The WATERFRONT Newsletter

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Participants in the discussion on the theme: Addressing the Interconnected Crises of Water, and Climate Change

Beyond the Surface:

Addressing the Interconnected Crises of Water, and Climate Change

In a thought-provoking keynote address, Dr. Daniel Ddiba, a Research Fellow at SEI-Stockholm, shed light on the critical intersection between water, sanitation, and climate change during a recent presentation. The keynote, titled "Water and Environment for Climate Action," outlined the deep linkages between these sectors and highlighted the urgent need for integrated approaches to tackle the growing climate crisis.
Dr. Ddiba began by discussing the profound effects of climate change on the global water cycle, explaining how shifts in precipitation patterns and the increasing frequency of extreme weather events are destabilizing water availability. He pointed out that these disruptions not only affect access to clean water but also complicate sanitation efforts, leading to an increase in waterborne diseases and public health risks.

He noted that droughts, which result in too little water, often force communities to return to unsafe practices like open defecation, a situation exacerbated in areas where sanitation infrastructure is inadequate. Conversely, flooding, which is becoming more frequent due to climate change, overwhelms sanitation systems, causing sewage overflow and contaminating water supplies. These impacts create vicious cycles of vulnerability for affected populations.

The speaker also emphasized the global nature of water issues. Climate change's effects on water availability in one region can cause ripple effects in other countries, especially in the context of agricultural imports. Dr. Ddiba provided the example of Senegal, where climate risks threaten the country's rice imports, and Uganda, where changing rainfall patterns could impact the global supply of Arabica coffee. These interconnected challenges, he said, highlight the importance of thinking beyond national borders when developing climate solutions.

Dr. Daniel Ddiba
the Keynote Speaker

Dr. Ddiba drew attention to the often-overlooked role of sanitation systems in contributing to greenhouse gas emissions. He explained that poorly managed sanitation systems, particularly those that are non-sewered, emit significant amounts of methane, a potent greenhouse gas. "Sanitation," he said, "is not just a water issue; it's a climate issue too. If poorly managed, sanitation systems can be as significant a contributor to climate change as some of the world's largest industrial sectors." This insight underscores the urgency of shifting towards more sustainable, climate-resilient sanitation solutions that reduce emissions and promote resource recovery, such as productive sanitation systems.

In his keynote, Dr. Ddiba stressed that the consequences of water and climate change go far beyond just water management. He noted how disruptions in the water cycle are already influencing food security, with changing agricultural conditions impacting crop yields and increasing the vulnerability of global supply chains. Similarly, the lack of access to water and sanitation exacerbates migration and displacement challenges, forcing people to leave their homes in search of basic necessities. He pointed out that transboundary risks, where climate impacts in one country affect others, further complicate the picture. As he explained, "Climate risks are rarely confined within national borders. We are witnessing a global interconnectedness that demands shared solutions across countries and regions."

Dr. Ddiba highlighted the gaps in current policy frameworks and climate finance that fail to adequately address the linkages between water, sanitation, and climate change. He referred to the Nationally Determined Contributions (NDCs) and National Adaptation Plans (NAPs) of countries, noting that while some nations have made progress, many still do not integrate climate-resilient water and sanitation strategies into their long-term development plans. "We are not yet where we need to be," he said, "and this lack of integration prevents us from making significant progress." He also pointed to the need for improved climate finance, particularly to address the shortfall in funding for sustainable water management and sanitation infrastructure. Dr. Ddiba noted that while some countries have secured finance for climate adaptation, much of this funding is directed toward energy projects rather than addressing water and sanitation challenges.

Looking ahead, Dr. Ddiba called for urgent action to address these challenges. He emphasized the importance of taking a holistic approach to water and climate issues, one that integrates water management, sanitation, and environmental considerations into every aspect of policy, planning, and development. He also stressed the importance of sharing knowledge and best practices to ensure that sustainable solutions are implemented effectively. Drawing from his experience working in countries such as Bolivia, India, and Uganda, he shared lessons learned from previous projects, particularly around the financial viability of climate-resilient sanitation systems. "We must change the way we think about climate change," Dr. Ddiba said. "It's not just an environmental issue. It's a water issue, a sanitation issue, and a public health issue. Addressing these linkages is crucial if we are to ensure a resilient future for all."

As the keynote wrapped up, Dr. Ddiba's message was clear: integrated solutions that address the interconnections between water, sanitation, and climate change are not only necessary but urgent. With increased focus on policy, finance, and global collaboration, there is still an opportunity to mitigate the worst impacts of climate change while ensuring equitable access to clean water and sanitation for all.

