



African Water and
Sanitation Association

Association Africaine de
l'Eau et de l'Assainissement

AFWASA / AAEA

Report of the 94th Session of the Strategic and Technological Council (STC)

18–20 November 2024 | Kampala, Uganda



EXECUTIVE DIRECTION

The 94th Session of the Strategic and Technological Council (STC) of AfWASA was held from 18 to 20 November 2024 in Kampala, Uganda, at the NWSC International Resource Center, bringing together nearly one hundred delegates from seventeen countries, including one-third women, as well as 24 organizations.

Held under the theme “Disruptive Technologies and Innovations as Accelerators of SDG 6 in Africa”, this event provided a privileged platform for examining innovative approaches aimed at addressing the challenges facing the water and sanitation sector. The program was structured around three main segments: the opening ceremony, enriched by high-level interventions and panel discussions; working sessions dedicated to scientific advances in preparation for the 22nd AfWASA International Congress and Exhibition; and finally, the closing ceremony.

During the opening session, distinguished personalities such as Mr. François Olivier Gosso, Executive Director of AfWASA; Dr. Eng. Silver Mugisha, President of AfWASA and Managing Director of NWSC; Dr. Eng. Badru Kiggundu, Chairman of the NWSC Board of Directors; Mr. Usher Sylvain, Advisor to the Executive Director; and Mr. Chris Tumisime, representing the Minister of Water and Environment, shared their insights and expertise.

The three panel discussions addressed: disruptive technologies and innovations in the sector; research as a catalyst for breakthrough solutions to achieve SDG 6 in Africa; and the governance and financing of innovation.

The recommendations formulated highlighted, among other priorities, the need to adopt a strategic approach anchored in an ambitious vision and strong leadership; to strengthen existing infrastructures and establish an appropriate regulatory framework; to stimulate public–private partnerships and diversify financing sources; to develop local research and innovation structures; to accelerate the adoption of resilient solutions to climate challenges; to promote local research and adapt imported innovations; to reinforce collaboration among all sector stakeholders; to facilitate access to funding and ensure transparent and efficient management of resources—all with the objective of establishing ethical and responsible governance to ensure sustainable and competitive growth. These recommendations constitute key levers for accelerating progress towards achieving SDG 6 in Africa.



OPENING CEREMONY

The opening ceremony began with the solemn rendition of the Ugandan national anthem, followed by a reverent prayer. The official addresses, delivered by representatives of AfWASA and the Ugandan government, highlighted the crucial importance of innovation as a key lever for accelerating progress toward the achievement of SDG 6.



Mr. François Olivier GOSSO
AfWASA Executive Director

The Executive Director expressed his profound gratitude to the Ugandan authorities and participants for their support in promoting universal access to water and sanitation.

He commended the commitment of stakeholders and Ugandan leaders, highlighting their leadership in the face of climate challenges. Recalling the theme **“Non-conventional Technologies and Innovations as Accelerators of SDG 6 in Africa,”** he emphasized the importance of innovative solutions to address sectoral challenges.

He also highlighted AfWASA’s achievements, which have improved the lives of millions of people across Africa and beyond. He urged stakeholders in the sector to intensify their efforts to achieve SDG 6 by 2030.

In this spirit, he announced the upcoming **22nd AfWASA International Congress and Exhibition**, to be held in February 2025 in Kampala, as a strategic platform for collective reflection and action. Finally, he reaffirmed the commitment to water and sanitation as fundamental human rights, calling for unity and strengthened solidarity to bring this shared vision to fruition.

The President of AfWASA opened his address by warmly greeting the participants and emphasizing the crucial importance of disruptive technologies in accelerating progress toward achieving SDG 6 in Africa. He stressed the need for in-depth research to improve sector performance and transform existing processes. Reflecting on recent challenges, including those linked to the COVID-19 pandemic, he highlighted major achievements such as the strengthening of institutional resilience, the strategic reform of the Scientific and Technological Council, and the establishment of the African Water and Sanitation Academy.

The President commended the dedication of the teams and the success of fruitful partnerships, which have helped reinforce stakeholder confidence. He urged participants to go beyond awareness-raising and prioritize concrete and impactful actions. In conclusion, he invited the assembly to the **22nd AfWASA International Congress and Exhibition, scheduled for 16–20 February 2025 at the Speke Resort Convention Centre in Munyonyo, Kampala.** This event, held under the theme “Water and Sanitation for All: A Secure Future for Africa,” will serve as a key platform for knowledge sharing and the promotion of transformative initiatives for the continent.



Dr. Ing. Silver MUGISHA
AfWASA President,
Managing Director (NWSC)

Dr. Eng. Badru Kiggundu delivered an in-depth analysis of the major challenges faced by African governments and public utilities in pursuing Sustainable Development Goal 6 (SDG 6).

He began his remarks by acknowledging the holding of the 94th AfWASA Session in Kampala and expressing his gratitude to the Ugandan authorities for their support. He recalled that this event represents an essential step in the preparations for the AfWASA International Congress and Exhibition scheduled for February 2025.

Highlighting the importance of the session's theme, focused on disruptive technologies as catalysts for SDG 6, he emphasized the critical role of innovation in addressing budgetary constraints and the impacts of climate change.

He reaffirmed NWSC's commitment to adopting proven technologies to enhance the efficiency and sustainability of water and sanitation services. The event was presented as a strategic platform enabling sector stakeholders to share innovative ideas to accelerate progress toward achieving the goal. In conclusion, Dr. Kiggundu expressed his appreciation to AfWASA and its partners for their continued commitment to the sustainable transformation of the water sector in Africa.



Dr. Eng. Badru KIGGUNDU

Chairman of the
Board of the NWSC



Mr. Usher Sylvain

AfWASA Advisor to the
Executive Director

Mr. Usher Sylvain, Advisor to the Executive Director of AfWASA, expressed his deep gratitude to the participants for their presence, as well as to the President of AfWASA, highlighting the exceptional commitment of Dr. Silver Mugisha, whom he described as one of the most dynamic presidents he has had the honor to work with. He also commended the exemplary involvement of National Water, underscoring its continued dedication. He shared his satisfaction in having stepped back in December 2023 while following with pride the progress of AfWASA. He warmly congratulated the Executive Director for the quality of his work since his appointment, inviting the assembly to acknowledge his efforts.

He further conveyed, on behalf of the Strategic and Technological Council (STC), his gratitude to National Water for hosting the meeting and for organizing the upcoming Congress. Mr. Usher Sylvain announced that the 94th STC session would likely be the last one he would attend in person, expressing his joy that it was being held in Kampala, a place dear to him. He concluded by thanking all participants and wishing them a productive and enriching session.



