



EAWATERS

6th East Africa
Water
Summit 2021

THEME: SUSTAINABILITY IN THE COLLECTION, TREATMENT
AND STORAGE OF WATER AND SANITATION



2nd - 3rd December 2021
Nairobi

EAWATERS 2021

East Africa
Water Summit
2021

ORGANIZER



PARTNERS



ZENNER



Our Three Pillars



Policy



Technology



Finance

WELCOME REMARKS FROM THE MD, KIPYA AFRICA, EAWATERS ORGANIZER

"WELCOME TO BOTH OUR PHYSICAL AND ONLINE GUESTS TO THE 6TH EAST AFRICA SUMMIT AS WE SEEK TO ADDRESS "SUSTAINABILITY IN COLLECTION, TREATMENT AND STORAGE OF WATER AND SANITATION."

As we conduct this summit in our hybrid format, I want to start by thanking both our physical guests and those joining us online, the network of organizations as well as the staff who have made it possible for us to be here today. Despite the global pandemic that is still ongoing and continues to challenge the global economic and health sector, we do not take lightly your participation in addressing these matters and deliberating on the steps to be taken by the country to drive towards achieving the UN Sustainable Development Goal no. 6.

Dr. Gathuru, MD of Kipy Africa, also took the time to remember the colleagues the water sector has lost to the COVID-19 Pandemic in the past two years.

EAWATERS was inaugurated in 2016 with the aim of bringing the key stakeholders in the water sector to one meeting with the purpose of sharing relevant information to improve the sector. Some of the issues we have addressed since 2016 include improving energy efficiency in the sector, access to sustainable water for socio-economic development, sustainable water and sanitation in the face of climate change as well as accelerating the achievement of water and Sanitation for all in the face of the Pandemic.

EAWATERS seeks to help the East Africa region in achieving universal access to water and sanitation by focusing on the three major areas pivotal to that goal: Policy, Technology and Finance.



Dr. Gathuru Mburu
Managing Director
KIPYA AFRICA

OPENING REMARKS BY THE CHAIRPERSON, KENYA WATER INDUSTRY ASSOCIATION

"WELCOME TO THE 6TH EAST AFRICA WATER SUMMIT. AN OPPORTUNITY FOR MEANINGFUL COLLABORATION AND ENGAGEMENT BETWEEN THE PUBLIC SECTOR AND REGULATORS AND THE PRIVATE SECTOR STAKEHOLDERS."

This Summit gives me the opportunity to highlight some of the problems facing the water sector in Kenya. The Mission of KWIA (Kenya Water Industry Association) is to be a voice for the water sector; our Vision is to improve living standards through responsible development of water resources. Kenya has a robust legislative framework to ensure the protection of water resources, indeed it is one of the best in Africa. Governance is fine on paper, but the challenge is in the actual good practice in the field. We are some 17% into the abstraction of available safe groundwater yield; but half of this is during this present century; increasing population and economic growth adds significantly to demand.

A number that has long stuck with me, is that a borehole costs \$100 per meter; this has been a standard for decades. In the 1980s there were <20 rigs active in Kenya; now there are >200! Prices have greatly diminished and so has the quality of the product as "short cuts" are inevitably being taken. There are accounts of drillers offering services at close to half the price, i.e., \$50. There is unauthorized drilling, unlicensed abstraction and generally poor reporting. Consequently, there is concern for the governance and sustainability of water projects being undertaken throughout the country.

KWIA is seeking to take a more significant role in water sector governance. In recent years KWIA set up a pilot project for digitizing boreholes in four counties. This innovative project was undertaken by KIPYA and was a remarkable success. KWIA seeks to replicate this project. For present and future generations, it is of crucial importance and urgent that good groundwater governance is secured.



Mr. Tom Armstrong
Chairperson
(KWIA) Kenya Water Industry Association



PRESENTATIONS FROM ORGANIZATIONS

DOSHI has invested in state-of-the-art piping facilities and partnered with the best institutions around the world to be able to fulfill their goal in achieving water access and minimal wastage by providing quality piping systems.

Water wastage and damage can also occur after delivery and so at Doshi, we design our products by considering both spheres of the system in transmission from the source to when the water arrives at the households.

Mr. Ajay Doshi
CEO, DOSHI Group of Companies



It is important that property developers should be aware of safe water availability in the areas they set up their projects. It is crucial to remember that the water resource covers the entire geographical environment beyond the project area.

