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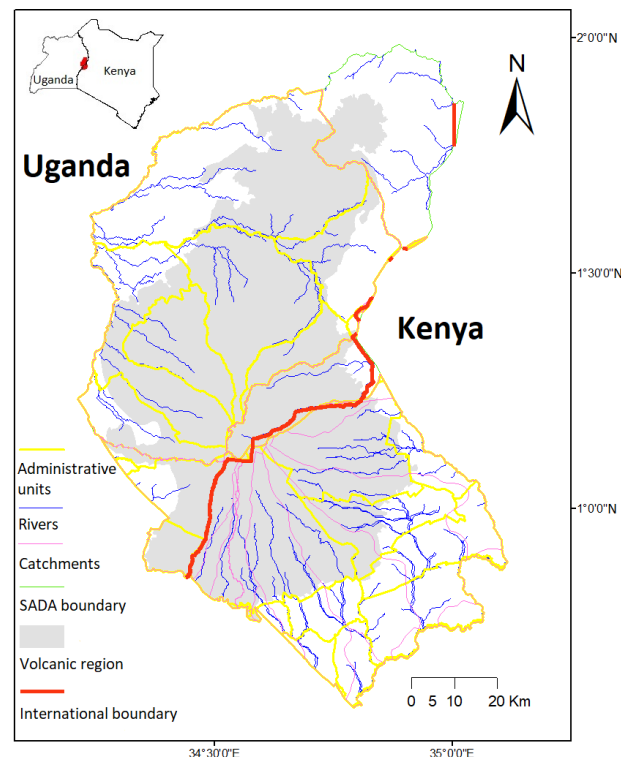


# **FLOWING UNDERGROUND**

**STORIES FROM MOUNT ELGON**

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Map of extent of the Mount Elgon SADA beyond the volcanic region within the drainage basins and administrative districts of Uganda and counties of Kenya (Inset: maps of Uganda and Kenya)



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Cover Photo  
Children fetch water

Photo by Nile Basin Initiative  
Designed by Jonathan Kabugo

## INTRODUCTION

Dear Reader,

The Nile Basin Initiative (NBI) is implementing a five-year project (2020-2025) with the aim of improving the understanding of the available groundwater resources and demonstrating how to optimize the joint use of surface and ground waters. The Project, "Enhancing Conjunctive Management of Surface Water and Groundwater Resources in Selected Transboundary Aquifers: Case Study for Selected Shared Groundwater Bodies in the Nile Basin," is funded by the Global Environmental Facility (GEF) through the United Nations Development Programme (UNDP). In terms of financial support, USD 5 million is from GEF, while USD 27.8 million is in co-financing from countries. This NBI-implemented project is aimed at supporting Nile Basin Member States in their efforts to address rising water demands for their rapidly growing economies and populations.

In most transboundary river basin management initiatives - including the Nile Basin - one area which has not been fully explored is the interaction between groundwater and surface water systems. Within the Nile Basin, the most pressing driver of increased interest around groundwater is the growing imbalance between water supply and water demand. The Groundwater Project covers three shared aquifers involving seven (7) NBI Member States. These are the Kagera aquifer shared by Burundi, Rwanda, Tanzania, and Uganda; Mount Elgon aquifer shared by Kenya and Uganda; and Gedaref-Adigrat aquifer shared by Ethiopia and Sudan.

The project comprises of the following five components:

- 1) Enhance current understanding and the knowledge on the resources base, threats and options for sustainable management and utilisation of shared aquifers.
- 2) Develop action plans on groundwater resources governance, management, and protection for inclusion in national, sub-basin frameworks including issues of surface water/groundwater conjunctive use.
- 3) Target pilot projects to explore conjunctive use of surface and groundwater, and links to biodiversity conservation and climate change adaptation.
- 4) Further strengthen capacity to address groundwater issues at the national and regional levels.
- 5) Communications and awareness raising about the benefits, challenges, opportunities of groundwater as well as the environmental issues and the threats of climate change on the ecosystem and biodiversity.

In addition to the technical knowledge that NBI is developing on groundwater management and development, there is need to bridge the knowledge gap that exists by ensuring the information reaches all stakeholders and users. To achieve this, NBI, commissioned Water Journalists Africa to capture views from the various communities within the shared aquifers and how groundwater affects their lives.

This booklet, which features stories from the Mount Elgon aquifer shared between Kenya and Uganda, provides the reader with a glimpse of the role of groundwater in this shared aquifer. I wish you insightful reading.

