Volume 2 Issue 34

REPUBLIC OF KENYA

KENYA WATER INSTITUTE
KEWI
Fountain Of Water Knowledge

WEEKLY Newsletter

August 31–September 6 2024

KEWI attends the 5th Water Utility Regional Partnership Workshop in Lilongwe, Malawi

Regional Participants in the 5th Water Utility Regional Partnership Workshop in Lilongwe, Malawi (From JICA HQ, JICA Regional Offices Representatives, Rwanda-(WASAC), South Africa- (South African Municipalities),Kenya represented by (KEWI & EWASCO).

BY: WALTER MOSETI

Kenya Water Institute in collaboration with Japan International Cooperation Agency (JICA) participated in the 5th Water Utilities Regional Partnership (WURP) workshop held in Lilongwe, Malawi. This is an annual event organised by partner members with specific objectives ranging from Strengthening the capacity of member partners in operationalization of Non-Revenue Water (NRW) reduction strategies in particular, enhancing sustainable and effective operations, organizational behaviour change, promote human resources development and best practices sharing.

The workshop brought together Regional Water Utilities especially those in Sub-Saharan Africa, with similar challenges that call for collective

HIGHLIGHTS

3 **Kenya Water Institute Conducts Successful Meter Reading and Management Training**

4 **Taking KEWI to the Global Stage: KEWI at WorldSkills Competition in France**

6 **Role of Irrigation and Drainage Engineering Technology**

8 **Significance of Reskilling and Upskilling**

9 **Chiakariga Campus Participates Tharaka Cultural Festival**

KEWI attends the 5th Water Utility Regional Partnership Workshop in Lilongwe, Malawi

Problem-solving by recognizing the value of knowledge sharing and collaboration. KEWI, joined through the Strengthening Capacity in Non-Revenue Water Reduction program where some countries including Rwanda, Malawi, South Africa and Kenya are members, with more countries interested to join, especially where JICA water programs are undertaken in their region.

KEWI/JICA Non-Revenue Water Coordinator taking participants through, programs offered by KEWI in the entire Water Sector as Long-term, Short & Tailor made Courses as well as the JICA funded Third Country Training Program (TCTP).

Through JICA's introduction to the forum, KEWI was able to get a Third Country Training Program (TCTP), which was developed as a result of KEWI's long-term Non-Revenue Water reduction efforts that served as a consultative journey.

In this forum the TCTP project funded by JICA was disseminated to members for the upcoming first phase "Strengthening Capacity for Sustainable NRW Reduction in Africa" scheduled for November-December 2024. The program emphasizes on the real and practical doing of the activities and data analysis both blended in training and field experience practices.

Winding-up of the 5th Water Utility Regional Partnership Workshop Lilongwe, Malawi with practicals and way forward action plan.

Expected participants in phase 1, 2024 will be from Rwanda, Malawi, Tanzania, Uganda, South Africa, South Sudan, Ethiopia and Nigeria. The target groups for the training will be those involved in Operation and Maintenance of water distribution network systems, Water metering, Physical & Commercial losses, Billing and GIS personnel.

The institute, therefore, has continued to champion and support various capacity building activities aimed at dealing with water losses. NRW Management trainings for utilities are considered by KEWI, as key towards improving utilities capacity in handling NRW.

TRAINING

Kenya Water Institute Conducts Successful Meter Reading and Management Training

BY: IAN KIMUTAI

Kenya Water Institute recently hosted a comprehensive training program on Meter Reading and Management for Malindi Water and Sewerage Company, at the Silvermoon Hotel in Malindi. The three-day training session, held from September 4th - 6th 2024, aimed to equip participants with the necessary skills to improve meter reading accuracy, enhance operational efficiency, and reduce revenue losses.

Malindi Water and Sewerage Company participants, during the Short Course Training at the Silvermoon Hotel in Malindi.

A broad range of topics were covered in the training course, such as water theft and tampering, meter management, meter reading techniques and meter foundations. Participants developed a thorough understanding of different types of water meters, as well as the parts and operations of each. Along with accurate manual and automatic reading techniques, they also studied error-prevention techniques. The course also covered how to use digital tools like Kobo toolkit to efficiently report data, record readings accurately, and recognise and resolve meter faults. In addition, the participants investigated integrated techniques for managing meters, such as billing, meter registration, and customer expectation management. In order to maintain the integrity of the water supply system, the training addressed methods for preventing and identifying water theft and tampering.