Mr. Chris TUMISIME
Com.Min of water &
Environment

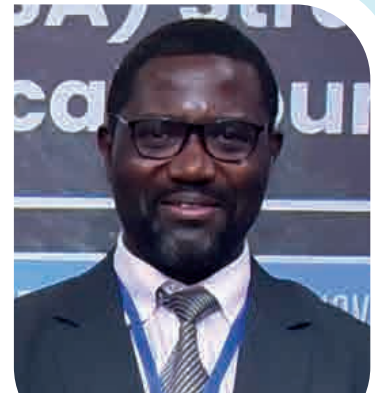
During this meeting, Mr. Chris Tumisime, representing the Minister, presented the water and sanitation sector in Uganda, emphasizing the impact of disruptive technologies. He recalled that the Ministry of Water and Environment, established in 2007, is aligned with the National Development Plan (NDP) and Vision 2040, which aims to sustainably improve the living conditions of the population. NDP III, structured around 18 programs, specifically targets SDG 6, relating to universal access to safe drinking water and adequate sanitation.

He detailed the distribution of water supply services, with the National Water and Sewerage Corporation (NWSC) managing urban areas, while rural areas rely on solar-powered boreholes and community water points. To assess water coverage, an indicator based on the number of villages served has been adopted. Despite coverage reaching 70% in urban areas and 68% in rural areas, some communities still lack access to safe drinking water due to logistical and geographical constraints.

Mr. Tumisime also highlighted major challenges, such as the high cost of technologies, insufficient subsidies, and environmental degradation affecting the quality of water resources. Regarding sanitation, he noted that responsibilities are shared among several ministries. In conclusion, he called for strengthened exchange of experiences and best practices to ensure sustainable water resource management and improved access for all.

PANEL 2 | DISRUPTIVE TECHNOLOGIES AND INNOVATIONS IN THE WATER AND SANITATION SECTOR

Disruptive technologies are transforming the water and sanitation sector by providing innovative solutions for more efficient and sustainable resource management. Through artificial intelligence, the Internet of Things (IoT), and big data, it is now possible to optimize distribution, reduce losses, and improve water quality. These advancements also enhance access to services for vulnerable populations, particularly in rural areas. By promoting a more resilient and adaptable approach in the face of climate challenges, technological innovation is driving sustainable change across the sector.



Eng. Jude MWOGA
Moderator



Eng. Mahmood LUTAAYA
NWSC, Uganda

Engineer Mahmood Lutaaya presented the integration of disruptive technologies in water and sanitation management, illustrating Uganda's innovative experience. He emphasized that disruption, far from being a threat, represents an opportunity to modernize services in order to improve their efficiency and accessibility. In the face of challenges faced by African public utilities, such as aging infrastructure and increasing urban pressure, he advocated for the adoption of technological innovations to achieve SDG 6. Drawing on examples from other sectors, he highlighted the advances made by NWSC, particularly the use of artificial intelligence and machine learning to optimize maintenance and resource management. He also stressed the importance of digitalizing payments to facilitate access to services and strengthen operational efficiency. In conclusion, he called for strategic alignment with national priorities and the expansion of local solutions to ensure a sustainable and inclusive transformation of the water sector.

Mr. Ronnie emphasized the need for a strategic approach to identify and leverage innovations in the face of institutional challenges. Using the example of the National Water and Sewerage Corporation (NWSC), he highlighted the importance of visionary leadership capable of driving innovation while managing risks with agility. He also advocated for an environment where experimentation and learning from mistakes are encouraged in order to foster continuous improvement. The integration of structures dedicated to research and development, such as incubators and innovation hubs, was identified as a key success factor. Finally, Mr. Ronnie underlined the essential role of benchmarking, which enables organizations to learn from the experiences of others in order to sustainably transform public services and adapt technological solutions to local realities.



Mr. Ernest Ronnie Ngaivale
Lilongwe Water
Malawi

PANEL 2 | DISRUPTIVE TECHNOLOGIES AND INNOVATIONS IN THE WATER AND SANITATION SECTOR



Mr. GOGO Hyppolite
SODECI, Côte d'Ivoire

In Côte d'Ivoire, the electricity and telecommunications sectors offer valuable lessons for integrating disruptive technologies into water and sanitation services. The adoption of smart meters and prepaid systems has enabled optimized service management, although these innovations come with risks that must be carefully managed. In the water sector, the technological transition is progressing more slowly due to reliance on existing infrastructure, particularly telecommunications networks, which are essential for data processing. A methodical and cautious approach is therefore required—one that draws on successes and challenges observed elsewhere while taking into account the specific characteristics of the sector. The establishment of strong infrastructure and rigorous risk management are essential to maximizing the benefits of innovation. This holistic approach will enable disruptive technologies to become a powerful lever for the sustainable transformation of water and sanitation services in Côte d'Ivoire.

In Senegal, water management is based on a partnership between the State, SONES, and the private company SEN'EAU, governed by a performance and performance contracts. While these agreements encourage the adoption of innovative technologies, several constraints hinder their implementation. The infrastructure, which is heavy and costly, requires significant investment due to its long life cycle. In addition, strict regulations require extensive testing before any innovation can be deployed, thereby slowing down its adoption. The limited competition in the sector, dominated by a small number of companies, reduces incentives to innovate. Furthermore, persistent water shortages increase pressure on operators to modernize services while addressing urgent population needs. A gradual approach combining technological innovation, regulatory compliance, and increased investment is essential to ensure sustainable and efficient sector management.



Ms. Awa Sène Ep SAAR
SONES, Sénégal



Mr. Mourad EL KHALFANI
ONEE, Morocco

In response to water scarcity and climate challenges, Morocco, through ONEE, is adopting disruptive technologies to modernize the sector. With a production capacity of 7.4 million m³ per day for a demand of 4.3 million, the increasing needs require significant adaptation. Historically, more than 90% of the country's water came from conventional resources, but drought conditions are accelerating the shift toward desalination, which is expected to account for 50% of production by 2035. Aware of the high energy cost of desalination, ONEE is implementing a model that combines desalination with renewable energy to reduce operational costs. This approach secures water supply while optimizing energy resources. It reflects Morocco's commitment to sustainable and resilient water management.

Research plays a central role in developing disruptive technologies to improve access to safe drinking water and sanitation in Africa, in line with SDG 6. By exploring innovative solutions such as decentralized treatment, smart sensors, and optimized resource management, it helps to overcome challenges related to climate change and population growth. Research also promotes the adaptation of innovations to local contexts, ensuring their efficiency and sustainability. By fostering collaboration among researchers, industries, and policymakers, research accelerates the transformation of the sector.

1 > **Adopt a strategic approach to the integration of disruptive technologies**

Develop an ambitious vision and strong leadership to integrate innovations (digital transformation, artificial intelligence) into the sector in order to optimize resource management and prevent system failures.

2 > **Strengthen infrastructure and establish an appropriate regulatory framework**

Before introducing new technologies, it is essential to reinforce existing infrastructure and to establish clear yet flexible standards that promote innovation while ensuring the safety and quality of services.

