

May 20-26 , 2023

Harnessing the Power of Collaboration; KEWI holds a Water Quality Management Symposium



Brig. (Rtd) Stephen Njung'e Kihu and Dr. Leiro Letangule at KEWI Exhibition Booth during the symposium.

BY PIUS KIMANI

Kenya Water Institute (KEWI) Chief Executive Officer Dr. Leiro Letangule termed the recently concluded Water Quality Management Symposium as a perfect forum for all water sector players to share knowledge, experience and technological knowhow on effective means for the

management of water quality.

While welcoming participants for the 2 days event whose curtains came down on 26th Friday 2023, Dr. Letangule noted that such a conference was an opportunity to exchange ideas and emerging issues and to reflect on the strategies for water quality management against scarcity caused by climate change.

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Harnessing the Power of Collaboration; KEWI holds a Water Quality Management Symposium

The CEO observed that KEWI had considered the symposium a pivotal one in regards to its outreach programs as it was seeking to enlighten students fraternity and stakeholders for the sector at large, the need for human capacity and core competencies required to manage water supply and sanitation systems for future.

The symposium whose success was as a result of contribution from the Ministry of Water, Sanitation and Irrigation (MWSI), Safaricom Plc, National Bank of Kenya (NBK), Environmental Systems Research Institute (ESRI) East Africa, Davis and Shirliff, Aqua Treat Solutions, Water Resources Authority (WRA), Regional Centre for Groundwater and Langata Sub-County Education office brought together stakeholders in the water industry to look on how to accelerate changes towards access to good water quality for sustainable development.

Speaker after speaker gave thought provoking insights on how to make things work as the world experiences the crises of climate change that is a contributing factor to water quality.

The need to use real-time data to enhance water quality and to harness the power of



Prof. Ratemo Micheka addressing participants in the just concluded symposium.

technology in addressing challenges that affect water quality in relation to sustainable development featured among the key interventions water sector should consider in their operations.

Prof. Ratemo Micheka, Chairperson National Research Fund (NRF) noted that quality water is a global dialogue happening at a time when this precious resource is getting diminished. Prof. Micheka underscored the need for all stakeholders to engage water consumers on the lower cadre of the pyramid on how to handle and manage water.

This, through capacity building, would make the communities become champions in enhancing and conserving water sources which will largely contribute

to the greater goal of enhancing the water quality.

His observations were echoed by Elizabeth Nyawira from ESRI, Eastern Africa, an organization that specializes on mapping out an array of geographical distributions through Geo Information Technology (GIS).

In her presentation, Ms. Nyawira noted that using real-time data to map out water infrastructure would give latest information about water sources. This would go a long way in addressing the quality of water we use.

Water Service Providers Association of Kenya (WASPA) Chief Executive Office Mr. Antony Ambugo noted that there was a correlation between the quality of water and the surge in waterborne diseases especially diarrhoeal diseases and some cancer types that is a

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Above left; WASPA CEO Antony Ambugo makes his presentation during the symposium

a result of heavy metal presence in potable water.

Mr. Ambugo noted that addressing Water, Sanitation and Hygiene using appropriate research methodologies and technologies would help arrest spread of such diseases which are becoming too expensive to treat in comparison to treating water itself.

The symposium which had key areas of focus include technologies and innovations for water quality management, financing water quality management among other key areas also received timeless contributions from key participant whose contributions resulted in coming up with resolutions in regards to the theme of the symposium. **(more on pg 6)**

The event also saw participants drawn from primary, secondary and tertiary schools participate in a water quality competition. Winners of the competition which was meant to gauge the level of understanding of such learners in matters water quality were awarded with trophies and certificates of participation.



Primary and Secondary participants during a Water Quality Competition Presentation and awards ceremony.



KEWI Reaps Big in a Partnership Deal with Safaricom Plc



KEWI and Safaricom Plc during the signing of a Memorandum Of Understanding (MOU)

BY DORINE EVA

Kenya Water Institute (KEWI) and Safaricom Plc have signed a Memorandum of Understanding (MOU) that is set to open a floodgate of capacity building activities. The activities are set to help strengthen the abilities of KEWI staff and students on Water and Sanitation Training programs.