Dr. Daniel Ddiba's keynote serves as a powerful reminder of the need to adopt a more comprehensive approach to tackling climate change; one that considers the intricate and often overlooked relationships between water, sanitation, and the environment.

Panel discussion:
Augmented by a panel discussion Panelists from various sectors gathered to address the pressing challenges posed by climate change, with a particular focus on its impacts on water resources and public health in Uganda. The session kicked off with

introductions from panelists representing government, the private sector, and research institutions. The event provided a platform for sharing insights and strategies aimed at building resilience to climate-related shocks, especially in the health and water sectors.

Mr. Raymond Ruyoka, the founder of YADNET and critical during the production of Uganda's Health National Adaptation Plan, took center stage to introduce Uganda's Health National Adaptation Plan (HNAP). He shared that Uganda is now the second country in Africa to develop such a plan, underscoring its significance in climate change adaptation. Mr. Ruyoka presented the findings of a vulnerability assessment conducted on 716 health facilities, revealing alarming statistics: 47.6% of facilities exposed to drought, 39.6% to floods, and 31.1% to storms. In response, the HNAP aims to strengthen health systems by focusing on key pillars such as climate-resilient leadership, workforce development, and infrastructure technologies to protect health services from the worst effects of climate change, he mentioned!

The discussion then shifted to Uganda's Nationally Determined Contribution (NDC), as Mr. Onduri provided an update on the ongoing revision process. He emphasized the integration of water and sanitation into the revised NDC, reflecting a growing recognition of the critical role these sectors play in climate adaptation. Mr. Onduri explained that the revision process begins with a thorough stock-take assessment to evaluate current implementation progress, identify gaps, and ensure that the NDC is more comprehensive and inclusive of emerging issues.

Representing the private sector, Mr. Andrew Kilonzo; Managing Director from Uganda Breweries Limited shared the company's innovative approach to water management. He outlined their ambitious goal of using just 2.5 liters of water for every liter of product they produce. Furthermore, Mr. Kilonzo highlighted their commitment to giving back to communities by investing in water and sanitation projects, with a particular focus on areas around Mount Elgon. The company aims to return 40% of the water it extracts back to the local communities, showcasing how the private sector can play a crucial role in addressing water scarcity.

Dr. Carlos from the International Water Management Institute (IWMI) rounded off the session with an insightful presentation on the role of research institutions in advancing water management strategies. He highlighted IWMI's cutting-edge work in utilizing artificial intelligence and digital tools to optimize water resources and improve decision-making. Dr. Carlos explained how these innovations help to streamline water management practices, making them more efficient and sustainable in the face of changing climate conditions.

As the session drew to a close, several key action items were highlighted. Mr. Ruyoka emphasized the need to implement the ten pillars of HNAP to enhance health system resilience against climate shocks. Mr. Onduri stressed the importance of conducting a comprehensive stock-take assessment to identify gaps in the current NDC implementation. Meanwhile, Mr. Kilonzo reaffirmed Uganda Breweries' commitment to expanding its water efficiency measures and community projects in the Mount Elgon region.

Lastly, Dr. Carlos announced plans to further develop AI-powered tools for water management

Panelist during the discussion on the theme: Addressing the Interconnected Crises of Water, and Climate Change

Government, Welthungerhilfe Launches Phase 3 of the Lokere and Lokok Water Catchment Project.

Hon. Peter Aimat Lokeris the Minister for Karamoja Affairs Launches Phase 3 of the Lokere and Lokok Water Catchment Project.

The Ministry of Water and Environment, in collaboration with Welthungehilfe (WHH), has launched Phase 3 of the Lokere and Lokok Water Catchments project, aiming to protect and restore vital water catchments in 10 districts in Karamoja and Teso sub regions.

The districts include: Moroto, Napak, Nabilatuk, Kotido, Kaabong, and Abim in Karamoja sub region; and Kapelebyong, Amuria, Katakwi, and Soroti in Teso.

This multi-phase initiative, supported by the German Federal Ministry for Economic Cooperation and Development (BMZ), seeks to address environmental challenges such as deforestation, soil erosion, and unsustainable land practices.

The 1.2 million Euro project, running from 2025 to 2027, builds on the success of the 2.9 Euro Lokere project (Phases 1 and 2), which ran from 2019 to December 2024.

While launching the project at the 8th Uganda Water and Environment Week (UWEWK 2025), the Minister for Karamoja Affairs, Peter Lokeris, urged local leaders and communities to closely monitor the project's implementation.

