

# MAJU

*Yetu*  
2025 edition







**Know your Departmental Leadership**



**H.E Mutula Kilonzo Jr.**  
GOVERNOR



**H.E Lucy Mulili**  
DEPUTY GOVERNOR



**Eng. John Kieti**  
EXECUTIVE COMMITTEE MEMBER



**Eng. David Makau**  
CHIEF OFFICER



**Carolyn Ngina Vita**  
ASSISTANT DIRECTOR WATER  
GOVERNANCE



**Elizabeth Katenge**  
ASSISTANT DIRECTOR WATER  
SERVICES

# Message from the County Executive Committee Member

In line with our 2023–2027 County Integrated Development Plan, the Government of Makueni County has committed to investing KES 4.8 billion in water sector development, targeting 70% universal water

coverage for our over 1 million residents. This strategic investment aims to halve the average distance to the nearest water point from 4 km to 2 km.

While the county has projected an allocation of KES 25 billion from its development budget, we recognize a funding gap of over KES 2 billion. To address this, we continue to harness the strength of the Water, Sanitation and Hygiene Forum—our multi-stakeholder platform uniting all actors in the water sector. Meeting quarterly, the forum tracks progress, identifies gaps, and harmonizes efforts to deliver a shared water agenda.

A key focus is on mobilizing resources for infrastructure, treatment, and distribution while strengthening governance to guarantee sustainable and equitable water access. The WASH Forum is also leading the development of a county-wide Water Master Plan to meet the projected daily demand of 60,000 cubic meters.

Together, we remain committed to transforming water access and ensuring that every resident of Makueni enjoys safe, reliable, and dignified water services.

This publication gives a blow-by-blow account of our efforts to deliver the universal water access, under the leadership of H.E Governor Mutula Kilonzo Jr.



**Eng. John Kasyoki Kieti**  
*CEC Member, Water, Sanitation & Irrigation  
Government of Makueni County*

“  
*With KES 4.8 billion and one vision, Makueni flows toward a future where every home is watered with dignity one plan, one people, one promise.”*

*John K. Kieti*



# Message from the Chief Officer

Makueni continues to make bold strides towards achieving universal and sustainable water access for all its residents. With a daily water demand of 60,000m<sup>3</sup> against a current production of 30,000m<sup>3</sup>, our focus is on closing this access gap and reducing the average distance to the nearest water point from 4 km to 2 km by 2027.



**Eng. David Makau**

*Chief Officer-  
Water, Sanitation and Irrigation*

To deliver on this target, the department is prioritising the expansion of water infrastructure through construction of dams, borehole drilling and distribution, sand dams, springs development, solar-powered systems, and smart governance initiatives including operationalisation of the Water Fund and installation of smart meters to curb non-revenue water.

We recognise and appreciate the continued support from our development partners including USAID-STAWI, Welt Hunger Hilfe, Water Mission Kenya, ADSE, National Treasury through Financing Locally-Led Climate Action (FLLoCA) program, and the National Government through its agencies.

These partnerships are advancing ongoing projects such as borehole solarisation, sand dam-based distribution systems, water kiosks fitted with smart meters, climate-resilient community projects, and large-scale infrastructure.

Together, we remain steadfast in building resilient water systems that guarantee safe, reliable and dignified water services for every village and household in Makueni.

Enjoy reading this publication for an insight into the water development trajectory.

“  
*From dry ground to dignity  
Makueni moves to halve the distance,  
double the flow, and water every  
dream by 2027”*

*David Makau*



EDITORIAL

# MESSAGE *From* THE EDITOR



Dear Reader,

Welcome to this inaugural edition of ***Maji Yetu***, Makueni County water department’s annual newsletter.

This publication offers a concise, yet comprehensive snapshot of the strategies and milestones achieved by the Makueni County Government under the leadership of H.E. Governor Mutula Kilonzo Jr. in advancing sustainable, reliable, and inclusive water access.

Water is life. And in Makueni, it is also a symbol of resilience, innovation, and equity. Guided by a people-centered development agenda, the county has prioritized water security through smart investments in infrastructure, climate-resilient technologies, and community-led solutions. From investment in green energy to expanding piped networks and rehabilitating critical water sources, every drop tells a story of transformation.

