



African Water and
Sanitation Association

Association Africaine de
l'Eau et de l'Assainissement



22ND CONGRESS
AfWASA ICE / AAEA CIE

AfWASA International Congress & Exhibition, 2025

Kampala, Uganda | 16th - 20th February 2025



Water and Sanitation For all: A Secure Future For Africa

CONGRESS PROCEEDINGS

Prepared by NWSC - External Services

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EXECUTIVE SUMMARY

“The AfWASA ICE2025 Congress brought together **2,268 participants** from **67 countries**, supported by **35 sponsors** and **9 strategic partners**. The programme featured 58 technical sessions with **300 oral and 30 poster presentations**, alongside **10 keynote speakers, 2 plenaries, 1 debate, and 1 ministerial session**. **4 themed forums** (for CEOs, Young Water Professionals, Women, and Mayors) and **4 high-level dialogues** fostered targeted discussions. Special events included a Water Walk with **215 participants** and **5 Operations Challenge teams**”

The 22nd African Water and Sanitation Association International Congress and Exhibition 20205 (**AfWASA ICE2025**) was successfully held in Kampala, Uganda, bringing together key stakeholders from across the continent and beyond. Organized by Uganda's Ministry of Water and Environment (**MWE**) in partnership with the National Water and Sewerage Corporation (**NWSC**) as the host utility, the event was held under the theme: “Water and Sanitation for All: A Secure Future for Africa.”

This high-level congress provided a strategic platform for dialogue, knowledge exchange, and collaboration aimed at accelerating progress toward **Sustainable Development Goal 6 (SDG 6)** – ensuring availability and sustainable management of water and sanitation for all.

The technical program was structured into six thematic tracks, addressing critical issues and opportunities within the sector:

1. Climate Change & Integrated Water Resource Management
2. Water Management
3. Sanitation Management
4. Capacity Development
- Communication & Partnerships
5. Governance, Financing,
6. Research & Innovation

Special Features included: Technical Sessions & Knowledge Sharing: Rich discussions on innovative solutions and sector reforms, Exhibitions: Showcased cutting-edge technolo-

gies and best practices in water and sanitation, Operations Challenge Competition: Encouraged practical skills and team performance among utility operators and Technical Tours: Provided on-the-ground insights into Uganda's water and sanitation projects.

Beyond the technical agenda, participants experienced the vibrant culture and renowned hospitality of Uganda – proudly celebrated as the “Pearl of Africa.”

The congress was officially opened by, the 3rd Deputy Prime Minister, **Rt. Hon. Lukia Isanga Nakadema** who represented H.E Yoweri Kaguta Museveni the President of the Republic of Uganda on Sunday, 16th February 2025 and was closed by Hon. Beatrice Anywar Atim, the Minister of State for Environment of Uganda on Thursday, 20th February 2025.

One of the notable highlights included the launch of the African Water and Sanitation Academy (AWASA) and the Global Sanitation Graduate School Regional Hub East and Southern Africa. (**GSGS RH ESA**). The event was concluded with the participants making the AfWASA ICE2025 Kampala resolutions. The AfWASA ICE2025 Congress brought together **2,268** participants from **67** countries, supported by **35** sponsors and **9** strategic partners. The programme featured **58** technical sessions with **300** oral and **30** poster presentations, alongside

10 keynote speakers, **2** plenaries, **1** debate, and 1 ministerial session. **4** themed forums (for CEOs, Young Water Professionals, Women, and Mayors) and **4** high-level dialogues fostered targeted discussions. Special events included a Water Walk with **215** participants and **5** Operations Challenge teams.

The Exhibition covered 3,800m² bringing together 236 exhibitors representing **116** companies from **40** countries making it the largest to-date.

AfWASA ICE2025 delivered a high-impact platform for strengthening regional cooperation, showcasing cutting-edge solutions, and promoting policy and technical discussions essential to transforming Africa's water and sanitation landscape.

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1. CONGRESS BACKGROUND

The AfWASA International Congresses and Exhibitions (AfWASA ICE2025) are organized by AfWASA as part of the mechanisms to enhance the exchange of ideas and recent developments in the water and sanitation sector.

1.1 Preamble

The African Water and Sanitation Association (AfWASA) is a professional association of establishments, enterprises and utilities operating in the areas of drinking water, sanitation, and environment. AfWASA has over **237** members, **194** of whom are utilities from over **40** countries across the continent.

The AfWASA International Congresses and Exhibitions (AfWASA ICE2025) are organized by AfWASA as part of the mechanisms to enhance the exchange of ideas and recent developments in the water and sanitation sector. The 21st AfWASA ICE2023 was held in Abidjan,

Côte d'Ivoire in February 2023. The AfWASA ICE2025 took place in Kampala, Uganda from 16th to 20th February 2025. Under the theme "Water and Sanitation for All: A Secure Future for Africa", the congress brought together different water and sanitation actors from various parts of the world to share knowledge, experience and new breakthroughs in achieving water and sanitation for all of Africa.

1.2 Congress Organization

AfWASA ICE2025 was organized by the National Water and Sewerage Corporation (NWSC), an agency under the Ministry of

Water and Environment (MWE), on behalf of the Government of Uganda. The event was delivered in collaboration with local and international partners and the AfWASA Executive Office. AfWASA ICE2025 had the distinct honour of the President of the Republic of Uganda, **H.E. Yoweri Kaguta Museveni**, serving as its patron, underscoring the national importance accorded to water and sanitation development.

The Congress was the result of two years of dedicated planning and coordination, led by NWSC in its role as host utility.



1.3 Congress Programme

Throughout the two-year preparation period, the LOC held 21 planning meetings and worked closely with strategic partners to coordinate the organization of key congress components, including the forums, high-level dialogues, operations challenge, and policy debate.