During the training sessions, participants were able to apply their newly gained knowledge to real-world settings through a combination of theoretical presentations and practical exercises. Mr. Jacob Gitonga and Mr. J. Wersongur, facilitators from the institute, shared their expertise and guided participants through the training.

The successful completion of this training program is a significant step towards improving the efficiency and reliability of water services provided by Malindi Water and Sewerage Company. By investing in the professional development of their staff, the company is demonstrating its commitment to delivering high -quality water services to its customers.

Taking KEWI to the Global Stage: Unstoppable Mitchelle Carries Kenya and Institute Flag at WorldSkills Competition in France

BY: PIUS KIMANI

She is articulately demonstrating to some members of the fourth estate how to assemble and complete a water meter installation on a series of pipes at the Kenya Water Institute (KEWI) Hydraulic Laboratory. Her understanding of the process and terminologies, combined with her infectious smile and confident demeanor, clearly demonstrates her readiness for the upcoming assignment.

Ms. Mitchelle Nanjala, passes across as just any other student pursuing a skill at the institute, but the Diploma in Water Engineering student is a combination of resilience, passion, and focus all brewed into a perfect cocktail. She is the sole KEWI representative and one of nine young Kenyans from other training institutions in the country, who will join the 1400 innovative students drawn from 70 countries at the 47th edition of the WorldSkills Competition taking place from September 10-15 2024, in Lyon, France.

Mitchelle, who will be demonstrating her unmatched prowess in the Water Technology category, talks of a journey that has seen her gain immense knowledge and awareness in her field of study. She speaks of how she grabbed an opportunity to participate in the competitions in the country.

"When I got wind of the competition, I reached out to my lecturers and indicated my interest to participate." "I have always wanted an opportunity where I could hone my skills and this was a lifetime opportunity. My trainers came through and they have been of immense help up to this particular point."

She speaks of having to work extra hard to ensure she excels in the competition. With the help of her trainers, she has had her preparations done at KEWI laboratories and will be demonstrating her innovative mind in Pumps Installation and Water Quality Analysis during the 5-day event.

"On how to handle the pump installation category, I have also had an opportunity to prepare myself at the prestigious WILO premises." she adds.

WILO is one of the world's leading manufacturers of pumps and pump systems for water supply and air-conditioning technology and has an East Africa presence with offices in Nairobi.

Ms. Nanjala who further revealed that she has also tapped on the rich resources from the online tutorials as she prepared for this event, said that the exposure has expanded her view on the opportunities within the water sector and also positively compounded her understanding on the dynamics that come with such opportunities.

"My training as a water engineer has received a major boost through this opportunity. Water sector is such a wide playing field where, any aspiring person can experiment and contribute to its growth. I am seeking to create valuable networks, leverage the chances

Taking KEWI to the Global Stage: Unstoppable Mitchelle Carries Kenya and Institute Flag at WorldSkills Competition in France

that come with this opportunity and cast my nets even wider. The sky wont even be the limit." she says amid an infectious laughter.

The promising water technician who doubles up as an environmental conservation advocate, says that she drew her motivation to pursue her current training and career path from her early childhood experiences. Having watched people and especially women experience the vagaries of lack of organized water collection and storage systems in her home area, Mitchelle promised herself that she would do whatever it requires to offer solutions to this problem.

"In areas where water has to be collected from very far-flung sources, women bear a significant stress of ensuring that this commodity is availed in their homes. We would collect water from rivers and this impacted negatively on other aspects of our growth and especially to us ladies. Its against this background that I promised to one day come back and offer solutions to this menace." she emphasizes.

She has her sights already cast on how she wants her training and career trajectory take.

"I intend to further my studies and major in Environmental Science. I want to be a leading voice in championing for water harvesting and borehole drillings in communities to help create water resilience and grab other associated benefits. As a pioneer trainee in water engineering from my area, I have a dream of opening a training facility to offer technical courses that will consequently help emphasize on the benefits of water conservation and the nexus between environmental conservation and water scarcity."