Maji Yetu captures these efforts, challenges, and the bold vision driving Makueni toward universal water coverage by 2027. As you turn each page, we hope you find inspiration, insight, and a renewed sense of purpose in the shared journey to make water accessible for all.

ONESMUS NZIOKA  
*Principal Communication Officer*



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# From Thirst to Triumph: Inside Makueni’s Water Revolution

## One-on-one with Governor Mutula Kilonzo Jr

**Q1. Your Excellency, kindly give us a glimpse of the water situation you found when you assumed office in 2022, and what key interventions your administration has implemented to improve the situation?**

**Ans:** By the time I assumed office, Makueni was faced with a crippling water deficit of 30 million litres daily, with Wote Town alone accounting for 7 million litres of unmet demand—a gap worsened by rapid population growth. This deficit represented 50 percent of the daily water demand by our population.

To bridge this gap, we prioritized immediate relief through accelerated distribution to reduce distances to water sources, while simultaneously investing in large-scale, long-term solutions such as:

**Ndukuma Dam Rehabilitation:** Desilted and upgraded to serve over 20,000 residents, with pipeline extensions and rehabilitation of the old distribution system now underway.

**Mulima Dam Purification Plant:** Installed new water treatment system and rehabilitated distribution networks to ensure clean, reliable supply. We have phased budgetary allocations to expand the reservoir to harvest more surface run-off water. This will ensure Tulimani ward and Mbooni ward have reliable water access year-round.

**Athi-Tunguni-Kilema Project (Ksh68M):** We are racing to complete this pipeline to deliver treated Athi River water to Makindu, Nguumo, Kikumbulyu South and Kikumbulyu North Wards.

**Q2. Of all the strategies your government has employed—from dams, to boreholes and pipeline extensions—how far has Makueni come in achieving reliable water access for its residents?**

**Ans:** In the last two years, we have managed to reduce Makueni’s daily water deficit from 30 million litres to 26 million litres, cutting the average walking distances from 5-4 km. Before the year 2025 ends, we are hoping to further cut this gap by 6 million litres, from distribution of Athi-Kalawa water project. This project will supply potable water to 80 percent of Kalawa ward.

Through the Financing Locally-Led Climate Action (FLLoCA) program, where 12 water projects have been developed, more than 7 million litres will be injected into the supply system further improving access.

Our resolve is that by 2027, no Makueni resident should walk more than 2km to fetch water.

**Q3. Makueni has several seasonal and perennial rivers flowing to the Indian Ocean. Is your administration exploring ways to tap into this water to boost the Last Mile Water Connectivity Program?**

**Ans:** Yes, we are actively harnessing water from seasonal and perennial rivers to enhance the **Last Mile Water Connectivity Program**. Our major rivers—Athi, Thwake, Muooni, and Kikuu—hold immense potential for water development, and we have implemented strategic projects along some of them.

Along seasonal rivers, we are doing sand dams paired with infiltration galleries, water sumps and submersible pumps. These ensure water is naturally filtered by sand and remains available even during the dry seasons. One of the most outstanding projects of this nature is the Shs 60 million Ngakaa sand dam along Muooni River, which we are implementing in partnership with the National Drought Management Authority. Wote town also heavily relies on water from Kaiti river from Kaiti 1 and Kaiti 2 sand dams which we are working round-the-clock to rehabilitate for maximum benefit.

Along the permanent Athi River, we’re finalizing key projects among them: Athi-Kalawa Pipeline (85% complete); Athi-Tunguni-Kilema project (Sh 68M) to supply safe, treated water to Makindu, Nguumo, Kikumbulyu South and Kikumbulyu North wards. Others include Athi-Kitise and Athi-Mavindini water projects.

**Q4. The national and county governments have invested heavily in water infrastructure, yet vandalism remains a major-**

**setback. What specific measures is your administration taking to protect these critical investments?**

**Ans:** Vandalism is indeed a costly threat to our water infrastructure. As we speak, this menace has left us with a Shs 55 million bill for damaged projects, and recovering water access for affected communities will take considerable time.