In a ceremony held at KEWI Water Resource Centre Auditorium in Nairobi Main Campus and witnessed by staff and students, KEWI Chief Executive Officer Dr. Leiro Letangule and Safaricom Plc Head of Enterprise Channel Marketing Mr. Joseph Wanjohi signed the historic MOU on

behalf of the two organizations. The ceremony was also witnessed by Internet Of Things (IOT) Business Leader, Safaricom Plc Jerry Teka and Chairperson, KEWI Governing Council Brig. (Rtd) Stephen Njunge Kihu who also appended their signatures to help seal the deal.

Safaricom Plc has committed to financing the creation of model centres that encompass use of smart metering in Nairobi and Kitui Campuses. These model centres will be used by the institute for training purposes to her long and short term students. The infrastructure will also be used by the water sector stakeholders to see, learn from and appreciate the value and use of technology in

enhancing water efficiency.

Mr. Joseph Wanjohi expressed his optimism in leveraging on technology by collaborating with KEWI noting that the institute is a critical player in the growth of this country's water sector.

"Technology will play a great part especially on Non-Revenue Water. It will help improve on how we manage our water," he opined.

While applauding the agreement as a timely intervention, Brig. (Rtd) Stephen Njunge praised Safaricom Plc for coming through and making KEWI a smart water technology centre at this era of using new and evolving water technologies to enhance water efficiency.

KEWI Reaps Big in a Partnership Deal with Safaricom Plc

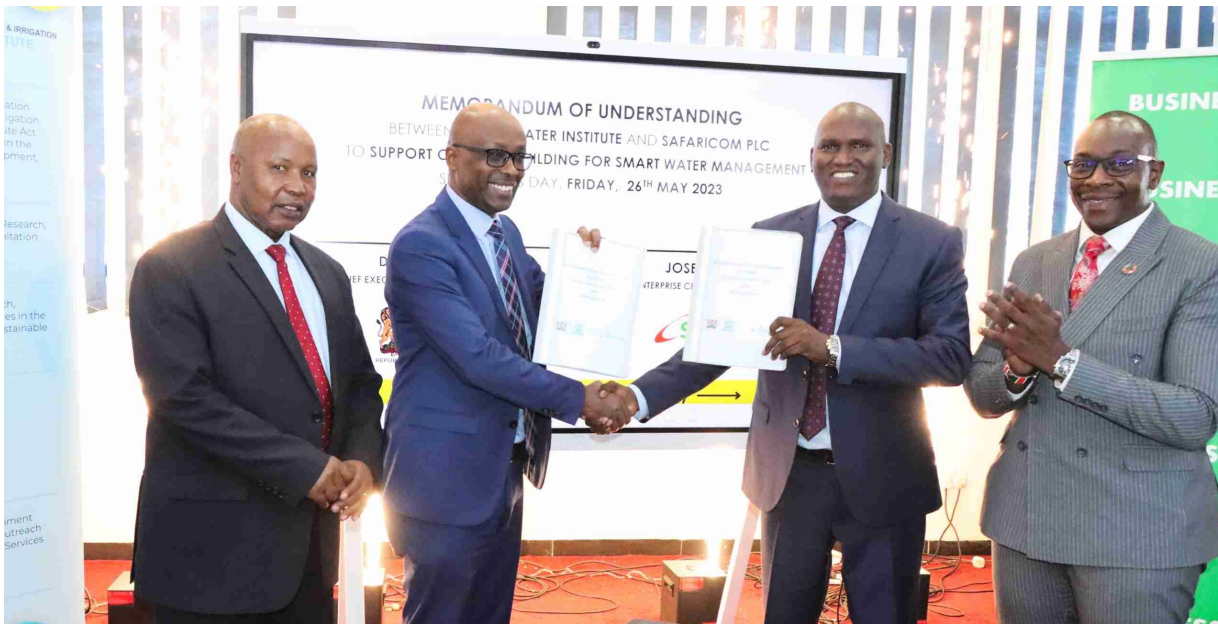
use," he added.

Upon mutual discussions, Safaricom Plc is bound to support KEWI in equipping of her Water Distribution Networks with Smart Meters

modified by mutual consent of authorized officials from both parties has also allowed the two parties to maintain their respective legal status with the appropriate authorities for

development of short-term courses on water technologies with focus on Internet Of Things (IOT).