Eng. Sylvester A. Matemu  
Executive Director, NBI





## MBALE CITY EMBRACES GROUNDWATER TO SOLVE WATER SHORTAGES

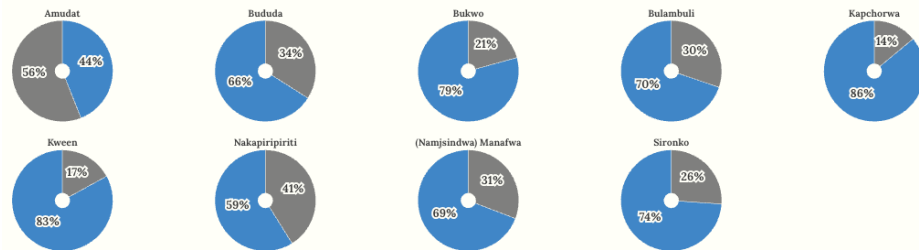


By Jenipher Nakuti  
Uganda

### Access to water in districts of Uganda in the Mt. Elgon Aquifer area

Quite a number of communities in the Elgon Aquifer area are depending on improved water sources compared to the traditional unsafe water sources evidenced by the percentage rates.

■ Population served by improved water sources ■ Population still dependent on traditional water sources



Source: NBI MOUNT ELGON AQUIFER REPORT

InfoNile

Authorities in Mbale city, together with the citydwellers, have turned their attention to groundwater as an alternative source of water contributing to the fight against water scarcity and the effects of climate change.

According to records, groundwater usage in the city stands at 45%. Some of the commonly used sources include spring wells, boreholes, and water ponds, among others.

James Kutosi, the City's Spokesperson, says the city council has the political will to ensure increased use of groundwater sources as well as strategies for their sustainability.



Mbale city is embracing groundwater as a way of combating climate change. Photo By Jenipher Nakuti



Sharon Wanasa a pupil at Demiro Nursery and Primary School is a keenly watched young environment activist in Mbale City. Photo By Jenipher Nakuti

"The council understands that our population is diverse and their status differs, so we have earmarked groundwater as an alternative source of water for communities that cannot afford national water services," Kutosi affirmed.

Rhoda Nyariibi, Mbale City Principal Environment Officer, says in the next financial year, more money will be allocated to rehabilitate the already established sources in addition to creating new ones.

"Our budget will seek to improve groundwater coverage in the city, particularly those densely populated areas," Nyariibi revealed.

She advanced; "We risk losing many lives, property and even human extinction if we continue avoiding effects of climate change."

A couple of city schools, such as Demiro Nursery and Primary, in Half London, have also embraced the use of groundwater. The school has drilled a borehole where its learners draw water for drinking and cleaning.

Besides schools, highly populated places within the city have boreholes, spring wells, or open

pits from where water for domestic and commercial purposes is fetched.

Mohamed Muto, a resident of Busajja Bwankuba cell Northern Division in Mbale city urges the communities to embrace the use of groundwater and to protect and preserve the environment in their respective areas.

Residents, through their saving groups are establishing own groundwater sources as well as conversation associations.

For instance, in Manafwa district, a certain sub county known as Bubulo has a group of over 200 members that has planted a couple of water sources and trees both in Manafwa and Bududa districts which have frequently been affected by natural disasters such as flooding.

Having suffered several natural disasters, including the recent one in June 2022 in which River Nabuyonga burst its banks leading to a deadly flash flood, Mbale city authorities and residents are keen to jointly take precautionary measures to avoid the negative impacts of climate change.

## GROUNDWATER PLAYS A ROLE IN REDUCING GENDER-BASED VIOLENCE IN AN EASTERN UGANDAN COMMUNITY



By Melanie Aanyu  
Uganda



Mbale city is embracing groundwater as a way of combating climate change.

This story first aired on Time FM in Eastern Uganda. It was supported by InfoNile with a grant from the Nile Basin Initiative.

A section of girls and women in the Eastern Sub-region of Bugisu have revealed that the quest for water that used to expose them to rapists, defilers, and cannibals on several occasions is history now.

