



QUARTELY NEWSLETTER

THIRD QUARTER 2024-2025



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FOREWORD

and TV talk shows, community work (Umuganda), and the conclusion of the second edition of the Water Resources Modelling Hackathon. These efforts not only celebrated the day but also strengthened public awareness and youth engagement in water conservation.

Catchments are the lifelines of our water resources. At RWB, we are deeply committed to their protection and restoration. Through initiatives like the Volcano Community Resilience Project and the Congo Nile Divide Project, we continue to implement nature-based solutions that support resilient ecosystems and empower local communities.

Based on the forecast from the Rwanda Meteorology Agency, the upcoming rainy season May is expected to bring relatively heavy rains that may cause floods and landslides, particularly in the Northern and Western regions. In light of this, we urge all citizens to exercise caution and take proactive, preventive measures as advised by the relevant government authorities.

As you explore this edition, I invite you to reflect on how we can all contribute to preserving our water heritage. Together, we can ensure a water-secure future for Rwanda.

RICHARD NYIRISHEMA
EXECUTIVE CHAIRPERSON

Dear readers,

The Rwanda Water Resources Board is pleased to share with you the third quarterly newsletter for the fiscal year 2024–2025.

Over the past three months, we have reached significant milestones in our efforts to safeguard Rwanda’s precious water resources. Notably, we launched the Lake Water Use Master Plan for five key lakes—Kivu, Muhazi, Burera, Mugesera, and Ruhondo. This strategic initiative will guide the responsible use of these lakes, ensuring their long-term sustainability for future generations.

On March 22, 2025, we joined the global community to celebrate World Water Day under the theme “Catchment Preservation.” This occasion served as an important platform to raise awareness about sustainable catchment management, with a strong focus on combating soil erosion.

Throughout Water Week, we carried out several public engagement activities, including the Walk for Water, radio



RWANDA CELEBRATES WORLD WATER DAY WITH A CALL TO PROTECT CATCHMENTS

On March 22, Rwanda joined the global community to celebrate World Water Day 2025, under the global theme “Catchment Preservation.” This theme could not be more timely, as the country continues to face challenges linked to land degradation, climate change, and rapid urbanization; factors that directly threaten the health of Rwanda’s catchments.

Catchments are the lifeblood of our ecosystems. They collect, store, and distribute water for drinking, agriculture, industry, and nature itself. When catchments are degraded; through deforestation, soil erosion, or pollution, the entire water cycle is disrupted, putting livelihoods, food production, and economic growth at risk.

Over the past years, the Rwanda Water Resources Board (RWB) has made remarkable strides in restoring degraded landscapes and building resilience in watersheds across the country. Districts such as Rubavu, Nyabihu, Rutsiro, and Ngororero have benefited from landscape restoration under the Sebeya Pilot Project, which has not only improved soil and water conservation but also reduced flooding and increased agricultural productivity.

Further efforts in Nyagatare, Rwamagana,

Gicumbi, Muhanga, and other districts have led to the rehabilitation of degraded landscape through Integrated Water Resources Management Project.

In the Upper Nyabarongo catchment, spanning more than 3,000 square kilometers, targeted restoration activities helped to protect one of the country’s most important river systems. Other sub-catchments like Giciye, Shyira, Karago, Mugogo, and Satinsyi have also seen tangible restoration efforts, breathing new life into lands that were once severely degraded.

Looking to the future, The Volcano Community Resilience Project (VCRP), will cover 217,000 hectares across eight districts, aims to integrate climate-smart solutions such as reforestation and sustainable land management. At the same time, the Congo Nile Divide Project is set to protect 400,000 hectares.

These initiatives are not just environmental in nature—they are deeply aligned with Rwanda’s national development agenda, as outlined in the Second National Strategy for Transformation. Preserving catchments means ensuring water security, improving resilience to climate change, and laying a foundation for sustainable economic growth.



RWB AWARDS WINNERS OF THE 2025 WATER RESOURCE MODELLING HACKATHON

On March 21, 2025, the Rwanda Water Resources Board (RWB), in collaboration with the Albertine Rift Conservation Society (ARCOS), announced the winners of the 2025 Water Resource Modelling Hackathon.

