

Burundi Minister of Agriculture and Livestock visits project sites

On 14 September, the Burundi Minister of Agriculture and Livestock, Dr Deo-Guide Rurema, visited IITA project sites in Muramvya and Gitega provinces. The Minister was accompanied by the first assistant and advisor at MINAGRIE, the DG of ISABU, the Director of CNTA, members of the Communication unit from the Ministry of Agriculture, extension officers, and media officers from national radio and television.

The delegation visited a weather station at Bugarama Health Center in Muramvya Province under the framework of the CGIAR Research Program on Roots, Tubers and Bananas (RTB). The visit aimed to lead to: development of Pest Risk Analyses (PRA) and surveillance strategies to address the likelihood of introduction, spread, and evolution of RTB pests; development of a framework to predict impacts of climate change on pest spread and abundance and livelihoods of farmers; and building of capacity in CGIAR partners and national institutions to facilitate preemptive management of pests and support policy makers in the preparation of national and regional adaptation and quarantine plans.

Over 27 weather stations are installed at altitude gradients between 800 and 2400 masl for close assessment and precision. The Minister urged IITA to work

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Dr D.G. Rurema visits a fish farm in Makebuko Village, Burundi. Photo by PAT, IITA.

Cassava Seed Systems Stakeholders' workshop held in Burundi

A stakeholders' workshop on Cassava seed systems in Burundi was organized by the Cassava Brown Streak Disease (CBSD) and Cassava Mosaic Disease (CMD) control project with support from the International Fund for Agricultural Development (IFAD) on 22 September. The workshop was held at ISABU and chaired by Ir. Dieudonné Nahimana, ISABU Director General. The

workshop was attended by representatives from the national agricultural research and extension system, international and national NGOs, seed control and certification services, a seed producers' organization, the private sector, and farmers.

The objective of the workshop was to bring together key stakeholders in cassava seed

systems, update and share project plans, exchange ideas on existing and ongoing initiatives on cassava seed systems, and harmonize strategies and efforts to sustainably control CBSD and CMD in Burundi.

The spread of CBSD in Burundi has caused high income losses and has threatened household food security. The management of CBSD and CMD requires breeding for resistant/tolerant cassava varieties with high yield that are preferred by farmers. Over 17 CBSD and CMD tolerant cassava varieties have been introduced by IITA for participatory evaluation and selection. Participants at the workshop expressed the need for the newly introduced cassava varieties and left satisfied as synergy was built for concerted efforts to control CBSD and CMD.



Group photograph.

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with national partners and services as part of a long-term strategy to address pests and diseases and address challenges associated with climate change.

In Gitega, the delegation visited an association of pig farmers under the Crop-Livestock Integration Project (CLiP) project. The farmers in the area are engaged in a wealth sharing cooperative with a microfinance arrangement for credit and loan facilities. The Minister appreciated the crop–livestock integration approach as farmers benefit from improved crop varieties and livestock breeds

while manure from pigs is used on their farms. The farmers had requested the scheme to be expanded to other provinces.

The third stop was Makebuko to visit AGAKURA, a private partner promoting IITA technologies and practicing fish farming and drip irrigation for vegetable cultivation in association with banana. The Minister was impressed by the low running costs and equipment used for rehabilitation of marsh land, pisciculture, and drip irrigation, which are beneficial to farmers for off-season (during dry

season) cultivation especially in the northern regions with low precipitation and rainfall. The AGAKURA juice processing factory was installed in 2013 and has never been operational due to lack of raw materials, electricity, and substandard infrastructure, among other challenges. The Minister promised to contact development partners and donors for support to overcome these challenges and get the factory operational. The visits ended with a press interview with the Minister urging that such initiatives be replicated and outscaled to other farmers.

New Aflasafe website unveiled

IITA's Aflasafe initiative launched its new [Aflasafe® website](#) on 16 October, at [IITA Ibadan](#), to reenergize Aflasafe's online presence.

The unveiling was timed to coincide with [World Food Day](#) (WFD). The new website mainly aims to support commercialization by reaching potential users and partners with a focus on marketing, advocacy and creation of awareness, and selling the product. The website rebirth for this innovative technology was led by [Njeri Okono](#), IITA Communication Specialist, Aflasafe Technology Transfer and Commercialization Project; Brandon Tooke, Aflasafe Web Developer; and Eloise Phipps, Writer, Aflasafe.