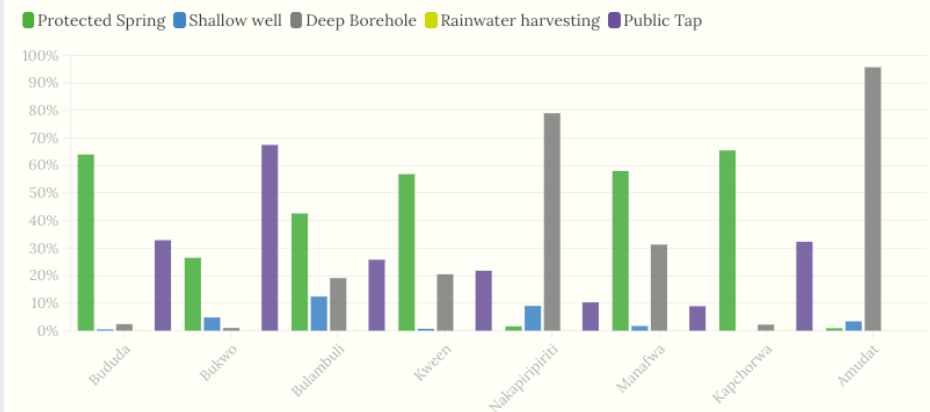
Some of the girls and women we talked to attributed this to the presence of boreholes in the communities.

To support such communities, Nile Basin Initiative is currently implementing a project to strengthen the knowledge base, capacity, and cross-border institutional mechanisms for sustainable use and management of selected transboundary aquifers in the Nile Equatorial Lakes (NEL) and Eastern Nile sub-basins. Mt Elgon aquifer falls in the NEL region.

The project will, in particular, build and expand on understanding groundwater resources through detailed mapping and assessment of selected aquifer systems and the development of guidelines (technical and policy) on sustainable exploration and use of groundwater together with its conjunctive use with surface water.

### Distribution of domestic water sources by districts of Uganda within the Mt. Elgon aquifer area.

Percentage of domestic water sources by technology type indicate that most districts have adopted improved sources of water over the traditional ones.



Source: NBI Mt Elgon Ground Water Report(2022)

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### LISTEN TO THE COMPLETE REPORT

Listen to the complete report by Melanie Aanyu by clicking on the audio player above/below.



## BUGISU FARMERS ROOT FOR DIRECTING FLOODWATERS TO GROUNDWATER AQUIFERS TO ENABLE THEM IRRIGATE THEIR FARMS



By Javier Silas Omagor  
Uganda

The Elgon region in Uganda, which includes two sub-regions of Sebei and Bugisu, have been hit by increasingly frequent and devastating floods. Sebei is a formation of three districts of Kween, Bukwo, and Kapchorwa, while Bugisu is made up of six; Manafwa, Sironko, Bulambuli, Namisindwa, Mbale and Bududa.

Most of the destructive floods in the Elgon area are caused by seasonal rains, which are usually above normal, particularly of late.

Climate change catastrophes in this area have ended up claiming lives, destroying properties, including farm fields, and ravaging human settlements. This has forced the government to relocate survivors into resettlement camps in Bunambutye (Bulambuli) and Kiryandongo districts, respectively.

The majority of farmers in the Elgon region use small-scale irrigation schemes to support their farms. They want the flood water trapped so as to sink into the ground to replenish the groundwater aquifer. [3] They say this could guard their farms against the effects of severe droughts and in turn boost food production.

"We have observed that while fickle [4] weather patterns continue being a big challenge (in Elgon), with the increase in high-intensity rainfall during rainy seasons causing floods, We want this excess water stored in the ground," Joel Cherop, a youth model farmer in the region, says.

Cherop, who practices commercial farming, continued: "Though we lose lives and property to these frustrating natural catastrophes, our land benefits a lot in rainy seasons."

Indeed, this could be one of the ways to address the issue of water scarcity and food insecurity in the Elgon subregion.

Most farmers in this region rely on rain-wa-

ter-fed agriculture, with the "long rains" coming between March and May and the "short rains" between October and December each year. But with climate change, the rains are no longer regular, thus affecting their lives and livelihoods.

Rhoda Nyariibi, the Principal Environment Officer in Mbale City applauded the farmers for their growing interest in groundwater.

"Groundwater as a community-led climate change resilience approach is a breakthrough for all of us. Efforts to combat climate change

should and must be community-inspired," Nyariibi acknowledges. Nyariibi revealed that groundwater coverage and its uptake was impressively going up in the region.

**"The demand for groundwater by our communities in Mbale city and Elgon as a whole is surging," Nyariibi noted.**

She explained that compared to other water sources, groundwater is cheaper, particularly for

Local leaders have commended Government and development partners for improving groundwater coverage in Bugisu. By Javier Silas Omagor

the rural farmers who use it for irrigation purposes.