The event took place during Water Week and aligned with World Water Day's theme, "Catchment Preservation." The hackathon aimed to engage university students in designing data-driven solutions to support sustainable water resource management in Rwanda.

This second edition focused on two thematic areas: water modelling and erosion control.

In the erosion control category, Ntawigenga Irakoze Kelly was awarded first place for his innovative project titled "Extracting Radical Terraces from Satellite Imagery for Sustainable Land Management in Rwanda." His solution applies deep learning techniques to automate the identification of radical terraces from satellite imagery, a method designed to improve land use planning, enhance soil conservation, and contribute to food security. Kelly noted that the

project also supports the broader goal of achieving Zero Hunger, one of the Sustainable Development Goals.

In the water modelling category, strong participation by young women stood out. Notably, Uwimana Sumayah won second place for her research titled "Development of a Rainfall-Runoff Model Using HEC-HMS to Promote Innovative Solutions for Sustainable Water Use and Management and Enhance Biodiversity Conservation in Rwanda." Her model focuses on the Mbirurume catchment and aims to aid in flood risk assessment, infrastructure design, and improved water management decision-making in the context of climate change. Her success reflects the increasing involvement and impact of women in science and technology.

In his opening remarks, Dr. Emmanuel Rukundo, Director General of RWB, welcomed all participants to the award ceremony and encouraged them to view the experience as a platform for growth. He urged those who did not win to continue developing their skills, saying, "You may not win the hackathon, but you could land an interesting internship at RWB or a full-time job in the government or private sector."



DG Dr. Rukundo also addressed the winners, encouraging them not to stop at this achievement but to use it as motivation to reach even greater heights. “Please don’t stop at this stage. Use your success to build your confidence, and I believe you have the potential to make a significant impact on your country and inspire others around the world in your field,” he added.

Jean Paul Kubwimana, Conservation Program Director at ARCOS, commended the collaboration with RWB and the University of Rwanda. He highlighted that the initiative had successfully enhanced the practical skills of students, resulting in promising ideas and research that can support water resource management.

A total of 59 students from various universities across Rwanda participated in the hackathon, with backgrounds in water resources, climate, urban planning, and geography. Of these, 40 students competed in water modelling and 19 in erosion control.

Four students were recognized for their outstanding contributions. In the water modelling category, Mpetwa Godfrey won first place with a cash prize of one million Rwandan francs. Uwimana Sumayah and Umurerwa Sandrine followed in second and third place, winning 750,000 Rwf and

500,000 Rwf respectively. In the erosion control category, Ntagirya Kelly, the sole finalist, also received one million Rwandan francs for his work.

Reflecting on the hackathon, Kelly expressed his gratitude for the opportunity, stating, “This competition allowed us to put our knowledge into practice, and I believe our research can contribute to conserving water resources.”

The Water Resource Modelling Hackathon, launched by RWB and ARCOS, continues to foster innovation in water management while empowering students to address real-world challenges through academic knowledge and creativity.





WALK FOR WATER: RWB RAISES AWARENESS ON CATCHMENT PRESERVATION

Sunday, March 23, 2025, The Rwanda Water Resources Board (RWB) senior management and staff joined Kigali residents in the Car Free Day event, a mass sports initiative that also served as a platform to raise awareness on catchments conservation.

This engagement aligned with the theme of the 2025 World Water Day, “Catchment Preservation”, celebrated globally on March 22.

As part of its Water Week activities, RWB conducted various awareness campaigns on catchment preservation, including participating in Car Free Day, which the institution designated as a “Walk for Water” event to mark World Water Day.

RWB Director General, Dr Emmanuel Rukundo, emphasized the urgent need for catchment protection to ensure long-term water availability.

“Water is vital for our country’s socio-economic development, but its availability depends on how well we protect our catchments. Rapid urbanization,

deforestation, and improper land use are straining our water resources, threatening both their quantity and quality. If we do not act now, future generations may face serious challenges, including water scarcity. The time to act is now,” he said.