To guide the technical direction and content of the Congress, an International Technical Programme Committee (TPC) was established, chaired by **Dr. Rose Christine Kaggwa**, Senior Director of Business and Scientific Services at NWSC. The committee comprised 14 distinguished members drawn from leading water and sanitation institutions across Africa and beyond, including:

- **Geraldine Mpouma Logmo** – Cameroon Water Utilities Corporation (CAMWater)
- **Camille Dansou** – Benin
- **Dr. Anne Bousquet** – UN-HABITAT/Global Water Operators' Partnerships Alliance, Germany
- **Dr. Callist Tindimugaya** – Ministry of Water and Environment, Uganda
- **Dr. Mamohlong Tlhagale** – Water Research Commission (WRC), South Africa
- **Dr. Margaret Macauley** – Ghana Water Company Limited (GWCL)
- **Prof. Cherifa Abdelbaki** – Pan African University Institute for Water and Energy Sciences (PAUWES), Algeria
- **Dr. Simeon Kenfack** – AfWASA, Côte d'Ivoire
- **Eng. Mahmood Lutaaya** – NWSC, Uganda
- Kouame-Aimé Loukou – Société de Distribution d'Eau de la Côte d'Ivoire
- **Mourad Ben Mansour** – Société Nationale d'Exploitation et de Distribution des Eaux, Tunisia
- **Mtchera Chirwa** – African Development Bank (AfDB), Côte d'Ivoire
- **Prof. Ddarmir Brdjanovic** – IHE Delft Institute for Water Education, The Netherlands
- **Teddy Gounden** – eThekweni Municipality, South Africa

The TPC was supported by a Local Organizing Committee (LOC), co-chaired by **Eng. Johnson Amayo**, Deputy Managing Director – Technical Services (NWSC), and **Dr. Rose Christine Kaggwa**. The LOC included representatives from the Ministry of Water and Environment, Ministry of Foreign Affairs, Ugan-

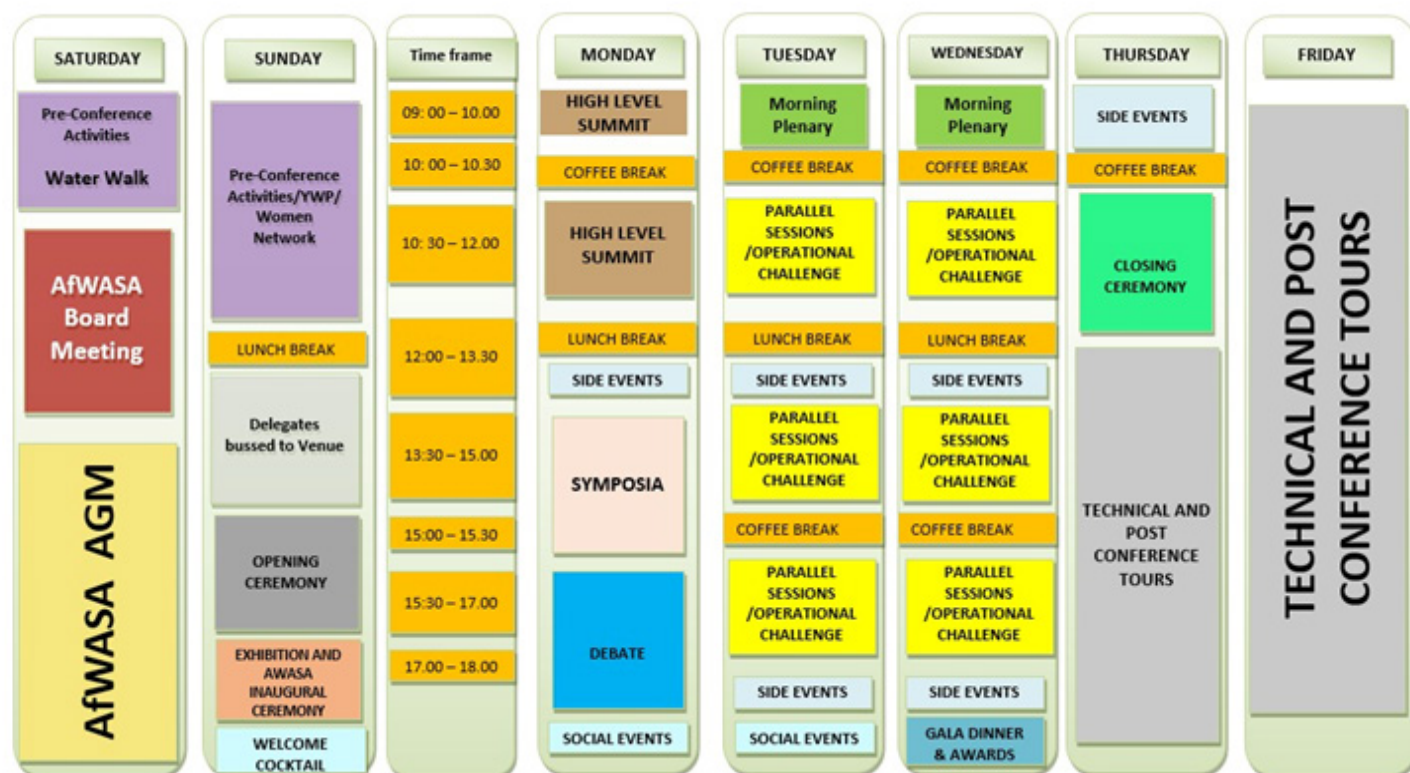
da Tourism Board, and NWSC.

Throughout the two-year preparation period, the LOC held **21** planning meetings and worked closely with strategic partners to coordinate the organization of key congress components, including the forums, high-level dialogues, operations challenge, and policy debate.



1.4 Overview of the Congress Program

The program included **58** technical sessions with over **300** oral presentations, **30** poster presentations, **10** keynote speeches, a debate, and multiple high-level dialogues among senior technical experts, Chief Executive Officers (CEOs), mayors, and ministers



1.5 Congress Objectives

AfWASA ICE2025 had several key objectives that included:

- Bringing together a diverse range of practitioners, scientists, development partners and industry representatives, working across different areas of the water and sanitation sector across the globe.
- Sharing best practices, enabling participation, transparency, and information-sharing.
- Reflecting on Africa's progress in achieving the SDGs and establishing new momentum in achieving water and sanitation for all.
- Bridging the gap between research and practice; identifying new breakthroughs (both research and best practices) in addressing water and sanitation challenges in Africa.
- Providing a forum for young water professions, students and early career researchers and practitioners to engage with international experts, thus educating the next generation of emerging water leaders.
- Contributing to the continued development and expansion of the various international, regional and national partnerships and associations.
- Establishing game-changing commitments from the different players who will accelerate access to safe water and sanitation for all of Africa.