He emphasized the importance of water in every aspect of life, stating, "When you eat greens, if there is no water, the greens will not enter the body. Water is consumed in every part of life."
In her remarks, Hon. Beatrice Anywar, the state minister for Water and Environment, expressed gratitude to BMZ for its ongoing support and assured that Phase 3 funding would address environmental degradation and poor resource management. "This project will make a big contribution in supporting our people in Karamoja to cope with climate change challenges," she noted.

In his message delivered by the Ag. Director Water Resources Management. Dr. Callist Tindimugaya, the Ministry's Permanent Secretary, Alfred Okot Okidi, praised the timing of the project's launch, noting, "UWEWK provides us an opportunity to discuss water, environment, and climate change. A project that looks at where water comes from and where it goes is crucial because water doesn't follow administrative boundaries."
Julius Lwegaba, WHH Area Manager for Moroto, who represented the organisation's Country Director, highlighted the project's alignment with Uganda's water management vision, emphasizing its role in promoting sustainable water practices.
He noted the importance of an integrated catchment management approach, which supports both sustainable land use and improved livelihoods.

Lwegaba also pointed out that Phase 3 will advocate for policy reforms aimed at strengthening integrated water resource management at the national level. This includes collaboration with civil society, research institutions, the private sector, and donors.
The project aligns with both WHH's strategy for zero hunger and a healthy planet, and MWE's 2020-2030 catchment-based water resource management plan.

Philippe Roussel, Deputy Head of Development Cooperation at the German Embassy in Uganda, reaffirmed Germany's commitment to sustainable development in Uganda, stressing that the project will contribute to broader environmental conservation efforts.

He also highlighted Uganda's crucial reform in managing water resources effectively, saying, "This addresses environmental degradation, pollution, and climate change, which directly affect food security and quality of life."
Betty Flora Nakiru, Head of the WHH Project, shared the accomplishments from Phases 1 and 2, including large-scale tree planting, soil and water conservation techniques, and the promotion of climate-smart agriculture. In total, the project planted 14,973 trees, constructed 6,158 moon pits around trees, and introduced energy-saving technologies to reduce deforestation.

The launch of Phase 3 signifies a continued commitment to improving water resources management in Uganda, contributing to the country's broader environmental goals and climate change mitigation efforts.

Parallel Sessions:

Innovative Financial Mechanism Increases Water and Sanitation Technologies

Eng. Joseph Oriono making a presentation

The potential for integrated water and sanitation investment opportunities in Uganda has been highlighted through innovative financial mechanisms.
Despite this, financial challenges continue to hinder the full realization of these opportunities within water and sanitation programs.

Eng. Joseph Oriono, the Commissioner for the Rural Water and Sanitation Department at the Ministry of Water and Environment, emphasizes the urgent need for financial innovations to address these issues.
He was made the remarks while making his keynote presentation on the sideline sessions of the 8th Uganda Water and Environment Week (UWEWK), at the Ministry of Water and Environment in Luzira, Kampala on March 19, 2025.

This year's event was held under the theme "Water and Environmental Resources for Enhanced Resilience and Improved Incomes and Livelihoods."
One of the significant challenges identified is the lack of adequate data to effectively track progress towards improving water and sanitation systems. Eng. Oriono pointed out that without proper data, it is difficult to inform decision-making and monitor advancements in these sectors.

He further noted that domestic competitiveness within Uganda's organizations, including government agencies, often leads to a reliance on donations and grants from donors, which can hinder development.
He said a unified approach with a common financing model and shared development agenda would be more beneficial in driving progress.

Eng. Oriono also addressed the global economic unpredictability that negatively affects financing for water and sanitation initiatives, creating barriers to progress.

He identified other financial challenges such as sustainability, difficulty in attracting private investments, and inadequate fundraising efforts.
To overcome these obstacles, Eng. Oriono stressed the need for a model that pools resources and coordinates funders to develop indicators that align with Uganda's National Development Plan (NDP 4).

He underscored the essential role of government leadership in policy shifts and alignment, which is necessary for these strategies to succeed.
Monitoring and evaluation (M&E) were also highlighted as key tools for informing future decisions.
Eng. Oriono advocated for a strong M&E framework to benchmark progress and performance.
He stressed that this requires enhanced stakeholder engagement to ensure the involvement of all players, ensuring diverse achievements across the sector.
In addition, Eng. Oriono emphasized the importance of strategically allocating resources through performance-based financing to achieve key targets.