Direct General, Dr. Emmanuel Rukundo, stressed the significance of catchments preservation.

“One crucial aspect of protecting catchments is preventing erosion. To combat erosion, we implement activities such as constructing radical and progressive terraces, planting trees, and creating water channels to prevent flooding and landslides,” he explained.

He further emphasized the importance of water use regulation, urging responsible use.

“We strongly encourage all water users to obtain water use permits. This enables us to monitor water consumption, ensuring sustainable management and conservation within catchment areas,” he added. [VIDEO](#)



RWB JOINS NYARUGENGE COMMUNITY FOR THE MONTHLY UMUGANDA

On March 29, 2025, The Rwanda Water Resources Board (RWB) Eng. Richard Nyirishema, joined residents of Kigali Sector in Nyarugenge District for the monthly community work activity (Umuganda), held in the Rwesero Cell forest.

The activity marked the conclusion of a week dedicated to celebrating the International Days of Water, Forests, and Meteorology.

Participants engaged in erosion control efforts, including the rehabilitation of terraces as a key measure to protect the environment, and they also carried out forest cleaning activities by cutting overgrown bushes and pruning trees to promote a healthier forest ecosystem.

Addressing the community, Nyirishema, who was the guest of honor, took the opportunity to highlight the importance of catchment preservation, aligning with the

2025 World Water Day theme: “Catchment Preservation.”

“A catchment is a geographic area of land made up of hills, valleys, and slopes, where rainwater converges and collects before flowing into rivers, lakes, or other water bodies,” he explained.

He emphasized that protecting these areas is essential for long-term water availability and reducing water-related disasters.

“When rainwater is not well managed as it flows down hills, it causes serious problems such as erosion and flooding. That’s why catchment protection is the key,” he added.

The participation of RWB in such conservation efforts reflects its core mandate and ongoing commitment to ensuring the sustainable management of water resources in Rwanda.



RWB LAUNCHES LAKE WATER USE MASTER PLAN FOR FIVE KEY LAKES

The Rwanda Water Resources Board (RWB) has launched a groundbreaking Lake Water Use Master Plan to guide the sustainable use and management of five major lakes in Rwanda: Lake Kivu, Lake Muhazi, Lake Mugesera, Lake Ruhondo, and Lake Burera.

This master plan represents a strategic effort to optimize the utilization of Rwanda's lake resources for socio-economic development, while ensuring the long-term sustainability of these vital ecosystems.

“From addressing public health concerns to promoting clean energy and supporting a thriving tourism sector, our commitment is to establish a harmonious balance between essential activities and environmental preservation. We strive to ensure the enduring vitality of these lakes, serving as foundational resources for life and prosperity for generations to come,” said Dr. Emmanuel Rukundo, Director General of RWB.

Vital Munyandinda, Manager of the Water Permit Division at RWB, stated that the plan focuses on these five lakes due to their high level of use for various purposes. He added that master plans for the remaining lakes will follow in subsequent phases.

The designated activities under the plan include, Gas exploitation, fish farming, general fishing, navigation, water supply, and tourism. These uses have been carefully assessed and structured to prevent conflicts, enhance coordination, and promote sustainable development in and around the lakes.

RWB urges all water users to comply with the Lake Water Use Master Plan by applying for a water use permit before starting any activity involving these lakes. This process is essential for monitoring, regulation, and ensuring that water resources are used responsibly and equitably.

The Lake Water Use Master Plan is part of Rwanda's broader Integrated Water Resources Management (IWRM) approach and supports national development goals as well as global commitments to environmental protection.

For more details and to access the full master plan, [watch the video](#) or visit: lakesmasterplan.rwb.rw



RWB HOSTS MALAYSIAN DELEGATION FOR KNOWLEDGE EXCHANGE ON FLOOD FORECASTING AND DISASTER RISK REDUCTION

On February 26, 2025, the Rwanda Water Resources Board (RWB) hosted a delegation from Malaysia for a knowledge-sharing session focused on disaster risk reduction, early warning systems, and integrated water resources management. The meeting provided a platform for both countries to present their strategies and experiences in managing flood risks and building climate resilience.