Mitchelle rallies her fellow colleagues at KEWI to grab opportunities along their way and stay focused, as only by doing so will they be bringing much-needed fresh breath within the wider water sector and also enhance their skills for the global assignments ahead.

"Grab all opportunities that come your way, be innovative and give all you can to those opportunities and then watch as you conquer the world."

As she prepares to fly out, which she is excited about since it's her first time, she says she believes that with the right education, training, and guidance, there is room for every focused person to make it and be a game changer in their society.

"Gain as much skills as you can, expose yourself to opportunities that come your way and the world will be your stage." she concludes.

Sustainable Water Use in Agriculture : The Role of Irrigation and Drainage Engineering Technology

BY: BRITNEY MOKEIRA

Agriculture is a cornerstone of Kenya's economy, employing a significant portion of the population and contributing to the country's food security. However, the sector faces considerable challenges related to water scarcity and inefficient water use. Sustainable water management is therefore crucial for maintaining productivity and ensuring environmental preservation. One pivotal educational pathway addressing these challenges is the Irrigation and Drainage Engineering Technology course offered by KEWI. This course plays a vital role in equipping professionals with the skills necessary to manage water resources effectively in agriculture.

Inspection of green capsicums growing in a green house. Efficient water management techniques, improve crop yields and reduce water waste.

Kenya's climate is marked by variability, with many regions experiencing irregular rainfall patterns that impact crop yields and increase the risk of drought. Traditional irrigation practices often lead to water wastage and soil degradation. Thus, sustainable water use in agriculture is essential for enhancing resilience to climate variability, improving crop yields, and preserving natural water sources.

The Irrigation and Drainage Engineering Technology course, is designed to address these challenges by focusing on efficient water management techniques.

Students learn how to design and implement irrigation systems that optimize water use, including various methods such as drip and sprinkler systems tailored to crop needs and soil conditions. The course emphasizes water use efficiency through techniques like soil moisture monitoring and precision agriculture to minimize water wastage and enhance crop productivity. Proper drainage systems are also covered to prevent waterlogging and soil erosion, ensuring that excess water is managed without negatively impacting the environment. Additionally, the course covers sustainable agricultural practices, including organic fertilizers and conservation tillage, to maintain soil health and promote long-term sustainability.

Graduates of this course, possess the technical expertise required to design, implement, and manage modern irrigation and drainage systems, which is essential for addressing the complexities of water management in Kenya's agriculture landscape.

By applying advanced techniques, professionals can significantly improve crop yields and reduce water waste, leading to greater food security and economic stability for farming communities. Sustainable water management practices also help protect natural water resources by

Sustainable Water Use in Agriculture : The Role of Irrigation and Drainage Engineering Technology

preventing soil erosion, waterlogging, and pollution. Furthermore, the course supports capacity building within the water sector, preparing a skilled workforce capable of tackling water-related challenges and contributing to the overall development of the water industry.

In conclusion, sustainable water use in agriculture is critical for the future viability of Kenya's farming sector. The course, provides necessary knowledge and skills to manage water resources efficiently.

As Kenya faces ongoing challenges related to water scarcity and climate variability, the expertise gained through this course will be instrumental in promoting sustainable agricultural practices, enhancing productivity, and protecting the environment.

Investing in education and training in irrigation and drainage engineering is key to building a more resilient and sustainable agricultural sector in Kenya.

Quote of the Week

"True leadership is not about power or authority, it is about serving others. When leaders focus on the needs of their team, community or organization, they create an environment of trust and mutual respect fostering collaboration and commitment ."

-Mahatma Gandhi.

EDITORIAL TEAM

Editor

Dorine Eva Irungu

Writers:

Walter Moseti

Ian Kimutai

Pius Kimani

Britney Mokeira

Hillary Matano

Korir Kipkirui

Photographer

Pius Kimani

Designer

Pius Kimani

Improving Service Delivery in Water Sector: The Significance of Continuous Reskilling and Upskilling

BY: HILLARY MATANO

The water sector in Kenya is plagued by myriad challenges ranging from water scarcity, insufficient funding, aging infrastructure, and water-related diseases among others. These challenges hinder the provision of this precious commodity- water. Therefore, the professionals within the sector are required to continuously upskill, train, and keep themselves informed on the developments that happen within the sector locally, regionally, and internationally to enhance their capacity to better serve communities and organizations.

