

IITA and Liberia explore partnership on youth program

Deputy Director General, Partnerships for Delivery, [Kenton Dashiell](#), led an [IITA](#) team to meet the Vice President of Liberia on 2 February, stressing that IITA had been in the business of transforming African agriculture for the past 50 years.

He cited examples of IITA's recent interventions, including the distribution of high-yielding cassava varieties and planting materials to farmers in the country, as well as upscaling of cassava processing machines and products through the Smallholder Agricultural Productivity Enhancement & Commercialization (SAPEC) project led by IITA's [Michael Edet](#) (Extension Agronomist) and [Wasiu Awoyale](#) (Postharvest Specialist). A good example of the upscaling is the establishment of six fully equipped cassava processing centers in strategic regions of the country for the



IITA staff with Madam Jewel Ciane Howard Taylor (center), the Vice President of the Republic of Liberia.

production of value-added products like fufu powder, high quality cassava flour, and starch.

Giving an insight into the efforts made by IITA to engage the younger generation in revitalizing the agricultural sector in

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New Intranet on SharePoint launched

IITA officially launched its new Intranet platform on Sharepoint on 5 February as part of efforts to streamline workflows and enhance operations throughout the Institute. The platform was jointly developed by the Communication and Data and Information Management units.

The unveiling attracted staff at headquarters and in the hubs/stations (via a webinar link), who were curious about the new platform and how it works. The platform aims to transform and enhance internal collaboration, information retrieval and sharing, and team workflows within the institute.

SharePoint is a browser-based content management system that provides a centralized, protected space for document sharing and collaboration. The SharePoint intranet centralizes access to enterprise information and applications, helping an organization to manage its internal communication better. It is a leading tool used by 78% of companies to develop their online and offline capabilities, document management, and collaboration.

[Tonny Omwansa](#), IITA's Director, Research Support Services (RSS) commended the joint efforts of CU and DIMU in ensuring that colleagues

are ushered into a future geared towards more improved and effective communication among IITA staff all over Africa. "I am gratified for your wonderful support to the research support team. Not only are we celebrating an announcement;

The new Intranet

on SharePoint

Our new way of working



Welcome to the future!

hopefully, we will become adopters and influencers of the change,” he added.

[Katherine Lopez](#), Head, Communication, emphasized the importance of the new platform saying: “This platform is designed to make the way we work more efficient, by making communication and collaboration easier and faster, at the same time addressing the needs of the users.” Concurring, [Petri Wiren](#), Head of DIMU said: “This is a strategic platform that welcomes users to the future. There is room for us to improve, and I believe you all will be active on that, because we cannot make it without you.”

In his keynote talk, IITA Director General [Nteranya Sanginga](#) urged staff members to “integrate into the new way of working as it will help make life easier within the Institute.” He suggested that the RSS team organize a training to equip staff on how to use the platform so that everyone can benefit and contribute to the new way of collaboration.

Tunde Ajayi, IITA Web Developer, and Olatunbosun Obiyele, Institutional Database Developer, explained



Tonny Omwansa, Director, Research Support, giving the opening remarks at the Intranet launch.

the platform’s functionalities and procedures, while highlighting the benefits of team collaboration, document management, project sites and portals, intelligent search, process automation, insight, and analytics.

The [new intranet](#) was officially launched by [May-Guri Saethre](#), IITA Deputy Director General, Research for Development (R4D).

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Africa, the Head of Youth in Agribusiness Office, [Evelyn Ohanwusi](#), said the organization has trained, mentored, and coached young unemployed people to embrace agriculture as a business, and create jobs and wealth through the value chains.

Using the Imo State Agripreneurs approach as a case study, Ohanwusi explained that the proposed approach for the Tumutu Agriculture Vocational Training Center (TAVTC) located in Salala District, Liberia, will go a long way in assisting the country to engage its young people.

While appreciating IITA for a job well done in the area of agriculture and

youth engagement, the Vice President, Madam Jewel Ciane Howard Taylor, pledged her support in ensuring that the youth project/program being proposed in partnership with IITA at TAVTC is achieved and sustained, with other youth projects like that of the West Africa Agricultural Transformation Program (WAATP), and ENABLE-Youth. She however pleaded that the project be extended to other centers like Monrovia Vocational Training Centre (MVTC) Montserrado County, Klay Youth Centre Bomi County, and the Panama Agricultural and Vocational Training Centre in Sinoe County.