According to the Nile Basin Initiative (NBI), groundwater is one of the most critical sources of water for people, livestock, and wildlife throughout the Nile Basin. More than 70 percent of the rural population in the Basin's 11 countries depend on it for domestic use.





## BUGISU FARMERS ROOT FOR DIRECTING FLOODWATERS TO GROUNDWATER AQUIFERS TO ENABLE THEM IRRIGATE THEIR FARMS

Nyariibi's office and the Ministry of Water and Environment have assessed the depth of available groundwater across the region and found that the water table is shallow enough, making it easy to support new boreholes and other groundwater sources extracting from it.

"It's a good thing that this water is closer to the surface, but we caution the public to take precautionary measures before using it for drinking purposes," Nyariibi warned.

"It is purely natural water, and this is what our ancestors used to consume," Kibet emphasized. Kween district Woman Member of Parliament (MP) Emma Rose Cherukut is one of the farmers ripping from groundwater, but she is worried

about what is going to become of it.

"We are all enjoying its benefits and reliability, but my concern is the increasing irresponsible human-induced activities on the environment could potentially affect the water table in the Elgon region," Cherukut reasoned.

The MP points out irregular degradation of river banks, swamps, tree cutting among others as environmentally destructive practices which could affect groundwater supply.

She urges urged communities in the region, on both Kenya and Uganda aside, to prioritise the protection of the environment.

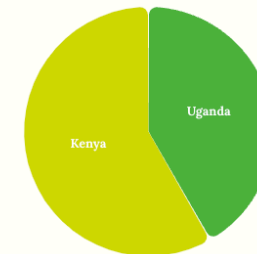


Women and Girls say the groundwater enhances extension of water supply in communities as well as helps in the fight against climate change. Photo By Javier Silas Omagor

### Total ground water borehole yield in the Mt Elgon Aquifer (Country comparison)

Borehole yield is the volume of water that can be abstracted from a borehole at a given time. Regionally, the yield of groundwater boreholes ranged up to 43.3 m<sup>3</sup>/hr. The number of boreholes in the SADA report used to derive the regional borehole yields were in Uganda, n = 545 (42%) and Kenya, n = 761 (58%); /hr, with a mean of 2.6m<sup>3</sup> per hour

■ Uganda ■ Kenya



Source: NBI Mt Elgon Ground water report

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"Let communities do their best at the local level, and as Members of Parliament, we shall continue to legislate and enact laws that will preserve our environment, particularly with regard to groundwater," Cherukut vowed.

Maximo Basheija Twinomuhangi of the Ministry of Water and Environment, in charge of the Kyoga area, commends the farmers for embracing the use of groundwater but implored them to

invest in environmentally friendly innovations.

"As they tap this groundwater, it is essential for farmers to creatively come up with more sustainable and reliable techniques which can help conserve the environment," Twinomuhangi adds.

**This article was supported by InfoNile with funding from Nile Basin Initiative.**



Mbale city authorities want to improve the quality and coverage of groundwater as a reliable alternative to pipe or surface water. Photo By Javier Silas Omagor UG Three



## WESTERN KENYA RESIDENTS FEAR FOR THEIR LIVELIHOODS AS BOREHOLES RUN DRY



Jesse Chenge | [jchenge@nationmedia.co.ke](mailto:jchenge@nationmedia.co.ke)  
Kenya



A borehole in Kapsambu village in the Kopsiro area in Mt Elgon.

**M**t Elgon is one of Kenya's main water towers. It is located north of Lake Victoria along the Nile Basin and reaches an altitude of 4,321 meters above sea level. The mountain forms the upper catchment area for two major rivers: Nzoia and Turkwel and provides water to the Malakisi River.

Unfortunately, with increased deforestation, areas surrounding Mount Elgon have been experiencing rising temperatures and decreased rainfall, posing a significant threat to groundwater availability and, in turn, to social-economic activities in the Western Kenya region.

Communities, primarily farmers who extract water from the ground to irrigate their crops, fear a severe blow to their livelihood as boreholes dry up.

Harrison Naibei is a farmer in Chemwenda village in Kopsiro, Mount Elgon. He says he

incurred a great loss when his 2-acre onion project failed due to uncertain rainfall patterns, forcing him to invest in a borehole project that cost him about KSh 25,000 (204 USD). He uses a solar system to pump the water to the crops. "After having a challenge with the dry spell last year, I decided to drill a borehole 32 feet deep," said Naibei.

