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KENYA WATER INSTITUTE KEWI Fountain Of Water Knowledge

WEEKLY Newsletter

June 29 -July 5

KEWI-JICA Work on an Agreement to Implement TCTP for (NRW) Reduction

Dr. Leiro Letangule (second from left), Mr. Nelson Kwamini (extreme left) join Satoshi Hamano and Yasuo Kobayashi from JICA pose for a group photo at KEWI headquarters, Nairobi.

BY: PIUS KIMANI

Kenya Water Institute (KEWI) and Japan International Cooperation Agency (JICA) are teaming up on developing a collaborative framework to implement the Third Country Training Program (TCTP) on Strengthening Capacity for Sustainable Non-Revenue Water Reduction in Africa. Under this agreement, KEWI will assist Kenya and other participating countries in transferring, disseminating, and establishing practical development experiences, knowledge, and technologies on Non-Revenue Water reduction.

Once implemented, the program will see KEWI support the transfer of knowledge and technology on Strengthening Capacity for Sustainable Non-Revenue Water Reduction in

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KEWI-JICA Work on an Agreement to Implement TCTP for (NRW) Reduction

(From left) Satoshi Hamano, John Gitau and Yasuo Kobayashi from JICA during their meeting with the KEWI team at KEWI headquarters, Nairobi.

in Africa to participants from Uganda, Rwanda, Malawi, Ethiopia, South Africa, Nigeria, and South Sudan, who have been tentatively considered for the first phase of the program, with the support of Japan's Department of Official Development Assistance (ODA).

KEWI, the program's implementing agency, will be responsible for providing training facilities and equipment, planning the training to participating countries via designated diplomatic channels, and management of application offers, trainee selection, and acceptance procedures. JICA will pay for training costs for the eligible participants from the water utilities under their projects in the respective countries.

KEWI will create a training proposal that includes the training concept that will include training's background, overall goal, purpose, objectives, expected outputs, and program field activities referred as On-Job Training (OJT). The proposal will also include the course's tentative curriculum and course programme and schedule, cost estimates, and an organizational plan.

Once the concept proposal has been approved, JICA Kenya office will work with the JICA Overseas Office in participating countries to support TCTP's local liaison offices in the application process. To improve the efficiency of the TCTP that underpins JICA's cooperation initiatives, JICA Kenya office will distribute the course outline to their offices in the participating countries and other regional departments responsible for those countries to give support for the offer of applications.

While meeting with a delegation from JICA's office at KEWI headquarters in Nairobi, KEWI Chief Executive Officer Dr. Leiro Letangule, EBS, described the imminent collaboration as timely. He stated that, with KEWI leading from the front and tasked by the ministry to help address the financial and resource crisis caused by Non-Revenue Water in the country, JICA's collaboration with the institute on NRW capacity building will boost its efforts to reduce the percentage from the current 45 percent and assist the country in effectively managing its water resources.

"KEWI recently inaugurated its NRW Center of Excellence to improve capabilities in the country's water industry. JICA's participation would so broaden our reach as we attempt to extend outside our borders and strengthen the institute's position as a regional development hub on NRW issues," Dr. Letangule stated.

KEWI-JICA Work on an Agreement to Implement TCTP for (NRW) Reduction

KEWI team when it held a meeting with the team from JICA to discuss on possible collaboration on matters Non-Revenue Water at KEWI Headquarters, Nairobi.

His remarks were mirrored by Eng. Yasuo Kobayashi (JICA Urban Water Supply Advicer), who praised KEWI for its efforts to address NRW. Eng. Kobayashi expressed trust in Kenya's and KEWI's ability to promote NRW in the region. He expressed his optimism that the cooperation agreement between the two organizations will have a significant influence on the ground.

"I believe that during our duration of cooperation our activities will yield impactful results for both the host and the participating countries," Kobayashi said.

What is Third County Training Program (TCTP)?

The Third Country Training Program (TCTP) is a training program conducted in a country and involves mostly its neighboring countries in the region and not in Japan, for the purpose of exchanging of knowledge and technical know -how for their individual and mutual benefit.

JICA's Third Country Training Program selects one developing nation to host a training course with Japanese sponsorship, while neighboring developing countries are requested to send participants. Because the climate, cultures, and social contexts are somewhat comparable, programs that better match local conditions are implemented to facilitate the exchange of knowledge and technological know -how for individual and mutual gain.