In a related development, Food and Agriculture Organization (FAO) Liberia

officials led by Mr Jepson Momo, received Dashiell and team, stating that IITA has done well by creating the IITA Youth Agripreneur program which is setting a career path for young people in agriculture.

He expressed optimism that the adoption of the model in Liberia will assist in engaging the under- and unemployed youth in the region towards establishing profitable enterprises in agribusiness. He added that through this, he hopes that the youth who constitute about 65% of the Liberian population, will contribute to the GDP of the country and earn a decent living through agribusiness.

Got a story to share?

Please email it with photos and captions every Wednesday to iita-news@cgiar.org or Katherine Lopez (k.lopez@cgiar.org) and Uzoma Agha (u.gha@cgiar.org) for headquarters and Western Africa, Jeffrey T. Oliver (j.oliver@cgiar.org) for Southern Africa, Catherine Njuguna (c.njuguna@cgiar.org) for Eastern Africa, and David Ngome (d.ngome@cgiar.org) for Central Africa.

IITA participates in charting FAO Nigeria program framework

The [Food and Agriculture Organization](#) (FAO) in Nigeria has commenced the formulation of their Country Program Framework (CPF). The CPF is a 5-year, medium-term assistance document that guides FAO's priority areas of support for implementation of defined programs, priorities, and objectives of the Nigerian Government.

Along with other research institutes, [IITA](#) participated in the group sessions and provided inputs in the technical sessions at the two-day workshop held in Abuja. Other participants at the event were The Federal Ministry of Agriculture and Rural Development, State Ministries of Agriculture and Natural Resources (SMANR), other UN agencies, NGOs, civil society organizations, and development partners.

According to the FAO Nigeria Country Representative, Suffiyan Koroma, the workshop aimed to "bring key stakeholders together to identify and agree with the Government and other development partners in the agricultural sector, on a set of medium-term priorities for FAO intervention within the context of the national agricultural and rural development policy, the Government's Agricultural Promotion Policy, and the Economic Recovery and Growth Plan." Suffiyan thanked the IITA team for their inputs and participation in the process that would help transform agriculture in Nigeria in the next five years and beyond.

The IITA team was led by the ATASP-1 Communication Specialist, Obinna Chukwuezie, with members of the [IITA Youth Agripreneurs](#) in Abuja.



Group discussions (above) and presentation (below).



R4D Special

Researchers use DNA prediction models to speed up banana breeding

An international team of scientists have for the first time demonstrated that it is possible to speed up banana breeding using genomic prediction models that accurately select banana hybrids with desired traits. The models use the

plant's genetic data (DNA landmarks) to estimate its usefulness in breeding and predict the physical traits such as height, yield, and disease resistance before the plant is taken to the field. This study, published in a paper,

Genomic prediction in a multiploid crop: genotype by environment interaction and allele dosage effects on predictive ability in banana, in [The Plant Genome](#) provides the first empirical evidence on the use of genomic prediction in a banana population.

Why the need to speed up banana breeding?

Banana, an important staple and source of income for millions of people in 120 tropical and subtropical countries, are by nature sterile crops. They reproduce vegetatively through suckers and this limits the mingling and recombination (shuffling) of genes from the parents to children. Therefore, there is limited diversity in banana growing in a particular region, which makes them prone to the same pests, diseases, and environmental stress. Efforts to develop improved high-yielding and disease-resistant varieties are frustrated by the sterile nature of the plant. This complicates the breeding process making it lengthy and costly—taking up to 20 years to deliver improved varieties to farmers.

Moses Nyine from [IITA](#) and a PhD student at [Palacký University](#) is the lead researcher. He says the findings of the study present a significant breakthrough for banana breeding in the face of the myriad pests and diseases affecting banana in Africa. These include banana weevil, nematodes, Black Sigatoka, Banana Xanthomonas wilt, Banana Bunchy top virus, and more recently Fusarium Wilt (Panama disease/Tropical Race 4 (TR4) detected in Africa for the first time in Mozambique in 2013.

IITA has a comprehensive banana improvement program which has been ongoing for more than 30 years and

covers the whole breeding pipeline. It has developed numerous improved plantain varieties called PITA, and improved highland cooking bananas together with the [National Agricultural Research Organization](#) (NARO), Uganda, called NARITAs. These hybrids have been distributed to 15 countries in Africa, Latin America and Asia.