Naibei added that underground water is a good water source for irrigation and domestic use and insisted that the water table be maintained.

Richard Walukano, a water expert in the region, says the water towers in Kenya are drastically drying up. Walukano led the Kenya-Finland Corporation (KEFINCO), a project that drilled over 100 boreholes for residents to get clean, safe drinking water. Unfortunately, today, all the boreholes have dried up. He believes this is mainly due to the cutting down of trees, a vice he warned farming communities against.



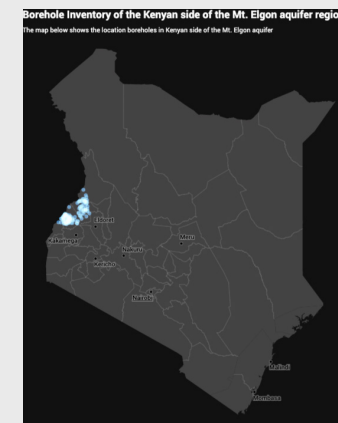
A farmer uses underground water to irrigate crops in Chebich village in Mt Elgon.

Walukano proposes afforestation be considered a national priority. Walukano, who also doubles as the chairperson of the Bukusu council of elders, warns that the issue of water should not be taken lightly. Jane Towett Naibei from Mount Elgon says their community has been utilising water from a natural spring over the years but the water level has dwindled by a considerable margin, especially during the dry period.

"I was born here in this area; our grandfather fetched water from this natural spring that has been here for decades, but water is reducing everyday" said Naibei

Fred Ndiwa from Kamachei village in Kopsiro calls upon the government of Kenya to come up with a stimulus program to train and sensitize the communities living in Mt Elgon region on the importance of planting trees and protecting rivers and natural springs to maintain water levels and therefore ensure availability of water for domestic use and other purposes.

He said some rivers are drying up, noting that the challenge dates back to 2016 when illegal tree cutting for charcoal and firewood became rampant in the Mount Elgon aquifer area. "We used to have enough water here, but because of cutting trees, water in our rivers has started



reducing while the water streams have dried up," says Ndiwa. He expressed the risk of desertification in the Mount Elgon catchment area if the forest cover is not maintained. Judith Chebet from Korong'otuny in Cheptais says her village depends on water from a borehole, and her family uses the water for irrigation and domestic use.

"These days, I wash my family's clothes from home using water from my borehole, unlike before when I had to walk a long distance to fetch water from River Ndakuru reveals Chebet. He says his department has recovered 7000 hectares of forest land, which had been encroached on.

George Wara the forest conservation officer for Bungoma County, acknowledges that Mount Elgon Forest is a critical water catchment area. He revealed that his department works with other stakeholders to settle the deforestation and encroachment problem.



## LOCAL FARMERS IN KENYA DISPLAY POTENTIAL OF GROUNDWATER USE FOR IRRIGATION



By Kevine Omollo  
Kenya



Sharon Wanasa a pupil at Demiro Nursery and Primary School is a keenly watched young environment activist in Mbale City. Photo By Jenipher Nakuti

Fifteen years ago, Mathews Chepkwony relied on a seasonal stream to support his vegetable farming in Chesamoo village, Bungoma County, at the foot of Mount Elgon.

The stream became unpredictable with time, sometimes drying up when he needed the water most. But five years ago, he drilled a borehole and has since resolved the issue of lack of water not only for his one-acre farm but also for domestic use.

“With a hand pump, I can extract enough water for my crops, livestock, and home use,” he says. In Lokiriama village in the neighboring Trans Nzoia County, 48 year old Joseph Eluku has been using water from his borehole for domestic use and irrigation for the last 10 years. Before, his family depended

on springs but with more and more people depending on the spring, it became unpredictable to get enough water.

According to Dr. John Rao Nyaoro, a Water Law and Policy expert and former Executive Director of the Nile Basin Initiative, NBI (2014 - 2016), groundwater is the solution to water shortages, as it is resistant to climate change compared to surface water, which is lost through evaporation and other impacts of weather variations,” he says.