Regular follow-ups and performance reviews were also raised as vital in ensuring value for money and to assess the performance of service providers involved in water and sanitation projects.
Looking ahead, Eng. Oriono expressed optimism that with robust monitoring and evaluation, the quality of water and sanitation services would improve, ensuring access to clean and safe water for all, a fundamental human right.
It was organized by Water For People, IRC WASH, and Instigilio among other partners. The session focused on understanding financial challenges and exploring strategies to mobilize resources for sustainable water and sanitation services, particularly through Integrated Water and Sanitation Investment Programmes.

The event also featured key presentations, including: Mpanga Catchment Investment Programme Pre-Feasibility Results, which demonstrated how nature-based solutions can improve water security, carbon sequestration, and biodiversity, while also unlocking financing through carbon credits, payments for ecosystem services, grants, and results-based funding, and developing an Integrated Water and Sanitation Financing Vehicle, which explored strategies to address funding gaps by aligning investments with measurable outcomes.

Panelists

After his keynote address, a set panelist also presented differing perspectives on the topic of Innovative Financial Mechanisms aimed at enhancing the potential of integrated water and sanitation investment programs.

A panel discussion, moderated by experts from the Ministry of Water and Environment, Water for People - Uganda, and Instiglio, highlighted the urgent need for sustainable financing, stronger governance, and stakeholder collaboration to ensure long-term WASH sector growth.

Brenda Achiro, Country Director Water for People, began by praising all stakeholders for their efforts in restoring the ecosystems and biodiversity in the river Mpanga water catchment area in Western Uganda.
She stressed that catchment investment is crucial towards the provision of platform for collaboration towards progress aimed at restoration of 'our natural resources'. However, Achiro noted that there is need for more programmatic designing to identify opportunities for financing through harnessing carbon credit model to attain the desired goals."Catchment investment program adds value in restoration of water and sanitation eco-systems and biodiversity which key in matters of the environment," she added.

Francisco Garcia Jordan, Manager at Instiglio, stressed that water infrastructure facilities in Uganda needs to be supported by ensuring they are functional through technical follow ups.
He stated that the essential principles for advancement include; the coordination of water and sanitation activities, accountability to track progress and funding, adaptability to shifting priorities, and a focus on sustainability.
He said the government should adjust its policies to align with the current demands for flexibility.

Dr. Callist Tindimugaya, the Acting Director of Water Resources Management at the Ministry of Water and Environment, stated that they have been relying on the 1999 policy as their legal framework.
However, he noted that the cabinet has undertaken a review of this policy in response to the necessity of addressing new and emerging requirements.
He mentioned that the financial strategy component has been presented to the cabinet, and acknowledges various funding sources from stakeholders, including the private sector, non-governmental organizations, academia, and business entities, among others.
To actualize innovative financing effectively, he noted that it is essential to allow for flexibility that supports integrated service delivery, with the goal of providing services to grassroots communities.
"This policy is actually broad based in nature as it handles water holistically," he added.

Eng. Joseph Oriono Eyatu, Commissioner Rural Water and Sanitation Department at the Ministry of water and environment, noted "We have along the way learnt some lessons under innovative financing ranging from; collective planning to address priorities, predictable flow of funding, integrating how to move forward, simplified procedure in place, having clear evaluation reports, and the long approval procedures among others".

In her expression of gratitude, Jane Nabunnya Mulumba, the Country Director of the International Water and Sanitation Centre (IRC), acknowledged the commissioners from the Ministry of Water and Environment for their valuable contributions and their proactive efforts in tackling the urgent challenges associated with water and sanitation.

Ceremonial cake cutting at the 4th graduation cycle of mentees

Graduation Ceremony of the 4th Cycle of Mentees:

At the 4th Water Resources Institute (WRI) Graduation Ceremony, with distinguished speakers including Hon. Beatrice Anwyar, Hon. Dr. Miria Matembe, and Dr. Callist Tindimugaya, it was evident that the mentorship program continues to thrive and evolve. Dr. Tindimugaya, a key driver of the initiative, reflected on its growth, recalling that when the program began, it focused primarily on female participants, though there were only a few women enrolled at first. “We had to encourage them to join,” he shared, reminiscing about the program’s early days. Over time, the response grew significantly, and more women joined. This year, the program expanded to include male participants, marking a significant milestone. “It’s inspiring to see how our participants are growing and developing new skills,” Dr. Tindimugaya said, proud of the progress. By March 2023, the program had mentored over 260 individuals, with the latest graduation class a clear testament to its success.

This year, the focus was on broadening the program’s reach, incorporating more male participants in response to feedback from both mentors and mentees. Dr. Tindimugaya expressed gratitude to WaterAid Uganda for their long-standing support, noting that their financial contributions have been vital to the program’s success. He also welcomed new partners, including IRC and Water for People, who are now collaborating to ensure the program’s continued growth and sustainability.