The Malaysian delegation, representing the National Disaster Management Agency, shared insights into their comprehensive early warning system. Malaysia's approach includes a nationwide early warning system that operates continuously, using thousands of rainfall and water level monitoring stations, flood forecasting models, and real-time data. Warnings are disseminated through SMS, social media, mobile applications, websites, and community sirens.

In response, RWB presented Rwanda's progress in managing water resources and reducing flood and landslide risks since its establishment in 2020. RWB emphasized its mission to ensure water security as a foundation for sustainable development, in alignment with Vision 2050.

The key initiatives shared included the National Flood Risk Assessment, identification of flood hotspots, and the construction of detention ponds in Volcano region, Sebeya lateral dykes, and Sebeya detention dam to mitigate flood risks in Rubavu District.

RWB also highlighted its strategic shift toward nature-based solutions, collaboration with different stakeholders, and adoption of forecasting tools like GEOGLOWS.

Rwanda Water Resources Board underscored its ambition to scale up from the current 81 monitoring stations to at least 200 automated ones by 2035. Both sides acknowledged the importance of data in flood management.





CONGO NILE DIVIDE PROJECT: RWB ENGAGES CITIZENS IN VILLAGE LAND USE ACTION PLANS

February 4, 2025 – The Rwanda Water Resources Board (RWB) has begun engaging local communities in the Village Land Use Action Plans as part of the Congo Nile Divide (CND) project.

This project is aimed at enhancing the resilience of vulnerable communities to climate variability in Rwanda’s Congo Nile Divide region through forest and land restoration.

The Congo Nile Divide project, which covers an area of 444,600 hectares, seeks to mitigate the impacts of climate change by restoring both forests and land. The first phase of the project targets 60 villages in Karongi and Rutsiro Districts.

Along with RWB, citizens from these areas have initiated dialogues to address the climate challenges affecting the region.

Local residents proposed a range of solutions, including measures to control soil erosion, such as rainwater harvesting,

and strategies for irrigation during the dry season. Reforestation efforts, as well as the development and stabilization of terraces, were also highlighted as key interventions.

The involvement of the Rwanda Water Resources Board in the project is crucial, as it focuses on two main areas: land restoration and soil erosion control. The first area includes restoring degraded gullies and protecting riverbanks, while the second focuses on stabilizing existing terraces, creating new radical terraces, and developing progressive terraces.

The Congo Nile Divide project is funded by the Green Climate Fund.

Through its role in land restoration and soil erosion control, the RWB emphasizes its mission to ensure sustainable water resources management, supporting long term environmental and social development in the Congo Nile Divide region.



AKANYARU CATCHMENT COMMITTEE ASSESSES PRESSING WATER RESOURCE ISSUES

March 27, 2025 — Members of the Akanyaru Catchment Committee conducted a field visit to the districts of Huye, Gisagara, and Nyaruguru to assess challenges affecting the management of water resources, including those impacting the Akanyaru River.

During the tour, several key issues were identified, with gully erosion emerging as the most critical challenge across all three districts.

Jean Paul Habineza, Vice Mayor in charge of Economic Development in Gisagara District and Chairperson of the Akanyaru Catchment Management Committee, also pointed out another pressing issue; the Akanyaru River frequently overflows and changes its course, posing risks to nearby communities and ecosystems.

The committee members took note of the challenges observed and proposed a set of measures to address them, these included mobilizing funds for the construction of water channels to manage surface runoff and prevent gully formation.

They also emphasized the need to promote rainwater harvesting, especially in residential areas where runoff contributes significantly to soil degradation.

In addition, they recommended the development of terraces to prevent erosion and enhance land conservation.

The Akanyaru Catchment covers several districts, namely Bugesera, Kamonyi, Ruhango, Gisagara, Huye, Nyanza, and Nyaruguru.

The catchment committees are established under the Ministerial Order n° 002/MoE/22 of 31/01/2022 governing the water resources management committee at catchment level.





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