Recycling and conservation of rain water are central to our practice and we encourage other developers to do the same. We are glad that organizations such as DOSHI offer affordable solutions to make this possible.

Mr. Ravi Kohli
Vice Chairperson, Kenya Property Developers Association



The Bavarian government through the BIWAC project has been helping in capacity building in the water sector. The Bavarian Ministry for Economic affairs, over the past 8 years, has organized several meetings and delegation visits by Kenyan experts and decision makers to visit Bavaria and companies in Bavaria that offer products for water utilities.

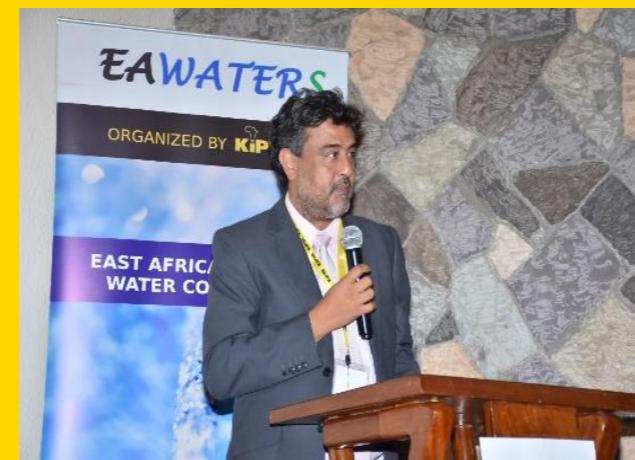
In Kenya, BIWAC through the bfz (English: Bavarian Finance Center) has also been instrumental in the growth of the water sector by supporting WASPA and KWIA since 2011.

Mr. Jens Kaiser
Project Manager, Bavarian Institutional Water Corporation



Out of our annual turnover, we invest 3% back into research to develop our products even further. Among the things we are constantly looking at is the high consumption of energy by compressors. To remedy this, in 2013, we developed a new compressor that can save you energy by 50% and come 2022, our latest compressor will be able to save your energy by 60%.

Mr. Raphael Kiandiko
Regional General Manager, Atlas Copco Eastern Africa



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Mr. Jens Kaiser
Project Manager, Bavarian Institutional Water Corporation

REMARKS AND KEYNOTE SPEECHES

In Tanzania, the government in collaboration with various stakeholders has been implementing the water sector development plan under the theme "Program ya Maendeleo ya Sector ya Maji." Its objective is to alleviate poverty through improvement in the governance of water resources management and the sustainable delivery of water supply and sanitation services.

Recent studies in Tanzania have shown, that the average water availability per person stands at 2,250 cubic meters per person which is more than the international required minimum availability per person.

Dr. John Simbachawene
High Commissioner, United Republic of Tanzania to Kenya



The East African region suffers from many socio-economic challenges. The crucial role of water in accomplishing goals set from these challenges cannot be taken for granted.

The East African Region has embarked on the development of an EAC Water policy and integrated water resources strategy. The two instruments are being developed based on the EAC vision developed in 2018.

Mr. Jean Baptiste Havugimana
Director of Infrastructure, East African Community

"IT'S STRANGE THAT WATER IS MORE VALUABLE THAN DIAMOND YET WE PUT MORE VALUE IN DIAMOND THAN WE DO IN WATER."



Food insecurity is a major concern in Kenya due to the rising population in the country and changes in climate patterns due to the effects of global warming. For the country to be able to achieve its 2030 vision in water access sustainably, appropriate water collection and treatment is essential.

NWHSA has played its part in achieving this through the construction of many dam projects in areas including Kajiado, Baringo, Kitui, West Pokot and elsewhere. This is to utilize seasons of heavy rains and relieve the effects of prolonged droughts that are felt after.

CS Sharon Obonyo
Ag. CEO, National Water Harvesting and Storage Authority



There is the need to emphasize the importance of adding value to the water sector. There are steps that are needed to be taken to provide incentive to the private sector. By bringing both the private and the public stakeholders to one table can we then begin effective corporation between the industrial players.

Mr. John Bosco Kalisa,
CEO, East African Business Council

POLICY



Eng. SAO Alima
Water Secretary, Ministry of Water, Sanitation and Irrigation, Kenya.

The National Water Policy was passed by the Kenyan parliament several weeks ago to embrace coordination between various institutions. The policy was necessary due to the lack of intergovernmental policy between the two levels of government, county and national.