Kenya has cooperated with JICA under the Technical Cooperation (T/C) since 2000. Once implemented, KEWI will join other prestigious institutions in the country, including Jomo Kenyatta University of Agriculture and Technology (JKUAT), Kenya Medical Research Institute (KEMRI), National Youth Service (NYS) and Kenya Institute of Surveying and Mapping (KISM), which have spearheaded regional trainings on various aspects within their respective spheres of influence.

TRAINING

CEO to Staff: You Are The Right Resources to Deliver Our Programs and Services

BY: PIUS KIMANI

Dr. Leiro Letangule when he addressed members of staff during the general meeting.

Dr. Leiro Letangule EBS, Chief Executive Officer of the Kenya Water Institute (KEWI), has identified staff capacity development as one of his key deliverables for the new financial year, reaffirming his and the Governing Council's commitment to improving the competencies of staff members through training.

He addressed the staff during the general meeting to mark the start of the new fiscal year 2024/2025, stating that his leadership is determined to implement a variety of recomm endations and priorities in the new economic year in order to improve the institute's service delivery and support holistic staff career growth.

Dr. Letangule has declared that, following the completion of the staff training needs assessment, which assisted in identifying targeted trainings for various levels of staff, the institution is eager to implement the 2024/2025 staff training projections by providing staff training support.

"The institute shall support front office staff to undertake Public Relations and Customer Care course; supervisory staff to undertake Supervisory Skills course, management staff to undertake Senior Management course; and senior management staff to undertake Strategic Leadership Development programs," he said.

The CEO further said that to further help the staff benefit from the improved modus operandi of the institute, the institute was not only in its final stages of finalizing the human resource instruments with the support of the Public Service Commission but had signed Memorandums of Understanding (MOU's) with Absa Bank and Co-operative Bank to enable staff to get Mortgage loans at an affordable interest rate of 9 percent.

"This is an initiative to enable staff to own houses at an affordable rate as we look into ways of getting into securing more MOU's for car loans and personal loans with even better interest rates," he said much to the delight of the staff.

Dr. Letangule announced that the institute's quest to enrich its mandate by getting categorized as a research institution had gained momentum following the approval of the Kenya Water Training and Research Institute (KEWATRI) Bill by the cabinet. He noted that the Attorney General had reviewed the Bill and forwarded it to Parliament so that the legislative process could commence.

"We are in contact with the leadership of the Parliament to help fast track the process and take the shortest time possible to have the Bill assented by the president," he said.

Dr. Letangule has noted that the institute will need to modify as it navigates a future

CEO to Staff: You Are The Right Resources to Deliver Our Programs and Services.

Members of staff during the general meeting at KEWI Main Auditorium, Nairobi.

marked by considerable reductions in government recurrent budget financing and accommodates the new funding model, which will require it to implement austerity measures. While pressing employees to use limited resources more ethically and efficiently, Dr. Letangule has also encouraged employees to think creatively about methods to increase revenue in order to meet the institute's daily financial obligations.

"Let us all be cautious of any wastage around our areas of work. I call upon all of us to think innovatively on how we shall grow our revenues and deliberately focus on reducing costs," he urged the staff.

Curriculum development, infrastructural development, human resources, and policy development, according to Dr. Letangule, were some of the institution's notable successes in the most recent fiscal year. This, he has stated, was not without operational and policy challenges that the institute encountered, ranging from operational inefficiencies to overarching legal constraints. He stated that the institute was working around the clock to adopt even stronger methods to address these difficulties and achieve even greater achievements in the new fiscal year.

"In the face of these significant challenges, we have remained resilient and committed towards realizing the mandate of KEWI," he said.

Dr. Letangule cited the renovation of Block A hostels into 32 modern offices on the Nairobi Campus, the renovation of learning facilities, particularly laboratories, workshops, and classrooms across campuses, and the approval of a number of policies as among the institute's key achievements.

He went on to say that the institute had streamlined business procedures for prioritized services, implemented strong cyber security measures, and built capacity for 40 personnel peer counselors, all of which will help it achieve its core mandate faster.

Acknowledging the immense support from the ministry, the Governing Council, and other stakeholders, Dr. Letangule has banked his hopes on a rejuvenated staff fraternity, terming them as the right resource to counter any challenge that may face the institute.

"I want to thank each and every one of you for your hard work, dedication, and commitment, which were the driving force behind the success of the last financial year." "Let us purpose to get into the new financial year with enhanced enthusiasm and commitment to achieve even better results," he concluded.

RESEARCH

Significance of Smart Meters in Non-Revenue Water Management

BY: OTIENO FREDRICK

Management of water resources and supply infrastructure is presenting new challenges to cities across the world. The intricate system of valves, pumps, pipelines, and reservoirs invariably deteriorate thereby increasing susceptibility to bursts, leaks and failure.