3 > **Stimulate public-private partnerships and diversify funding sources**

Encourage strong collaboration between public and private stakeholders and explore innovative financing mechanisms to support ambitious projects, while reducing pressure on public budgets.

4 > **Develop local research and innovation structures**

Créer et soutenir des incubateurs, hubs d'innovation et centres de recherche locaux afin de favoriser l'émergence de solutions adaptées aux contextes locaux et de diminuer la dépendance aux technologies importées.

5 > **Accelerate the adoption of climate-resilient solutions**

Integrate national strategies that, for example, combine the use of renewable energy and desalination technologies to ensure a sustainable water supply and minimize environmental impact in a context of climate change.



PANEL 3 | RESEARCH AS A CATALYST FOR DISRUPTIVE TECHNOLOGIES AND INNOVATION TO ACHIEVE SDG 6 IN AFRICA

Research plays a central role in the development of disruptive technologies to improve access to safe drinking water and sanitation in Africa, in line with SDG 6. By exploring innovative solutions such as decentralized treatment, smart sensors, and optimized resource management, it helps overcome challenges related to climate change and population growth. Research also promotes the adaptation of innovations to local contexts, thereby ensuring their effectiveness and sustainability. By supporting collaboration among researchers, industries, and policymakers, research accelerates the transformation of the sector.



Ms. Cate MINANYA
Moderator



Mr. Jay BHAGWAN
Water Use & Waste
Management
South Africa

Mr. Bhagwan presented his vision, emphasizing the strategic role of research in driving technological development and innovation, particularly in the water and sanitation sectors in Africa. He noted that in countries such as South Africa, water shortages are exacerbated by inadequate infrastructure operation and maintenance, combined with the effects of climate change and rapid urbanization. These challenges lead to a reliance on external financing. However, he also sees an opportunity in this situation: research and innovation can promote national self-sufficiency and stimulate economic growth. In this regard, Singapore was highlighted as an example of a bold strategy that transformed challenges into industrial opportunities, through an innovation ecosystem capable of exporting solutions globally. In South Africa, progress has been made, such as the development of microfiltration membranes for drinking water, despite certain companies relocating to more favorable markets. The stated ambition is to reduce inequalities in access to sanitation technologies so that place of residence never becomes a barrier to quality essential services. Finally, he affirmed that only proactive research, combined with innovative partnerships, will make it possible to achieve a future where water and sanitation are universal rights.

PANEL 3 | RESEARCH AS A CATALYST FOR DISRUPTIVE TECHNOLOGIES AND INNOVATION TO ACHIEVE SDG 6 IN AFRICA

The Professor emphasized the need to move beyond the status quo to accelerate progress toward targets, particularly the goal of ensuring access to safe drinking water for the 3.5 billion people currently deprived of it. He criticized the reliance solely on the construction of large-scale water treatment plants, arguing that such infrastructure is insufficient if it continues to discharge harmful nutrients into water bodies.

Therefore, it is essential to develop simple and accessible technologies to remove nitrogen from wastewater an expensive process currently mastered by only a few facilities, particularly in South Africa. He also advocated for strengthening international partnerships, especially with the United States and Switzerland, to design preventive solutions capable of detecting epidemics early, as demonstrated by the early identification of coronavirus in wastewater. The importance of European funding, in complement to African government resources, as well as support for African researchers trained abroad, was highlighted as key to developing solutions adapted to local realities. Finally, he emphasized that only effective collaboration will bridge the technological gap estimated at 30 to 50 years and build a shared future in which access to safe drinking water and dignified sanitation becomes a reality for all.



Professor Charles
Makerere University
Uganda



Dr. Siméon KENFACK
AfWASA
Côte d'Ivoire

Mr. Kenfack, drawing on the discussions held during the AfWASA panel, highlighted the critical issues related to innovation and the adoption of new technologies in the water and sanitation sector in Africa. He criticized the traditional “business as usual” approach, which he considers incompatible with achieving the Sustainable Development Goals, particularly universal access to safe drinking water and adequate sanitation services. Despite the reservations that disruptive technologies may raise, he emphasized their necessity in addressing current challenges, especially those driven by climate change. The example of Morocco, compelled to innovate to ensure the resilience of its water infrastructure, clearly illustrates this urgency. In this context, AfWASA is exploring ways to support its members in this technological transformation. Mr. Kenfack stressed that collaboration is a key lever, notably commending the concrete initiatives of the Water Research Commission.

In conclusion, he reaffirmed the importance of a collective and bold approach, combining innovation and a paradigm shift, to ultimately ensure equitable access to water and sanitation despite climatic and economic constraints.

PANEL 3 | RESEARCH AS A CATALYST FOR DISRUPTIVE TECHNOLOGIES AND INNOVATION TO ACHIEVE SDG 6 IN AFRICA

Dr. Gebreeyesus Getachew Dagnew emphasized that research and innovation largely originate from Western countries, making adaptation to local contexts essential in order to maximize their impact. At Addis Ababa University, research is mainly conducted by graduate students, particularly in the field of waste recovery. Among the exemplary projects are the use of wastewater for non-conventional purposes, biogas production, and the manufacturing of plastic materials from fecal matter. These initiatives reflect a strong commitment to transforming waste into valuable resources. Regional programs also involve engaged African students who actively contribute to strengthening local innovation capacities. The research team has additionally developed urine-based fertilizers intended to be collected and used in urban areas. In the Rift Valley region, locally sourced materials are used to remove fluoride from water, enabling several communities to access safe drinking water. However, Dr. Gebreeyesus noted that sanitation projects still require large-scale implementation to address growing needs, and that assessing their concrete impact remains a major challenge. His intervention highlights the importance of an integrated and context-specific approach aimed at strengthening the technological autonomy of African communities while enhancing the value of their local resources.



**Dr Gebreeyesus
Getachew DAGNEW**
Addis-Abeba University
Ethiopia



Mme Brenda ACHIRO
Water for People
Uganda

The Country Director of the NGO Water for People in Uganda presented her organization's approach, which has been active for more than 15 years in sanitation innovation, building on the themes highlighted during the opening session. Drawing on over eight years of personal experience, she outlined a human-centered strategy that spans the entire value chain, from waste collection to resource reuse. In underserved urban settlements where living conditions are precarious, the focus is placed on developing financially accessible and climate-resilient solutions. She emphasized that although the costs may be higher, establishing durable infrastructure capable of withstanding extreme conditions is essential for achieving lasting impact. Working closely with local communities—particularly in Kampala, where engineers and residents co-design tailored plans—the organization promotes equitable cost-sharing. Water for People has also established partnerships with financial institutions that provide loans and subsidies, thereby making sanitation solutions more accessible to a wider population. Ms. Brenda Achiro further underscored the need to involve the private sector and financial actors in order to strengthen the economic ecosystem of sanitation, creating a favorable framework for a sustainable economy and ensuring the long-term viability of initiatives supporting vulnerable communities.