This will help in the better utilization of the available resources available as opposed to their current sub-optimal usage brought about by uncoordinated independent decision making by the county and national governments.



Eng. Mary Wamaitha
Ministry of Water, Sanitation and Irrigation, Kenya

Development in terms of civil infrastructure has been on the rise. However, there are concerns that in some major cities and towns such as Nakuru and Athi River, the additional demand has slowly begun to outpace water availability.

This could then be the onset of a series of unfortunate events. Over abstraction of the aquifers will begin to be an issue and as the water levels decrease, the integrity of the aquifers will be in question.

The consequences of this are the possible loss of the aquifer meaning that even during rainy seasons, the aquifer can no longer be recharged as water might be unable to permeate through the once porous layer.

CHALLENGES

There is adequate legislation in the water sector but the major challenges faced are in the actual implementation of these measures. This has meant that some of the water services that are being provided are unsustainable and not undertaken to best practice. There is unauthorized drilling, unlicensed companies and inadequate research conducted prior to drilling.

Inadequate research has also meant some areas are subjected to over abstraction which raises concerns of substantial falling aquifer water levels



The water sector is currently able to attract only one third of the investment needed to achieve the 2030 goal of improved universal access of water and sanitation.

Studies have shown that Kshs. 652 billion in investment is required to meet the 2030 goal.

One of the biggest issues facing the sector as well is non-revenue water which currently stands as high as 42% in Nairobi. This means that close to half of the water produced is lost and therefore half the revenue is lost.

Hydroelectric power makes up a large part of the grid that provides energy to Kenya. As good as this is in line with Kenya achieving its goal in 100% renewable energy, there are still concerns on the relative efficiency of the hydroelectric power. It is vital that the electricity generated through this means is done so efficiently.

Additional infrastructure and practices are still needed to make use of wet seasons especially within the context of climate change. Many areas experience flooding yet are without water in prolonged droughts that follow. More policies are required to encourage water conservation, recycling and ground water recharge.



Hon. Kevit Desai
delivers his
closing remarks.

CHALLENGES



With the current digital age, there is a need for the implementation of more efficient and digital systems. However, vandalism and hacking of data becomes a major concern putting the *sYwWfJhmícZ h\Y gng\Ya s* in question.



Efficient digitization of data is lagging behind. Information such as georeferencing of wells, geological data on aquifers and drilling history is not yet digitized nor made accessible to the public on a web platform.



There is a lack of sufficient monitoring systems in of aquifers in place making it impossible track over abstraction as well as water level data from boreholes.



TECHNOLOGY



PANELISTS

Eng. Moses Jura, Kisumu Water and Sanitation Company (from left to right); Mr. Edmond Wandera, ICT Authority; Dr. Shiko Gitua, CEO of Qhala; Geol. Chrysanthus Gicheruh, Geological Society of Kenya (On Screen); Geol. Mike Karanja, CEO Geothermal Association of Kenya and Geol. Madam Agatha Njuguna, Water Resources Authority.

“As much as we want to look into the future and how innovative technology can help streamline the sector, what measures are the regulating bodies taking now?”



The main issue addressed during the panel discussions was the need to set up policies and documentation to begin implementing technology into the regulatory bodies of the water sector.

The government of Kenya through the ICT Authority has been investing in infrastructure necessary for companies and public entities in the country to be able to digitize their data and have it accessible to them. This has been done through the construction of data centers in the country.

This then makes information more accessible as well as assisting in automation of the sector.



KWIA Special Annual General Meeting led by Chairperson Tom Armstrong.

FINANCE



PANELISTS

Mr. Onchi Maiko, Financial Consultant; (from left to right) Madam Elizabeth Wambui, Regional Coordinator of the Nairobi City Water and Sewerage Company; Eng. Mary Wamaitha, Ministry of Water, Sanitation and Irrigation; Dr. Barbara Kazimbaya-Senkwe, Senior Governance Advisor, Water, Sanitation and Hygiene.

"The monkey is on everyone's back not just ours."

"The buck must stop here."

The issue on non-revenue water was the most pressing issue discussed. In Nairobi, non-revenue water currently stands at 42%. However, the representative of the utility (Madam Elizabeth Wambui) insisted that the blame should not entirely fall on Nairobi Water and Sewerage Company but on all stakeholders.