1.6 AfWASA ICE2025 Venue

The Congress was held at the Speke Resort Convention Centre (SRCC), the largest Conference centre in the East and Central Africa region. SRCC is located in the Heart of Kampala. As one of the Premium Resort Destinations in Uganda, SRCC is spread across 90 acres and boasts of **477** accommodation rooms (including **59** presidential suites), over **200** convention halls, **17** futuristic conference rooms and a main hall with the capacity to host a total of **3,800** delegates.

The venue was easily accessible from the airport and possessed a range of accommodation options, which were available for delegates to book at the time of registering for the Congress.



1.7 Congress Theme and Tracks

The overall theme of AfWASA ICE2025 was **“Water and Sanitation for All: A Secure Future for Africa”**. The congress was solution and innovation focused and organized according to the following six Tracks. It addressed a full range of topics under each track as highlighted below:

Track	Topics
Track 1: Integrated water resources management	<ol style="list-style-type: none">1. Source protection and catchment management2. Modelling for water resource management3. Climate change resilience and adaptation4. Water, energy, and food nexus
Track 2: Water Management	<ol style="list-style-type: none">1. Water treatment technologies2. Water supply systems3. Non-Revenue Water management4. Pro-poor and rural water services5. Water quality management6. Innovative water supply tools, systems and practices
Track 3: Sanitation Management	<ol style="list-style-type: none">1. Sewered and non-sewered services2. Solid waste management3. Sanitation safety planning4. Wastewater treatment technologies and Faecal sludge management5. Resource recovery and circular economy6. Innovative sanitation tools, systems and practices
Track 4: Capacity Development, Communication and Partnerships	<ol style="list-style-type: none">1. Water and sanitation operators' partnerships2. Career building and competencies development3. Performance benchmarking and networking4. Private sector participation5. Communication tools and systems6. Efficient utility management and operation
Track 5: Governance and Financing	<ol style="list-style-type: none">1. Policies, reforms and institutional frameworks2. Innovative finance3. Pricing and cost recovery4. Local market-financing mechanisms
Track 6: Research, Technology, and Innovation	<ol style="list-style-type: none">1. Data Analytics and Artificial Intelligence2. Innovations and big ideas3. Research and funding4. Digital Water

1.8 Sponsors and Strategic Partners

The Congress was supported by Nine (9) Strategic Partners that included: the African Development Bank Group (AfDB), French Development Agency (AFD), World Bank (WB), Global Water Security & Sanitation Partnership (GWSP), IHE Delft, Institute for Water Education (IHE Delft), International Water Association (IWA), Ministry of Foreign Affairs of Denmark, Gates Foundation (GF), the German Development Cooperation (GIZ).



Thirty-five (35) Companies/institutions sponsored the Congress as shown below:

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2. SUMMARY OF SESSION OUTCOMES

The Congress featured a range of discussions, debates, dialogues, and sessions tailored to various stakeholders, including policymakers, decision-makers, service providers, future leaders, technocrats, and researchers.

2.1 Opening Ceremony

The Opening Ceremony of the congress, held on Sunday, 16th February 2025, was officiated by the 3rd Deputy Prime Minister of Uganda, **Hon. Lukia Isanga Nakadama**, who represented **H.E President Yoweri Museveni Kaguta**, the President of the Republic of Uganda.

AfWASA Executive Director **Olivier Gosso** welcomed delegates, highlighting Africa's water and sanitation challenges and the urgency of achieving SDG 6. He thanked the President of Uganda for hosting the Congress for a record third time and acknowledged the efforts of the host utility NWSC and the Ministry of Water and Environment.

The AfWASA President **Dr. Eng. Silver Mugisha** emphasized the Congress as a platform for innovation, policy advocacy, and capacity building, particularly through the launch of the African Water and Sanitation Academy (AWASA).

Prof. Kala Vairavamoorthy, Executive Director of IWA, called for greater innovation, digitalization, and stronger collaboration between AfWASA and IWA.

Dr. Alfred Okot Okidi, Permanent Secretary, Ministry of Water and Environment, Uganda, stressed knowledge-sharing and partnerships to address climate change, funding gaps, and sustainable development.

The Principal Sponsor Grundfos represented by **Anise Sacranie**, Water Access Director Grundfos and **David**

Githendu, Country Director Grundfos Kenya emphasized the commitment of industry in providing energy-efficient and digital water solutions, urging public-private collaboration to scale sustainable technologies and improve climate resilience.

In the first keynote address, **H.E. Anacláudia Roszbach**, UN Habitat's Executive Director called for integrated water solutions to address urbanization, advocating for digital innovation, nature-based solutions, and stronger governance.

Prof. Abdellatif Zerga of the Pan African University Institute of Water and Energy Sciences, in the second keynote address emphasized the need for innovation, capacity building, and regional collaboration to ensure sustainable water management.

As part of the Congress outcomes, new strategic initiatives were launched to enhance capacity, leadership, and data-driven decision-making in the water and sanitation sector. These included the African Water and Sanitation Academy (AWASA) and the Africa Utility Data Collaborative—both aimed at promoting context-specific solutions, knowledge exchange, and utility performance improvement across the continent.

Participants were called upon to actively engage, collaborate, and champion practical, homegrown solutions to accelerate progress



toward universal access to safe water and sanitation, and to secure a sustainable future for Africa.

The Congress was officially opened by the **Rt. Hon. Lukia Isanga Nakadama**, Third Deputy Prime Minister of the Republic of Uganda, representing **H.E. Yoweri Kaguta Museveni**, President of the Republic of Uganda and Patron of AfWASA ICE2025. In his message, H.E. the President reaffirmed the Government of Uganda's commitment to achieving universal access to water and sanitation. He emphasized the critical role of water and sanitation in driving socio-economic transformation, and called for sustainable, homegrown solutions tailored to Africa's unique challenges and opportunities.