An image of a leaking pipe.

Moreover, inaccessibility and enormity of these systems complicate supervision and maintenance of various components. Similarly, timely assessment of leaks and bursts, and determination of actual state of the components remain a challenge.

In Kenya, water supply systems are characterized by poor access, uncoordinated surveillance, and inaccurate data related to bursts, leaks, and water quality.

Consequently, smart water management has emerged as an effective approach for automatic gathering of diagnostic and status data of water supply systems.

Smart water meters can also highlight potential leaks through monitoring for excessive meter readings, allowing water utilities to contact customers and highlight the potential issues for them. Consumption data from connections can be highlighted within the wider network through comparison of water inputted against water consumed. The location of these leaks can be broadly assessed through meter data, and isolated through specific internet of things (IoT) technologies within the water mains themselves. For instance, smart water meter data can be combined with noise loggers to detect and roughly locate leaks in water mains. The sensors are ideal for instant capture and transmission of data regarding the state of smart water components such as meters and valves. They also facilitate rapid response in cases of bursts and leaks.

Smart water meters can also eliminate human errors from inaccurate billing, and bill estimations through integration with IoT and smart phones for efficient management of distributions. In practical instances the meters are integrated into wireless modules and linked to microcontrollers through which communication with smart phone is enabled.

Smart water meters are further recommended for storage and transmission of consumption data together with sensors for round the clock observation of the state of water infrastructure.

However, the findings established that integration of smart pipes, and sensors along vulnerable parts of the supply network could facilitate instant acquisition of data on pressure, and leaks without altering the working of the hydraulic circuit.

While cost aspects of adoption smart meters remain a concern, it has since been established that easy availability of Internet of Things (IoT) could potentially lower the cost of smart water adoption and sustenance. For instance, with Web 2.0 and real-time wireless monitoring and control components and the introduction of low power consumption devices at reasonable costs could reduce the costs of smart water management.

Staff and Students Win Big As the Academic Affairs Division Outlines Its Successes and Future Plans

BY: BRITNEY MOKEIRA

Policy approvals, staff recruitment, and infrastructure renovation have been highlighted as some of the key achievements that the academic division registered in the just concluded financial year 2023/2024.

While enumerating the successes that the division managed to score, Deputy Director, Academic Affairs, Mr. Eric Wamiti, spoke highly of the first ones that the division implemented as a means to improve the service delivery within the division, which is tasked with the duty of delivering one of the core mandates of the institution: training.

Mr. Wamiti stated that the administration and Governing Council have implemented an array of initiatives aimed at improving the training experience at the college, most notably revising and developing new policies to help streamline the institute's training operations. He highlighted that the division has begun to implement the Examination Policy, Student Welfare Policy, and Student Rules and Regulations. These, he claimed, had helped restore sanity in the student fraternity and fixed lapses in the division's approach to student affairs.

Mr. Eric Wamiti when he addressed members of staff during the general meeting.

"The policies have helped us depart from the old way of doing things. We have a more focused way of delivering results guided by these policies. Since we started implementing them, we have made huge strides. Our students have also been cooperative. I recommend them for their cooperation and discipline," he added.

He also stated that two extra policies, the Library Policy and the Recognition of Prior Learning Policy, were awaiting approval from the Governing Council before they could be implemented.

Mr. Wamiti also praised the management's decision to completely dedicate resources to the renovation of training infrastructure across campuses, which he said had revitalized the delivery of training sessions for both division staff and students. To strengthen the institution's dignity and image, the institution oversaw the refurbishment of learning facilities to provide a good learning environment for students. As part of the efforts to support the division's core mandate, management oversaw the renovation of pipe and hydraulic workshops, water resources, water quality, and physics laboratories, information and communication technology (ICT) and geographic information system (GIS) laboratories, the Non-Revenue Water Centre of Excellence,

Staff and Students Win Big As the Academic Affairs Division Outlines Its Successes and Future Plans

and eight classrooms.

Mr. Wamiti regarded the recruitment of additional new staff as an action that strengthened the divisions' ambition to provide quality education in order to cope with the institute's growing student population.

He enthusiastically declared that the additional staff had increased the division's capabilities to provide teaching and evaluation to students.

However, he stated that balancing the workload remained a thorn the division's flesh. This occurred even as the division was considering expanding its programs to boost the range of training programs available to meet the different demands of its students.