Recognizing the importance of partnerships, Dr. Tindimugaya thanked WaterAid Uganda for their unwavering commitment, while also acknowledging the significant contributions of other partners. Another highlight of the ceremony was the recognition of Director Jane Mulumba, Country Director of IRC Uganda, for her tireless work as a mentor, inspiring both young women and men. “Her impact is immeasurable,” he said, praising her dedication.
Hon. Dr. Miria Matembe, the guest speaker, highlighted the importance of empowering women and girls, especially during the International Women’s Day celebrations. “Keep your eyes on the prize,” she urged the graduates, stressing the importance of staying focused and determined despite challenges. She emphasized that with the right mindset, every graduate could make a lasting impact, uplifting not only themselves but also those around them.
Dr. Joyce Magala, Country Director of WaterAid Uganda, added her voice to the discussion, advocating for women and girls to be included in decision-making processes as a key to achieving gender equality and ensuring more equitable policies.

A panel discussion followed, where participants shared their personal and professional experiences of how the mentorship program had impacted their lives. The event was rounded off with a speech by Dr. Alfred Okidi, Permanent Secretary of the Ministry of Water and Environment, on behalf of the Deputy Head of Service, Dr. Teopista Wanene. He reflected on the Ministry’s efforts to build capacity through the WRI, which has trained 4,299 professionals and mentored 287 in areas including leadership and financial management.
As the ceremony came to a close, it was clear that the mentorship program is driving positive change, empowering individuals, and fostering leadership across all sectors. With strong partnerships and a committed team, the future looks bright for both the participants and the program itself; he remarked.

Expert Tips on Embracing the East African Water Standards.

It is essential to benchmark on the East African water standards to achieve the consumption of clean water from the acceptable ratio of the composition analysis of minerals like; calcium, magnesium, chloride, potassium, sodium, iron, sulphate and fluoride.
Barnabas Mubangizi, a water analyst, Lira Regional Water Quality Data, advised stakeholders in the water sector during the third day of the 2025 Uganda Water and Environment Week (UWEWK) on Wednesday, March 18th.

The event, held at the headquarters of the Ministry of Water and Environment in Luzira, Kampala, brought together different stakeholders from the water and sanitation, environmental, and economic sectors.
Mubangizi stressed that water quality standards and guidelines help protect the public health sector to ensure safety to ensure that people are not endangered by the water beverage.

The parameters for drinking standards are available with World Health Organization (WHO), United States Environmental Protection Agency (USEPA), East African water standards among others.
In 2008 Uganda developed the Uganda portable water standards through Uganda National Bureau of Standards (UNBS) while in 2018, Uganda adopted the East African Standards which is now being embraced to promote quality in terms of the standards of water.
The East African standards require potable water to be free from pathogenic organisms, harmful chemicals, and objectionable taste or odors.

Mr. Mubangizi during a presentation

This is handled hygienically to meet specific physical, chemical, and inorganic contaminant limits.
For physical and chemical testing, Mubangizi recommended storing the samples in a dark place and at a temperature of four degrees Celsius or lower.
He noted that key health and safety concerns regarding water consumption include contaminated water sources, hazardous terrain, unsafe stream environments, and the handling of harmful chemicals among others.
He emphasizes the importance of training and continuously educating the public about the composition of safe drinking water.

Youth Career Talk Show:

Empowering the Next Generation for Climate Action.

The 7th edition of the Youth Career Talk Show, held during the Uganda Water and Environment Week, was a dynamic event aimed at inspiring and empowering young people in Uganda to actively engage in climate action. Chaired by Eng. Annette Kezia Nantongo, Principal Water Officer at the Ministry of Water and Environment (MWE), and moderated by Ms. Pamela Musimenta and Ms. Victoria Kinobe, the session provided a platform for youth to connect, learn, and share ideas about the critical roles they can play in the water, environment, and climate sectors.

The event began with Ms. Pamela Musimenta's opening remarks, emphasizing the significance of youth in Uganda, who make up 78% of the population. She highlighted the potential of this demographic to drive transformative change in addressing climate challenges. Eng. Annette Kezia Nantongo delivered the keynote address, sharing her passion for water and environmental issues. She discussed the growing threats posed by climate change, including extreme weather events, and called on young people to contribute to solutions. She encouraged them to pursue their passions, collaborate, and mentor one another, reinforcing the idea that the youth are essential to shaping a sustainable future.