2.2 High-level Dialogue Sessions and Intergenerational Debate

These sessions featured key technical and industry specialists who tackled issues on strategies and policies around governance, institution, operational and financial frameworks.

2.2.1 Political and Institutional Call for Action; What Can We Do Differently?

This session brought together a panel of experts to explore the political and institutional reforms needed to accelerate progress in the water, sanitation, and hygiene (WASH) sector. Through a series of presentations and interactive dialogue, the session highlighted the urgency for structural changes and stronger leadership. Key takeaways included:

- i). Africa's Progress on **SDG 6** is Off Track. The continent is lagging behind in achieving Sustainable Development Goal 6, with only 3 out of 11 indicators on track, compared to the global average of 6. This calls for enhanced collaboration and the strengthening of accurate, timely data collection

to inform better policy and investment decisions.

- ii). Revisiting the African Water Vision 2025. The current trajectory reveals significant gaps in WASH service delivery, necessitating the development of a **Post-2025 Africa Water Vision**. This revised vision must align with **Agenda 2063** and galvanize renewed political and institutional commitment.
- iii). Momentum from the 2023 Heads of State Initiative. The 2023 launch of the Heads of State Initiative was recognized as a critical opportunity to harness high-level political

will and embed WASH priorities into national leadership agendas.

- iv). Integrating WASH with Other Priority Sectors. To maximize impact and mobilize greater resources, there is a need to strategically integrate the WASH sector with better-funded and politically visible sectors such as Education, Health, and Agriculture.

Through a series of presentations and interactive dialogue, the session highlighted the urgency for structural changes and stronger leadership.

2.2.2 Operational and Financial Frameworks Instrumental in Driving Change

This session brought together sector experts to examine how innovative financing mechanisms and strengthened utility operations can catalyze transformative change in Africa's water and sanitation sector.

This session brought together sector experts to examine how innovative financing mechanisms and strengthened utility operations can catalyze transformative change in Africa's water and sanitation sector. The discussion emphasized the need for enabling environments, institutional readiness, and financial sustainability. Key insights included:

i). Limited Private Sector Investment. Current private sector contributions to the WASH sector remain low, estimated

at approximately \$2 billion annually. This highlights the urgent need to enhance project preparation capacity and increase access to grant funding to attract and de-risk private investments.

ii). Scaling Climate-Focused Financing. Plans are in motion to quadruple climate-related financing to \$4 billion per year, by creating an investment-friendly environment, consolidating existing financial instruments, and aligning

them with performance improvement strategies within the sector.

iii). Maximizing Impact Through Smarter Financing. The session underscored the importance of effective use of borrowed funds, with a focus on capacity building and local financing instruments to ensure financial sustainability, accountability, and long-term sector impact.



2.2.3 The Role of Water-Efficient Sanitation Innovations in Addressing Public Health and Climate Resilience

This session explored the role of research and innovation in strengthening Africa's response to sanitation, public health, and climate resilience challenges. Discussions highlighted the importance of rethinking sanitation systems and leveraging evidence-based approaches. Key insights included:

- i).Redefining Sanitation as a Core Public Service. There is a critical need to position sanitation as a standard and essential service, establish clear performance benchmarks, and draw lessons from successful international models to accelerate progress.
- ii).Strengthening African-Led Research and Innovation. Participants called for the expansion of society-driven research and the development of an African-led research, development, and innovation (RDI) agenda. This should prioritize infrastructure resilience, climate adaptation, and technology effectiveness.
- iii).Research as a Tool for Data-Driven Action. Research was recognized as a key enabler of evidence-based, context-specific decision-making. Tailored research can be replicated, scaled, and adapted across regions to increase the impact of sanitation solutions.

2.2.4 Inter-Generational Debate

This dynamic session featured a thought-provoking debate between senior professionals and young water leaders, highlighting the value of collaboration across generations to address Africa's water and sanitation challenges. Key insights included:

- i). Fostering Intergenerational Collaboration. There is a growing need to leverage the complementary strengths of different age groups—senior professionals offering experience and strategic insight, and young professionals bringing innovation, energy, and adaptability to drive transformation.
- ii).Navigating Generational Differences. The discussion acknowledged existing barriers to collaboration, including differences in values, communication styles, priorities, and technology adoption, as well as disparities in access to education and professional opportunities.
- iii).Promoting Equity and Inclusive Participation. Emphasis was placed on the need for inclusive decision-making, ensuring that marginalized voices—particularly youth, women, and persons with disabilities—are meaningfully involved in shaping the sector's future.



2.3 Plenary Sessions

These were high-level, full-audience meetings where participants gathered to engage in shared discussions on various topics in line with the Congress theme.

2.3.1 Digitalization and Innovation a must to propel us into the Future

This session examined the transformative role of the digital economy in advancing water and sanitation service delivery across Africa. Discussions focused on how utilities can harness digital tools to accelerate progress toward universal access. Key insights included:

i).Harnessing Data for Smarter Decision-Making. African utilities have significant potential to leverage data analytics to drive evidence-based decisions, improve operational efficiency, and enhance service delivery across urban and rural contexts.

ii).AI-Driven Innovation as a Game

Changer. Artificial intelligence (AI) was highlighted as a powerful tool to unlock value from data—supporting informed decision-making, improving service affordability, and strengthening capacity development through tailored training solutions.

iii).Mitigating Digital Risks. While

digitalization offers immense opportunities, participants emphasized the need to proactively manage risks such as data privacy, security, and quality. Robust governance frameworks and digital risk management strategies are essential to ensure safe and sustainable adoption.