PANEL 3 | SUMMARY OF RECOMMENDATIONS

In the face of growing challenges in the sector, these recommendations propose a comprehensive approach combining local research, disruptive technologies, and close cooperation among all stakeholders. They aim to strengthen infrastructure resilience, diversify financing mechanisms, and establish a regulatory framework that supports innovation and inclusion.

1 > **Promote local research and the adaptation of innovations**

Implement context-specific research programs in collaboration with local stakeholders and universities to transform imported innovations into solutions adapted to local realities, particularly by leveraging locally available resources.

2 > **Accelerate the adoption of disruptive technologies**

Dépasser l'approche traditionnelle en intégrant des technologies innovantes pour renforcer la résilience face aux défis climatiques et sanitaires, en s'appuyant sur des partenariats internationaux pour anticiper et prévenir les crises.

3 > **Strengthen collaboration among stakeholders**

Promote close dialogue and active cooperation between regulators, operators, and local communities to co-develop infrastructure, thereby ensuring local ownership and long-term sustainability.

4 > **Facilitate access to financing and diversify resources**

Encourage the engagement of the private sector and financial institutions by developing innovative financing mechanisms (loans, targeted subsidies) to support the construction of resilient infrastructure, particularly in underserved areas.

5 > **Establish an economic and regulatory framework conducive to innovation**

Develop forward-looking policies and adapted regulatory frameworks, including the integration of circular economy principles and the creation of a sustainable sanitation market, while ensuring the inclusion of vulnerable populations and reducing inequalities in access to essential services.



PANEL 4 | GOVERNANCE AND FINANCING OF TECHNOLOGIES AND INNOVATION

The Doctor emphasized that research and innovation in water and sanitation largely originate from Western countries, making it necessary to adapt them to local contexts. Together with graduate students, he has developed projects that valorize waste, such as wastewater and plastics, to produce biogas and reduce contamination of water sources. Regional programs in Africa are also strengthening research on innovative solutions, such as the production of urine-based fertilizers and the removal of fluoride using locally available materials. However, large-scale sanitation remains a significant challenge, requiring rigorous monitoring to assess the long-term impact of these initiatives on communities.



Dr. Mamohloding TLHAGALE
(CMR/South Africa)



Mr. Godfrey

The African Development Bank (AfDB) is implementing a ten-year strategy (2024–2033) focused on the sustainable management of water resources, access to water for food security, and energy production. The sector continues to rely heavily on public funding, with a financing gap estimated at USD 45 to 50 billion. Innovation is a key priority, particularly through the adoption of disruptive technologies and the sharing of best practices among African countries. The AfDB also promotes the inclusion of women and youth in water resource management. A major challenge remains the low level of private sector investment, which represents only 1% of total financing. To address this, the Bank is mobilizing financial instruments to attract private investors. It also plays a central role in managing climate funds and green financing, notably through the African Urban Sanitation and Investment Initiative, which aims to enhance urban sanitation infrastructure and strengthen the resilience of African populations.

The management of water resources and related infrastructure falls under the responsibility of the State, which also oversees the investments. However, operating entities are not allowed to contract loans directly and must obtain government approval, a lengthy and bureaucratic process that sometimes requires presidential validation. Although several projects are financially viable in the short term and could repay loans quickly, administrative burdens slow access to funding. This bottleneck hinders the investments needed to modernize the water sector, thereby compromising the sustainable improvement of essential services for the population.



Ms. Sylvia Alinaitwe
TUMUHEIRWE
NWSC, Uganda



Mr. Gbati Yawanké
TDE, Togo

Since 2015, the Togolese Water Company (TdE) has undertaken major reforms to meet the growing needs of the population. It has adopted an ambitious strategic plan and a digitalization plan to modernize its services, but their implementation requires significant financing. As a private company under state supervision, TdE depends on sovereign guarantees and is exploring innovative financing mechanisms. International institutions play a key role in this process, especially since the water sector lags behind other infrastructure sectors in terms of funding. In the face of climate and technological challenges, a call is being made for increased support from financial institutions to strengthen population resilience and ensure sustainable development.

Water infrastructure is not financially attractive due to the massive investments required, estimated at USD 22 trillion over 25 years. Although the overall cost of water provision is relatively low, it remains a heavy burden for vulnerable populations. Traditional financing models are ineffective, particularly because of the sector's low profitability and the high costs associated with urban service delivery. Unlike other industries, such as pharmaceuticals, water-related innovation receives very little investment. Large-scale network projects are difficult to finance, even in Europe and the United States, where infrastructure systems depend heavily on external funding. It is therefore urgent to rethink financing strategies and adopt innovative solutions to ensure equitable and sustainable access to safe drinking water.



Dr. Kovaks



Ms. Joan ASIIMWE
ESAWAS, Uganda

Ms. Joan Asiimwe, representing the Eastern and Southern Africa Water and Sanitation Regulators Association, emphasized the importance of effective regulation in attracting financing. A well-structured and transparent sector facilitates the engagement of institutions such as the African Development Bank. ESAWAS places strong emphasis on rigorous project preparation to improve dialogue between regulators and operators. The main challenges concern the bankability and financial viability of public utilities. Although support mechanisms exist, ESAWAS promotes catalytic projects aimed at strengthening sector structure. Regulators must adopt forward-looking policies and regulatory frameworks adapted to current challenges. The integration of innovative technologies is essential to modernize infrastructure and ensure sustainable financing. This approach aims to achieve public services that are efficient, resilient, and accessible to all.

PANEL 4 | SUMMARY OF RECOMMENDATIONS

The panel's recommendations on governance and financing of technologies and innovation call for resource management that is both transparent and efficient. They aim to establish a rigorous framework for project oversight in order to reduce risks and maximize economic and social benefits. Strategic financing is essential to stimulate research and development, thereby accelerating innovation. At the same time, strong governance ensures compliance with ethical principles in the use of new technologies.

Ultimately, these measures constitute essential levers for ensuring sustainable and competitive growth.

1 > **Transparent and efficient resource management :**

It is necessary to establish transparent management of resources dedicated to technologies and innovation. This requires the implementation of rigorous allocation and monitoring mechanisms to ensure the optimal use of funds in support of excellence and innovation.

2 > **Structured project oversight:**

A methodical framework must be established for managing technological projects to address all associated challenges. This involves deploying monitoring tools to reduce risks while assessing economic and social impact. Strengthening coordination among stakeholders will also ensure effective implementation of initiatives.

3 > **Strategic and targeted financing:**

A financing strategy that prioritizes high-potential innovative projects should be adopted. Investments should be directed toward key areas of research and development to accelerate technological progress and enhance competitiveness.

4 > **Ethical and responsible governance :**

A robust governance model integrating ethical and accountability criteria should be established. This includes ensuring compliance in the use of emerging technologies and strengthening stakeholder trust through transparent and responsible oversight.

