

# A Loud Cry for Access to Quality, Safe Water in Rwangara Parish in Kanara Sub County, Ntoroko District, Uganda

by Stephen Birungi, HEWASA Programme

### Peer Reviewers:

Tim Sutton, SIMAVI Pamela Kabasinguzi, HEWASA Programme Lydia Mirembe, IRC Uganda Maria Stolk, Wetlands International Stephan Flink, Wetlands International

## **EXECUTIVE SUMMARY**

This briefing note focuses on the plight of communities in Rwangara Parish in Kanara Sub County, Ntoroko District in accessing safe drinking water. The high salinity levels in the ground water hinder access to safe drinking water in the area, although over the last decade, local government and other development partners (NGOs) have implemented boreholes. However, all of these facilities have failed due to pipe corrosion caused by high salinity levels in the ground water.

The Ugandan Government was one of the first to develop its 2015/16–2019/20 national development plan in line with the SDGs. If the Ugandan Government wants to fulfil their commitment to SDG targets, then achieving universal access to safe drinking water in areas like Ntoroko is paramount. The Government, both local and national, as well as civil society organizations in the water sector need to prioritize the development of Integrated Water Resources Management and WASH as both are interlinked and dependent on each other.

## **INTRODUCTION**

Access to safe water will remain a dream for the people of Rwangara Parish in Kanara Sub County, Ntoroko District unless special attention is paid towards finding a lasting solution to the challenges posed by the high salinity levels in ground water in this area. Whereas the Ntoroko District's safe water coverage averages at 79% (MWE 2017), Kanara Sub County which is located in the far north of the district is far below this district average. The 2017 water point mapping exercise conducted by HEWASA under the Watershed Programme revealed that Rwangara Parish in Kanara Sub County had no safe water supply. All the boreholes, previously drilled in the area have either dried up or the rising main pipes have corroded. The high salinity levels in the water could be linked to Gypsum<sup>1</sup> (CaSO4.2H2O) which can be found in the hills adjacent to the rift valley basin where the district is located. (Nayebare R. et al, 2014) Furthermore, the saline ground water conditions are potentially exacerbated by inadequate IWRM practices in recent years such as change in land use leading to widespread deforestation of upstream catchments. A Focus Group Discussion conducted by HEWASA with the elders from Kanara Sub County brought to light the fact that the salinity levels within the water have been increasing over time. According to the elders in the area, they used to fetch fresh water from unprotected wells in the early 1990s which eventually became saline.

1

<sup>1</sup> Gypsum is a soft sulfate mineral composed of calcium sulfate dehydrate, with the chemical formula CaSO4·2H2O. It is widely mined and is used as a fertilizer, and as the main constituent in many forms of plaster, blackboard chalk and wallboard.

#### Key facts and background

Rwangara Parish is located in Kanara Sub County in Ntoroko District which is in the Western Region of Uganda. The district headquarters are in Kibuuku town council. The district is one of the two Ugandan districts west of the Rwenzori Mountains, the other being Bundibugyo. It is bordered by the Democratic Republic of Congo to the west and north, Hoima District to the north-east, Kibaale District to the east, Kabarole District to the south, and Bundibugyo District to the south-west. The Ntoroko District has a population of 66,422 while that of Kanara Sub County has 7,772. Of these, 1,697 (21.8%) in the Parish of Rwangara are directly affected by this problem. The Sub County has six parishes: Rwangara, Katanga, Kamoga, Kimara, Kajweka and Rwenyana. It has

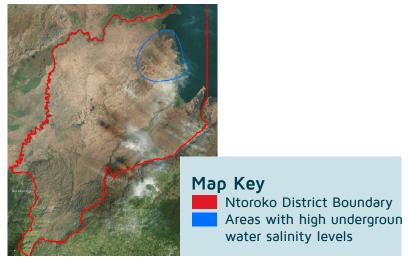


FIGURE 1: Map Showing areas affected by saline ground water in Rwangara Parish, Kanara Sub County, Ntoroko District

four schools, namely: Rwampara, Umoja, Kamoga and Kacwankomo primary school with an average of 400 pupils each. There is one health centre known as Rwangara Health Centre II that was established by government and upgraded by Save the Children. It receives a clientele of about 40–45 people on a daily basis.

Access to safe water for drinking and domestic use is a tall order for the residents in Rwangara Parish. The majority of households have no other option than fetch water from unprotected open wells, which due to the unstable ground conditions are prone to frequent collapsing and even drying up. The quality of the water from these unprotected wells is poor, not only because of high salinity levels, but also because of potential risk of contamination from faeces from cattle and humans. It should be noted that many of these open wells are not communal but privately owned. As such, the households without access to wells are charged for poor quality water, which is potentially life threatening. In fact, when compared to communities in areas supplied by the National Water and Sewerage Corporation, there are large disparities in water tariffs, the quality and accessibility. The water mapping exercise conducted by HEWASA in Ntoroko District revealed



FIGURE 2: A woman in Rwangara draws water from an unprotected open hand dug well after paying \$0.14

Photo by: Birungi Stephen, HEWASA

FIGURE 3: Some of the nonfunctional boreholes where pipes have eroded due to the saline water in Rwangara, Kanara Sub County.