2.3.2 Capacity Building and Partnerships the Way to Go for Sustained Service Delivery

This session emphasized the central role of capacity development and strategic partnerships in achieving long-term water security and sustaining service delivery across Africa. Key insights included:

- i). Scaling Water Operator Partnerships (WOPs). Water Operator Partnerships were recognized as transformative mechanisms for enhancing utility performance. Expanding WOPs can significantly strengthen operational capacity and accelerate progress toward the Sustainable Development Goals (SDGs).
- ii). Adopting a Holistic, Collaborative Approach. Participants underscored the need for a systemic, multilateral approach to capacity development—one that promotes innovative thinking, encourages intergenerational knowledge transfer, and fosters collaboration across countries facing similar challenges.
- iii). Investing in People and Research. Sustained service delivery requires investment in specialized staff training, demand-driven research, and partnerships with research institutions and laboratories. These efforts are critical for maintaining technical expertise, professional motivation, and evidence-informed practice.



2.4 Technical Sessions

The technical sessions encompassed a wide range of topics under the six thematic areas, fostering knowledge exchange through presentations, discussions, and interactive group exercises. Participants from across the globe shared their technical work, contributing to rich dialogues and collaborative problem-solving.

2.4.1 Track 1: Climate Change and Integrated Water Resource Management

Conveners: IHE Delft Institute for Water Education, Makerere University, VEI, TNC, Blue Deal Programme, WaterAid Uganda and AfWASA (5 sessions).

Session Emphasis: The sessions highlighted the critical need for integrated, inclusive, and context-specific approaches to climate change adaptation in water resource management across Africa.

i).Integration of Traditional and Institutional Knowledge for WASH Resilience

Emphasis was placed on blending indigenous knowledge systems with formal institutional frameworks to build climate-resilient WASH services. Traditional practices such as early warning systems, taboos protecting water sources, and community rituals were recognized as effective, locally accepted tools for water conservation and adaptation. Meanwhile, institutional efforts must address systemic barriers such as inadequate funding, limited coordination across sectors, and low enforcement capacity. Community engagement, particularly among women and vulnerable groups, was seen as vital for ownership, sustainability, and equity.

ii).Wetland Restoration as a Nature-Based Solution for Ecosystem and Climate Resilience

Wetlands were showcased as natural buffers against climate impacts, contributing to water quality, biodiversity, and livelihoods. Findings from the SURE-WET project demonstrated that restoration efforts are more successful in rural contexts, where stakeholder participation is stronger and land pressures are lower. Urban wetlands, on the other hand, face persistent challenges including re-encroachment and pollution. The need for monitoring frameworks, ecological indicators, and legal enforcement was stressed. Restoration also has socio-economic value when it improves provisioning services and supports community income

iii).Nature-Based Solutions for Water Security

The third session demonstrated the role of Nature-Based Solutions (NBS) in managing climate-driven water challenges. Case studies from Malawi and Kenya illustrated that community-led watershed management, reforestation, and agroforestry are promising solutions. Successful implementation requires inclusive planning, stakeholder mapping, and long-term financing mechanisms such as water funds. Aligning social and ecological interests, while empowering local actors with responsibility and decision-making power, was emphasized as a strategy for sustainable water governance.

Overall Key Messages

- Community ownership, inclusivity and integration of local knowledge are foundational to climate adaptation in water management.
- Wetlands and NBS provide cost effective, sustainable solutions for improving water security and ecosystem health.
- Institutional coordination, policy reform and capacity building are essential to overcome adaptation barriers and successful models
- Monitoring, evaluation and funding mechanisms must be embedded into all climate adaptation interventions to ensure resilience and sustainability.

2.4.2 Track 2: Water Management

Conveners: GIZ, Ministry of Water and Environment, IHE Delft, Strathmore University, University of Dar-es-Salaam and Kumasi, NWSC, AfWASA, World Bank, Water for People, IRC, LifeWater and Grundfos (13 Sessions)

Session Emphasis: The sessions emphasized the multifaceted challenges facing water systems in Africa, including pollution, climate change, rapid urbanization, and the pressures of growing populations and refugee settlements. Three core dimensions emerged:

i).Improving Water Quality through Prevention and Innovation

Declining water quality due to industrial discharge, mining, and nutrient loading was highlighted as a major concern. Utilities are adopting cost-saving technologies such as chemical blending, automated dosing, and AI-driven treatment optimization. Local materials like Moringa and nano-membrane filters were explored as alternative purification methods. Preventive strategies including catchment protection, pollution source control, and ecosystem restoration were seen as crucial

complements to infrastructure investments.

ii).Sustainable Service Models in Rural and Humanitarian Settings

Access challenges in underserved and refugee-hosting areas were discussed with a focus on long-term service models. Transitions from aid-based delivery to utility-led management were showcased, requiring governance reform, community sensitization, and payment system development. Blended finance, social inclusion, and institutional support were presented as key enablers of sustainability in fragile con-

texts.

iii).Integrating Cultural Knowledge and Institutional Capacity

Presenters highlighted the value of culturally informed approaches in driving uptake of safe water practices. Traditional beliefs can influence behaviors, and integration of local knowledge with scientific solutions was proposed as a strategy for adoption. Peer learning, mentoring, and regional collaboration facilitated by platforms like AfWASA were identified as essential for scaling innovation and building technical capacity.

Overall Key Messages

- Water quality deterioration demands both technological innovation and source-level pollution control.
- Rural and humanitarian water systems require inclusive, financially viable, and community-owned service models
- Cultural sensitivity and institutional capacity building are vital for sustainable water governance
- Regional collaboration accelerates learning, adoption of technologies, and sector resilience.