5 > **Promotion of sustainable and competitive growth:**

These mechanisms should be recognized as essential levers for sustainable development. Encouraging technological innovation will support resilient economic growth and contribute to the creation of an environment conducive to lasting, long-term competitiveness.



Strengthening AfWASA Governance

AfWASA's governance was strengthened in 2024 through several key initiatives. During the meeting held on 1 August in Lomé, resolutions led to calls for applications to renew the members of the Steering Committee, composed of 18 members. Additionally, the Pan-African Association of Sanitation Actors (APAA) organized a strategic planning workshop in Yaoundé, which facilitated role clarification, the development of regional strategies, and the training of regional coordinators. Finally, the Government of Uganda and AfWASA signed an agreement for the establishment of the African Water and Sanitation Academy, thereby reinforcing governance within the sector.



Strengthening Member Engagement within AfWASA

In 2024, AfWASA strengthened member engagement through progress in membership expansion and inclusion initiatives. The number of members increased by 94% compared to 2022, reaching 270, reflecting a growing interest in cooperation within the water and sanitation sector in Africa. AfWASA's gender strategy also made significant advances, including the development of its final version, which was submitted and presented online to stakeholders for validation. The next steps include its dissemination during the CST in Kampala. Furthermore, implementation structures were established, integrating focal points and gender committees among members. These initiatives aim to ensure the sustainable integration of gender considerations within the organization. These achievements reinforce member engagement while promoting inclusion and knowledge-sharing, thereby contributing to AfWASA's overall mission.



Strengthening the Capacity of Water Utilities

The AfriCap program (2015–2024), funded by USAID, continued its strategic actions in 2024 to improve non-revenue water (NRW) management and water quality across Africa. In July and August 2024, representatives participated in specialist group discussions during the CST in Lomé, sharing best practices on these topics. Fifteen (15) Performance Improvement Plans (PIPs) were developed: six focused on reducing NRW in water utilities in countries such as Mali, Guinea, and Chad, and nine aimed at improving water laboratory management in utilities in Malawi, Kenya, and Togo, among others. These PIPs are currently under implementation. In addition, documentation is being prepared to support the financing of eight pilot projects, each backed by an allocation of USD 12,500. These projects reinforce the PIPs, benefiting water utilities such as SEG in Guinea and LCDE in Congo, as well as water laboratories in Togo and Ethiopia. These initiatives strengthen the operational capacities of water utilities and contribute to improved service quality and efficiency within the sector.



Diversification of Partnerships



In 2024, AfWASA strengthened and diversified its strategic partnerships in the water and sanitation sector through key collaborations and major events. The German-African Water and Sanitation Partnership (GAPWAS) made significant progress on 2 September during a working session between AfWASA, GWP, and Hamburg Wasser. This meeting enabled discussion of joint projects in Africa, exploration of Hamburg Wasser's innovations, and engagement on research initiatives in Southern Africa in connection with the AWASA Academy and AfWASA's regional offices. Strategic projects such as GAPWAS, along with future participation in IFAT Africa 2025 and the CST in Kampala, were also discussed. The 9th Africa Water Week, organized by AMCOW from 14 to 17 October in Cairo, brought together the

African Union Commission, the African Development Bank, and various partners under the theme "Placing Water and Sanitation at the Heart of Achieving Agenda 2063." This event strengthened regional collaboration in support of universal access to water and sanitation. These initiatives illustrate AfWASA's commitment to establishing innovative partnerships, promoting research, and actively participating in major continental and international sector platforms. Such efforts contribute to the vision of a resilient and sustainable Africa in the face of water and sanitation challenges.

Enhancing Visibility

AfWASA's governance was strengthened in 2024 through several key initiatives. During the meeting held on 1 August in Lomé, resolutions led to calls for applications to renew the members of the Steering Committee, composed of 18 members. Additionally, the Pan-African Association of Sanitation Actors (APAA) organized a strategic planning workshop in Yaoundé, which facilitated role clarification, the development of regional strategies, and the training of regional coordinators. Finally, the Government of Uganda and AfWASA signed an agreement for the establishment of the African Water and Sanitation Academy, thereby reinforcing governance within the sector.



Africa Utility Data Collaborative (AUDC)

The Africa Utility Data Collaborative (AUDC) is aligned with AfWASA's 2024–2028 Strategic Plan and aims to accelerate the digitalization of water services across Africa. Its primary objective is to support utilities by providing a data platform, enhanced analytical capacities, and the development of a dedicated learning community. Expected actions include the revision of internal regulations, strengthening human resources in line with ISO standards, integrating gender considerations and training young professionals, as well as establishing a DATA strategy supported by a sustainable business model. A Data Collaborative brings together various stakeholders (utilities, universities, regulators) to share and use data in an ethical, secure, and sustainable manner. Major challenges include high water losses, fragmented systems, and insufficient quality monitoring, while data analytics presents opportunities for predictive maintenance, billing optimization, and asset management. According to consultations conducted, 70% of entities are willing to share data, 60% require targeted training, and 90% aim to increase the use of advanced analytics. The AUDC adopts a five-year Build-Operate-Transfer (BOT) model: initial setup, operationalization, then progressive transfer to AfWASA, with a clear governance structure comprising a council, a technical committee, and an operational team led by a Chief Data Officer. The business plan (2024–2030) first focuses on launching and expanding partnerships, followed by transferring assets to AfWASA while ensuring financial sustainability through the development of new services. Ultimately, the AUDC presents an innovative approach to transforming data use in the African water sector, contributing to solving operational challenges and improving decision-making.

Gender Mainstreaming Strategy of the African Water and Sanitation



AfWASA is developing a five-year Gender Mainstreaming Strategy (GMS) (2025–2030), aligned with Sustainable Development Goals 5 and 6, to ensure women and men have equal rights and opportunities in access to water, sanitation, and hygiene (WASH) services. Despite progress in Africa, structural gender inequalities persist, particularly the low representation of women in leadership positions (less than 30%) and in technical professions (22–24%). The main objective of the GMS is to promote inclusive WASH governance by applying principles such as zero tolerance for discrimination and sexual harassment, and equal respect for the rights of women and men. The five key strategic objectives aim to strengthen AfWASA's internal gender capacities, ensure equity in decision-making, collect and analyze gender-responsive data, encourage greater female leadership, and develop synergies with specialized organizations. To achieve this, AfWASA focuses on five priority areas:

- communication strategies that transform stereotypes (through media campaigns and leadership awareness),
- capacity-building activities and revision of internal policies,
- professional empowerment of women through mentoring and the development of women's networks,
- strengthened partnerships with gender-focused organizations,
- and the production of evidence-based data (research on the causes of inequality and monitoring indicators). A monitoring and evaluation framework, comprising qualitative and quantitative indicators, will measure progress toward greater gender parity. Implementation will be supported through the establishment of gender committees and focal points, strengthened collaboration with NGOs and donors, and the integration of gender-specific budget lines. The 2024–2029 action plan includes a calendar of activities, research initiatives, and dissemination of progress, thereby ensuring sustainability and concrete improvements in women's status within the WASH sector.

