



PRESS RELEASE

LIMCOM AND IWMI EQUIP WATER MANAGERS WITH AI-POWERED DIGITAL TWIN AND SCENARIO MODELLING TO STRENGTHEN WATER SECURITY IN THE LIMPOPO RIVER BASIN

30 April 2026, Maputo, MOZAMBIQUE -- The Limpopo Watercourse Commission (LIMCOM), in collaboration with the International Water Management Institute (IWMI) are taking a decisive step toward equipping the four LIMCOM Member States -- Botswana, Mozambique, South Africa and Zimbabwe -- with AI-powered tools to manage climate variability, water scarcity and transboundary coordination challenges across the Limpopo River Basin. To support this ambition, LIMCOM hosted a two-day capacity building workshop focused on testing and scenario development for the Limpopo Digital Twin and WaterCopilot.

Held on 15-16 April 2026 in Maputo, Mozambique, the workshop brought together technical representatives from the four LIMCOM Member States, representatives from IWMI, leading experts in digital water management and digital intelligence as well a representative from the International Affairs Office at the United Arab Emirates (UAE) Presidential Court and the American University of Sharjah (AUS). The event aimed to build participants' practical familiarity with cutting-edge tools for water management.

Launch of the LIMCOM Digital Twin and WaterCopilot

On 15 April, the [Limpopo Digital Twin](#) and the [WaterCopilot](#) were handed officially handed over by IWMI for use to the LIMCOM Member States and key water managers of the basin.

The [Limpopo Digital Twin](#) is an interactive platform that delivers real-time insights into the basin. The first prototype of its kind in Africa, it integrates hydrological, climatic, irrigation and water use data with intuitive maps and analytics. The WaterCopilot is an AI-powered assistant integrated into the Digital Twin platform which was developed by [IWMI in collaboration with Microsoft](#) to support river basin management. It delivers real-time, science-based insights to water managers through a mobile app and conversational interface.



IWMI formally handed over the WaterCopilot tool to LIMCOM. Photo: LIMCOM

A live demonstration of the AI-powered water agents showcased plain-language queries on reservoir status, environmental flow thresholds, water accounting and [MiniSASS](#) river health scores, a citizen science tool for monitoring water quality and health. The same queries now drive the Digital Twin directly, loading layers, generating charts and zooming the map without leaving the conversation.

Co-designing Limpopo Basin Scenarios with the Water AI Project

The Water AI project, is an AI-augmented hydrological modelling initiative under the CGIAR AI Hub, hosted in Abu Dhabi and is part of the [UAE's AI Ecosystem for Global Agricultural Development](#) that was launched with the Gates Foundation and partners in December 2025.

"To make sound decisions for water security, good hydrological modelling is essential. However, hydrological models need data and take months to calibrate, making them a bottleneck in water resource management. Through this project, we are using AI tools to accelerate this process. This will serve as a huge step in making faster and better-informed water management decisions," said Ian Overton, IWMI's Acting Director for Water Data Science.

This project, is a flagship product within the CGIAR Digital Transformation Accelerator Science Program, delivered by IWMI in partnership with the American University of Sharjah (AUS), ai71, and supported by the International Affairs Office at UAE Presidential Court, and was introduced to LIMCOM Member States on 16 April 2026.

The workshop co-designed priority scenarios for the Limpopo River Basin as demonstration case for [UN Water 2026](#). In this regard, the basin will serve as the first test case of the AI-driven hydrological model, combining scientific rigor with policy impact.

This participatory approach ensures that technology reflects the realities and needs of the people who will use it, and positions LIMCOM and its Member States at the forefront of digital water governance in Africa.



Left: Shatha Alaydaroos, Project Study and Development Specialist at the International Affairs Office, UAE Presidential Court, explains LIMCOM's role at the UN Water 2026. Right: Dr. Hosni Ghedira, Director of the GeoAI and Spatial Intelligence Center at AUS and Senior AI & Water Advisor at AI71, engages with Member States during scenario co-development. Photo: LIMCOM



United
Nations



2026 UN Water Conference

2 - 4 December, United Arab Emirates

The Limpopo River Basin will be showcased at the UN Water Conference

Strengthening evidence-based decision-making in the Basin

The workshop served as a significant milestone in strengthening evidence-based decision-making within the basin. LIMCOM and IWMI remain committed to ensuring that the millions of people living in the Limpopo River Basin, from farmers and communities facing climate variability to governments navigating shared water resources across the four countries, benefit from better-informed water management decisions.

LIMCOM Executive Secretary, Mr. Sergio Siteo highlighted that in this era of digitalization, it was critical for stakeholders to fully harness digital intelligence to drive socio-economic development.

“The effectiveness of these technological innovations such as the Limpopo Management Information System and the Limpopo Digital Twin relies on the active participation of all relevant stakeholders,” he said.

“We must all work together and ensure that the data we generate remains accurate and the insights truly actionable. This shared responsibility will allow us to harness digital intelligence to improve planning, monitor progress and ultimately drive inclusive growth across the basin.”



LIMCOM Executive Secretary, Mr. Sergio Siteo (right) and IWMI Country Representative for South Africa, Dr. Henry Roman (left) applauded the partnership between the two organizations in strengthening evidence-based decision-making within the basin. Photo: LIMCOM

IWMI Country Representative for South Africa, Dr. Henry Roman, emphasized that the Digital Twin platform is a game changer in water resource management as it ensures that decisions are grounded in evidence and science. He said the development of these technological tools is a testament to the power of partnerships and innovation.

“By combining the operational capabilities of the Digital Twin with the scenario-based insights of the Water AI project, we are equipping LIMCOM and its Member States with the tools they need to navigate the challenges of climate change, land use and water demand. This is a significant step forward for the region and a model for global water governance.”

LIMCOM

The Limpopo Watercourse Commission (LIMCOM) was established through the LIMCOM Agreement signed in November 2003 by the four Member States -- Botswana, Mozambique, South Africa and Zimbabwe. The main objective of LIMCOM is to advise and “provide recommendations on the uses of the Limpopo, its tributaries and its waters for purposes and measures of protection, preservation and management of the Limpopo.” www.limpopocommission.org

IWMI

The International Water Management Institute (IWMI) is an international research-for-development organization that works with governments, civil society and the private sector to solve water problems in developing countries and scale up solutions. Through partnership, IWMI combines research on the sustainable use of water and land resources, knowledge services and products with capacity strengthening, dialogue and policy analysis to support implementation of water management solutions for agriculture, ecosystems, climate change and inclusive economic growth. Headquartered in Colombo, Sri Lanka, IWMI is a CGIAR Research Center with offices in 17 countries and a global network of scientists operating in more than 55 countries. www.iwmi.org

The Water AI project featured in this release is part of the CGIAR Digital Transformation Accelerator, delivered through the CGIAR AI Hub, a global collaborative platform hosted in Abu Dhabi’s AI Ecosystem for Global Agricultural Development that connects CGIAR’s research network with global partners, including the International Affairs Office at the UAE Presidential Court, the Gates Foundation, and ai71, to accelerate AI-powered digital solutions for food, land and water systems.

Access to Platforms

Limpopo Digital Twin (WaterCopilot embedded): limpopo.digitaltwins.iwmi.org

Full WaterCopilot web application: water-copilot.digitaltwins.iwmi.org

WaterCopilot Android: play.google.com/store/apps/details?id=org.iwmi.watercopilot

WaterCopilot iOS (TestFlight beta): testflight.apple.com/join/1GNBtuB2

MiniSASS Android: play.google.com/store/apps/details?id=com.rk.amii

Enquiries

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