In an effort to make the website more effective, and to meet its purpose, Okono said: “We want to cast the net wide to connect with an expanded audience by avoiding too much information or technical jargon. We are targeting clients and consumers with our post-Research and Development, market-ready product.”

“For this reason, Aflasafe, [aflatoxin](#), and our work are described using language and graphics that you may never have encountered before. This was deliberate, to help us win the fierce competition of engaging external non-Research and Development audiences who have no

[shortage of information to choose from in this era of information overload](#),” she added.

The website content and structure are not intended to downplay the value of the Research and Development work that has gone into Aflasafe, and there is a plan to create an in-depth home online for Research and Development-related materials in the future.

Aflasafe is a revolutionary all-natural product developed by IITA, the United States Department of Agriculture – Agriculture Research Service ([USDA-ARS](#)) and national partners. When instructions are followed and all conditions are met, Aflasafe reduces aflatoxin in maize and groundnut by 80–99% from farm to store.

Click here for a [guided tour](#) of [aflasafe.com](#).



Announcements

- **Basic Bioinformatics Workshop**, IITA, Ibadan, Nigeria, 23–25 October
- **R4D Week**, IITA, Ibadan, Nigeria, 20–24 November
- **Board Meeting**, IITA, Ibadan, Nigeria, 20–24 November
- **Science Conference on Food and Nutrition Security: Foresight and Futures**, IITA, Ibadan, Nigeria, 24–25 November
- **Open Day**, IITA, Ibadan, Nigeria, 25 November

Got a story to share? Please email it with photos and captions every Wednesday to Katherine Lopez (k.lopez@cgiar.org), Jeffrey T. Oliver (j.oliver@cgiar.org), Catherine Njuguna (c.njuguna@cgiar.org), or David Ngome (d.ngome@cgiar.org).

“You are an inspiration to your colleagues”—Dr Sanginga

IITA Director General [Nteranya Sanginga](#) said he is impressed with the progress recorded so far by the team of young Agripreneurs operating under the name of Frotchery Foods in running their business.

Frotchery Foods, which is located in Akobo, Ibadan, is owned by three young graduates: Ngozi Chituru, Babatunde Ismail, and Oni Hammed, who recently completed their 18-month incubation program with the IITA Youth Agripreneurs.

Singinga who was on a backstopping mission to the Frotchery Foods factory on Thursday, 9 September, said the team were part of the courageous young graduates who have yielded to the call of creating jobs for themselves and other unemployed young people in the agricultural sector.

He added that IITA will continue to ensure that the agricultural sector is revitalized with the engagement of young people. He stated that the team will also serve as role models for other unemployed young people who are yet to have a change of mindset about the agricultural sector.

Speaking on their journey so far, the three youth discovered that they shared similar

goals about agribusiness during the incubation period at IITA, with their interest in food processing and decided to band together to form Frotchery Foods.

According to Hammed Oni, although the experience outside the walls of IITA had been a bit challenging, it had been “quite interesting and worth the risk.”

“The training in IITA opened my eyes on what to expect while operating in the real world. It prepared us for the challenges ahead and that is why we are here now,” he stated.

While appreciating IITA for the opportunity given to them to explore various agribusiness enterprises during their training, he called on other agencies and corporate bodies to support the effort of IITA in assisting the younger generation in Africa through job creation in the agricultural sector.

Frotchery Foods, which is one of the spin-offs recorded by IYA in 2017, commenced commercial production of smoked catfish using the smoking kiln technology.

Frotchery Foods received financial backing after they developed a bankable



One of the business partners, Ngozi Chituru showing the smoking kiln to the DG and inspection team.

business plan and met other stringent measures.

The team has established market linkages within Ibadan and its environs and the business is thriving and has also recorded an increase in demand.

Singinga reiterated IITA’s support, stating that IITA will continue to provide technical assistance in ensuring the success of all IYA spin-offs.