Photo by: Birungi Stephen, HEWASA (Mar 2018)

FIGURE 4: The high salinity levels in the water have also rendered the borehole at the Rwangara Health Centre II dysfunctional.

Photo by: Birungi Stephen, HEWASA

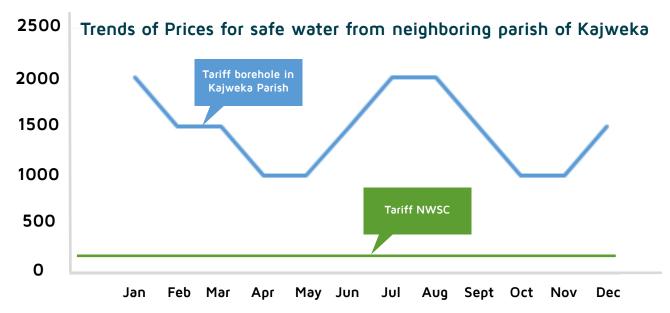


FIGURE 5:Graph showing the trends of prices for safe water from the neighbouring Parish of Kajweka. Source: Survey conducted by HEWASA, March 2018

that the National Water and Sewerage Corporation (NWSC) supplied treated drinking water for a fraction of the costs compared to rural communities located in Rwangara Parish, Kanara Sub County with access to open wells (private vendors). The average tariff for water supplied by the National Water and Sewerage Corporation for a twenty litre jerry can is 0.03 USD (100 UGX) equivalent to 1.5 USD per cubic metre. Whereas, water from private vendors in the rural Rwangara Parish area, either extracted from unprotected open wells or from lake Albert may cost between 0.14 USD (500 UGX) and 0.6 USD (2,000 UGX), equivalent to 7 USD and 30 USD per cubic metre. The variation in tariffs depends on the season, the dry season period being dearer than the wet season. (HEWASA, 2017).

However, to access safe drinking water, the residents in Rwangara need to walk over 5 km to access a communal borehole in the neighbouring Parish of Kajweka commissioned in 2013. (HEWASA, 2017).

The poor water quality, high tariffs and inadequate accessibility are having serious consequences on the social-economic and health status of the households compared to households in areas with a safe and accessible water supply at affordable tariffs. (HEWASA 2017) Productive time is also wasted trekking long distances to these unprotected open wells and since fetching water is culturally the responsibility of women and children, this becomes a gender issue. Especially, during the dry seasons, the unsafe open water sources cannot cope with the greater demand for water. And as such, these water sources get depleted from time to

time and people have to wait a long time for them to recharge. This does not only lead to long queues at the unsafe water sources, but also at the safe water sources. Businge Nathan, who is a Parish Chief in Rwangara, during a key informant interview mentioned that such a situation had contributed significantly to teenage pregnancies in the area as girls are raped while fetching water.

#### CONCLUSION

Rwangara Parish and all the institutions (Schools and Health Centre) in it have a water infrastructure in the form of boreholes. However, most of them are not functional, as the pipes have corroded due to salt in the water. This has greatly hampered the functioning of these institutions. In those four schools for example poor access to safe water affects the academic performance of the pupils as they have to trek long distances looking for water from unsafe sources, as well as making them vulnerable to waterborne diseases. The Health Centre on the other hand needs water for not only its procedures and services, but also for the clients who come to the health facility. Failure to access safe water therefore compromises the quality of services offered at the Health Centre.

There is limited knowledge and awareness by authorities, CSOs and communities regarding the natural resources and functioning of the Semuliki floodplain.

It is evident that the people living in this area have been left behind in as far as taking strides for attaining of Sustainable Development Goal 6 on universal access to safe water are concerned. This is a clear indication of inequity, marginalization and social exclusion in Rwangara Parish in Kanara Sub County for service delivery related to IWRM/WASH access and governance.

#### Recommendations

- An assessment of the geology and hydrology needs to be commissioned involving capacity building of all stakeholders that will result in suggestions and recommendations for long-term sustainable solutions, including sustainable technology, balancing both ecosystems and socio-economic development.
- Government with development partners should extend the gravity flow scheme from neighbouring Karugutu Sub County to this area to provide a sustainable water supply.
- Promotion of other water treatment methods such as filtration by using ceramic filters through a social marketing approach should enhance access to household drinking water.
- Civil Society Organizations should undertake community empowerment initiatives so that people can demand for quality and sustainable WASH/IWRM services.

# **REFERENCES**

Uganda Water Atlas , Ministry of Water and Environment (MWE) 2017, <a href="https://www.mwe.go.ug/sites/default/files/library/Atlas%202017\_3\_District%20">https://www.mwe.go.ug/sites/default/files/library/Atlas%202017\_3\_District%20</a>
Reports.pdf

A review of potable water accessibility and sustainability issues in developing countries - Case study of Uganda - Scientific Figure on ResearchGate.

Available from: <a href="https://www.researchgate.net/Map-of-Uganda-Showing-Major-Lakes-Rivers-and-Regions-of-the-Country-2\_fig1\_263015636">https://www.researchgate.net/Map-of-Uganda-Showing-Major-Lakes-Rivers-and-Regions-of-the-Country-2\_fig1\_263015636</a>
[accessed 11 Apr. 2018]

Results of the Water Point Mapping Exercise, HEWASA, 2017.