In the 2025/2026 Financial Year, we have allocated Sh 5 million to enhance security for our water infrastructure, including measures such as hiring guards, installing electric fences, solar lights, and CCTV cameras at high-risk sites.

To ensure long-term protection, we are collaborating closely with local communities, empowering them to serve as the first line of defense rather than relying solely on government efforts. Additionally, as part of our water governance reforms, we aim to make projects self-sustaining so that revenue from water sales can fund security systems. Our top priority is revitalizing water utilities to guarantee sustainability without future struggles.

**Q5. With climate change likely to worsen water scarcity, what climate-smart initiatives are you implementing to ensure sustainable water access?**

**Ans:** Climate change is a reality we cannot ignore, and in Makueni, we have taken decisive steps to ensure sustainable water access through climate-smart solutions.

Since 2023, we made a firm commitment that every new water project in our county will be powered by solar energy. We are fortunate that Makueni enjoys abundant sunshine nearly 11 months a year, making solar power not just environmentally friendly but also highly reliable.

Our shift to solar has been transformative in that where diesel generators and grid electricity often failed, leaving water projects as phantoms, we’re now pumping water efficiently across distances of up to 20 kilometers at minimal operational costs while significantly reducing our carbon footprint.

Through the Financing Locally-Led Climate Action (FLLoCA) program, we have adopted an integrated approach to water development that combines water access with agricultural resilience and environmental conservation. Currently, we have 12 completed projects under this program, with another 17 at design stage.

We are also making significant investments in sand dams and surface runoff water harvesting systems to ensure residents have reliable, year-round access to clean water at minimal cost.

These initiatives are addressing water, food security and ecosystem restoration and building true climate resilience for our communities.

**Q6. In some areas with large water sources, poor governance often hinders access. How is your administration addressing inefficiencies in water management to ensure equitable distribution?**

**Ans:** One of the biggest challenges in water management is non-revenue water or water that cannot be accounted for. Our water companies are recording non-revenue water as high as 50 percent, translating to losses in revenue and denying our people access to this precious commodity. Some of the causes of non-revenue water are historical in the form of dilapidated infrastructure developed years back. We have made plans to uproot and replace these pipelines to reduce on leakages and also weed out any possible spaghetti or illegal connections in the system.

To ensure no water is lost during fetching, we are moving to smart-metered water draw points so that the water you draw is equivalent to the amount paid. In Athi-Kalawa where we are working with World Vision, all 17 kiosks will be fitted with smart meters. The ultimate goal is to have all our water projects fitted with smart meters. We are also procuring smart bulk water meters for our reinvigorated water companies so that they can account for all the water fed into their system, and also monitor on real time the water leaving point A to B.

Besides the above, we have in the past trained all the management staff of the water companies on good practices to ensure we minimize revenue leakages. We are now moving to train community water schemes management committees to ensure they operate within the law and quell project stalling due to mismanagement.

*“By 2027, no Makueni resident should walk more than 2km to fetch water.”*





# Last-Mile Water Connectivity Transforms Lives in Makueni’s Rural Households

For years, waking up at 3 a.m. to queue at distant water points has been a daily struggle for many residents of Makueni. Donkeys laden with heavy jerricans of water remain a common sight, even in Wote town, the county’s capital.

Water vendors have exploited this scarcity, charging exorbitant prices—especially during dry seasons when rivers run dry. In some areas, a 20-liter jerrican sells for as much as Sh50 when water is scarce.

To address this crisis, Makueni’s Department of Water, Sanitation and Irrigation has launched an ambitious last-mile water connectivity program, extending piped water directly to households.

One community already experiencing this transformation is Nthangu location in Wote/Nziu Ward. Pastor Thomas Wambua, a beneficiary, says his family can now engage in productive farming without spending Sh1,000 weekly to pump water from Kamunyii stream using a petrol-powered pump. His church has even seen higher Sunday attendance since the connection was installed.

The county government constructed a sand dam and underground sump at the confluence of Kaiti and Kamunyii rivers, alongside a mega solar-powered pumping system. The project now supplies over 10,000 residents and four schools in Kiatine and Nthangu villages with clean and safe water. A hundred households, including Pastor Wambua’s, have obtained last-mile connections by paying a small fee.