The panel discussions explored various opportunities for youth in environmental fields. Phiona Bonabaana, founder of the Boona Inclusive Foundation, spoke

Ms. Aisha Nankanja one of the Panelists sharing from the UK

Ms. Pamela Musimenta moderated the session

on the inclusion of people with disabilities in climate conversations. Kakembo Brian, Sustainability Director at St. Kizito Schools Namugono, discussed how youth can contribute to water, food, and renewable energy sectors, sharing how his school integrates climate action into its curriculum. Aisha Nankanja, co-founder of RWICA, discussed the importance of youth-led initiatives in water management, while Ogik Carols Plato, a Career Diplomat, emphasized the role of diplomacy in tackling global climate issues.

During the interactive Q&A, participants asked insightful questions about career development, overcoming challenges, and the importance of mentorship. The panel emphasized the need for a balance between ambition and strategic planning and highlighted mentorship as crucial for professional growth. Volunteers, inclusion, and collaboration were also identified as key factors in addressing climate change effectively.

Key takeaways for the youth included the importance of volunteering to gain experience, building strong networks, and finding the right mentors. Education and collaboration were deemed essential for creating a strong foundation to face environmental challenges. The session ended with a call for the Youth Career Talk Show to expand its reach to more schools and communities, encouraging greater youth involvement in climate action.

Revolutionizing Rural Water Systems:

The Poldaw Riser Pipe Initiative:

WaterAid Uganda's Director of Finance, Mr. Ernest Atsu Gbekor, kicked off the session by shedding light on the ongoing challenges in rural water systems across the country. Over 60% of rural households depend on hand-pump boreholes for water, but these systems are plagued by corrosion and poor water quality. A 2015-2020 study by WaterAid Uganda showed troubling results: over 60% of riser pipes were corroded, and a third were damaged, leading to iron contamination in the water that often-exceeded safe levels. Although the government's "Stop the Rot Campaign" banned corrosion-prone materials, alternative solutions were either too expensive or impractical for deep installations. To tackle this, the Poldaw Riser Pipe system was introduced and is currently being tested in 100 hand pumps across Kabarole and Masindi Districts.

Mr. Ochen Alfred, District Water Officer for Masindi, delivered the keynote address, highlighting the promise of the Poldaw Riser Pipe system. Designed to improve the performance and water quality of hand pumps, the system can reach depths of 60 meters and offers easier installation, maintenance, and cost-effective pricing compared to traditional galvanized steel pipes. It's lightweight and user-friendly, with components that can be easily extracted for maintenance. Early pilot results have been highly encouraging, with iron

Participants in attendance

District Water Officer presenting

contamination levels reduced to below 0.5 ppm, meeting acceptable drinking water standards. The pilot phase, which involved testing six pumps in high-iron contamination areas, showed strong performance, although one pump failed after a year due to heavy usage. Despite this, the overall reduction in iron levels and improved water quality were promising. Phase II expanded the project, including more deep boreholes in both districts, and continued to demonstrate positive outcomes, though challenges such as wear and tear on rubber seals and chains persisted.

During the panel discussions, experts examined the project's integration into Uganda's national water policies. Mr. Paul Busobworwa from the Ministry of Water and Environment expressed the sector's support for innovations like the Poldaw Riser Pipe system, which undergoes a rigorous framework for national adoption. Ms. Natukunda Kezia, a local water user, shared her positive experiences with the improved water quality, which led to fewer disease outbreaks and lower maintenance costs in her community. Mr. Alfred, a WASH Specialist at WaterAid, highlighted ongoing collaboration with local governments and donors to scale this technology across Uganda.

While the project has faced challenges; such as ensuring the sustainability of the supply chain, training hand pump mechanics, and safeguarding water security; the response has been promising. 90% of the riser materials are sourced locally, promoting both economic sustainability and support for local industries. The initiative also trains hand pump mechanics as associations to retain expertise within the community. The project is a significant step toward improving water reliability and quality in rural Uganda.

Technical Presentation Policy, Practice & Scientific Papers' Presentation.

Presentation of technical research and scientific papers on the critical intersections of water resources management, climate adaptation, and environmental change was among the key sessions with a focus on both policy and practice, the session emphasized the importance of addressing climate-induced challenges and their impacts on communities, agriculture, and water governance. Several presenters shared findings that highlighted the need for integrated solutions to safeguard livelihoods, protect water resources, and ensure long-term resilience.

Adaptation to Climate Vulnerability to Safeguard Household Welfare Loss in Uganda

Presenter: Dr. Peter Babyenda, Makerere University:
Dr. Babyenda explored the relationship between climate adaptation and household welfare in Uganda, drawing from a 10-year dataset. His study showed that strategies like water harvesting, irrigation, and improved farming helped mitigate climate shocks, preventing significant welfare losses. The session highlighted the need for further research on the cost-effectiveness of adaptation strategies, especially considering Uganda's heavy reliance on agriculture.

