

World Bank to work with IITA in DRC

On 8 August, [World Bank](#) Country Director in Africa, [Dr Jean-Christophe Carret](#), embarked on a successful tour of the [IITA Kalambo Station in the Democratic Republic of Congo \(DRC\)](#). His visit was part of the implementation of the Integrated Project for Agricultural Growth in the Great Lakes [Projet Intégré de Croissance Agricole des Grands Lacs (PICAGL)] activities.



Dr Jean-Christophe Carret (in red tie), country director of the World Bank, toured IITA facilities in Kalambo.

IITA Director General, [Dr Sanginga Nteranya](#), and the IITA-Kalambo team received Carret and briefed him on the project to establish fields for the multiplication of cassava varieties and other activities in collaboration with Burundi as part of the regional integration of the project.

Carret visited the station also to understand the activities of IITA in DRC. He expressed his pleasure with the Institute's work and facilities, and promised to work with IITA in the country as a partner in agricultural activities. Carret also said the World Bank will invest US\$5 billion in DRC over the next five years.

IITA is involved in the PICAGL project in the plain of Ruzizi in partnership with [National Institute for Agricultural Studies and Research \[Institut National d'Etudes et Recherches Agronomiques \(INERA\)\]](#) and National Seed Service (SENASA). Other collaborators include universities, Provincial Inspectorate of Agriculture, Fisheries

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IITA yam breeders trained on Yamcross, a mobile application for data management

From 5 to 9 August, [IITA](#) yam breeders were trained on the use of Yamcross, a mobile application for data management in yam breeding. The application manages the activities of seed and tubers in yam breeding programs. The training was held in IITA Ibadan and was facilitated by Margaret Karanja, Research Assistant and Associate at IITA Nairobi.



Aside from helping to automate and enhance data management with activities in yam breeding programs, Yamcross also provides seamless and centralized access to data for analysis and reporting. Yamcross is an integration of three systems; namely, a mobile application installed on mobile phones, Yambase for generating field records, and the Yamcross dashboard for analytics.

The training was designed to meet the capacity building needs of yam breeders. It is also necessary for

accurate data management to make breeding more efficient in generating accurate data that can be shared across all the countries of West Africa where AfricaYam collaborates.

Karanja said, "Yamcross is important and beneficial to yam breeders as it will ensure accurate, timely, and efficient data collection; provide seamless data and report access; and enable management analysis and interpretation of results that are crucial at all stages of the crop improvement cycle in yam."

However, she noted that to access data on mobile for Yamcross, users need to register. Participants were taught how to set up user accounts linked to their personal email address.

At the end of the training, Molecular Breeder at IITA Yam Breeding, [Paterne Agre](#), oversaw a brief interview and auto evaluation session to determine how much participants had learnt and how best participants would be able to use Yamcross. He noted that this would ensure that the training is beneficial to the participants and IITA.



Seminar participants with training facilitator, Margaret Karanja.

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and Livestock (IPAPPEL), and the National Center for Scientific Research (CNRS).

Other development partners are [RIKOLTO](#), [Vétérinaire Sans Frontière Belgique](#) (VSF Belgium), which serves as a technical partner in implementing the cassava, rice, milk-related value chain activities, the [International Center for Tropical Agriculture](#) (CIAT), natural resource management with [World Agroforestry](#) (ICRAF), and the [International Food Policy Research Institute](#) (IFPRI).



World Bank Country Director in Africa, Dr Jean-Christophe Carret visiting one of the labs during his tour.

Got a story to share?

Please send your story with photos and captions every Tuesday to iita-news@cgiar.org or Katherine Lopez (k.lopez@cgiar.org) and Uzoma Agha (u.agha@cgiar.org) for headquarters and Western Africa, Catherine Njuguna (c.njuguna@cgiar.org) for Eastern and Southern Africa, and David Ngome (d.ngome@cgiar.org) for Central Africa.

IITA participates in 2019 National Micronutrient Conference

IITA participated in a two-day National Micronutrient Conference organized by the Nigerian Federal Ministry of Health (FMoH) in Abuja. The conference took place on 1–2 August and aimed to create an interface and generate discussions among multiple stakeholders representing different sectors on leveraging strengths to scale up micronutrient interventions within the country and contribute to the attainment of the Sustainable Development Goals (SDGs). The theme of the conference was “Nourishing Nigeria: Micronutrient for Equitable and Sustainable Development”.

IITA was represented at the conference as one of the key development partners and sponsors of the event. Research Associate in the Nigeria Country Coordination Unit of the Agriculture for Nutrition and Health (A4NH) Research Program, Adekunle Yusuf, represented the Country Team Leader, [Bussie Maziya-Dixon](#).

The program highlighted the worrisome malnutrition profile in Nigeria, which shows that over 13 million children are stunted, with more than 2.6 million severely malnourished. It also showcased the current strategies used to address micronutrient deficiency in the country to include supplementation, food fortification, and dietary diversification.