The department has prioritized last-mile connections to eliminate long treks to water points. According to Chief Officer Eng. David Makau, the strategy to achieve this last-mile connectivity initiative involves “One Ward, One Main Water Project”, ensuring each ward has a major water source.

- The expansion initiative includes:
- Desilting, rehabilitating, and expanding earth dams,
  - Constructing sand dams with sumps,
  - Drilling and equipping boreholes,
  - Laying 382 km of pipeline with water kiosks.

In the 2024/25 Financial Year, the department aims to connect at least 1,000 households per ward to clean water. This is expected to increase rural piped water access from 30% to 50%, and urban connections from 7,939 (2022) to 10,920 (2025).

To bolster the program, the county is investing heavily in projects along the Athi River water basin, including Athi-Kalawa, Athi-Tunguni, Athi-Mavindini, and Athi-Kitise, to draw, treat, and distribute river water.

The county government has also partnered with development partners such as World Vision, Welthungerhilfe, Water Mission Kenya, and Tanathi Water Works Development Agency who have played a key role in funding distribution networks from high-yield boreholes to bring water to residents’ doorsteps.





Makueni County Government's in-house Dam Construction Unit (DCU), and Borehole Construction Unit, established to accelerate the delivery of water infrastructure, have become a game-changer in achieving the universal water agenda.

By leveraging county-owned machinery and skilled personnel, the units have not only cut down construction costs drastically but also ensured timely and high-quality execution of water projects.

Remarkably, the units construct dams and boreholes at one-third the cost of private contractors and achieves three times the volume in the same timeframe in the case of dams.

According to the officer in charge of the dam construction unit Eng. Amos Mutevu, the unit cuts costs by avoiding hire of equipment, and avoiding contractor's fees. The only costs incurred are those of fuel and personnel allowances.

One of the most outstanding examples of the unit's impact is the recently completed Ndukuma earthdam, constructed at a cost of KES 50 million using the county's own equipment and workforce. According to Eng. Mutevu, had the same project been outsourced to private contractors, it would have cost an estimated KES 136 million, almost triple the amount actually spend.

The story doesn't end with Ndukuma. The unit has delivered numerous projects including Kyamakuthi, Mbasya, Ngomeni, Kwa Malai, Kwa Manyolo, Kaketi,

# Makueni Dam and Borehole Construction Units Delivering Water Infrastructure at Minimal Cost



Governor Mutula Kilonzo Jr launches construction works for one of the dams under the County Dams Construction Unit

Kwa Mateng'e, and Miau earthdams just to mention but a few. Each of these has brought lasting impact to communities, improving access to water for domestic use, irrigation, and livestock, particularly in drought-prone areas.

Since its inception in 2014, the dam construction unit has successfully implemented over 150 earthdams, effectively transforming dry landscapes into water-

secure environments.

In addition to county-led projects, the unit also collaborates with development partners such as Africa Sand Dam Foundation. Through these partnerships, Makueni provides machinery and technical support in cost-sharing arrangements that reduce the financial burden on the county government and accelerate the pace of project delivery.

The borehole construction unit on

the other hand has been credited for use of cutting-edge digital technology in underground water detection through the River G detector. Acquired in 2023, the device provides accurate hydrological data—including ideal drilling locations, recommended depths, and water salinity levels—enabling the county to target high-yield sites and maximize resource efficiency. Use of the county drilling rig has been key in implementing borehole

projects.

As Makueni continues to prioritize water security under the leadership of Governor Mutula Kilonzo Jr., the DCU remains a cornerstone of the county's strategy. Its innovative, self-reliant model proves that with the right vision and execution, counties can deliver large-scale infrastructure efficiently, affordably, and sustainably.



The county drilling rig



The digital River G underground water detector used by the Makueni borehole drilling unit for underground water detection



# Athi-Tunguni Water Project Nears Completion, Set to Quench Three Wards



Athi-Tunguni intake sump along Athi River

Residents of Nguumo, Makindu, and Kikumbulyu North wards are inching closer to enjoying reliable potable water as development of Athi-Tunguni water project enters its final stretch.