Mr. Wamiti stated that the institute was working tirelessly to ensure that the increasing number of students received the best possible education. Noting that the student enrollment had continued to rise, with 1806 continuing students, 694 on attachment, and 557 on community service which is as a result of the institute's energized marketing efforts and student allocation through KUCCPS, he stated that KEWI planned to implement support programs to increase completion rates, such as facilitating access to HELB loans.

"With the renovated infrastructure, we look forward to acquiring tools and equipment that will support our programs. This will enhance the quality assurance of our programs and help maintain and improve the standards of education we offer," he added.

Despite some problems with the Enterprise Resource Planning (ERP) system that caused the delay in the release of December 2023 examinations, the DDAA noted that the division had met all of the deliverables outlined in the Performance Contract, demonstrating their commitment to excel and be accountable despite the challenges they faced. He urged staff to follow CBET curriculum delivery standards and methodologies by doing more practical work, conducting regular continuous evaluations, and using student evidence portfolios. He emphasized KEWI's goal of being a center of excellence in water sector training and urged division members to actively market the institute in their home areas and communities.

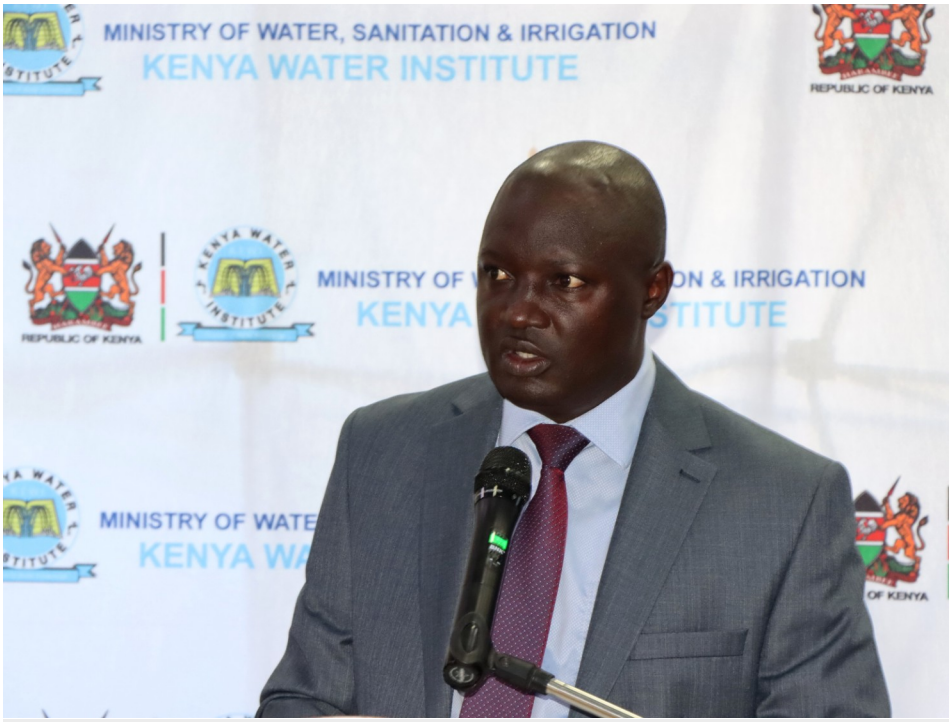
The division head stated that the division's outstanding achievements would not have been achieved without the continuous support and leadership of Dr. Leiro Letangule and the management.

Mr. Wamiti expressed optimism for quicker successes in the new financial year 2024/2025, hailing campus principals, department heads, lecturers, and technicians for their hard efforts in information dissemination.

"Your hard work and expertise are shaping the future of our students and, by extension, the future of our nation," he concluded.

Landmark Achievements of KEWI's Research Division in 2023/2024 Financial Year

BY: FAIZAH JEPKORIR



Mr. Nelson Kwamini when he addressed members of staff during the general meeting.

The Research, Consultancy, and Technical Services Division has set its sight on diversifying the institutes funding sources, diversifying short course training programs and investing in modern research facilities to help beat around the challenges occasioned by funding constraints and raise the institutes revenue base. This comes at a time when the institution is reeling from significant reduction in its budgetary allocations by the exchequer.

While marking a financial year 2023/2024 of significant achievements and transformative impact, Deputy Director Mr. Nelson Kwamini, has further stated that the division will seek to prioritize capacity building for faculty and staff, develop a comprehensive strategic plan and enhance its promotion and outreach efforts to attract more consultancy clients and research collaborations. This, he has highlighted, will not only create a resilient division that will deliver for the institute but one that will bolster its research capabilities, enhanced technical services, and strategic partnerships all aimed at promoting sustainability and innovation.