Biotechnology and statistics to the rescue

The researchers collected data from the East Africa Highland Banana and their hybrids planted in two fields in Uganda for two crop cycles between 2013 and 2016. In total, 307 banana types of banana were observed under low and high input field management conditions. They collected data on 15 key traits of the crop and grouped them into five categories: plant stature, suckering behavior, black leaf streak resistance, fruit bunch, and fruit filling.

The DNA differences between the bananas were mapped out using a technology called genotyping by sequencing (GBS). These data sets were then used to test the ability of six genomic prediction models to determine the bananas with the best traits through cross validation. The BayesB model was found superior to other models, particularly in predicting fruit filling and fruit bunch traits.

The results demonstrate that genomic prediction is possible in banana



Moses Nyine explaining his research in a banana field in Uganda.

breeding and the prediction accuracy can be improved by using models based on data from many different environments. The prediction accuracy within the training population based on genomic estimated breeding values (GEBV) was above 75% even with models that had low predictive abilities.

The study was conducted as part of a collaboration of researchers from IITA, the [Institute of Experimental Botany](#); the [Centre of Plant Structural and Functional Genomics](#); Palacký University, Olomouc, Czech Republic; and the Laboratory of Tropical Crop Improvement, Division of Crop Biotechnics, [Katholieke Universiteit](#), Belgium.

Events

- **CIALCA project launch**, February, Kigali, Rwanda
- **Building resilience against crop diseases: a global surveillance system (GSS)**, Rockefeller Conference Center-Bellagio, Italy 12 to 16 February 2018
- **Regional workshop in Africa on invasive species**, 20 and 22 February 2018 icipe, Nairobi, Kenya
- **YIIFSWA-II Annual Progress Review and Work Planning Meeting**, 5–8 March, IITA, Ibadan, Nigeria
- **Nairobi Innovation Week**, 5–9 March, The Great Court, University of Nairobi, Nairobi, Kenya
- **International Women's Day**, 8 March
- **BASICS annual review and planning meeting**, 14-16 March, IITA, Ibadan, Nigeria
- **2018 Annual Review and Work Planning Meeting**, Cassava Weed Management Project, 19 – 20 March, Conference Center, IITA, Ibadan, Nigeria
- **IITA Board Meeting**, 24–26 April, [Center for Development Research of Bonn University](#) (ZEF), Bonn, Germany
- **Special event on “African agricultural transformation: The IITA Agripreneur Approach to Job Creation”**, 26 April, ZEF, Bonn, Germany
- **7th International Food Legume Research Conference**, 6-8 May, Palais des Congrès, Marrakech, Morocco

CIALCA organizes Open Data Kit training

Twenty four researchers from across different countries, research and development projects, and organizations attended a workshop on Open Data Kit (ODK) in January. The workshop, organized by the [Consortium for Improving Agriculture-based Livelihoods in Central Africa](#) (CIALCA) took place at the IITA Central African Hub Office in Nairobi, Kenya.

The workshop facilitated knowledge exchange and helped to develop capacity for digital data collection, analysis, and reporting. The focus was on Open Data Kit, an open-source tool suite that enables customizable mobile data collection. Several IITA projects

are collaborating in streamlining their data collection and analysis using ODK.

At the workshop, participants new to ODK developed their first ODK surveys, while ODK veterans shared their expertise in digital data collection and processing. [Pieter Pypers](#), IITA Senior Agronomist and Leader for East Africa described his experiences using ODK in the [African Cassava Agronomy Initiative](#) (ACAI) and recommended best practices for designing data infrastructure. [Murat Sartas](#), Visiting Scientist - Innovation Systems (IITA) shared how he uses ODK as a social scientist in the CGIAR

Research Program on Roots, Tubers and Bananas' Scaling Readiness project and led a discussion on ODK's strengths and weaknesses, and [James Hammond](#) (ILRI) demonstrated how ODK integrates with data analysis and reporting software in the Rural Household Multi-Indicator Survey (RHoMIS).

Rounding out the presentations were Jens Andersson (CIMMYT), who described how ODK is applied in the [Taking Maize Agronomy to Scale in Africa](#) initiative, and Nathaniel Rosenblum ([One Acre Fund](#)), who explained how One Acre Fund uses a variant of ODK to gather data on farmers enrolled in their program.