Apart from the two parties also endeavouring to allocate sufficient digital/traditional or



a combination of both marketing budget to undertake sufficient marketing and promotional initiatives as shall be agreed upon, Safaricom Plc shall support KEWI in

for purposes of enhancing the national Non-Revenue Water Management Curricular.

The MOU which is as a result of prior discussions on possibilities of long-term engagements which are largely based on use of technology especially on water efficiency has placed the responsibility on both parties to commit themselves to join together to accomplish the goal of the capacity building on pump maintenance and repairs.

The agreement which will run for three years unless

the duration of the MOU.

During the duration of the MOU, KEWI and Safaricom Plc will mutually collaborate in hosting various symposiums and conferences organized by each party as shall be agreed upon, undertake consultancy projects in the field of water as shall be agreed upon, collaborate in research and technology transfer, facilitate from time to time selected trainings and give talks on various aspects for the water sector and collaborate on

implementation of Student Internship and Industrial training in accordance to Safaricom Plc employment policy with KEWI assisting Safaricom Plc in its Water Sanitation and Hygiene (WASH) programs by training her customers on metering technologies and participate in joint curricular development for the improvement of water sector in Kenya. This will be by installing various water projects at a subsidized cost to be agreed upon.

From Source to tap: Water Quality Management Symposium Resolutions



From Left: Brig (Rtd) Stephen Njung'e, Dr. Letangule, Mr. Makokha, Mr. Teka and Mr. Wanjohi at the sidelines of the symposium.

BY PIUS KIMANI

Kenya Water Institute (KEWI) in collaboration with other stakeholders in the water sector will develop an in-depth report that will capture the specific problems that surround the issue of quality water and the resolutions arrived at addressing such problems during the recently concluded Water Quality Management Symposium.

In an engaging 2 day event themed “Accelerating change towards access to good water

quality for sustainable development,” that was held at KEWI Main Campus, Nairobi, the water sector stakeholders held thought provoking plenary sessions that sought to identify the gaps within the water sectors that have hampered provision and access to quality water.

Health Effects of Quality Consumable Water

The participants noted that for a comprehensive quality water service provision,

enhanced regulation of water and even research and education around quality water, the sector is ought to have a paradigm shift in water quality management . This, they observed, calls for research institutions and water service providers to look at the overall cost arising from water quality and especially in terms of the nexus between quality water and health effects associated with consuming water.

The participants noted that there were parameters to be

From Source to tap: Water Quality Management Symposium Resolutions

identified and prioritized in regards to water quality depending on their cost. Such would be effective if research would be undertaken to come up with a solid framework.

Quality of Re-use Water

It was also noted that there was a need to focus on improving the quality of re-use water. Re-use water which basically refers to treated wastewater that can be used again for other purposes can conserve and replenish groundwater. Participants and panellists noted that there was a need to adopt a policy framework that will ensure all involved in water sector can lay different types of lines in their areas of operations. Such would enhance water re-use to cut on excessive use of fresh water meant for daily consumption. Recycling treated wastewater can be of paramount benefits such as when used in agricultural and landscape irrigation, industrial processes, toilet wash outs etc.

Innovative Financing Mechanisms

Innovations and especially in financing mechanisms and

resource mobilization were termed as game changers in addressing water quality.

Participants noted that approaches like crowd sourcing and funding especially in committee levels would be appropriate in addressing/ the financing gaps hindering provision of quality water for sustainable developments. Closer collaborations with communities and the different levels of governments were also touted as some of the methods that would be of significant when addressing the financial challenges affecting quality water provision.

Enhance Training from the Bottom of the Pyramid

Participants lauded the symposium organizers for bringing on board a water quality competition that drew competitors from primary and secondary schools and tertiary institutions.

The competitors were tasked to display their knowledge of water quality in form of innovations, artwork

or written submissions around different themes addressing water quality. This approach was seen as one of the ways of addressing water quality since imparting knowledge on water training from the bottom of the pyramid would help inculcate the right methods of enhancing water quality to the young learners from an early age.