Under the Departments of Planning, Resource Mobilization, and Business Development and Research, Strategy and Performance Management, the Division has recorded an outstanding 11 new Memorandums of Understanding (MOUs). Partnerships were established with organizations such as Safaricon Kenya, Water Kiosk Africa (WKA), Kenya Forestry Research Institute (KEFRI), National Government Affirmative Action Fund (NGAAF), Ekowai Tech Spa, National Research Fund (NRF), Unicorp Capital Group Limited, and Wilo East Africa, among others.

These new agreements, signed within just six months and which bring the total to 19 MOUs signed over the last financial year have not only acted as an encouraging stimulus in solidifying the divisions' role as a key revenue -generating department for the institution but further helped the institution navigate the competitive landscape in research and consultancy services which have called for continued innovation and adaptation..

The division has further forged strategic partnerships with international organizations, underscoring its role as a leader in water resource management. Collaborations with entities such as Wilo Pumps, Danish International Development Agency (DANIDA), Japan International Cooperation Agency (JICA), and the Chinese Embassy have

Landmark Achievements of KEWI's Research Division in 2023/2024 Financial Year

facilitated joint research initiatives and the establishment of specialized training programs in critical areas like rainwater harvesting and smart metering.

These partnerships not only expand Kenya Water Institute (KEWI) expertise but also reinforce its commitment to fostering innovation and addressing emerging challenges in the water sector.

Central to the division's achievements is the successful implementation of key projects focused on improving public health through innovative sanitation technologies. Funded by the African Development Bank (AfDB) and supported by the people of Japan, these initiatives have included comprehensive training programs for trainers, youth, and women on low-cost safe pit latrine technologies. Additionally, the establishment of cutting-edge sanitation systems in various counties such as Kitui, Kisumu, Tharaka Nithi, and Kajiado has addressed public health challenges and promoted entrepreneurial opportunities and sustainable practices within local communities.

In partnership with Gatsby Africa (GA), KEWI has been implementing a project on 'Strengthening System for Delivery of Skills, Innovations, and Research.' This initiative has led to the establishment of a Non-Revenue Water (NRW) Centre of Excellence at the KEWI main campus, the procurement of state-of-the-art NRW reduction equipment, and capacity building for five staff members at IHE Delft, the Netherlands on NRW management. Recently, KEWI signed an agreement for the second phase of the project, which includes enhancing the visibility of the NRW Centre of Excellence and procuring additional NRW equipment, including a meter test bench.

Aligning with emerging trends and market needs, the Research Division, through its Short Courses Department, has reviewed its course offerings and added new programs tailored to current industry demands. This initiative ensures that KEWI's training programs remain relevant and responsive, equipping participants with the necessary skills and knowledge to excel in the dynamic field of water resource management. To revamp the short courses, the department has restructured the training programs to cater to senior management, middle-level management, technicians, and artisans. Additionally, changes in pricing strategies aim to increase the revenue stream for the institute.

Despite notable successes, the division faces challenges such as the need for upgraded infrastructure to sustain its growth trajectory. To navigate these challenges, KEWI plans to diversify funding sources, enhance infrastructure, and expand its portfolio of training programs to meet evolving market needs. By prioritizing capacity development and strategic planning, the division aims to strengthen its position as a hub of research excellence and a catalyst for sustainable development in Kenya.

Mr. Kwamini, stated, "Our accomplishments this year are a testament to the dedication and hard work of our team. We are committed to advancing knowledge, providing expert advice, and delivering practical solutions that contribute to the socio-economic development of Kenya."

Looking ahead, KEWI remains steadfast in its commitment to advancing knowledge, providing expert advice, and delivering practical solutions. Through continued innovation and collaboration, the Research, Consultancy, and Technical Services Division is poised to build on its successes and further elevate its impact in the years to come, ensuring a sustainable future for generations to come.

Call for September 2024 Intake

Quote of the Week

"Talent wins games, but teamwork and intelligence wins championships."

-Michael Jordan.

EDITORIAL TEAM

Editor

Dorine Eva Irungu

Writers:

Faizah Jepkorir

Pius Kimani

Britney Mokeira

Fredrick Otieno

Photographer

Pius Kimani

Designer

Pius Kimani

Round up of The Week's Events

KEWI members of staff during a Quality Management System ISO 900:2015 Internal Auditor Training Course, which will equip them with knowledge and skills required to conduct internal audits based on ISO 900:2015. The institute is in the process of regaining its ISO certification under the leadership of the institute's Team Leader Dr. Leiro Letangule, EBS.

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: 0722207757
Email: kisumu@kewi.or.ke

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