Effects of Land Use and Land Cover Changes on Water Balance and Sediment Yield in Nakivuwo Channel

Presenter: Mr. David Mugenyi, Makerere University:
Mr. Mugenyi's presentation focused on the impact of urbanization and agriculture on water quality and sediment yield in the Nakivuwo Channel. Using the SWAT model, he demonstrated how land use changes have exacerbated flooding and water stress. He advocated for Best Management Practices (BMPs) like reforestation and wetland restoration to improve water retention and mitigate further degradation.

Impact of Water Losses on the Bontanga Irrigation Scheme

Presenter: Mr. Davis Sibale, West Africa Center for Water, Irrigation, and Sustainable Agriculture:
Mr. Sibale addressed water losses in Ghana's Bontanga Irrigation Scheme, which exceeds 68.7%. He emphasized the potential for reducing losses to 40% through better management and called for improved flow monitoring and community education to prevent over-utilization of water resources.

Climate Resilience, Water Management, and Food Security in Refugee and Host Communities in West Nile

Presenter: Ms. Cheprop Martha, Ministry of Water and Environment, Uganda:
Ms. Martha's research examined the effects of climate change on food insecurity among refugee-hosting communities in West Nile. The study highlighted the interconnected issues of malnutrition, waterborne diseases, and economic vulnerability. It emphasized the need for integrated water management systems and sustainable agricultural practices to enhance climate resilience and community well-being.

Evaluating Pathways to Controlling Flooding of River Tangi at Pakwach

Presenter: Mr. Kataratambi David, Ministry of Water and Environment, Uganda
Mr. Kataratambi presented on strategies to mitigate the recurrent flooding along the River Tangi in Pakwach. His study identified key factors, including river flow management and hydraulic structures, and recommended the implementation of climate-resilient infrastructure to reduce flooding impacts on local communities.

Session participants

Eng.Mugenyi David presenting the effects of land use and land cover changes and application of BMP scenarios on water Balance and Sediment yield of the Nakivubo channel Micro-catchment in Uganda.

Assessment of Water Resources Availability Using Integrated Modelling under Climate Change

Presenter: Ms. Meron Teferi Taye, International Water Resources Management Institute
Ms. Taye's research utilized SWAT and MODFLOW models to assess the water resources in Uganda's Kyoga drainage basin. The findings indicated significant variability in water availability across catchments, with particular challenges in areas like Awoja, where higher surface runoff may increase flooding risks.

More presentations were made including; assessed the impact of mining pollution on River Nyamwamba's water quality and erosion trends of Kilembe copper tailings by MWE; dam safety and the potential impacts of breaches on infrastructure, lives, and the environment by MWE; Eng. J.R. Okello sharing findings from Dokolo District, showing significant effects of flooding on boreholes and sanitation facilities by SNV. Evans Omondi; a masters' student analyzed the water-food-energy nexus in the Katonga Sub-basin, while Mugisha Shillingi Lucy introduced green tech to alleviate rural water stress and improve agriculture. Lastly, Engineer Bitariho Kato Gilbert presented a carbon-absorbing paint, raising questions on its long-term effects and absorption capacity.

Session participants

Collaboration With Financial Institutions to Address Water and Sanitation Challenges

During another session organized by Water.org, the spotlight was on “Strategic Partnerships for Innovative Financing.” This engaging discussion brought together experts and stakeholders who emphasized the power of collaboration with financial institutions in creating investment models that tackle water and sanitation challenges head-on.

One key takeaway was the growing role of banks in financing water and sanitation initiatives.
They highlighted those financial institutions, such as Opportunity Bank, are now offering targeted loans that enable communities to access clean, piped water, a crucial step toward solving the world’s water crisis.
This partnership model is proving to be a game changer in addressing water accessibility issues.

However, the speakers also stressed the importance of capacity building and trainings to ensure that loans are used specifically for water and sanitation projects, and not diverted into other ventures.
Joyce Mpalanyi Magala, the Country Director of Water Aid, emphasized the need for demonstrated collaboration with partners to create effective solutions.
She pointed out that including diverse stakeholders in the process is vital for driving meaningful change in the water and sanitation sectors.

Magala also underlined the importance of technical assistance to simplify the resolution of emerging challenges that can impact the quality of water services.
Additionally, she noted how institutions like Equity Bank have developed robust Environmental, Social, and Governance (ESG) frameworks, which guide their loan extensions in a way that aligns with sustainable water and sanitation goals.