Mr. Onchi Maiko, representing the private sector, was unwilling to accept any blame to his point of view. He made his case insisting that the framework in place was designed without due consideration of the private sector.

CHALLENGES



The involvement of the private entities in the water sector was discussed. The major concerns raised were that if a private enterprise tried to build a facility for bulk production of water, the government might for example give them a tariff that is only 30% of the actual capital cost of putting up the project.



The issue on non-revenue water was raised given the high percentage. This was because reducing NRV can then allow the public sector to source more funding to meet its goals.



The Private sector is concerned not to inherit large debts incurred by the various water bodies from past dealings.



The Government is currently only able to attract a third of the necessary funding required to meet their 2030 goals in universal water access and sanitation.



WOMEN IN WATER AND SANITATION CONSULTATIVE MEETING

“Empowerment only comes when the last woman is empowered.”

Dr. Leunita Sumba
Chairperson, WIWAS

WIWAS was started in 2016 as an initiative to reinforce the role of women in water and sanitation management. They have been involved in pushing the agenda of Water and Sanitation through capacity building, advocacy, mentorship, knowledge management and networking. In this way, they are contributing towards water & sanitation for all while complementing the efforts of both the private and public sectors.

The meeting highlighted the unfortunate circumstances of gender-based violence given the crucial role women play in the provision, management and safe guarding of water. They addressed the issues of sanitation and waste management in the major cities in the country and the fact that approximately 9% of Kenyans practice open defecation.

This raised the concern on sanitation related gender-based violence, given the lack of adequate accessible washroom facilities, faced by a section of the population. These include sellers in markets as well as individuals who are unable to access these facilities at their place of work.

Given the inequalities faced by women around the country, the meeting then emphasized the importance of inclusion of women in major decision making in the sector.

This can be resolved by inviting them to the table, giving them space to be involved where they feel safe to express themselves and fulfill their potential.



Dr. Leunita Sumba
Chairperson
WIWAS (Women In Water And Sanitation.)



Eng. Mary Wamaitha (left to right), Dr. Leunita Sumba and Dr. Barbara Kazimbaya-Senkwe.

RESOLUTIONS FROM THE EAWATERS 2021 SUMMIT



Better practice of the legislative framework in place is critical. This will assist in accountability and sustainability in the water sector.

There should be further engagement between the regulatory bodies in the water sector, property developers and environmental bodies such as NEMA to ensure that urban development is on par with water availability in major towns and cities.

The importance of conservation and recycling of water should be encouraged. Buildings in the future should be commissioned with due consideration of the implementation of these methods.

There is a need for the reassessment of certain aspects of the regulatory framework to give more incentive to the Private sector thus encouraging PPP (Private Public Partnership).

There is a need for more engagement with the private sector in the conceptualizing and drafting of this framework.

Due consideration should not only be placed in the efficiency of the use of energy but more importantly, the efficiency of the use of the natural resources that produce them.

The private sector should be involved in assisting in streamlining the sector. This way, the progress achieved on a yearly basis can be assessed and the steps to be taken in the future formulated.



The major bodies in the water sector should begin setting up policies and documentation regarding their IT and digitization strategies.

Digitizing of data in the water sector is falling behind. The bodies should begin implementing modern technology such as designing web-based platforms so as to access information on geo-referenced wells, borehole data, water levels etc.

Further steps need to be taken in automation of the systems in place to assist in efficiency and faster service delivery.

Means of monitoring need to be implemented. For example, smart water systems enable effective water billing thereby reducing non revenue water for a water service provider.

Information on the history of borehole data and wells drilled should be readily available to be able to assist in regulation in the sector.

Policies need to be in place to protect digital equipment to be installed. (E.g., harsh penalties for vandalism)

Relevant bodies should have better methods to keep track of over abstraction of water by consumers given the consequences to be met in the possible loss of the aquifer as well as subsidence.



The tariffs imposed on the private sector for the development of large projects should be reviewed and the private stakeholders involved so as to make the operations viable.

The issue of non-revenue water needs to be brought to a resolution either by implementing quality systems that offer sustainability or by upgrading the outdated systems that are in place. More importantly, all sectors involved are required to accept their part form resolutions to rectify them.

The government is able to source funding necessary to achieve their 2030 goals if only they can reduce non-revenue water. This will pull close to Kshs. 150 billion in funding for the sector in addition to Kshs. 9 billion to be sourced from levies.