Upskilling and reskilling in water quality enables professionals from the wider sector to tackle the challenges related to water-borne diseases as they pose a threat to the consumers of the water. The citizenry especially those residing in the informal settlements where the supply and quality of water is not ascertained are most affected. This is further exacerbated by extreme weather conditions such as floods which destroy the water supply infrastructure and lead to possible contamination of the water supplied. Professionals who gain further training regularly can provide the needed services in water quality monitoring making sure the end consumer gets value for their money in the water they consume.

Regular skills development is also required in leadership and governance in the sector because it is the foundation of a successful sector. Given the emerging issues and trends in the water sector such as smart metering, non-revenue water losses which result in losses amounting to billions, and fast -paced urban development which greatly affects water sourcing and supply among others, there is a need to train the leadership of the water service providers and other players in the water sector on how to navigate these murky waters. Leaders trained in these areas are well equipped and better placed to manage these issues and even adopt the new technologies in their daily operations resulting in efficiency and effectiveness in service delivery. Also, Top-down buy-in on the need for continued upskilling in these areas offers opportunities for the lower cadre staff to train in these areas resulting in an overall improvement in the management and service delivered to the consumers.

There is also a need for water professionals to continuously advance their skills in financial management because the water sector operates in a very resource-constraint environment as it competes with other priorities. Finances are key to the last mile connections of water supply, upgrading the water supply infrastructure, and overall service delivery to the water consumers. The scarce financial resources require well-equipped personnel who can budget, mobilize, distribute, manage and report on expenditure of funds. Continuous training offers them the chance to do so in the evolving financial ecosystem in which funding models, priorities, and avenues keep on changing.

The Kenya Water Institute offers present and budding water professionals to reskill and upskill through the various short courses that it offers. The courses are tailored to meet the needs of the professionals and are offered by skilled trainers at the institute in state-of-the art facilities equipped with modern equipment for practical sessions.

Chiakariga Campus Participates in the URA Gate Tharaka Cultural Festival

Some of Chiakariga Campus members of staff led by the Campus Principal Mr. Paul Rarieya during the Tharaka Cultural Festival.

BY: KORIR KIPKIRUI

The vibrant celebration of culture and community spirit took center stage as Chiakariga Campus Principal Mr. Paul Rarieya and the Campus staff participated in the Tharaka Cultural Festival held at URA Gate. This event, showcasing the rich traditions and heritage of the Tharaka people, was a significant moment for both the local community and the institute.

The Festival, renowned for its lively displays of traditional music, dance, and crafts, offered a unique opportunity for the Campus to engage with the community. The Campus participants were present to show their support and appreciation for the cultural heritage that defines the Tharaka region.

The festival featured a variety of activities, including traditional dance performances, storytelling sessions, and exhibitions of local art and crafts. Chiakariga Campus was particularly impressed by the vibrant dances and the intricate craftsmanship on display, which highlighted the creativity and skill of the Tharaka artisans.

In his remarks, Mr. Rarieya expressed his enthusiasm about participating in the festival. "Attending the Tharaka Cultural Festival has been a truly enriching experience for our team. It's important for us to connect with, and understand the cultural context of our students and their families. Events like this provide invaluable insights and strengthen our bond with the community."

Participants from the Campus also had the chance to interact with festival attendees and learn more about Tharaka traditions and customs. This engagement fostered a deeper appreciation and respect for the local culture, enhancing the campus's commitment to culturally responsive education.

The festival also served as a platform for the Campus to explore potential collaborations with local organizations and community leaders. By participating in such events, the campus aims to support and promote culture while creating an inclusive environment for students and staff.

The Tharaka Cultural Festival at URA Gate was a testament to the rich cultural tapestry of the Tharaka people and provided a meaningful experience for all involved. As Chiakariga Campus continues to foster community relations and celebrate cultural diversity, events like this play a crucial role in building bridges and enriching the educational experience.