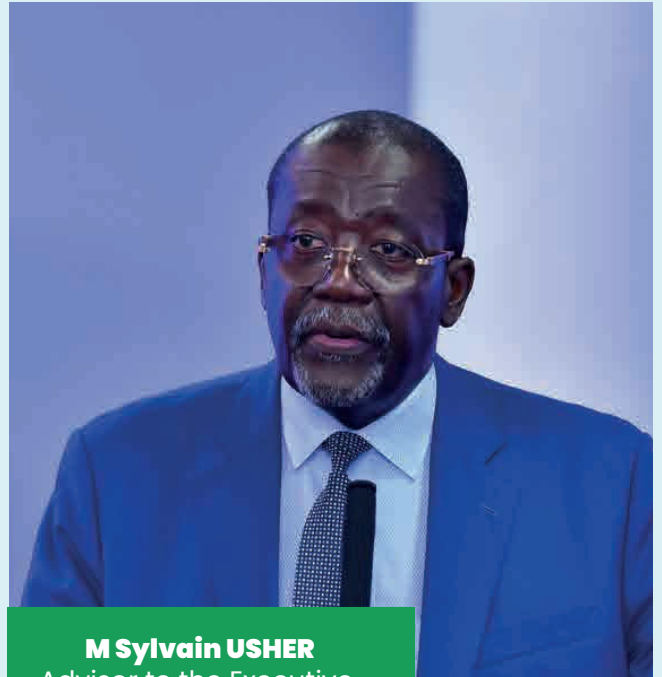
Status of Preparations for the 22nd AfWASA Congress 2025 (AfWASA ICE2025)

The 2025 AfWASA International Congress and Exhibition (AfWASA ICE2025), scheduled for 16–20 February 2025 in Kampala, Uganda, under the theme “Water and Sanitation for All: A Secure Future for Africa,” will mark the 45th anniversary of the Association and will be the third edition hosted in the country. Bringing together more than 3,000 delegates, this major event will feature 80 sessions and 500 presentations, supported by over 50 sponsors and strategic partners. Focused on key issues related to water management, sanitation, and climate change, the congress aims to strengthen capacities, promote partnerships, and adopt sustainable action plans. Scientifically, the 2025 edition received 404 submissions from 41 countries. The thematic areas include water management, sanitation, governance, climate change, and innovation, with contributions presented through oral sessions and poster exhibitions. Participants will convene at the Speke Resort Munyonyo, a modern conference venue offering more than 2,000 rooms. The rich and diverse program includes pre-congress activities such as forums dedicated to women and young professionals in the water and sanitation sector, plenary sessions, parallel technical sessions, as well as social events including networking receptions and a gala dinner. Moreover, Saturday, 15 February will be dedicated to AfWASA’s Steering Committee meetings and the General Assembly. It should be noted that the official launch of the congress took place on 26 March 2024 at the NWSC International Resource Centre (IREC) in Kampala.



Green Pilot for Sustainability – Introduction

The Green Pilot for Sustainability project addresses the challenges posed by climate change and water scarcity, which currently affect 3.6 billion people each year and could impact more than 5 billion by 2050. Focused on Africa, the project aims to strengthen resilience and adaptation by preserving water resources, reducing the carbon footprint, and easing pressure on public infrastructure. Its objectives include minimizing water waste, modernizing sanitation equipment, and promoting the reuse of wastewater through innovative technologies. The expected outcomes include increased access to drinking water and sanitation, a significant reduction in water consumption in public institutions and households, improved school infrastructure to support girls' education, and job creation in the assembly and maintenance of water-efficient equipment. Partnerships involve ministries, local institutions, technical NGOs, and international stakeholders such as Save Water Save Money and Ecobeta. The project is structured around three core components: efficient water management, the replacement of high-water-consumption equipment with modern alternatives, and the reuse of wastewater through off-grid technologies. Building on a successful pilot implemented in Côte d'Ivoire (2015–2016), which achieved a 40% reduction in administrative water use, the project intends to scale these innovations to address critical water needs while supporting climate action.



M Sylvain USHER
Advisor to the Executive
Director (AfWASA)

Strengthening AfWASA Governance



Dr. Eng. Silver MUGISHA
Managing Director (NWSC)

AfWASA's governance was strengthened in 2024 through several key initiatives. During the meeting held on 1 August in Lomé, resolutions led to calls for applications to renew the members of the Steering Committee and affiliated representatives. Additionally, the Pan-African Association of Sanitation Actors (APAA) organized a strategic planning workshop in Yaoundé, which facilitated the clarification of roles, the development of regional strategies, and the training of regional coordinators. Finally, the Government of Uganda and AfWASA signed an agreement for the establishment of the African Water and Sanitation Academy, thereby further reinforcing governance within the sector.

Call for Contributions and Program – SDG6 Congress



The call for contributions, open from 15 June to 31 July 2024, received 404 submissions from **41 countries**, including **12 outside Africa**. The themes addressed include climate change, water and sanitation management, governance, partnerships, and technological innovation. Among these submissions, **223 papers were selected for oral presentations** and **133 for poster sessions**, totaling **126 planned sessions**, distributed across **14 parallel sessions per time slot**. The program opens with an institutional summit exploring pathways to achieving **SDG 6**, followed by a symposium on **water security in Africa** and an interactive **intergenerational dialogue** on the future of the water sector. The afternoon features panel discussions bringing together researchers, African and international institutions, including the **World Bank**.

An **Operational Challenge**, sponsored by **AfWASA, NWSC, and Grundfos**, will place teams in competition across technical categories such as **water quality management** and **electromechanical pumping systems**, with awards granted to the best-performing teams. Upcoming key steps include the finalization of session terms and the publication of the provisional program. **Interactive tools** such as Mentimeter will be used to enrich discussions and strengthen participant engagement in this initiative dedicated to sustainable water and sanitation management in Africa.

African Young Water Professionals Forum – AfWASA ICE 2025

The AfWASA ICE 2025 Young Water Professionals (YWP) Forum, scheduled for 15 February 2025 at the IREC Bugolobi in Kampala, will focus on the theme: “Water and Sanitation for All through Youth-Led Innovative and Sustainable Solutions.” This initiative, marking the 10th anniversary of the YWP movement in Africa, aims to empower professionals aged 35 and under for sustainable water management. Its objectives include knowledge sharing, capacity building, showcasing innovations, and integrating youth perspectives into the African sector agenda. Planned activities include workshops, panel discussions, mentoring sessions, field visits, sanitation innovation challenges, and celebrations recognizing the most active YWP chapter. The forum is also seeking partners to support its projected budget of USD 20,935, offering a valuable opportunity to help shape the future of the water and sanitation sector in Africa.