Submissions and presentations made were very encouraging and showed that with the right interventions, it was easier to arrest poor water quality from an early age by enhancing training the earliest possible.

Use of Technology

Capacity building and especially in use of technology to enhance water quality issues also came out strongly as one of the areas that need to be relooked to help address water quality.

Participants unilaterally agreed that issues like water mapping and use of water quality technologies like smart water metering technologies in tertiary and other lower levels of training institutions would enhance competence based approaches to training on quality water provision.

Quote of the Week

“Water is a natural resource upon which we are absolutely dependent”

- Charles Camsell.

From Source to tap: Water Quality Management Symposium Resolutions

Community Sensitization on Recycled Water

It was agreed that there was a need to extensively sensitize the community on re-use water. As the largest consumers of water, members of the community play a pivotal role in the quality of water consumed and there was a need to highlight to them the nexus between sustainable developments arising from the water they use daily.

Shortage of water would compromise the quality of the water used and thus there were needs to demystify to communities on the need to recycle the water they use daily to help address such shortages and at the same time attend to other water needs that may not need direct fresh water like kitchen garden irrigations and other uses.



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Young Learners Explore the Wonders of Water Technology



Mr. Aristopher Karisa takes a section of primary school pupils through a water piping process at KEWI hydraulic Lab.

BY PIUS KIMANI

The much anticipated Water Quality Management

Symposium that ended on Friday 26th May 2023 lived to its billing as it attracted a plethora of participants across the wider water sector.

Participants and decision makers drawn from across the water sector and other industries that hugely rely on water exchanged ideas on what was right or wrong when it came to accelerating change towards access to good water quality for sustainable development.

However, the inclusion of pupils drawn from primary schools and secondary schools in the symposium was hailed as a first one.

Excited young learners drawn from more than 10 schools within Nairobi were ferried to the institution to witness firsthand what it means to participate in high level engagements that have far reaching implications in their thematic areas.

Their curiosity and eagerness was obvious as they sampled what it means to be in a training institution that churns high calibre manpower in water sector. With one of the core mandate of Kenya Water Institute (KEWI) being training, the symposium organizers opted to relook on how they organize such events and realized that it was of paramount importance to enhance this knowledge starting from the lowest points

of the education pyramid the earliest possible.

And this concept bore immense fruits; from the mechanical workshop to water quality laboratories and finally to the organized water quality competition, the young learners looked all set to define their future in regards to water once they join KEWI later in their tertiary training days.

It was clear at the Pipe Workshop that the students were thirsty for knowledge. Many could be seen smiling throughout as they came face to face with pipes and pipe fittings that they had only seen in their homes. Prospects of them becoming knowledgeable in fixing them in real life situation made their resolute to pursue careers in plumbing

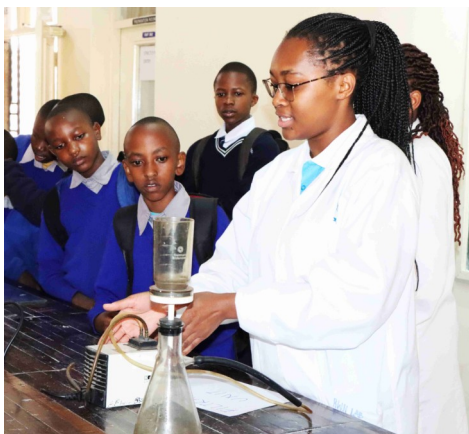
Young Learners Explore the Wonders of Water Technology



and pipe fitting from KEWI even more real.

Their interaction with the seasoned instructor Jabes Ouma was ecstatic one as he explained in a coordinated manner what it entails to study and gain knowledge in piping and plumbing. Jabes vividly explained what it means to be a qualified pipe fitter and plumber and the immense career options in this field of training. By the end of the interaction, the young minds were able to gain some basic knowledge of different types of pipes used in pipefitting in their homes.

At Hydraulics Laboratory, Mr. Aristopher Karisa, an



experienced senior instructor in

Water and WasteWater Management department took the young minds through a short engaging

lecture on how water passes

through various mediums in the process of water distribution. As others nodded their heads in agreement, others wrote down important observations in agreement with the situation. They all looked mesmerized at how water flows from one point to the other and the valves along the way.