At 85% completion, the flagship project, designed to draw and treat water from River Athi and distribute it to the three wards, marks a major breakthrough in the county’s efforts to address persistent water scarcity, contamination, and seasonal drying of existing sources in Kibwezi West Sub-county.

Since inception, the phased multi-million project has delivered key milestones, including the construction of a 150,000-litre intake sump, a 2 million litres/day filtration unit, a 500,000-litre clear water tank, powerhouse installation, and a 6 km rising main to Ngaikini.

Ongoing works cover construction of a 7.28 km

rising main to Mukononi Hill, a 250m<sup>3</sup> reinforced-concrete tank, and extension of gravity mains across all three wards.

Key structures such as the Mukononi tank and water kiosks stand at 95% completion, while trenching on the rising main is fully done with pipeline fusion underway. Distribution lines are at 80%, with final touches including pipe fitting and chamber construction ongoing.

When fully complete, the project will cover approximately 77km of pipeline distribution network.

With installation of a new submersible pump at the Clear Water Unit now complete, the project promises to dramatically improve water access, reduce waterborne disease outbreaks, and ease the burden on women and children long forced to trek long distances in search of water.



Athi-Tunguni treatment facility



one of the masonry tanks for gravitational distribution

# Ndukuma Earth Dam Fully Restored, Boosting Water Security for Muvau/Kikumini Ward



Ndukuma dam under rehabilitation by the Makueni Dam Construction Unit

The restoration and expansion of Ndukuma Earth Dam, a vital water source in Muvau/Kikumini Ward, has been successfully completed, marking a significant milestone in the county government’s universal water agenda.

Occupying 58 acres of public land, the dam was originally constructed in 1952–1953 by the colonial government. However, over the decades, severe siltation drastically reduced its capacity and reliability as a water source.

In the FY 2022/2023, the county government allocated KShs 50 million for its rehabilitation. The

Department of Water, Sanitation, and Irrigation spearheaded the rehabilitation works, which involved desilting the reservoir, reinforcing the embankment wall, and constructing upstream check dams using county machinery. These interventions restored the dam’s holding capacity from 162 million litres to 365 million litres — more than doubling its storage and significantly improving reliability for domestic, institutional, and livestock use.

To enhance the last mile connectivity component, the county invested an additional KES 15 million in the FY 2024/2025 to implement

the Ndukuma Water Distribution Project. Key works included: construction of a 100m<sup>3</sup> masonry underground tank; installation of solar-powered high-lift pumps; development of a rising main to Kaseve and a 3.4 km extension to Mulele; gravity pipelines and upgrades to 16 water points

The project now benefits an estimated 5,200 residents across ten villages: Ndukuma, Kaseve, Nthembe, Mandoi, Miteveni, Wendo, Munyuni, Nzaai, Kiatine, and Mumbuni.



The rehabilitated Ndukuma earthdam, filled to capacity



Thinking of  
vandalising  
Water  
Infrastructure?  
Not in Makueni  
Anymore!



A vandalized water project in Kiima-Kiu/Kalanzoni Ward

In the year January 2024 to May 2025, Makueni lost about Sh 55M in vandalized water infrastructure.

In many of the affected projects, the vandals carted away solar panels, generators, G.I. pipes, water tanks, gate valves, air valves, and other critical components of water distribution systems. Much of these ends up in backstreet scrap metal warehouses.

This menace has caused residents untold suffering through disrupted water supply. Water Chief Officer David Makau says over 1,500 households across the county have been affected.

To curb this menace, the Department of Water, Sanitation and Irrigation has lined up a raft of measures which will make vandalism a very costly affair.

One of these include amending the Makueni Water Act, 2020, to classify vandalism as an act of economic sabotage, with offenders facing severe penalties. The proposal is to hike the fines for those found culpable from the current Sh 1M or 6 months imprisonment to Sh 10M or one-year imprisonment in lieu.

Executive Committee Member John Kieti says the department will also invest in surveillance technology such as installation of hidden solar powered CCTV cameras to easily identify culprits. Razor-sharp protective fences will also be erected at key water source points.

Governor Mutula wants the community to work closely with security apparatus to apprehend the vandals who are said to threaten people with untold repercussions for calling them out.

