



WEEKLY Newsletter

May 4 - 11 2024

It's a wrap for the Operation and Maintenance of Water Treatment Plants Short Course Trainees Cohort



Participants of Operation and Maintenance of Water Treatment Plants Short Course Training drawn from Nakuru Rural and Kiambu Water and Sanitation Companies held in KEWI Kisumu Campus.

BY J. SUMANCHA

The Kenya Water Institute (KEWI) Kisumu Campus recently hosted a comprehensive short course on Operations and Maintenance of Water Supply Plants. This intensive five-day training was specifically designed to equip water professionals, including water treatment operators, technical managers, and plant managers, among others, with the advanced skills and

knowledge necessary for effectively managing water treatment facilities.

Throughout the course, participants explored a wide range of important topics including hydraulics, learning about fluid flow principles, pressure dynamics, and the complexities of distribution within water supply networks.

Another major area of attention was plumbing, with thorough discussions on water distribution systems, pipe

HIGHLIGHTS

- 2 It's a wrap for the Operation and Maintenance of Water Treatment Plants Short Course
- 3 KEWI joins the Ministry in marking National Tree Growing Day
- 4 Inside the May 2024 Admission Exercise at KEWI
- 5 Hurdles to the Management of Non-Revenue Water Losses

It's a wrap for the Operation and Maintenance of Water Treatment Plants Short Course Trainees Cohort

materials, and fittings in addition to crucial maintenance procedures that guarantee the dependability and effectiveness of the system.

Another important aspect of the training was the electromechanical system, where learners investigated the upkeep and functioning of electrical plant components and pumping stations. They also discussed effective defect identification and resolution strategies, giving participants the know-how to tackle both simple and complicated problems.

Water quality management was emphasized, with training on monitoring, testing, and treatment processes to ensure water meets health and safety standards. Additionally, participants learned how to conduct jar tests—a practical skill that helps determine the optimal coagulant dosages for water treatment.

The training saw significant collaboration with various organizations, enhancing the learning experience. Representatives from the US Embassy in Kenya shared insights from international

participated, underscoring the critical link between clean water access and public health.

By the end of the week, the participants had gained not only theoretical knowledge but also practical skills that would allow them to optimize water supply systems back in their respective organizations. This will ensure that communities not only have access to safe and reliable water but that the systems providing this water are maintained to the highest standards.

The Short Course Training is just one of the many ways KEWI is

contributing to sustainable water management in Kenya. Through initiatives like these, KEWI continues to play a vital role in building capacity and enhancing the expertise of water professionals across the country.



Eng. Kennedy Olang' with participants during a field trip to Dunga Beach Water Plant in Kisumu.

water treatment standards and practices, while the Nakuru Rural Water and Sanitation Company and Kiambu Water and Sanitation Company contributed their local expertise, emphasizing the importance of community-specific solutions. The Human Need Project Kenya also

KEWI joins the Ministry in marking National Tree Growing Day



KEWI Director/CEO Dr. Letangule joins members of staff and students for a photo during the National Tree Growing Day in Namanga Hills Forest Reserve, Kajiado County.

BY PIUS KIMANI

The Kenya Water Institute Chief Executive Officer Dr. Leiro Letangule, EBS and KEWI Governing Council Chairperson Hon. Patrick Musili Mbangula in company of hundreds of KEWI staff and students joined Cabinet Secretary, Ministry of Water, Sanitation and Irrigation Hon. Zachariah M. Njeru, EGH and other top ministry and county officials in planting trees along the foothills of Namanga Hills Forest Reserve in Kajiado County.

The campaign which was also replicated across the whole

nation was part of honoring the executive guidance from His Excellency the President, of planting 15 billion trees by year 2032 as a mean to mitigate the effects of climate change. This exercise was also informed by the need to remember and honor those who lost their lives during the recent floodings.

The exercise at Namanga Hills Forest Reserve was hailed as a success with a seamless interaction between the Ministry top leadership and the local community.

Hon. Njeru, who actively led the exercise from the start to the end, oversaw planting

of approximately 100, 000 different tree species on the foothills of the hills.

Addressing the media after the exercise, the Cabinet Secretary hailed the Semi-Autonomous Government Agencies (SAGAs) in his ministry for tirelessly offering themselves to see that the exercise was a success. He termed the commitment as a perfect way of creating a green future that would be of benefits to the coming generations.

He further acknowledged Kenya Forest Service (KFS) and the local community for heeding to the call and showing up for the exercise.