The workshop also provided opportunities for peer-to-peer learning and discussion, with panel discussions on ODK relative to other tools and walkthroughs of various features. Participants learned about integrating dynamic elements, georeferencing, barcode scanners, photos, and logic structures. Meanwhile, working sessions on individual surveys allowed participants to collaborate and directly implement insights from their fellow researchers. According to one of the organizers, IITA Social Scientist [Marc Schut](#) (CIALCA coordinator), the workshop represented in many ways "a new way of doing agricultural research for development, using innovative digital tools to work smarter, more impactful, and more cost-effective."

Previously published on the [CIALCA blog](#). Author: Dana Breseman



CIALCA staff share expertise on digital data collection, analysis, and reporting. Photo by Marc Schut.

Nigerian lawmaker visits IITA; explores areas of collaboration

A delegation from Atisbo/Saki-West of East Federal Constituency, Oyo, visited [IITA](#) on 9 February to seek collaboration and technical support. The team led by Hon. Olajide Olatunbosun was received by the Director of Development and Delivery, and Project Leader, Cassava Weed Management Project, [Alfred Dixon](#).

In his address, Hon. Olatunbosun said they were seeking knowledge and technical collaboration in areas key to ensuring better livelihoods

and sustainability for indigenes of his constituency, Saki, through agriculture so farmers can create wealth for themselves and the nation. Areas of need he highlighted are: (1) Capacity development for farmers to improve their agricultural productivity, especially in cassava and maize, (2) Access to new varieties of cassava and maize crops, new management systems as well as new ways of agroprocessing, (3) Linkages with commercial uptakers such as Niji foods, Pсалtry Farms, and other cassava processors, (4)

Access to agribusiness consultants to help translate ideas into a coherent proposal.

In his presentation, Dixon outlined the activities of the Cassava Weed Management Project in training farmers and spray service providers on the best use of herbicides and proper spraying methods in the past 4 years in Ago Amodu, Saki areas of Oyo North. He said several farmers' field days have also been organized in that area. Dixon observed that the reason farmers are

not getting the return on investment in view of the inputs available to them is due to poor weed control and wrong use of herbicides and improper spraying. He concluded that, in conjunction with Capacity Development Office, more training on better ways to manage weeds and plant spacing will be introduced to farmers in this region.

IITA maize breeder [Oyewole Ajala](#), said that the IITA Maize team has implemented projects in over 20 villages in Oyo North, especially Saki-East and Saki-West. He explained that the quality and price of local maize variety in Oyo North (N83/kilo or \$0.23) is low compared to the Northern variety which sells for N95/kilo or \$0.26. Ajala noted that creating the much required pull mechanism for farmers is important in aggregating grains and creating demand for increased use of production technologies. As a result of this, farmers will be encouraged to use appropriate inputs and good agronomy for better yield. He suggested that the Nigeria Incentive-Based Risk Sharing



The Hon. Olatunbosun being briefed on some of IITA's activities.

System for Agricultural Lending (NIRSAL) can be explored to finance such a grain aggregation scheme.

To firm up the collaboration, a working team consisting of 5 members was formed with Ajala as the team lead. Other areas such as seed production, poultry establishment, and cultivation of maize and soybean were added

to strengthen Oyo North's agricultural program.

The visitors were taken on a tour of the cassava semi-autotrophic hydroponics (SAH—a mass multiplication technique for cassava) multiplication center, Youth Agripreneurs' vegetable gardens and fish ponds, and the cassava processing center.

IITA Women's Group meets with DR Congo Minister of Gender, Child and Family

[IITA](#) Women's Group representative Charlotte Sanginga, accompanied by Valérie Tembo, President of IITA Women's Group Kinshasa Station and member Michèle Kimpwene Sanginga, paid a courtesy visit to Her Excellency, Minister Chantal Safou and members of her cabinet in the ministerial office, Kinshasa on 5 February.

During the meeting, Mrs Sanginga, Head of Scholarship and Charity Committee of IITA Women's Group in Africa, outlined the activities of the IITA Women's Group in Africa in general, and in DRC in particular. She also proposed collaboration with the National Ministry of Gender, Child and Family in the DRC.

Mrs Sanginga spoke briefly about IITA and its activities in the DRC. She explained about the IITA Women's Group's primary mission, which is the support and fulfillment of women and children not only of IITA but also of its partners and communities involving IITA. She explained that DRC has benefited from nine scholarships



Charlotte Sanginga (left) with Her Excellency, Minister Chantal Safou.

granted to the children of IITA staff who are now attending high school and university.

Her Excellency Minister Safou, in her response, hailed this IITA initiative

and encouraged IITA Women's Group members to be more involved in activities for the well-being of Congolese communities.