2.4.3 Track 3: Sanitation Management

Conveners: DevAfrique, ESAWAS, African Development Bank, AfWASA, Gates Foundation, Cabinet Ede International, CWIS TA Hub, Global Green Growth Institute, NWSC, UNICEF, UNHABITAT, WSUP and World Health Organization (12 Sessions)

Session Emphasis: The sessions highlighted the urgent need to elevate sanitation as a distinct and underfunded priority within the water sector. Three core dimensions emerged:

i). Sanitation as a Catalyst for Health, Dignity, and Economic Growth

Sanitation was positioned as central to public health and urban resilience. Discussions showcased innovations like bio-digesters, dry toilets, and fecal sludge reuse, emphasizing their dual benefit in waste management and resource recovery. Programs such as the AUSII initiative aimed at mobilizing €350 million across 15 countries were spotlighted as examples of catalytic investment. However, entrenched barriers limited national frameworks, fragmented mandates, and weak enforcement continue to hinder

sectoral progress.

ii). Citywide Inclusive Sanitation (CWIS) for Scalable Urban Transformation

CWIS models demonstrated effective collaboration among utilities, municipalities, and communities to improve access in underserved urban zones. Pro-poor strategies, household subsidies, and participatory planning were shown to reduce inequalities, especially for women, youth, and informal settlements. Integration of sanitation into broader urban planning and local government structures was viewed as critical for sustainability and scale.

iii). Circular Economy and Climate-Smart Sanitation Solutions

Waste-to-value initiatives were promoted as solutions that link sanitation to climate action and economic opportunity. These included bio-composting, energy generation, and reforestation using treated sludge. Stakeholders called for blended finance, market development, and institutional innovation to structure the sanitation economy. Behavioral change, regulation, and climate adaptation were emphasized as mutually reinforcing drivers of sector transformation.

Overall Key Messages

- Sanitation must be addressed as an independent development goal, with dedicated policy, financing, and institutional support.
- CWIS offers a tested model for inclusive, scalable urban sanitation transformation.
- Circular economy approaches unlock multi-sectoral benefits when paired with enabling policies and financing tools.
- Coordinated leadership and strategic investment are essential to achieving SDG 6 on sanitation.



2.4.4 Track 4: Capacity Development, Communication & Partnerships

Conveners: UNHABITAT, GWOPA, SUEZ, Department of Water and Sanitation (DWS), NWSC, Gates Foundation, Fitchner, Japan International Cooperation Agency (JICA), Speak Up Africa and GGGI.

Session Emphasis: The sessions emphasized the foundational role of human capital, cooperation, and communication in achieving WASH sustainability. Three core dimensions emerged:

i).Peer Learning and Utility-to-Utility Partnerships

Twinning arrangements and south-south collaborations were showcased as cost-effective tools for improving utility performance and institutional learning. Utilities shared experiences in operational efficiency, asset management, and customer engagement. Programs supported by Global Water Operators' Partnerships Alliance (GWOPA), AfWASA, and VEI demonstrated that continuous professional development and knowledge exchange foster long-term capacity gains.

ii).Youth and Gender Inclusion as Strategic Imperatives

The YoGI Strategy 2023–2030 was featured as a flagship framework to mainstream gender and youth participation across water governance and service delivery. Sessions highlighted scholarship programs, leadership pipelines, and community-based initiatives that have empowered women and young professionals. Institutionalizing diversity through policy, mentorship, and representation was seen as critical to sector resilience.

iii).Multi-Stakeholder Engagement and Cross-Border Coordination

Partnerships across governments, academia, civil society, and the private sector were presented as essential for scaling innovations and ensuring accountability. Regional platforms were encouraged to harmonize practices, share data, and collectively respond to common challenges such as climate change and urban growth. Communication strategies both digital and grassroots were emphasized as enablers of behavior change and social cohesion.

Overall Key Messages

- Peer learning and collaboration are cost-effective and impactful tools for institutional strengthening.
- Youth and gender inclusion must move beyond tokenism to active participation and leadership.
- Regional and cross-sector partnerships enhance innovation uptake and operational resilience.
- Capacity building should be continuous, inclusive, and embedded in all levels of water governance.



2.4.5 Track 5: Governance and Financing

Conveners: UDUMA, OCA, Eastern and Southern Africa Water and Sanitation Regulators Association (ES-AWAS), Hungarian Water Partnership, AfDB, WSTF, Athena Infonomics, Gates Foundation, Wateraid, PASA, IHE Delft, GWOPA, VEI, Danish Embassy, World Bank, Development Bank of Southern Africa (DBSA) and AfWASA (13 Sessions)

Session Emphasis: The sessions reinforced that effective governance and diverse financing mechanisms are critical to closing WASH service gaps. Three core dimensions emerged:

i). Strengthening Regulatory and Institutional Frameworks

Regulators emphasized the need for autonomy, performance benchmarking, and tariff realism to attract investment and improve service delivery. Examples from Ghana, Tanzania, and Uganda illustrated how structured contracts, legal reforms, and oversight bodies can enhance accountability and reduce service disparities. Harmonization of roles across ministries and agencies was viewed as essential for coherent sector governance.

ii). Blended and Innovative Financing Models

New financing approaches such as utility bonds, results-based financing, and water funds were presented as scalable options. Public-private partnerships (PPPs) were showcased in Rwanda and Egypt, with emphasis on clear legal frameworks, risk-sharing mechanisms, and transparent procurement. AMCOW and AfDB advocated for improved project preparation and regional investment platforms to increase bankability and de-risk investments.

iii). Equity and Resilience in Financial Planning

Speakers highlighted the inequity of water access in rural and peri-urban areas where costs are often higher. Strategies proposed included lifeline tariffs, customer education, and targeting vulnerable populations in investment plans. Climate resilience was emphasized, with calls for financial models that can adapt to shocks and ensure continuity of service.

Overall Key Messages

- Governance reform and regulatory strengthening are prerequisites for financial sustainability.
- Blended financing, PPPs, and local capital markets must be leveraged to meet infrastructure needs.
- Financial strategies must prioritize inclusivity, resilience, and affordability.
- Regional coordination and leadership are essential to harmonize investment and policy frameworks.



2.4.6 Track 6: Research, Technology and Innovation

Session conveners: Water Research Commission (WRC), AfWASA, MTN, ANSI, TUVSUD Athena Infonomics and NWSC.