KEWI joins the Ministry in marking National Tree Growing Day



KEWI CEO Dr. Leiro Letangule, EBS among other highlevel guests. Namanga Hills Forest Reserve, also known as Ol Donyo Orok is a gazetted

The CS while noting that the impacts of climate change are real in our current times promised to make impromptu visits to the site to ensure that the planted seedlings are taken care of and growing well.

"We shall also provide fruit seedlings to this local community as our mode of Corporate Social Responsibility and as a way of motivating them to take care of the environment," he pledged.

Hon. Njeru was accompanied by Principal Secretaries Julius K. Korir (Water and Sanitation), Mr. Ephantus Kimotho (Irrigation), Water Secretary Eng. SAO Alima, Kajiado County Deputy Governor H.E Martin Mshisho, Secretary Administration for State Department of Irrigation, Mr. David Yatich, Secretary Administration for State Department for Water and Sanitation Mr. Stephen Kihara,

natural forest reserve that lies on the Kenya-Tanzania border. The forest also serves as a water catchment for



Namanga town and the surrounding areas.

The forest serves as a home to a variety of animals and birds though no recent animal count has been done to ascertain the actual numbers.

Restoration of this crucial forest aligns well with the institutes strategic efforts of addressing the impact of such moves. KEWI offers trainings on Water Resources Management and is a huge contributor of the environmental restoration agenda. The institute, as part of its deliverable oftenly participates is tree planting exercises and is a trusted partner in the parent ministry and the government when it comes to helping address the impacts of climate change.

Above & Below:

CS Hon Zachariah M. Njeru and Dr Letangule plant trees with members of staff and students.

Inside the May 2024 Admission Exercise at KEWI

BY JOHN KITONGA

In the wake of a transformative admission exercise, the halls of the Kenya Water Institute across all campuses buzzed with the echoes of discovery, collaboration, and newfound inspiration. As the May 2024 intake settled into its rhythm, both students and staff came together to reflect on the journey that just begun.

Despite the floods menace across Kenya, potential students demonstrated remarkable resilience and fortitude, showcasing a turnout that underscored the resolute commitment to their academic quests amidst adversity.

As floodwaters swelled across Kenya, wreaking mayhem and upsetting normalcy, the determination of individuals to follow their dream careers at the KEWI remained steadfast. Beside the background of this unusual calamity, ambitious students, undeterred by the challenges posed by impassable roads and swamped pathways, converged upon the institute, driven by a common passion for studies related to water and a willpower to forge ahead despite the inclement conditions.

The exercise, aimed at orienting new students to the

lively tapestry of prospects awaiting them at KEWI, ascertained to be a catalyst for knowledge acquisition, growth and community building. After interactive and insightful sessions, applicants have been able to explore deep into the realms of water knowledge, management, and conservation, in guidance of the expertise of KEWI's esteemed members of faculty.

For many students, the admission exercise in the institute served as an opening-



door to new perspectives and insights into the complexities of water setting in Kenya. It is through the practical experiments, collaborative tasks and field trips, that they will gain a deeper understanding of the water interconnectedness with every life's aspect; that is from agriculture to manufacturing, or from ecosystem to economy.

Brian Erupe, is one such student who shared his exercise's experience as a

transformative journey of introspection and empowerment. Having come from a rural village in the northern Kenya, Brian had constantly been drawn to the water mysteries besides the potential for change it held for his community. From the exercise, he has discovered a platform in which he will channel his desire into action, acquiring the expertise and knowledge needed to make a significant change in his neighbors' lives.

Nevertheless, the exercise's impact extended far beyond individual growth – similarly it adopted a sense of comradeship and partnership. Through activities on team-building, group discussions, and late-night brainstorming sessions, learners are expected to forge ties that surpass boundaries of background, culture and discipline, united by a shared commitment to stewardship in water.

As KEWI reflects on the admission days' happenings and the tales that unfolded, one thing remained clear – Admission Day at KEWI is not just the starting of a journey; it is the start of a movement. A movement powered by passion, driven by curiosity, and unified by a common commitment to making waves of change in the world.

Hurdles in the Management of Non-Revenue Water Losses

BY HILLARY MATANO

Globally, regionally and locally, water utilities are faced with the problem of Non-Revenue Water losses. Non-Revenue water refers to the water that is produced but cannot be accounted for due to leaks, theft and even inefficiencies in distribution. This leads to severe trickle-down effects such as loss of business revenue which may lead to staff restructuring through retrenchment and ultimately business closure which denies the government the much-needed revenue through taxation to spur growth and development. It is estimated that non-revenue water losses amount to 45% of the water produced by regulated water utilities which is equivalent to 10.2 billion Kenyan shillings, according to the Impact Report no. 14 released by the Water Services Regulatory Board.

