

MEDIA RELEASE

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Earth Observations for Improved Food and Water Security

Australian collaboration and innovation using freely available satellite images and open-source tools is enabling African countries to gain access to consistent and easily accessible decision-ready products. This supports a diverse range of governments, communities and industry partners to make more informed decisions on critical food and water security challenges.

This will be a key message of Dr Lisa-Maria Rebelo, Lead Scientist for [Digital Earth Africa](#) and Principal Researcher, Earth Observation for Sustainable Development at the [International Water Management Institute](#). Dr Rebelo is the recipient of the prestigious 2022 Crawford Fund Derek Tribe Award for her work across the African continent, and in South and Southeast Asia, in water productivity, remote sensing, natural resource management, wetland monitoring and assessment, and basin water accounting.

Dr Rebelo will present her Derek Tribe Award address on 9 November in Canberra at Geosciences Australia. In her address, titled “*Earth Observations for Water Resources Management*,” she will discuss the critical role which new applications and tools, based on Earth Observation data and ICT technologies and in partnership with Australia, play in transforming agricultural systems and ensuring the sustainable management of natural resources under current and future climate conditions.

“Water, food and energy are intricately interlinked, and if we are to achieve the transformational change needed to achieve global food security, we need a nexus approach to planning. Lisa brings exciting new and improved tools to resource management and water accounting to find solutions to this water-food-energy nexus through her critical role in Digital Earth Africa, a major investment for the Australian Government Department of Foreign Affairs and Trade in Africa,” said Dr Colin Chartres, CEO of the Crawford Fund. Colin will be presenting Lisa with her award at the 9 November address.

“Information from satellite images is invaluable for water and agriculture planners and decision-makers, as they grapple with decreasing water availability and the growing impacts of climate change. Open data cubes such as Digital Earth Australia and Digital Earth Africa make it easier to access these images,” said Dr Rebelo, a remote sensing specialist with 20 years of research experience in natural resource management in Africa and Asia.

“The development of Digital Earth Africa has seen the deployment of world-class Australian innovation at unprecedented scales to deliver development outcomes across the African continent. It offers real impact for sustainable development, as well as building resilience and climate change adaptation.”

“With the data from Earth Observations we can better manage water resources, improve food security and protect, manage and restore important ecosystems. This can inform policy and investment decisions, as well as in empower a diverse range of communities to take climate action,” she concluded.

The Crawford Fund’s [Derek Tribe Award](#) recognises the distinguished contributions of a citizen of a developing country to the application of research in agriculture or natural resource management in a developing country or countries. These people are often unsung heroes in their fields, with long and dedicated service that has incredible impact. The Award was inaugurated in 2001 to mark the outstanding contributions of Emeritus Professor Derek Tribe AO OBE FTSE, Foundation Director of the Crawford Fund, to the promotion of international agricultural research.