Session Emphasis: The sessions emphasized the urgent need to institutionalize innovation and leverage digital transformation to accelerate WASH delivery across Africa. Three core dimensions emerged:

i). Artificial Intelligence, Data Systems, and Digital Transformation

The launch of the Africa Utility Data Collaborative (AUDC) marked a major milestone in advancing data governance and AI readiness. Utilities identified key constraints including non-standard KPIs, fragmented systems, and lack of digital infrastructure. Solutions discussed included open-access dashboards, predictive analytics, and digital public infrastructure (DPI) across billing, customer management, and mobile payments. Certification for utility data managers was proposed to support evi-

dence-based decision-making.

ii). Scaling Sanitation Innovation through Technology and Partnerships

Innovative non-sewered sanitation solutions including container-based models, solar-powered dry toilets, and microwave sludge treatment were presented as affordable, scalable, and ecologically sound. Emphasis was placed on regulatory support, public-private partnerships, and increased field validation. Stakeholders called for structured innovation hubs within utilities and the integration of circular economy principles to enhance sustainability.

iii). Inclusive Innovation Ecosystems through Youth, Gender, and Academia

The YoGI Strategy (2023–2030) was highlighted as a framework to embed gender and youth in sector innovation. Best practices from ESAWAS demonstrated how institutional inclusion improves governance, design, and financing. Universities and startups were identified as critical players in co-creating context-specific technologies. National science-policy dialogues were recommended to align innovation with regulatory frameworks and development goals.

Overall Key Messages

- Artificial Intelligence (AI) and data systems are essential to improving utility performance, transparency, and planning.
- Innovation must be integrated into utility structures, funding streams, and national policies.
- Inclusive design and youth-gender engagement are key to unlocking innovation potential.
- Multi-stakeholder partnerships and financing are needed to scale climate-smart WASH solutions



2.5 Forums and Dialogues

These were activities not directly related to the technical/parallel sessions but with a direct bearing to the congress theme while others were by invitation only. They included forums for Young Professionals, Women Professional Network, City Mayors, Chief Executive Officers, Ministerial Dialogue, and Operations Challenge.

2.5.1 Young Water Professionals Forum

The Young Water Professionals (YWP) Forum, under the theme: “A Secure Water Future for Africa through YWP-Led Innovative and Sustainable Solutions” was organized in partnership with the International Water Association (IWA) and brought together emerging leaders poised to shape the future of the water sector. As key drivers of innovation and change, YWPs are playing a pivotal role in designing and implementing transformative solutions. Key highlights from the forum included:

- i). A call for youth to seize the next two decades, described as a golden window for the WASH sector, by leveraging ICT, mobile technology, and locally relevant innovations such as collecting and utilizing geospatial customer data for national service delivery planning.
- ii). The importance of networking

and cross-generational collaboration was emphasized, encouraging YWPs to connect across sectors and age groups, and build strong links with both public and private sector actors to foster integrated, non-siloed approaches to water and sanitation challenges.



2.5.2 Professional Women's Network Forum

The 5th AfWASA Professional Women's Network Forum, held under the theme ***"Women as Stewards in Empowering Change for Sustainable Water and Sanitation Service Delivery,"*** focused on advancing women's leadership and participation in the water and sanitation sector. Key insights from the forum included:

- i).The importance of building women's networks to support career growth in the sector, inspire school-aged girls to pursue water-related careers, and foster connections through global partnerships.
- ii).Strategies to bridge gender gaps centered on transformative communication, self-empowerment, collaboration and partnerships, and advocacy to attract more young professionals, especially women, into the sector.
- iii).Recognition of barriers to career advancement, including challenges related to work-life balance, gender bias, lack of support and confidence, moral and sexual harassment, maternity considerations, and negative perceptions of women in the field.
- iv).A shared commitment to creating a more equitable and supportive environment for women in the water sector through sustained networking, mentorship, and advocacy efforts.



2.5.3 The Mayors' Forum

Key discussions focused on the state of sanitation infrastructure in Africa, emphasizing the urgent need for improved services and investment in the context of rapid urbanization and challenges in untreated faecal sludge disposal. Key insights included:

- i). The scale of the sanitation crisis, with 57% of the urban population lacking toilets and 80% of faecal sludge discharged untreated into the environment.
- ii). A shared recognition of the need for political will and collective engagement in financing and budgeting, with mayors endorsing the One City – One Faecal Sludge Treatment Plant approach as a sustainable pathway toward achieving SDG 6.



2.5.4 The Chief Executive Officers’ (CEO) Forum

The CEOs Forum underscored the pivotal role of visionary, data-driven, and resilient leadership in closing Africa’s water and sanitation financing gap. Three strategic pillars emerged:

i).Utility Performance and Financing	ii).Innovative Resource Mobilization	iii).Leadership for Systemic Transformation
Leaders were urged to adopt the Utility Performance Index and Toolkit for Performance Improvement Pathways to enhance bankability. Improving KPIs like non-revenue water, cost efficiency, and staff productivity was emphasized as a prerequisite for attracting financing. Utilities were also encouraged to engage stakeholders for realistic tariff reforms and to leverage AfDB’s flexible financing tools.	Speakers called for a shift from public and donor dependency to diversified financing strategies including: utilizing domestic markets, strategic partnerships, and private sector engagement. Emphasis was placed on climate finance, project viability, and allocating limited resources efficiently to maximize impact. Innovation in service delivery and local content were highlighted as key drivers of sustainable growth.	Transformation leadership, stakeholder trust-building, and strategic data use were cited as essential for steering utilities through evolving challenges. A strong call was made for utilities to invest in all six capitals including: human, innovation, social, natural, infrastructure, and financial to build long-term sustainability and resilience.



2.5.5 The High-Level Financing Dialogue - Pushing the Frontier of PPPs

The session convened over 100 stakeholders from across the water value chain including government leaders, utilities, private sector, financiers, civil society, and development partners to explore innovative approaches for scaling Public-Private Partnerships (PPPs) in Africa's water sector.

i). Strengthening PPP Capacity and Project Viability

Participants emphasized the need for upstream project development, capacity-building on hybrid PPP models, and better alignment of technology, financing, and delivery mechanisms. Multilateral institutions were urged to offer de-risking instruments, while utilities were encouraged to adopt contractual compensation to incentivize early investment.

ii). Private Sector Empowerment and Legal Reform

Discussions called for reforms

to empower local private actors, improve regulatory enforcement, and unbundle utility operations where feasible. There was consensus on enhancing policy clarity, reducing political interference, and increasing participation of national development banks in water PPPs.

iii). Affordability, Innovation, and Inclusive Design

Tariff reform was a key topic, with calls for affordability studies, customer engagement, and life-cycle costing. Innovation in service delivery, research on rural PPPs, and pilot programs

were proposed to address gaps in underserved areas.

iv). Action-Oriented Dialogue and Strategic Commitments

Interactive workshops generated over 35 individual commitments including policy advocacy, capacity development, and pilot implementation. Participants pledged to prioritize water security and PPPs at national levels, accelerate financing access, and hold stakeholders accountable for equitable and sustainable service expansion.