Dr Nyaoro adds there is a need to strengthen the regulations, especially a common transboundary policy for shared resources like the Mount Elgon aquifer, to sustain groundwater exploitation

According to the Nile Basin Initiative (NBI), groundwater is one of the most crucial sources for drinking water for people and livestock in the

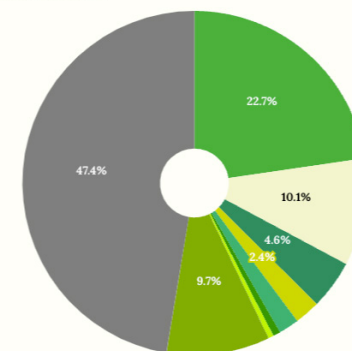
Nile Basin, with more than 70 percent of the rural population in many parts of the Basin depending on groundwater.

NBI notes that there is also an increasing use of groundwater for other economic activities such as irrigation, fisheries, mining, and industries.



### Groundwater use in Kenya

Public water supply Agriculture Domestic Industrial/Commercial Livestock Observation Exploratory Others Unknown



Source: MWI: Water use in Kenya • Data was published in 2008

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A borehole in Kapsambu village in the Kopsiro area in Mt Elgon. Kenya Three



A resident pull water from a borehole in Kapsambu village in the Kopsiro area in Mt Elgon.



## ELGON GOES FOR THE LITTLE UNKNOWN TO IMPROVE LIVES: ITS GROUNDWATER RESERVES



By Mactilda Mbenywe  
Kenya

**O**n the vast, towering ecological wonders of Mt Elgon lies a treasure, its groundwater reserves. The mountain boasts of massive swamps, millions of springs, flowing rivers and towering waterfalls.

Data from Transboundary Waters Assessment Program (TWAP) shows Mt Elgon aquifer is a multiple-layered hydrologically connected system that is primarily confined. According to the Nile Basin Initiative (NBI) baseline survey of the Mt Elgon aquifer, the available groundwater holds the promise of closing the growing gap between water demand and water supply and offering a buffer against human and/or naturally induced climatic and non-climatic pressures.

The fascinating water tower serving a population of over 400,000, is also home to various wildlife species. NBI studies show Mount Elgon lies on the border of eastern Uganda and western Kenya. Its vast form, 80 kilometers (50 mi) in diameter, rises 3,070 metres (10,070 ft) above

the surrounding plains.

The average depth to the water table ranges from 5m to more than 20 meters..

In Kapsambu village in Kenya, there is a long queue of women and children at a spring which, according to the villagers, has lasted for a lifetime without going dry. Within a two kilometers radius, there is a borehole with a tap that has also served a nearby school and community for more than 20 years.

**"I have used water from the spring for as long as I can recall; it's been the source of our livelihood," says 75 year old Vitoria Ngeima. The community depends on this water for various uses including domestic, industry, and agriculture.**



A resident pull water from a borehole in Kapsambu village in the Kopsiro area in Mt Elgon.



Mbale city is embracing groundwater as a way of combating climate change. Photo By Jenipher Nakuti

The project has seen the erection of an 86.3 kilometers water supply pipeline, a water treatment plant of 6000 cubic meters, and 25 water collection kiosks across the three constituencies. "The project has also seen clean water supply to residents' doorsteps", said Onesmus Makhau, Chief Officer of environment for Bungoma County.

The head of the National Environment Management Authority (NEMA) in Bungoma County Vincent Mahiva explained that through collaboration, the agency has been able to monitor groundwater extraction and protect the springs in communities. He, however, cited the degradation of water catchment areas and flooding - massive and intensive runoff from the water catchment areas during heavy rain - as a challenge to springs and boreholes.

According to Kenya Water Towers for Mt. Elgon Status Report by Kenya Water Towers Agency, 2020, Mt. Elgon Water Tower is among the five central water towers in Kenya and a critical water catchment for the Rift Valley and Lake Victoria drainage basins.

Since she was born 45 years ago Delvin Yego of Chebich village says her family has depended on the two springs near her home. To keep the water flowing, the community protects the springs by planting trees and avoiding harmful agricultural practices.

According to the Nile Basin Initiative, the vast reserves of groundwater in Mt. Elgon, evidenced by springs and boreholes, have the potential to provide a buffer against the current effects of climate change and spur development in the region. They also believe the potential of groundwater in the mountain is yet to be fully exploited.