The regulatory framework should give better incentives to be able to bring the private sector on board.

More infrastructure should be put in place to help in preservation of water through building of dams so as to better utilize the heavy rainy seasons given the challenges of global warming.

When a public utility incurs a debt, the issue of who will take the burden and how the debts will be managed should be clearly stated as the private sector hesitates to invest in a debt-ridden utility.

CLOSING REMARKS FROM HON. DR. KEVIT DESAI PRINCIPAL SECRETARY, STATE DEPARTMENT OF EAST AFRICA COMMUNITY

"IF EAWATERS COULD BE A FEDERATION, THAT BRINGS ALL THE DIFFERENT ASSOCIATIONS TOGETHER, THEN THE LINK TO THE EAC HEADQUARTERS BY ENSURING WE ARE ABLE TO SUPPORT EXISTING EFFORTS BECOMES MORE ESTABLISHED. IT BECOMES A WAY YOU CAN GO FORWARD"

It is a great pleasure to be here today and it is very interesting to see the vigor and enthusiasm in the moments I shared with you in the previous session. I congratulate you for the high level of inclusivity that exists by bringing together the leadership from the different sectors together; the civil society, the private sector, the public sector and the various government agencies.

There is a deep appreciation of the challenges faced in the sector. These not only include the social aspect of water as a source of life but also the issues sanitation brings in the spread of water borne diseases. This not only takes away life, but robs children of the opportunity to go to school as well depriving women of productive pursuits as they care for their sick family members or are then required to fetch water. This notwithstanding the effects of climate change.

The summit has helped promote the importance of the need to be collaborative to help collective leadership and action. Decisions then need to be made to ensure we are able to sustain and promote your work.

Another important area is the capacity building in terms of skills. Fortunately, for us in Kenya we have transitioned the education system into competency-based education and training. This means that the East African Water sector can then set the occupational standards from collection to harvesting to distribution and in this way, facilitate the technical aspect of the sector for the future.

I thank you very much ladies and gentleman and want to assure you of our full support both from the national government as well as the EAC community.

CLOSING REMARKS FROM MAJOR GENERAL (Rtd) ANDREW K. IKENYE



Major General (Rtd) Andrew K. Ikenye
Chairperson, National Water Harvesting and Storage Authority.



Dr. Gathuru Mburu welcoming Hon. Dr. Kevit Desai
(Principal Secretary, State Department of East Africa Community; Ministry of East Africa Community and Regional Development.)

"MY RECOMMENDATION WOULD BE THAT AS WE BUILD OUR HOMES IN KENYA, IT SHOULD BE MADE COMPULSORY TO HARVEST THE WATER THAT IS AROUND US."

Suffuse to say, listening to all the speakers here, it is clear that Kenya suffers from a severe water crisis. This is due to multiple causes that include drought, flooding, lack of water supply management, degradation, contamination of water as well as population growth to name a few. It is then heartening to see that the relevant government and regulating bodies as well as the key stakeholders in the water sector are able to congregate, deliberate and are trying to find solutions to these problems. For that, I would like to thank the organizers of this year's summit, Kipy Africa, in collaboration with the Kenya Water Industry Association for providing the platform we can use to discuss these challenges.

The water summit was acknowledged for having addressed these issues over the two days. However, Major General Ikenye still drew concerns as to whether the conclusions reached would be able to form the policies that will then be able to tackle these problems.

VOTE OF THANKS FROM DR. GATHURU MBURU

"IT HAS INDEED BEEN A PLEASURE AND A PRIVILEGE FOR ME TO HAVE SPENT TWO FANTASIC DAYS WITH YOU."

We have shared experiences and new ideas that will accelerate the achievement of water and sanitation for all.

Dr. Gathuru took this opportunity to thank the Chief guest Hon. Sicily Kariuki for opening this year's summit, His Excellency Dr. John Simbachawene, the key guest for the closing Principal Secretary for the EAC Hon. Dr. Kevit Desai, the Secretary General of the EAC Dr. Mathuki for the representation by Jean Baptiste, Major General Ikenye, our water secretary in Kenya Eng. Alima as well as all the officials from the Ministry and all the participants, guests, network of organizations, the staff at Kipy Africa and the crew who have made this year's summit possible.

We invite and look forward to hosting you all for next year's summit and hopefully, we will have seen the last of the COVID variants.

EAWATERS 2021

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