The management of NRW thus presents a unique dilemma to the entities involved such as water utilities especially those in the global south. At the center of the management is the use of technologies such as smart water metering systems, listening sticks and data loggers for real-time

georeferencing, monitoring and reporting on the sources and level of the losses. The acquisition of these technologies and the necessary expertise to operate them require huge financial investments which the water utilities may lack as they are also working towards reducing the operational costs and offering the water to consumers at an affordable cost. Managing this delicate balance is required to ensure that quality water provision is not hindered.

In addition, change of individual behavior is also primary in the management of the losses related to non-revenue water. There may exist a complacency culture to the NRW losses and as such it may not be considered a priority to address the losses. Therefore, it results in limited efforts towards the management of the water supply systems. A culture that perpetuates the non-participation lack of the community in the NRW loss reductions perpetuates a lack of ownership and less vigilance in monitoring and reporting of leaks and/or anomalies in water supply such as destruction of water supply infrastructure.

The Institute recently

launched a state-of-the art Non-Revenue Centre of Excellence at the Main Campus located in South C, Nairobi. The center seeks to offer solutions to these hurdles by providing modern and state-of-the art equipment such as ultrasonic flow meters, smart water metering systems, etc. for consultancies and training to support in real time monitoring and reporting of the losses associated with NRW. Also, the institute prides in a pool of qualified personnel within the non-revenue space who facilitate trainings and short courses on NRW which helps reduce the cost for utilities associated with onboarding a full-time expert.

KEWI actively works closely with other players within the sector to the community level through different programs that helps address the losses. This encourages a collaborative and participatory approach to addressing the identified challenges which virtue signals ownership and high levels of vigilance are very central to remedying the problem. The presence of the center of excellence signals that the management of NRW is at the core of the institute's service delivery and as such much effort is geared towards significantly reducing the non-revenue water losses in the country.

Institute Leads in Water Engineering Enrollment in May Intake.

BY FAIZAH JEPKORIR

Kenya Water Institute has emerged as a shining example of excellence in the domain of water engineering. The institute's recent May intake admissions, witnessed an impressive 60% enrollment rate in its Diploma in Water Engineering program across all campuses, firmly establishing KEWI as the frontrunner in grooming the next cohort of adept professionals in this vital field.

This surge in enrollment couldn't come at a more opportune moment for Kenya, as the nation grapples with the aftermath of devastating flooding disasters and an urgent call for sustainable water management solutions. These calamities have underscored the critical need to bolster the ranks of water engineering graduates, who play a pivotal role in devising

innovative strategies to mitigate future risks and safeguard the country's precious water resources.

Mr. Anganyo M.O, the Senior Principal Registrar, highlighted the factors driving the high enrollment rate in water engineering. He emphasized the growing awareness among students of the pressing environmental challenges confronting their communities. "This heightened realization has ignited a passion for seeking sustainable solutions, rendering water engineering an appealing and impactful career choice for many aspiring students," he added.

Abdi Karim Ali, a newly admitted student pursuing Diploma in Water Engineering, echoed these sentiments, sharing his motivation for choosing this field. "My firsthand experiences witnessing the dire repercussions of water scarcity and pollution in my community have fueled my unwavering passion for environmental conservation. I see water engineering as the perfect conduit to enact positive change," he said.

At the core of the institute's success lies its steadfast commitment to delivering top-tier education and training in water engineering. With water engineering boasting an impressive global ranking averaging 9.1%, the institute has rightfully earned acclaim as a premier destination for aspiring water engineers. Its broad appeal attracts students from diverse backgrounds who are driven to make a meaningful impact in their communities.

As the engineering landscape evolves, there is a growing emphasis on enticing individuals from varied backgrounds to pursue studies in water engineering. Recognizing this evolving trend, KEWI remains dedicated to fostering an inclusive learning environment where students from all walks of life can thrive and contribute their unique perspectives to the field.

Looking ahead, the institute is poised to maintain its leadership in water engineering education. Its mission is to cultivate a new generation of innovative problem-solvers equipped with the skills and determination to address the complex issues of water management and environmental sustainability.



Round up of The Week's Events



KEWI Members of staff and students join the Ministry in a tree planting exercise in honor of the Presidential directive that aims to grow 15 Billion trees by the year 2032.

Round up of The Week's Events



Campuses admit students for the May 2024 intake.



Quote of the Week

"Education is the most Powerful weapon which you can use to change the world."

-Nelson Mandela.

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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 (DWRMT)
 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 (CWLTL)
 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

To 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

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