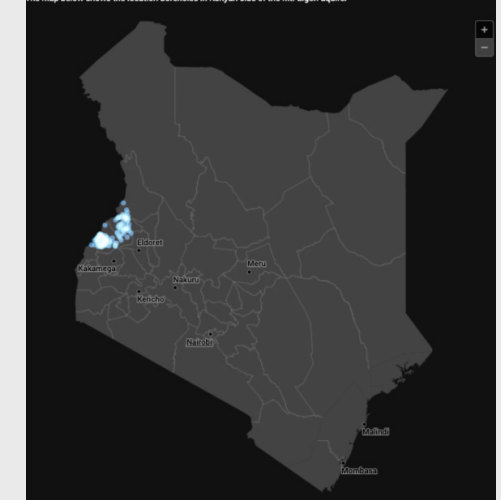
"There are few studies that have been done in this region around mapping groundwater, so we have very scanty knowledge about the aquifers," said Jeremiah Lumbasi, a hydrogeologist in Trans Nzoia County. He adds that "based on the indigenous knowledge, we have huge groundwater reserves".

More than 2000 boreholes have been drilled by the local authorities to serve the communities in the region and according to Lumbasi, going by the areas where boreholes have been drilled, there is varied yielding.

In 2018 national and local governments signed a Ksh 600 million deal with Korea International Cooperation Agency (KOICA) to supply groundwater clean water to 500,000 households within Mt Elgon area.

Phase 1 of the project dubbed 'Improvement of Water Supply System Project for Chepyuk Ward and Kibabii Complex in Bungoma County' ended and with the project's second phase underway.

**Borehole Inventory of the Kenyan side of the Mt. Elgon aquifer region.**  
The map below shows the location boreholes in Kenyan side of the Mt. Elgon aquifer





## GROUNDWATER TRANSFORMS KENYAN COMMUNITIES, BUT DEFORESTATION IS THREATENING TO REVERSE THIS



By Tony Wafula  
Kenya



A resident pull water from a borehole in Kapsambu village in the Kopsiro area in Mt Elgon.

Improved access to water from groundwater sources in Kenya's Mt. Elgon region is transforming communities amidst a significant challenge due to deforestation.

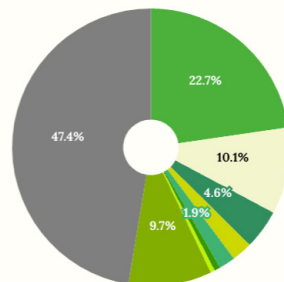
Harrison Naibei, a farmer from Kopsiro Sub-County, who drilled underground water at his home due to surface water shortage, says that the water source is now serving the entire community and a school.

Naibei says in the recent past; the region has faced water shortage attributing it to the frequent cutting down of trees from Mt. Elgon Forest and within the community.

"Mt. Elgon is known for having water towers but,

### Groundwater use in Kenya

Public water supply Agriculture Domestic  
Industrial/Commercial Livestock Observation  
Exploratory Others Unknown



Source: MWI: Water use in Kenya • Data was published in 2008



unfortunately, we are the ones decrying water shortage," Naibei says.

Naibei revealed that he drilled his water point in 2021 after his region was hit by a drought affecting his onion farm and leading to financial losses between Khs. 30,000 (245 USD) - 40,000 (327 USD). Besides onions, Naibei produces maize, irish potatoes, dania, and tomatoes on his three acres.

"My farm is near a water spring, but there is a water shortage during the dry season. This is why I decided to drill groundwater, I had to identify an alternative way of getting water to irrigate my crops" he said.

Naibei later engaged a water company that enabled pumping of water to serve the entire community including a nearby school - Kamachei primary school. This has saved the learners from walking long distances to fetch water, which he says exposes young girls to teenage pregnancy. Naibei says with the looming drought, he is worried about a water shortage crisis.

He is calling on the government and other environment-related agencies to work with Mt. Elgon community to plant more trees in the forest and within the community warning that if the situation continues, the water towers in the region risk drying and this will affect the flow of

rivers. Wetlands and forests trap runoff water, enabling it to sink into soil layers to form groundwater. Destruction of wetlands and deforestation impacts negatively on underground water. George Wara, an Ecosystem Conservator of Kenya Forest Service (KFS) in Bungoma County, decried the rate of deforestation in Mt. Elgon region and said that the Kenya Forest Service is working with other stakeholders to ensure that forest cover is restored.

"We have plans to rehabilitate Mt. Elgon Forest; we don't want residents to continue cutting trees because we are already feeling the pinch," Wara noted. Groundwater is the most critical source of drinking water for people, as well as livestock and wildlife watering in the 11 countries in the Nile Basin. According to the Nile Basin Initiative (NBI), an intergovernmental partnership of 10 Nile Basin countries, over 70 percent of the rural population in this region depends on groundwater.