This session highlighted the immense potential of strategic partnerships in financing sustainable water solutions, showing that when financial institutions and water-focused organizations come together, they can drive transformative change for communities worldwide.
Johnson Rukara, an official at Opportunity Bank, noted a significant drop in loan diversion rates.

He attributed this to the targeted community training on the proper use and management of financial resources.
Rukara highlighted that technology driven financial solutions can play a pivotal role in reshaping community attitudes, especially when it comes to ensuring funds are used for their intended purpose, such as water resource development, rather than being diverted elsewhere.

However, he noted that banks continue to face a major hurdle: as many individuals lack the collateral necessary to secure loans for crucial water projects.
To overcome this challenge, Rukara underscored the importance of innovative financing strategies, particularly those that engage marginalized groups such as women, youth, refugees, and persons with disabilities.

He said these efforts are essential in fostering greater financial inclusion and ensuring that everyone has access to the resources needed for sustainable development.

Session participants

Session participants

Session participants

Best practices for communicating Water and Environment sector impact to non-technical audiences- Training.

This session was led by Miss Joyce Tonda Kyeyune, an experienced mentor and communication consultant, as well as the Managing Director of ICT Creatives.
Miss Kyeyune's session centered on best practices for conveying the impact of water and environmental initiatives to non-technical audiences. She stressed that effective communication relies on four key elements: audience, message, channels, and action. By tailoring messages to the right audience and selecting the most appropriate channels, communicators can ensure their message resonates and drives meaningful engagement.

The interactive session sparked a wealth of valuable insights from participants. Notably, Mr. Ahabyona Robert, Wetlands Officer, proposed introducing environmental education in schools, beginning at the pre-primary level. This, he argued, would nurture a generation with a deep understanding of environmental issues, thereby reducing the reliance on extensive advertising campaigns. Another participant highlighted the effectiveness of catchy, simple phrases in spreading awareness, referencing the "Plant Your Balance" initiative by Rotary, which promotes tree planting as a simple yet impactful message.

An engaging photo interpretation exercise further underscored the importance of integrating data into communication efforts. The moderator pointed to the Karamoja Menstrual Run poster as an excellent example of how data-driven storytelling can make complex issues more accessible and compelling to the public.

The session concluded with a fun giveaway, with Aero Leodina emerging as the winner of a copy of The Ultimate Playbook, authored by Miss Kyeyune. As the session drew to a close, participants left with renewed motivation and the skills to effectively communicate in the water and environment sector, ensuring that their messages reach wider audiences and make a lasting impact.

Participant receives documentation playbook

EXHIBITORS:

Display of Innovative Technology for Climate Change Resilience

As the Uganda Water and Environment Week 2025 (UWEWK25) event begins, various exhibitors are showcasing their innovative products and solutions. Among the exhibitors is the Kikube District Bee Keepers Cooperative, which is displaying an array of products made from honey.

Meanwhile, the Victoria Water Management Zones Department, in partnership with Bishop Stuart University innovators, is showcasing an innovative solution for adding value to water hyacinths. The exhibition demonstrates how to make feeds for black soldier flies and fish using water hyacinths, highlighting the potential for sustainable livelihoods and environmental conservation.

Mr. Byamukama Simon, a representative from the cooperative, expressed his appreciation for the opportunity to showcase their products during the event. "We are thrilled to be here and showcase the various products we make from honey. This is a great platform for us to connect with potential customers and partners," he said.

Another notable exhibition is the automated toilet system presented by students from Busitema University, led by F. Julius . The innovative toilet system opens and flushes conveniently, showcasing the students' creativity and problem-solving skills.
These exhibitions demonstrate the creativity, innovation, and commitment to sustainable development that are at the heart of UWEWK2025. By showcasing these innovative solutions, the event is providing a platform for stakeholders to share knowledge, ideas, and best practices in water and environment sector.

Additional Views
Waterfront explored views of targeted exhibitors about their thought on Water and Environment Week and way forward
Edith Kuteesa, Executive App Systems Officer at Nexus Green Limited

There is need to strengthen collaboration with government to address challenges of water and sanitation. All the solutions should be brought onboard to offer environment solutions.
Johnson Rukara, official from Opportunity Bank
With partnership with the banks, loan facilities are reiterating opportunities of financing water and sanitation opportunities. We now have environment tailored products in the banks like; green financing, WASH loans, savings and other products.
We are here to join others in advocating for climate change action by using the practical models in financing.

Busitema University Students
Pose for a photo after explaining their innovattion

An exhibitor explains one of her products at the stall.

An exhibitor display a bee - wax product

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