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By AKADEMIYA2063

Press Release

New web-based platform predicts yields of nine key African crops through use of emerging technologies

State-of-the-art tool uses AI and satellite data to overcome Africa's agricultural data gap and support effective decision-making and crisis planning.

May 15, 2023, Kigali, RWANDA – A new tool, which uses cutting-edge machine learning techniques and satellite remotely sensed data to predict agricultural yields for nine key crops across Africa, launched on April 27.

The web-based Africa Agriculture Watch ([AAgWa](#)) platform combines remote sensing data and machine learning techniques to support informed decision-making in African food production systems. The tool has provided predictions for agricultural yields in 47 African countries, across many of the most important crops for African food production, including maize, cassava, and sorghum, among others. The tool is designed to support farmers, policymakers, and local communities in crisis management, monitoring, and mitigation efforts.

The AAgWa platform was officially launched as the fourth core program of pan-African non-profit research organization [AKADEMIYA2063](#) at a virtual event, which highlighted the significant threats posed to Africa's food production systems from climate shocks, global market disruptions, health crises, plant diseases, and pest outbreaks.

Stakeholders discussed how today's emerging digital technologies can help overcome Africa's "agricultural data gap", which inhibits African farmers and policymakers from responding effectively to threats to crop production, while driving further agricultural productivity and strengthening resilience across the African continent.

"When it comes to innovations in data, and particularly in remote sensing and artificial intelligence (AI), Africa does not have to follow – we can lead from within," said **Dr. Ousmane Badiane**, Executive Chairperson, AKADEMIYA2063.

“Africa’s telecoms revolution has shown how much you can achieve if you put in the effort and the resources, and at AKADEMIYA2063 we are investing in making key data and analytics for development accessible for all African countries.”

This new phase of the AAgWa program will facilitate the use of emerging technologies like AI and advanced remote sensing by African countries to achieve their development objectives and broader economic growth, including the African Union’s (AU) [Agenda 2063](#) and [Digital Transformation Strategy for Africa](#) (2020-2030).

“As we know, the African agricultural sector is facing a number of threats, from supply chain disruptions to extreme climate events and health crises. What all these crises have in common is the need for good planning and preparedness to reduce uncertainties in decision-making,” said **Dr. Racine Ly**, Director, Department of Data Management, Digital Products, and Technology, AKADEMIYA2063.

“Relying on conventional analytic techniques alone will not deliver the effective decision-making we need to meet these challenges. At AAgWa, we are improving the timely accessibility to the data decision-makers need to enable them to take better actions”.

Chaired by **Prof. Muhammadou M.O. Kah**, Ambassador Extraordinary and Plenipotentiary of The Gambia to Switzerland and Member of the Malabo Montpellier Panel, the event was also attended by [high-level researchers and international and regional policymakers](#). Notable were closing remarks from **Dr. Ismahane Elouafi**, Chief Scientist, Food and Agriculture Organization of the United Nations (FAO), emphasizing FAO's commitment to the digitalization of agriculture and the use of innovation to end hunger and improve livelihoods, and comments from **Dr. Parmesh Shah**, Global Lead for Rural Livelihoods and Agricultural Jobs, World Bank, who provided an overview of AI trends applied in the agricultural sector.

“The AU Climate Change Strategy places emphasis on African agriculture and the need to build resilient food systems and increase productivity, with the potential of Africa feeding itself and the world, through a climate resilient and regenerative agriculture,” said **Mr. Harsen Nyambe**, Director of Sustainable Environment and Blue Economy, African Union Commission.

“The Africa Agriculture Watch that is being launched today is well positioned to help the AU as it leads these efforts.”

Harnessing the power of emerging technologies will prove vital in improving the productivity and resilience of African food production systems to future shocks. This is particularly vital given that African agricultural yields, on average, remain just [one-fifth](#) of yields in the US, even though the population of sub-Saharan Africa is expected to [double](#) by 2050.

About AKADEMIYA2063

AKADEMIYA2063 is a pan-African non-profit research organization with headquarters in Kigali, Rwanda and a regional office in Dakar, Senegal.

Inspired by the ambitions of the African Union's Agenda 2063 and grounded in the recognition of the central importance of strong knowledge and evidence-based systems, the vision of AKADEMIYA2063 is an Africa with the expertise we need for the Africa we want. This expertise must be responsive to the continent's needs for data and analysis to ensure high-quality policy design and execution. Inclusive, evidence-informed policymaking is key to meeting the continent's development aspirations, creating wealth, and improving livelihoods.

AKADEMIYA2063's overall mission is to create, across Africa and led from its headquarters in Rwanda, state-of-the-art technical capacities to support the efforts by the Member States of the African Union to achieve the key goals of Agenda 2063 of transforming national economies to boost economic growth and prosperity.

Following from its vision and mission, the main goal of AKADEMIYA2063 is to help meet Africa's needs at the continental, regional and national levels in terms of data, analytics, and mutual learning for the effective implementation of Agenda 2063 and the realization of its outcomes by a critical mass of countries. AKADEMIYA2063 strives to meet its goals through programs organized under five strategic areas—policy innovation, knowledge systems, capacity creation and deployment, operational support, and data management, digital products, and technology—as well as innovative partnerships and outreach activities. For more information, visit akademiya2063.org.

Media Contact

Dr. Layih Butake

Director, Communication & Outreach, AKADEMIYA2063

Lbutake@akademiya2063.org

+221 773235609