Vincent Mahiva, the Bungoma County National Environmental Management Authority (NEMA), said that Mt. Elgon is a vital ecosystem in the region as it provides water sources for rivers both in Kenya and Uganda.. He explained that besides helping to reduce evapotranspiration, trees form a soft carpet allowing water to soak when it rains.

Moses Wambusi, a Public Health Officer in Bungoma County, lamented that it is difficult for Mt. Elgon residents dig deep latrines due to a hard rock in the area, leading to poor health and sanitation.



A resident fetches water from a stream in Kapsambu village in the Kopsiro area in Mt Elgon.

Photo by NBI



## MBALE LOCALS FAIL TO CONSUME TAP WATER DUE TO HIGH COST



By Phoebe Masongole  
Uganda



A resident pull water from a borehole in Mt Elgon region.

Ever since Mbale was elevated to a city status by Ministry of Local Government, it is continuously attracting rural-urban migration from various parts of eastern Uganda like Teso, Sebei and Karamoja.

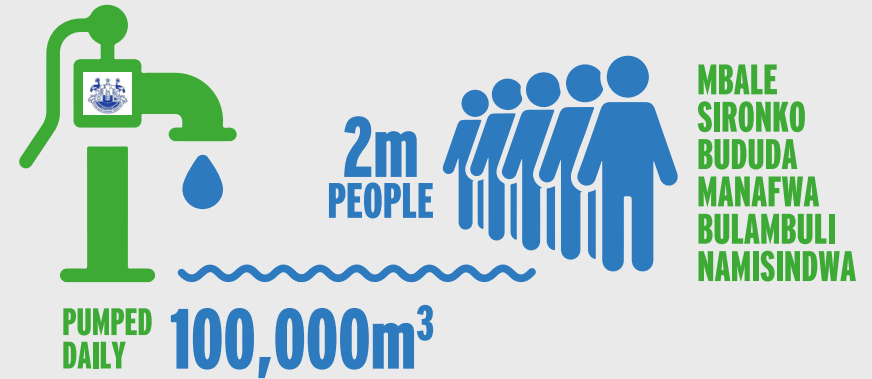
Located at the foothills of Mount Elgon, Mbale city is struggling with infrastructural development to ensure that proper waste management and its disposal are professionally done to avoid affecting the voluminous population that the city is continuing to attract.

National Water and Sewerage Corporation (NWSC) in Bugisu sub-region has established its plants in Manafwa and Namatala to purify water for consumption and domestic use. According to the NWSC Manager Badru Wadwasi, "this is so in order to help meet safe and quality water levels for human consumption."

He revealed that on a daily basis the corporation pumps an average of 100,000m<sup>3</sup> of water for a population of at least two million who live in the six districts of; Mbale, Sironko, Bulambuli, Manafwa, Bududa and Namisindwa as well as other neighboring districts.

The NWSC was established in 1972 in Mbale as a government parastatal entity to serve Bugisu with a view to develop, operate and maintain a constant water supply and sewerage services in urban areas in the region.

Today however, the parastatal is facing a challenge of making sure that it pumps enough water daily for the growing population.



According to NSWC, a 20-litre Jerry can of water is sold at Shs50 domestic, 78Shs community and 87shs institution.

According to the residents, the water is not affordable, despite the fact that it is a basic need.

Failure to pay water bills leads to NWSC disconnecting the supply and according to Yusuf Mugoma, a resident of Namakwekwe Ward in Northern Division, "those whose water supply is terminated turn to using surface water which is contaminated."

Dr Moses Mugonyi, Mbale City Health Officer said that "surface water most residents in the region, it is putting them residents at a health risk since it's contaminated." He adds that, "most water springs in the communities are just a few meters from pit latrines, indicating that the water is highly contaminated with fecal matter.

He urges community to ensure proper human waste management to minimize the threat of contaminating groundwater, which is an

alternative source of water supply. Manage the itchy issue of underground and surface water effectively.

Indeed Joan Wanyenya, a resident of Nkoma Ward in Northern City Division confirms that for most of the average people in the region, boreholes are their primary source of water for consumption.

She is however concerned that the dry spell in the months of December - February each year causes the bore holes to dry up, forcing mothers in particular to travel long distances in search of clean and safe water.







Residents  
fetch water

Photos by NBI



**NILE BASIN INITIATIVE**  
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