By Jejje Muhinde;

Aimable Bahizi, a resident in Rwamagana district, Eastern Rwanda has been struggling to get access to safe drinking water

Like Bahizi, many families living in vulnerable communities in this remote rural Rwanda face the double-edged sword of coping with high water scarcity during the drought season from May to mid-September.

In rural areas of Rwamagana and Kayonza districts, households can spend even a month without running water, and when it comes, it is available for a day and goes for another month.

Girls and women who take up the household tasks spend hours queuing up on water sources, having trekked longer distances which limits their time to carry out other responsibilities.

“Tap water arrives only once every few weeks; at times it doesn’t, the only reliable source of supply is rooftop rainwater harvesting during the rainy season,” Bahizi said in an interview

The outbreak of the COVID-19 virus also exacerbated the situation with the requirement of regular hand washing.

While many families continue to struggle with the problem, families in affected neighborhoods of Kayonza have turned to rainwater harvesting, where water sources are unavailable, and water quality is unacceptable or too difficult to obtain.

In this region, rain brings joy, because it provides water for showering, washing dishes and clothes, and cooking, by means of rainwater harvesting systems.

Joseph Gatete, a resident in the Gahini sector says he bought a 3,000 plastic gallon tank from a dealer and installed it on his house for harvesting water.

“Rain water comes for free, can be collected and stored, instead of letting it run off, it could be an alternative to back up the main water supply especially during dry

spells," he said.

Other families have turned to building underground water tanks made out of bricks and cement to ensure the availability of water.

Even for families served by piped water, a water tank is a beneficial method which comes in handy to harvest rainwater in the drought period. The technology is helping to subsist where other sources of fresh water are scant or unavailable.

The Government's Water and Sanitation Corporation (WASAC) admits that the problem in the Eastern Province is due to high water demands caused by rapid population growth as well as climate change.

Other factors include poor management of water resources, urbanization, little education about water treatment and safety.

Last year, WASCA concluded the Nyankora Water Supply System project at a cost of Rwf 882,502,361 (estimated at $866,423) to supply clean to over 1,400 residents of Rwinkwavu and Kabare sectors in Kayonza District.

Non-governmental Organizations have sponsored the construction of water storange tankers like this picture in rural villages to help serve residents

However, residents claim the project does not provide enough water throughout the year especially during the prolonged drought for the communities.

In addition, the water points are not conveniently located for everyone in the community, which means that some people from other sectors still have to walk minutes to get there. Then, they also have to wait in line for several more hours, because the water trickles so slowly.

In May 2019, the government announced an investment outlay of $440 million for the next five years to build water treatment plants and supply systems in urban and rural areas to ensure that all Rwandans have access to clean water by 2024, the investment is yet to bear fruits.

Marie Louise Mukandoli, a resident from Nzige sector claims normally, a 20-little jerry can of water costs Rwf20 to Rwfs50 when it is available at the communal tap that is shared by 120 families. In the dry season, prices increase between Rwf 100

to Rwf 150 (roughly $0.15) due to low availability and proximity to the source.

The 36 year old says they have to wait for more than four hours before they can get water or else buy from a bicycle vendor which is expensive as the cost increases from Rwf 250 to Rwf 300 given other expenses which include delivery.

Mukandoli’s husband Jerome Ntakirutimana, a primary teacher, says on average he used to spend over 25 percent of his monthly salary budget on water.

Callixte Hategekimana, a small-scale farmer from Nyagitabire in Kayonza, requires gallons of water to feed his pigs. The last rain failures have hit his livestock.

He uses the captured water from the roof of his house to feed his pigs. The tank is also covered with the inlet and a mesh to prevent birds, animals and insects from gaining direct access to the water.

Hategekimana firmly claims that a typical built tank can cost less between Rwf 100,000 to Rwf 130,000 depending on the size and it saves a lot. The water is used to clean the toilet, wash and for cooking.

“It is fairly simple, less costly than buying a plastic tank and more efficient since it can store water during the rainy periods, so it’s available during the dry seasons as an independent source,” He explained.

Harvesting can provide an independent water source in areas where other sources are unavailable, or where water quality is unacceptable or too difficult to obtain.

Many households look for ways to harvest water during the rainy season

Though, he reckons the rainwater contains dirt from the roof surface and gutter, it needs treatment before human consumption,”

He warns that the systems require regular maintenance as they may get prone to rodents, mosquitoes, algae growth, insects and certain types of roofs may seep chemicals.

Since 2020, WASAC, the water utility body, introduced mobile water tanks to tackle the shortage; however the initiative was introduced in only 26 critical sites to address the crisis in capital Kigali.

In the Niboye sector of the Kicukiro district, different stakeholders including multilateral, bilateral, the Civil Society and the Private Sector and donor commitments support rainwater harvesting activities.

RAIN Foundation has developed the water distribution to Niboye sector households by training residents with in-depth knowledge and practical experiences, as well as giving water tanks and the accessories to harvest water from the rooftops of their houses.

Jasmine Muyoni a resident from Agatare cell in Kigarama Sector says: “Rooftop rainwater harvesting system has helped us to cut water bills.”

However she claims treatment methods such as chlorination use of chemical products and boiling using charcoal are costly.


Construction of cement water tanker

Going by market prices, a household will need between Rwf410, 000 and Rwf810, 000 to buy the 5,000 and 10,000 litre water tanks and not all households can afford that price.

Agnes Uwemereyimana, a single parent from Kayonza admits that given her income, she cannot afford either to construct or purchase a plastic water tank for her premise but to rely on public supply.

“As a single parent, I’m already struggling to pay school fees, clothing and food for my children. Installing such water facilities means starving and pulling them out of school,” she said.