Women Water Professionals Forum – AfWASA ICE 2025

The 5th Women's Forum, scheduled for **16 February 2025** in Kampala during the AfWASA Congress, will highlight the central role of women in the water and sanitation sector. Under the theme "Women as Guardians of Change for Sustainable Development," the forum aims to promote women's participation in water management, encourage women's entrepreneurship, and advocate for reforms in public policies. Following the 4th Forum held in Abidjan (2023), this edition will feature panel discussions, experience-sharing sessions, and dialogues, while showcasing inspiring women-led success stories. The Forum seeks to strengthen women's leadership in order to advance progress toward SDG 6 and sustainable resource management across Africa.



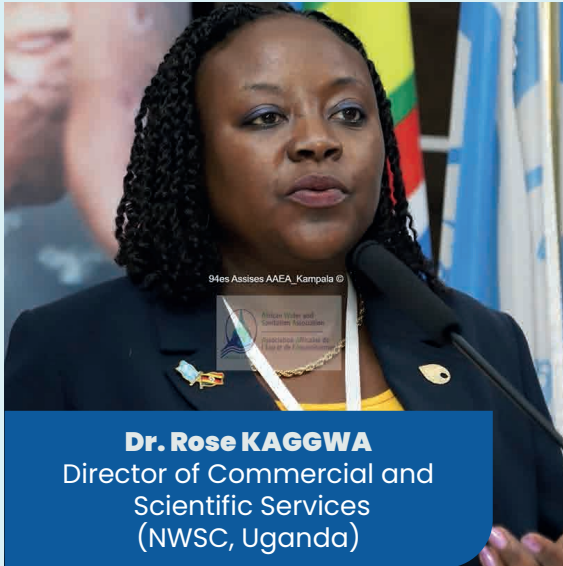
Overview of the Nakivubo Wastewater Treatment Plant



The Nakivubo wastewater treatment plant, covering an area of **79,000 m²**, is a model of sustainable and technologically advanced infrastructure. With a treatment capacity of **45,000 m³/day** serving **380,000 population equivalent**, it combines efficiency and innovation in wastewater management. A **SCADA system** supervises all operations, while sensors continuously measure key water quality parameters in real time. The treatment process includes preliminary treatment (screening, degreasing, and grit removal), biological treatment using **trickling filters**, and secondary treatment through sedimentation tanks.

Treated effluent is discharged into the Nakivubo channel with improved **TSS, COD, and BOD** levels. Extracted sludge undergoes **anaerobic digestion** in two digesters, producing **1,200 m³/day of biogas**, composed mainly of methane. This biogas is utilized in **two combined heat and power (CHP) units**, generating **630 kW** of electrical and thermal energy. The digested sludge is dewatered to reduce volume, producing dry "cakes" that are subsequently dried further. With its advanced technologies and sustainable approach, Nakivubo stands as a remarkable example of wastewater management integrating operational efficiency, energy recovery, and environmental protection.

Water Quality Management – NWSC



The Water Quality Management Directorate of NWSC in Uganda stands out for its commitment to delivering services that comply with environmental standards through innovative solutions. It relies on a network of **75 laboratories**, staffed by **122 experts**, as well as a modernized central laboratory in Kampala equipped to perform advanced analyses (heavy metals, pesticides, DNA). Each year, **120,000 drinking water samples** and **6,000 wastewater samples** are tested to ensure compliance. NWSC collaborates with institutions such as the **Uganda National Bureau of Standards** and the **Ministry of Water** to maintain quality standards. Digital tools, such as **WaQIMS**, support data management, distribution network monitoring, and chemical tracking. In addition to laboratory analyses, NWSC provides **consultancy services, training programs, and pilot testing** to improve water and wastewater management. Rapid response teams efficiently handle customer complaints, strengthening user satisfaction. These efforts position NWSC as a **global model of excellence** in water quality management, integrating modern infrastructure, technical expertise, and a collaborative approach.

Young Water Professionals Forum – AAEA ICE 2025

The Young Water Professionals (YWP) Forum of AAEA ICE 2025, scheduled to take place on **15 February 2025** at **IREC Bugolobi in Kampala**, will be held under the theme: **“Water and Sanitation for All Through Youth-Led Innovative and Sustainable Solutions.”**

This initiative, marking the **10th anniversary** of the YWP network in Africa, aims to empower professionals **aged 35 and under** to contribute to sustainable water management. The objectives include knowledge sharing, capacity building, showcasing innovations, and ensuring that youth perspectives are integrated into the African agenda. Planned activities include **workshops, panel discussions, mentorship sessions, field visits, sanitation challenges**, and celebrations recognizing the **most active YWP chapter**. The forum is also seeking partners to support its projected budget of **USD 20,935**, offering a meaningful opportunity to contribute to shaping the future of the water and sanitation sector in Africa.



Development and Skills Management in Public Water and Sanitation Utilities

This presentation highlights the importance of disruptive technologies and innovations in transforming public water and sanitation services, thereby contributing to the achievement of SDG 6. Among these technologies are smart meters, online payment systems, ERP platforms, SCADA systems, and environmentally sustainable solutions such as water recycling and biogas production. These advancements help reduce water losses, modernize infrastructure, strengthen climate resilience, and improve governance through enhanced data analytics. Public utilities, supported by AfWASA, governments, and development partners, play a pivotal role in implementing and adopting these technologies. AfWASA acts as an innovation hub, promoting training, pilot initiatives, and knowledge exchange. Governments must ensure appropriate governance structures, financing mechanisms, and robust cybersecurity systems, while development partners provide mentorship and financial support. To sustain these efforts, critical competencies are required, particularly in asset management, non-revenue water reduction, data analytics, and human resource capacity building. Effective collaboration among stakeholders is essential to address challenges and accelerate the deployment of innovative and sustainable solutions in the water and sanitation sector.



Water Quality

The conference on water quality, led by Enos Malambala, Quality Assurance Manager at KWNWSC, highlighted innovative technologies aimed at improving water quality management and achieving SDG 6. Among these technologies are automated systems (online analyzers, SCADA), solar-powered disinfection, rapid microbiological testing, and wastewater recycling through a “zero discharge” approach. Modernizing systems requires eliminating manual chemical dosing, protecting water resources, and developing locally designed technologies for decentralized treatment. Strengthened collaboration with communities and the promotion of affordable solutions are also essential. AfWASA, public utilities, governments, and development partners play a central role. AfWASA must establish innovation centers and key performance indicators (KPIs), while public utilities must integrate these innovations into their infrastructures. Governments should support innovation through enabling policies, and development partners must provide financial and technical assistance. Next steps include a dedicated water quality event during the AfWASA Congress 2025, an international symposium in July 2025, and a “training of trainers” program in September 2025, thereby consolidating efforts toward sustainable water management.