2.5.6 The Ministerial Dialogue

The Ministers, under the African Ministers' Council on Water (AMCOW), reaffirmed their commitment to the Abidjan Declaration of the 21st AfWASA Congress, with the following key insights:

- i). Review of each country's progress under the Abidjan Declaration and a call for collective commitment to strengthen AMCOW's role and ensure its financial sustainability.
- ii). Urged mobilization of additional financial support from donors and the private sector to advance these initiatives.
- iii). Emphasized the need for greater regional collaboration and strengthening AMCOW's strategic partnerships to achieve long-term success.



2.6 Notable Events and Launches

The Congress featured key events including launches of the Africa Utility Data Collaborative and the African Water and Sanitation Academy (AWASA), the presidential handover, and the announcement of Yaoundé, Cameroon as the 2026 host city.

i) Launch of the Africa Utility Data Collaborative

The Africa Utility Data Collaborative (AUDC) is an initiative aimed at promoting data and Artificial intelligence innovation among water utilities across Africa. It was officially launched on February 18th 2025 as a joint effort by AfWASA and Athena Infonomics.

ii) Launch of the African Water and Sanitation Academy and GSGS Regional Hub

The newly established African Water and Sanitation Academy (AWASA) was officially launched. The Academy will

ensure relevant, equitable and cost-effective capacity building programmes for the AfWASA member and partnering utilities. The Academy is to be hosted by the NWSC Uganda.

The GSGS Regional Hub, East and Southern Africa was also launched and is also hosted by NWSC Uganda. GSGS is a platform to facilitate the dissemination of knowledge on sanitation through postgraduate (MSc) programs and other courses so that the sanitation challenges can be embraced with deeper insight, advanced knowledge, and greater confidence. The

initiative is funded by the Gates Foundation through IHE Delft, Institute of Water Education, The Netherlands.

iii) Launch of NWSC External Services @20 celebrations

During the Congress, NWSC launched the ES@20 celebrations — marking two decades of impactful partnerships, knowledge exchange, and regional collaboration, while setting the stage for a future of innovation and global impact



2.7 Closing Ceremony

The Closing ceremony of the 22nd AfWASA ICE2025 was graced by high-level dignitaries from AfWASA, the Government of Uganda, NWSC, Development Partners, Manufacturers, sponsors including delegates.

The Government of Uganda represented by the Minister of State for Environment, **Hon. Beatrice Anywar** thanked the organizers for a job well done. She applauded the NWSC for the exceptional organization and hospitality and for the rich technical content of the Congress and pledged her continued support to AfWASA. She reminded the delegates that the commitment for a water secure Africa was for all.

GRUNDFOS, the principal sponsor expressed satisfaction with their collaboration with AfWASA and re-affirmed their commitment to future partnerships and encouraged participants to remain engaged with AfWASA in advancing WASH efforts across the continent.

AfWASA pledged to continue with efforts toward achieving SDG 6 and Agenda 2063 while expanding its network to include more African countries, such as Egypt, and also strengthen the association's strategic presence in platforms like the African Union.

The Congress concluded with a transition of leadership from the outgoing AfWASA President, **Dr. Eng. Silver Mugisha** to the incoming president, **Dr. Blaise Moussa**, Managing Director of CamWater.

AfWASA ICE2026 will be hosted by CamWater in Yaounde, Cameroon in February 2026



3. AfWASA ICE2025 KAMPALA DECLARATIONS

Key Outcomes and Resolutions

These declarations represent the priority actions agreed upon during the Congress. AfWASA will mobilize its members to implement these resolutions, with progress reviewed at the next AfWASA Congress.

Climate Change and Integrated Water Resource Management

- Integrate climate-resilient solutions in water and sanitation infrastructure planning, design, and operation.
- Promote equitable and sustainable water use; enhance catchment protection and restoration.
- Scale up Water and Climate Investment Programs across transboundary basins.
- Increase Africa's share of global climate finance beyond the current **3.3%**.

Water Management

- Strengthen utility management for urban, rural, peri-urban, and vulnerable communities.
- Adopt innovative, context-appropriate management frameworks to improve sustainability.
- Support AMCOW's commitment to the Post-Africa Water Vision 2025 and Agenda 2063.

Sanitation Management

- Accelerate access through innovative financing, technology, and partnerships.
- Strengthen sanitation data systems for planning, accountability, and resource mobilization.
- Expand faecal sludge treatment facilities for non-sewered areas.
- Promote "One Faecal Sludge Treatment Plant Per City" for service scale-up and resource recovery.

Capacity Development, Communication, and Partnerships

- Reinforce existing partnerships; build new high-impact collaborations.
- Leverage inter-sectoral partnerships (e.g., with health, agriculture, and education) to boost financing and service delivery.

Governance and Financing

- Enhance utility efficiency to reduce financing gaps.
- Utilize financial products from development partners and financiers.
- Explore domestic borrowing to reduce aid dependency.
- Create enabling regulatory environments for cost-reflective tariffs.
- Promote adaptive, accountable, and transformational leadership in utilities.
- Improve performance on SDG 6 indicators beyond the global average (currently 6/11), aiming for full achievement by 2030.

Research, Technology, and Innovation

- Commit to investment in research and innovation.
- Drive digital transformation in utilities, tailored to their actual needs.
- Promote a "Do-It-Yourself" (DIY) innovation approach for problem-solving and technology adoption.



