake Victoria. According to the planning department, the district has an estimated projection of 154,202 people as of 2023. These are living on 52 islands scattered in the largest fresh water lake without grid electricity (The Rockefeller Foundation, 2021). The mainland is accessible by a ferry and the other islands by private boats. The main economic activities in the island district include fishing, logging and charcoal burning business (Jjuuko, 2021).

Access to Safe Water

Despite being centrally located in Lake Victoria and experiencing abundant rainfall during the year, the district still grapples with limited access to safe water (Maganda, 2023). Only 36% of the population has access to safe water (MWE, 2023). The rest of the population uses unsafe water direct from the lake.

Lake water is shared with animals besides, community people bathe and wash within the lake, rendering the water unsafe. Being a series of island, it is a challenge to provide all of them with safe water. Main safe water supply technologies in Buvuma include; piped systems (both solar and diesel based), boreholes, rainwater harvesting and protected springs. The district has low ground water potential that compromises performance of any ground water-based technology. Several attempts to construct point water sources (boreholes) end up futile (Maganda, 2023). Besides, the temporary nature of houses makes it hard to effectively promote rainwater harvesting. This leaves abstraction of fresh water from Lake Victoria as the most viable option (Ssebuliba, 2021). However, equipment and materials necessary to develop safe water sources in the district are hard to transport to all the 52 islands that need independent water sources (The Independent, 2019).



Figure 1: Students fetching water direct from the Lake for school use

Sanitation Situation

An estimated 62% of the population in Buvuma lacks access to toilet facilities at household level. Soils on the islands are naturally loose to support the commonly constructed pit latrine-based technology. Some other places are rocky while others are swampy with high-water table. All these conditions cannot favour excavation and construction of pit latrines. Besides island settlers are temporary with limited space that does not allow prioritization of toilet construction (Ssebuliba, 2021). It is also believed that islanders consider use of toilets as a taboo and thus opt for open defecation, which feces end up in the lake. As a result, hygiene related illness such as cholera, dysentery and typhoid are very common among the island residents (Monitor, 2021).

Environmental Challenges

Buvuma district is faced with challenges of heavy de-forestation in search for timber charcoal and firewood, abnormal rise in water levels that mainly affected Luwero and Nsinga islands, soil erosion particularly on the hilly parts of Busamuzi island, abrupt heavy storms and flooding of Lukale, Kitiko villages in Nairambi sub-county (SC), general encroachment on wetlands, poor solid and faecal waste management (Ssebuliba, 2021).

The case of Lukale Local Council One (LC1)

Lukale LC1 located in Nairambi SC was identified by the district water office as one of the most affected by lack of access to safe water. Thus, a field visit was carried out to explore the challenges

through community engagement. A meeting was held with 32 community members randomly selected based on availability and willingness to participate. From the meeting, it was established that;

- Lukale has one low yielding borehole constructed by JOY drilling company, inadequate to serve; three schools with a total population of 2300 pupils/students, a Health Centre III serving five (05) parishes and the surrounding settlements. It was also revealed that many people including learners get water directly from the lake and are often killed by hippos and crocodiles.
- Lukale LC1 has only 20 toilets that are shared and this was an achievement credited to a team of volunteers led by Ahmed Yasin who was trained on construction of low-cost toilet technology by the Appropriate Technology Centre (ATC) in 2014. These volunteers sensitize islanders about the importance of using a toilet and also provide the technical construction labor at a cost where needed. It was however, observed that open defecation is still a problem with people defecating both in the bush and in the lake. The team also confirmed that they spend a lot on preventable illnesses such as diarrhea, typhoid, malaria and Bilharzia.
- The environmental knowledge and practices are wanting with evident poor solid waste management and overreliance on firewood as the main source of energy. During the meeting, one member expressed worry about the scarcity of firewood making it hard for them to prioritize boiling water and this was attributed to mass clearing of forests cover by BIDICO for commercial growing of palm oil.

What next?

- In partnership with Blue Planet Eco Solutions, the Ministry of Water and Environment through the ATC have plans to provide the community with a compact safe water supply technology that will abstract water from the Lake and supply to Nairambi Seed School with a total population of over 1000 students and the neighboring communities.
- The community under their LC1 leadership agreed to provide land (est. 50 by 100ft) free from any encumbrances for construction of the water supply system, security and overall operation and maintenance of the water supply system in case it is successfully constructed.
- Community is hopeful and determined to jealously protect whichever support they get for their own good. This is demonstrated by their ownership and participation in all development projects brought to them i.e.,
 - the only existing borehole is managed well and has never broken down almost 3 years since construction.
 - The Health Centre III that is currently under renovation and upgrade has not lost any single material provided for construction works mainly because the community is guarding it cautiously.

The district is made of so many scattered but needy islands as earlier pointed out and thus more innovations to address the water, sanitation and environmental plight of the islanders are needed.

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