# Alternative Water Sources Rescue Residents from Nolturesh Inadequacies



Wairimu Kamau shows her empty fish pond, a stark reminder of the collapse of her once-booming fish business due to persistent water shortages



Muatineni borehole water project at Sultan Hamud developed by Water Mission Kenya

For many years, thousands of Makueni residents along the Nairobi- Mombasa corridor were used to fresh water flowing from Kilimanjaro, available at their homes or just few kilometers away.

This supply has however been disrupted in recent years by among others vandalism of the Nolturesh bulk water main pipeline in Kajiado, exposing residents to untold suffering. No body expounds this suffering better than Wairimu Kamau, a resident of Kalimbini area, near Sultan Hamud, who was forced to abandon her fish farming business when the taps ran dry for months.

Although Wairimu has installed a roof catchment system to harvest rain water, it was never enough and she depended on water from Nolturesh as a supplementary source

for her Tilapia fish business, which heavily relies on fresh water.

With very few alternative water sources available in the area, residents were forced to result to buying water from private vendors at exorbitant prices.

This scenario is however coming to an end after the Government of Makueni County partnered with several development partners to distribute water from high yielding boreholes along the corridor.

At Sultan Hamud, Water Mision Kenya has distributed water from Muatineni borehole to serve 620 households, Msingi Bora Academy, Kyunguni and Kilia Primary Schools, as well as Sultan Hamud Sub-county Hospital.

Distribution of water from Sultan Hamud borehole by the same

organization is also set to benefit 1,200 households, along with Three Bells Academy, Sultan Primary School, and Sultan Secondary Schools.

Water Mission Kenya is also working in Mutyambua to distribute Makueni's highest yielding borehole (50,000 litters per hour) to the community alongside Mutyambua Primary School, Mutyambua Health Centre, Mutanda Girls, and Mutanda Primary School.

At Lumu area, Welt Hunger Hilfe is finalising laying pipes for reticulation of Lumu borehole water to serve Lumu and Kalimbini villages, Lumu primary school as well as Kalimbini primary school

Chief Officer for Water and Sanitation David Makau says

the department has allocated funds in the 2025/2026 Financial Year to distribute water from Katilini dam, which will create a sustainable water solution to residents of Salama, Kiu and greater parts of Kiima-Kiu/Kalanzoni ward.

Residents who spoke to *Maji Yetu* lauded Governor Mutula Kilonzo Jr for these alternatives, saying their lives are beginning to normalize after years of unquenched thirst!

For Wairimu, completion of Lumu borehole signals revival of her fish farming venture and sustained income which looked all but lost when Nolturesh water turned pipes all rusty!



Muatineni borehole pipe line extension at Sultan Hamud by Water Mission Kenya



# Masongaleni Residents taste ‘Sweet Waters’ Purified by the County Government through FLLoCA

After years of enduring severe water scarcity—trekking over 7 km to the nearest water point, residents of Mukaange location, Kibwezi East sub-county, finally have a reason to smile.

For years, the people of this area knew only hardship when it came to water access. Women and children trekked over seven kilometers under the blazing sun, their jerricans heavy with the weight of necessity. The nearest water point offered only bitter, salty borehole water, and the only other alternative was the crocodile-infested River Athi.

Cases of residents and livestock being maimed or killed by crocodiles while accessing water from the river were the order of the day.

Then, in 2022, hope arrived in the form of a new borehole drilled by the Government of Makueni County at Kiambani, Masongaleni Ward . The celebration was however short-lived as the water, though plentiful, was too saline to fit human consumption. Once again, the community found itself trapped in the same weary cycle.

“Women had only one duty for the day—fetching water. ‘You would spend the entire day trekking to the river to fetch water. Life was simply hell here!’” says Felister Mutavi, a resident who donated land for the drilling of a community borehole.

In 2024, during a Participatory Climate Risk Assessment forum under the Financing Locally-Led Climate Action (FLLoCA) program, the



Governor Mutula Kilonzo Jr commissions the Muliluni-Kiambani reverse osmosis water purification plant

people of Mukaange made their voices heard. They needed more than just water—they needed safe water. The solution? A purification reverse osmosis plant.