Call for September 2024 Intake

REPUBLIC OF KENYA

MINISTRY OF WATER, SANITATION & IRRIGATION

KENYA WATER INSTITUTE

CALL FOR SEPTEMBER 2024 INTAKE

DIPLOMA COURSES

- Water Resources Management
- Water Laboratory Technology
- Water Engineering Technology
- Information Communication Technology
- Wastewater and Sanitation Engineering Technology
- Irrigation and Drainage Engineering Technology

CERTIFICATE COURSES

- Water Resources Management Technology
- Water Laboratory Technology
- Water Engineering Technology
- Information Communication Technology
- Irrigation and Drainage Engineering Technology
- Wastewater and Sanitation Engineering Technology

ARTISAN COURSES

- Water Operator Course
- Plumbing and Pipefitting Technology
- Water and Wastewater Management Technology

INTAKES:

JANUARY

MAY

SEPTEMBER

+2547 35339206 admissions@kewi.or.ke www.kewi.go.ke

Round up of The Week's Events

The Institute's management team held a Management Review Meeting to discuss on departmental reports provided by the Heads of Department. The institute is in the process of being ISO 9001:2015 Certified.

Long - Term Programmes

Diploma in Water Engineering Technology (DWET) Diploma in Wastewater
Diploma in Water, Sanitation Engineering Technology (DWSET)
Diploma in Water Resources Management Technology (DWRTM)
Diploma in Irrigation and Drainage Engineering Technology (DIDET)
Diploma in Information Communication Technology (DICT)-KNEC
Diploma in Water Laboratory Technology (DWLT)
Certificate in Wastewater and Sanitation Engineering Technology (CWSET)
Certificate in Water Resources Management Technology (CWRMT)
Certificate in Information Communication Technology (CICT)- KNEC
Certificate in Water Laboratory Technology (CWLT)
Certificate in Water Engineering Technology (CWET)
Drilling Operations and Management (DOM)
Plumbing and Pipe Fitting (PPF)
Water Operators Course (WOC) in:

- Water Supply
- Meter Reading
- Sewerage Operations

Short - Term Programmes

Use of Earth Observation Tools and GIS for Water Resources Management
Entrepreneurship and Financial Management for Water Managers
Operation and Maintenance of Water Supply Networks
Metering and Installation of Water Supply Networks
Leak Detection & Repair techniques
Drilling Operations and Management (DOM)
Operation & Maintenance of Pumping Stations
Pump Selection, Installation and Maintenance
Plumbing, Pipe Fitting and Solar Water Heating
Instrumentation for Water and Wastewater Systems
Water Governance, Management and Technology
Application of GIS for Water Utilities Mapping
Drilling Operations and Management
Water Quality Sampling and Testing
Microbiological Water Quality Assessment
Integrated Water Resources Management
Non-Revenue water
Water Management
Customer Care

Vision

A Technical Centre of Excellence in Training, Research, Innovation and Consultancy in the water, Sanitation and Irrigation Sector.

Mission

T o offer Competency-Based Training, Research, Innovation, Consultancy and Outreach Services in the Water, Sanitation and Irrigation Sector for sustainable development.

Core Values

Good Corporate Governance
Professionalism
Customer Focus
Innovativeness
Inclusivity
Patriotism
Integrity

GET IN TOUCH WITH US

The Director,
Kenya Water Institute,
P.O. Box 60013-00200 Nairobi
TEL: +254 722-207757
Email: info@kewi.or.ke
Website: www.kewi.go.ke

For enquiries about our TVET programs
Contact the Registrar, Admissions Office.
Phone: 0735339206
Email: admissions@kewi.or.ke

KEWI Nairobi Campus
P.O. BOX 60013—00200
Tel: 0722207757
Email: info@kewi.or.ke

KEWI Chiakariga Campus
P.O. BOX 12—60215
Tel: 0729009104
Email: chiakariga@kewi.or.ke

KEWI Kitui Campus
P.O. BOX 1514—90200
Tel: 0707566395
Email: kitui@kewi.or.ke

KEWI Kisumu Campus
P.O. BOX 7825—40100
Tel: 0746212708
Email: kisumu@kewi.or.ke

OTHER SERVICES OFFERED

Water Quality Laboratory Services
Drilling and Test Pumping Services
Ground water Assessment Services
Conferencing Services
Troubleshooting of pumps boreholes and distribution systems
Repair of pumps boreholes and distribution systems

Your feedback is crucial for our improvement

communications@kewi.or.ke **@kewi_kenya** **Kenya Water Institute** **www.kewi.go.ke**