At the Biological Laboratory, the pupils came face to face with fragile and delicate apparatus that is used to test water quality. Ms Rose Wambui and Ms Dryden Kazira, two wonderfully experienced Lab technicians took turns to explain the basics of the laboratory equipments.

Junior secondary school pupils in attendance looked fascinated as the primary school pupils sampled the magic of observing specimens using light and electronic microscopes.

A short and successful question and answer moment between the lab technicians and the young learners on

identifying parts of a microscope made some of them already feel like they were already experts. They could be seen explaining how being a lab technologist was an exciting career, and they would come back as specialist in that field.

After engaging the lab technicians for duration of not more than an hour, it was



clearly evident that the pupils had acquired a grasp of what it means to gain immeasurable knowledge at KEWI. Few years down the line, KEWI is sure to register a surge in its admission as it was automatic the young brains had already had their minds set to pursue careers in water at KEWI.

Influencing career choices had indeed taken off at a favourable speed and the world can only hope to get the best from KEWI as it moves with speed to organize such forums that centre on young learners as a way of contributing to an informed workforce in the water sector.

Institute Participates in a UNDP Accelerator Labs Initiative

BY DORINE EVA

Kenya Water Institute (KEWI) students drawn from all the three Campuses had an opportunity to take part in United Nations Development Programme Accelerator Lab in Kenya which is developing a dynamic Collaborative Map to support decision making for

various organizations are collaborating to create the map. This project offers valuable industry exposure and networking opportunities for students which will broaden, deepen and diversifying student professional networks by scaling access to industry professionals through micro-projects.

process involves gathering user-generated/ethnographic and Geospatial data to develop the map collaboratively with the communities.

The goal is to empower communities in managing water resources, advocating for sufficient supplies, and addressing climate-related challenges. The map will also serve as evidence for policy and infrastructure development decisions by the County Government.

The first week involved a workshop to establish a shared understanding and develop ideas for the collaborative map. The second week will involve fieldwork to collect data from sampled wards, followed by refining solutions with lecturers and industry professionals.

The outcome will be a prototype of a dynamic digital collaborative map and knowledge products focused on one or two wards in Tana River County.



KEWI participants during a UNDP Accelerator Labs Program

water infrastructure projects in Tana River County.

Over a two-week period, students, lecturers, community members, and officials from

The initiative aims to explore the water use system and socio-economic structures related to water resources in Tana River County. The

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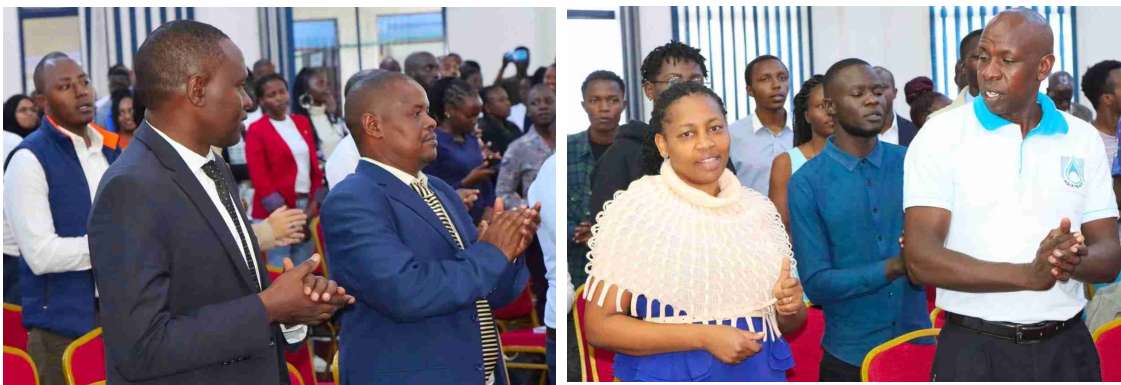
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Water Quality Management Symposium Highlights



Pupils listening keenly as they are taken through the dos and don'ts at KEWI Biological Laboratory



Participants during the Water Quality Management Symposium proceedings.

Moments during the signing of the MOU between KEWI and Safaricom Plc



A UNDP Accelerator Labs initiative



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