The reverse osmosis plant, powered by solar system, was successfully implemented in the 2023/2024 budget phase and residents are now enjoying purified water.

The project has eliminated long treks for water and reduced the occasional crocodile attacks along River Athi.

This project is among 11 others implemented

under the FLLoCA program geared towards enhancing communities’ resilience against water scarcity, food insecurity and environmental degradation.

The 12 projects integrate water access, climate smart agriculture and environmental restoration as part of local solutions against climate change vulnerability. These projects have been key in enhancing the last mile water connectivity, a program tailored to ensure residents access water less than 2km by 2027.

Over 1,480 residents are beneficiaries of this project.

# Makueni Leverages Solar Power to Boost Water Access



Mwaani solar power plant, which has been key in sustaining water pumping to Wote town

Saddled with high operational costs and inefficiencies of diesel-powered water pumps and grid electricity, Makueni County has embarked on an ambitious solar energy program to ensure reliable and affordable water supply for her residents.

According to Governor Mutula Kilonzo Jr, his administration has made it mandatory to incorporate solar power systems in all new water projects developed from 2023 onwards.

Since then, over 60 water projects have been fitted with solar power, drastically cutting operational expenses and reducing dependency on unstable grid electricity.

One of the standout projects is the Mwaani borehole in Wote, now powered by a mega solar plant. According to Wote Water Supplies Company Managing

Director Justus Kuti, the solar upgrade has slashed operational costs by up to 40 percent and provided uninterrupted water access, unlike the unreliable grid power.

At Kamunyolo dam, the Tanathi Water Works Development Agency, in partnership with the county government, is installing an 88kW solar plant to enhance supply for Wote town, underscoring the county’s commitment to clean and sustainable solutions

Beyond cost-cutting, Makueni’s solar push is part of a broader last-mile water connectivity agenda. The goal? Universal water access by 2027. Every shilling saved on energy is redirected to expand water services—showcasing how environmental sustainability can go hand in hand with smart development.





# Rehabilitation of Three Water Sources Set to Alleviate Water Woes in Wote Town



Water Chief Officer Eng. David Makau demonstrates the Kaiti 2 pipeline network during the commissioning of the project by Governor Mutula Kilonzo Jr., accompanied by a delegation of former USAID officials.

Water trucking in Wote town by use of donkeys, tuk-tuks and bowzers could soon be a thing of the past after rehabilitation of three key water sources that supply the county headquarter.

The Department of Water, Sanitation and Irrigation, with support from USAID, embarked on a Sh 168M rehabilitation of Kaiti 2 sand dam, Mwaani borehole and Kamunyolo dam whose supply capacities had fallen to

marginal levels after years of systems degradation.

Kaiti 2, whose diesel-powered pump had broken down, now has a new solar system to pump 100,000 liters of water daily to Sarova estate and surrounding areas. The Financing Locally-Led Climate Action (FLLoCA) program has also funded an extra water line from Kaiti 2 sand dam, adding another 100,000 liters of water to the town’s main distribution system, using the same solar power.

In Mwaani borehole, an 80-solar panel green energy system has been installed to guarantee cost effective and sustainable water pumping. Wote Water and Sanitation Company Managing Director Justus Kuti says the new solar system has cut operational costs at the facility by more than 30 percent.

At Kamunyolo Dam, a 300 cubic meters water treatment sump has been constructed to increase the pumping capacity.

This is set to increase water pumping from the earlier 45 minutes per day to 7 hours. The county government has also pledged to expand the dam reservoir to increase its holding capacity.

County Executive Committee Member John Kieti says these efforts are geared towards enhancing the supply capacity to meet the ever growing demand, fueled by rapid urban growth of Wote town and the Municipality as a whole.

Governor Mutula Kilonzo Jr says it is regrettable that Wote town still struggles with water shortages 32 years after it was inaugurated as Makueni District headquarters, and the subsequent county headquarter. He says his administration will ensure the county capital becomes an investment hub with all necessary amenities, including sufficient water supply.