Specialist Group on Non-Revenue Water (NRW)

The Specialist Group on Non-Revenue Water (NRW), presented by Eng. Phideria Moyo, is focused on reducing water losses and improving drinking water services in countries such as Guinea, the Democratic Republic of Congo, Chad, and South Sudan. Key priorities include organizing an NRW symposium by June and planning a thematic congress. The technologies identified to enhance NRW management include remote monitoring (SCADA), smart meters, leak detection devices, pressure management, and district metered areas (DMAs). These tools, combined with optimized operational measures such as equipment replacement, fraud prevention, and public awareness campaigns, are essential to achieving SDG 6. Key stakeholders including AfWASA, public utilities, governments, and development partners play a major role by supporting innovation through funding, enabling policies, and capacity building. AfWASA focuses particularly on establishing partnerships, providing technical assistance, and developing technology incubators. Next steps include selecting host countries for upcoming events, promoting technological innovations, and mobilizing the necessary expertise across member states to strengthen the fight against NRW.

Disruptive Technologies and Innovations in Urban Inclusive Sanitation



Ms. Julian Musiime
(AfWASA)

The presentation on disruptive technologies in urban inclusive sanitation, led by Julian Musiime (AfWASA), brought together experts from several countries and institutions such as NWSC and ONEE. It highlighted major innovations aimed at improving sanitation services in urban areas, including the Biofil Tank, the Omniprocessor, dry toilets, and treatment solutions such as the Septopure FSTP. These technologies integrate waste treatment, resource recovery into energy or fertilizer, and digital platforms such as Weyonje for service management.

The discussion emphasized the modernization of regulatory systems, the integration of data collection tools, and the harmonization of regulations to support the adoption of these innovations. Capacity building relies on training technical teams and raising awareness among communities. Public-private partnerships (PPPs) and innovative financing mechanisms are critical to attract investments and scale up these solutions. AfWASA plays a central role by coordinating stakeholders, facilitating knowledge sharing, and standardizing approaches. Governments, utilities, and

development partners work together to pilot and finance inclusive technologies, while the private sector contributes technological innovation. These combined efforts support a sustainable and inclusive approach to urban sanitation aligned with the Sustainable Development Goals, particularly SDG 6.

Financing and Investment Management

The panel on financing and investment management, chaired by Faustina Boachie (Ghana, GWLC) and reported by Kadidja Keita (Guinea, SEG-SA), explored disruptive technologies and the processes required to achieve SDG 6. In the water sector, innovations such as desalination, GIS systems, smart meters, and remote monitoring were highlighted. For sanitation, biodigesters, sludge drying beds, and ventilated improved latrines were identified as key solutions. Discussions emphasized the need to revise policies, strengthen governance, and mobilize technical and financial partners to improve financing mechanisms. The roles of stakeholders were clarified as follows: AfWASA must raise awareness and disseminate best practices; utilities must adopt innovations and mobilize funds; governments must establish incentive policies and secure financing; and development partners play a crucial role in increasing financial support. Capacity building is essential to bridge gaps in the implementation of innovative technologies. This includes training on financing models, technological choices, and economic approaches to ensure the achievement of sustainable development goals across the water and sanitation sector.



Climate Change



The EMPOWERWASH Phase 2 program, led by AfWASA, aims to improve water, sanitation, and hygiene (WASH) systems in rural and peri-urban Africa. Coordinated by a group of experts from 18 African countries, it focuses on institutional strengthening, knowledge sharing, and the introduction of innovative technologies. Key priorities include training on the Institutional Strengthening Index (ISI) tool, the AfWASA scholarship program, and the consolidation of rural water data in line with international standards. Core innovations include mobile payment systems, smart meters, and autonomous water supply systems for remote areas. The program also plans progress

assessments toward the SDGs, quarterly review meetings, and the adoption of locally adapted solutions such as activated carbon (Ethiopia) and chemical dosing devices (Ghana). Identified challenges include the modernization of infrastructure, the implementation of equitable tariff systems, and raising awareness on the impacts of climate change. Capacity building through the training of young professionals and technical support is essential. AfWASA acts as an incubator of innovation and a catalyst for collaboration among governments, regulators, universities, and the private sector to sustainably transform WASH services across Africa.

Data and Innovation

The text highlights the concepts of disruptive technologies and innovations, as well as their impact on the water and sanitation sectors in achieving SDG 6. Disruptive technologies, such as ultrafiltration or containment latrines, introduce radical solutions that challenge traditional practices but require longer adoption periods. In contrast, innovations such as smart meters and sludge drying processes bring gradual improvements that are easier to integrate into existing infrastructures. Key improvements needed include modernizing water production and distribution systems through remote monitoring, variable speed drives, and prepaid water kiosks, as well as promoting wastewater and biosolids reuse in the sanitation sector. The involvement of governments, technical and financial partners (TFPs), and AfWASA is crucial to stimulate research, encourage public-private partnerships, and finance innovations tailored to local challenges. To succeed, it is essential to strengthen data collection and analysis, promote cross-sector collaboration, and develop technically appropriate solutions. Increased collaboration and investment in research and innovation remain key to ensuring sustainable water and sanitation management.



Water and Sanitation in Rural Areas

Le programme EMPOWERWASH Phase 2, dirigé par l'AAEA, vise à améliorer les systèmes d'eau, d'assainissement et d'hygiène (WASH) en Afrique rurale et périurbaine. Coordonné par un groupe d'experts de 18 pays africains, il se concentre sur le renforcement institutionnel, le partage de bonnes pratiques et l'introduction de technologies innovantes. Parmi les priorités figurent la formation sur l'outil Institutional Strengthening Index (ISI), un programme de bourses de l'AAEA, et la consolidation des données sur l'eau rurale conformément aux standards internationaux.

Les innovations clés incluent les paiements mobiles, les compteurs intelligents et les systèmes autonomes pour l'approvisionnement en eau des zones reculées. Le programme prévoit également l'analyse des progrès vers les ODD, des réunions trimestrielles pour le suivi, et l'adoption de solutions locales comme le charbon actif (Éthiopie) ou les dispositifs de dosage chimique (Ghana).

Les défis identifiés concernent la modernisation des infrastructures, la mise en place de systèmes tarifaires équitables, et la sensibilisation aux impacts du changement climatique. Le renforcement des capacités par la formation des jeunes professionnels et l'accompagnement technique est crucial. L'AAEA agit comme incubateur d'innovations et catalyseur de collaboration entre gouvernements, régulateurs, universités et secteur privé pour transformer durablement les services WASH en Afrique.



Siège : Riviera Palmeraie – Rond point, Place de la Renaissance
Immeuble SODECI, 2ème étage 25 BP 1174 Abidjan 25 Côte d'Ivoire
Contact@afwasa.org | **www.afwasa.org**