Several lessons were gathered from the event such as slow achievement of robust malnutrition goals in the country due to an implementation gap rather than a lack of policies. It was also noted that strong political will and commitment are required to deliver on the gains of micronutrient-focused programs.

Other key points included the need to evaluate various programs addressing micronutrient deficiency in the country to provide valuable insight on their progress and effectiveness as well as providing a roadmap on future priorities. Also emphasized was the need for better collaboration among academia, development partners, and other stakeholders in the nutrition sector so that relevant research outputs on malnutrition can provide a baseline with which to chart workable solutions to hidden hunger in Nigeria.

The importance of coordination among the organizations delivering micronutrient-entrenched interventions was reiterated. This would help prevent duplication and ensure increased coverage of the target population across the country. Also vigorously emphasized was the low or lack of awareness about fortified foods among nutritionally poor households, especially children and women of reproductive age in the rural areas.

The ongoing National Food Consumption and Micronutrient Survey (NFCMS) led by IITA was highlighted. The survey was lauded by participants as it helps unearth the state, extent, and nature of micronutrient deficiency across geopolitical zones of the country and indicates where the burden is highest.

The program also featured representatives from the office of the Vice President of the Federal Republic of Nigeria, Scaling-Up Nutrition Movement, the [Federal Ministry of Agriculture and Rural Development](#) (FMARD), the Federal Ministry of Budget and Planning,



Research Associate Adekunle Yusuf listening along with other participants.

FMoH, and counterparts across Nigerian states. Other organizations include [HarvestPlus](#), [UNICEF](#), the Global Alliance for Improved Nutrition (GAIN), Nutrition International, the Food and Agricultural Organization (FAO), UK Aid, and a host of other professionals from the academia, local NGOs, and private enterprises.

Invited enterprises at the conference were also given an opportunity to exhibit and market their micronutrient-driven products at an exhibition.

Events

International Agricultural Research Seminar, Ministry of Agriculture, Forestry and Fisheries (MAFF) and MAFF-JIRCAS Symposium at the 7th Tokyo International Conference on African Development (TICAD), Yokohama, Japan, 24-30 August

First Start Them Early Program (STEP) Planning Workshop, IITA, Ibadan, Nigeria, 10-12 September

AgResults Nigeria Aflasafe Pilot Project Close-Out Symposium, Abuja, Nigeria, 12 September

Launch, Start Them Early Program (STEP), IITA, Bukavu, Kalambo, Democratic Republic of Congo, 21 September

Commissioning of Pres. Olusegun Obasanjo Research Campus, IITA, Bukavu, Kalambo, Democratic Republic of Congo, 8 October

Board Meeting and R4D Week, IITA headquarters, 18-22 November



Scientists call for new *Striga*-resistant and drought-tolerant genes in bi-parental maize populations

Scientists say that genomic selection is effective for yield improvement in bi-parental maize populations infested by *Striga* and drought. This conclusion was made in a study titled “Yield gains and associated changes in an early yellow bi-parental maize population following genomic selection for *Striga* resistance and drought tolerance.”



Top: Maize plants infected by *Striga* in experimental maize plot. Bottom: *Striga* infestation in maize field.

The study was carried out after a new bi-parental maize population, TZEI 17 x TZEI 11 with combined tolerance to drought and resistance to *Striga*, was developed by IITA.

Maize (*Zea mays* L.) is an important cereal crop in sub-Saharan Africa, and one of IITA's mandate crops. It plays a crucial food and nutrition role and serves as feed and industrial crop in the subregion.

However, its production is limited by factors such as drought (a regular occurrence in most agroecologies of sub-Saharan Africa due to irregular rainfall patterns and climate change in the subregion) and the *Striga hermonthica* parasite, which threatens the livelihood of over 300 million people in the region.

Yield loss due to drought stress could be as high as 90%, while *Striga* accounts for an estimated loss of staple food crop valued at \$7 billion yearly.

To determine yield gains and associated changes in early maturing yellow bi-parental maize populations, 200 test crosses were evaluated under drought, artificial *Striga*-infested, and optimal environments.

The results of the study show that yield gains of 498 kg/ha/cycle (16.9%/cycle) and 522 kg/ha/cycle (12.6%/cycle) were obtained under *Striga*-infested and optimal environments, respectively.

Some changes in early maturing yellow bi-parental maize populations are increased plant and ear heights, improved root lodging, and *Striga* resistance.

The study concludes with a call for new sources of genes for *Striga* resistance and drought tolerance because of low genetic variability of most traits in the population.

The article was published in Volume 19 of BMC Plant Biology Open access journal. Find the full article here: <https://bmcpantbiol.biomedcentral.com/articles/10.1186/s12870-019-1740-z>