Kaiti 2 solar pumping system



Kaiti 2 sand dam, one of the main sources of water for Wote town



# Makueni Deploys Smart Meters to curb Non-Revenue Water



A water officer (in reflector jacket) demonstrates to County Executive Committee Member Eng. John Kieti how the smart water meters work at one of the kiosks in Wote town

While Makueni faces higher water demand than the supply capacity, water service providers have struggled with the menace of unaccounted for water (Non-Revenue water).

Statistics from the three water supply companies: WOWASCO, KIBWASCO and MBONWASCO indicate that non-revenue water accounts for 30 percent of the total water produced

and which never reach consumers.

KIBWASCO is the most affected, with 48 percent of the water fed into the company's reticulation system vanishing into thin air.

This menace has continued to pile pressure on the county government's purse as it invests more resources in water infrastructure development to meet the daily demand of 60M liters.

To quell the non-revenue water problem, Governor Mutula Kilonzo Jr has instructed water companies in the county to invest in technology such as smart meters, bulk water meters, high-density polyethylene pipes and leakage detectors.

31 water points done in collaboration with Welt Hunger Hilfe (WHH) and Water Mission Kenya have

already been fitted with the smart meters with a huge success recorded.

The smart meters have reduced revenue leakages as customers use prepaid token cards. This means that all the water one draws is equivalent to the amount of token points swiped, and all the cash goes to a bank account.

To enhance the smart metering program, the Department of Water, Sanitation and Irrigation secured Sh 39M funding from USAID's Sustainable, Transformational, and Accessible WASH Interventions (STAWI) project. The funding will support the three water service providers, each getting Sh 13M, to install the smart meters in all their water points across the county.



Governor Mutula Kilonzo Jr and former officials of USAID test a newly fitted smart water meter in one of the Kiosks at Sarova Estate, Wote



# Governor Mutula calls for rural water reforms after receiving governance survey

Governor Mutula Kilonzo Jr. has called for urgent reforms in rural water management after a new survey revealed widespread inefficiencies in Makueni County’s rural water schemes.

The survey, conducted by Emali Dedicated Children’s Agency (EDCA) and presented to the governor in June 2025, assessed the effectiveness of rural water governance structures in ensuring reliable water supply.

The survey, which began in November 2024, found that despite strong stakeholder engagement, 90% of rural water projects are poorly managed, leading to frequent failures and denying communities access to safe water—with women and children bearing the brunt of the crisis.

Key findings indicate that mismanagement stems from lack of financial and technical expertise among local water committees.

To address these challenges, the report recommends:

Amending the Makueni Water Policy (2019) to formally institutionalize rural water governance; Automating water points and digitizing billing systems to reduce corruption; and introducing ATM-based payments to improve revenue collection and accountability.

Governor Mutula described effective water governance as the cornerstone of sustainable development, emphasizing the need for research-backed policies and partnerships with organizations like EDCA.



Cabinet secretary for water, sanitation and irrigation Eng. Eric Mugaa with Governor Mutula Kilonzo Jr. at a past event to discuss water development in Makueni.



Mulima Earth Dam, Mbooni Sub-county





*Athi-Tunguni-Kilema water treatment plant. This installation will enhance access of clean water in 4 wards within Kibwezi West Sub-county*



*Chief Officer for Water Eng. David Makau inspects the Mulima water treatment plant.*



*Kenya's First Lady Rachael Ruto accompanied by Makueni County First Lady Anita Mutula during the launch of drilling works for Unoa primary school borehole on 30.7.2025.*



*Governor Mutula Kilonzo Jr hosts UN-Mission Kenya Resident Coordinator Dr. Stephen Jackson in Makueni for for a experiential learning on the impact of sand dams as a nature-based solution to climate change, on January 10th 2025*







Athi-Kalawa water project at the final stages of completion. 1. The intake 2. The treatment plant 3. Booster station 4. The water pump



Learners at Kiangini Primary School enjoy clean water at the school, distributed from Kiangini project, one of the FLLoCA projects



Wautu-Kyangati sand dam, built along Wautu river to provide water for domestic use and irrigation. It is also an environmental restoration project.





**For feedback reach us through:**

Email:[CO.water@makueni.go.ke](mailto:CO.water@makueni.go.ke),

Website:[www.makueni.go.ke](http://www.makueni.go.ke)