World’s biggest fragrance and flavor company seeks collaboration

Hoping to boost production at its newly established facility in Nigeria, representatives from [Firmenich](#) visited [IITA](#) Ibadan, on 9 October, to share knowledge, exchange ideas, discuss possibilities, and seek future collaboration.

A team of six led by Thoger Larsen, Firmenich Flavor Vice President, India and East Africa, and [Flory Kimvangu](#), successor to [Oddvar Bjorge](#), General Manager, and Commercial Director West Africa, was received by [Kenton Dashiell](#), IITA Deputy Director General, Partnerships for Delivery, and [May-Guri Saethre](#), IITA Deputy Director General, Research for Development. Dashiell welcomed the delegates and assured them of unending commitment and partnership. “IITA as a leading research institute can partner with your organization,

to help identify possible ways of sourcing raw materials, for efficient production in the new state-of-the-art flavors facility, in Lagos, Nigeria. But if you source locally, and you like what you are seeing, then you can go for it without our intervention,” he said.

While conducting the visitors round [IITA Business Incubation Platform \(BIP\)](#) facilities, which includes the [aflasafe™](#) (a biocontrol product for controlling aflatoxins) production plant, [NoduMax](#), a soybean inoculum fertilizer, and IITA Youth Agripreneurs ([IYA](#)), a community of vibrant youth who are attracted to agriculture, Thoger was amazed at the impact of IITA’s research. “I applaud the management for a good job and I am convinced that my team and I are satisfied by what we have seen...our

mission of coming to IITA cannot be in vain,” he added.

Concurring, Flory expressed, “We have spent over a year trying to establish solid ground in Nigeria with the right partners, but now we have found one...With what I have seen, I am guaranteed that with the help of IITA we will exceed our expectations”.

On that note, the Firmenich team pledged to revisit IITA to further cement their relationship and solidify a partnership. Saethre appreciated their effort as she said, “This is moving one step forward; we are looking forward to seeing and hearing your success stories.”

Firmenich is the world’s largest privately owned company in the fragrance and flavor business.



Firmenich team with DDGs R4D (third from right) and P4D (right).

IITA formalizes partnership with Landmark University

Representatives from the Landmark University, Omu Aran, met with IITA officials in Ibadan on 4 October to formalize a partnership which will foster development and implementation of collaborative programs.

The team, led by the university's Vice-Chancellor, Adeniyi Adeyanju, was received by Kenton Dashiell, Deputy Director General, Partnerships for Delivery, who gave an overview of IITA's research and partnership activities. Dashiell emphasized the importance of partnership to IITA, and expressed assurance of a smooth collaboration with Landmark University (LMU).

Speaking on behalf of the delegates, the Vice-Chancellor said, "We intend to ride on the wings of eagles, which IITA represents, to attain global heights and be a leading, world class university by keying into what IITA is doing, and this can only be achieved through collaboration."

Through the MoU, IITA and LMU will jointly create an enabling environment for technology transfer in the area of innovative skill acquisition and product development, and engage in adaptive and innovative research towards driving food availability and affordability.



DDG Dashiell (left) and Director Dixon (right) with delegation from Landmark University.

During the tour of IITA facilities, Charity Aremu, Dean, College of Agriculture, expressed her excitement over the activities being carried out in IITA. "The state-of-the-art facilities, and the strength and synergy one can feel here is enough for us to start running. We are excited to be here, and we are surely going places with what we saw here today."

Landmark University, Omu-Aran, Kwara State was established in April 2011 by the Chancellor, Dr David Olaniyi Oyedepo and Chairman, Board of Regents. The compelling LMU vision has a philosophy anchored on "Breaking new ground" for the purpose of spearheading an agrarian revolution on the African continent through efforts in research, training, and productivity using innovations, adoptable tools, and equipment.

YIFSWA and poverty reduction: **The bared secret**

At a recent seminar, Yam Improvement for Income and Food Security in West Africa (YIFSWA) Project M&E Specialist, Djana Mignouna, recently talked about Africa's struggle with poverty. In his presentation, he stated that the agricultural sector is essential for reducing poverty with about 43% of sub-Saharan Africa still battling poverty. Africa's contribution to the global grain supply of maize is about 5%, rice and wheat 3% each, and leads in the supply of cassava and yam by 50% and 95% of the world production, respectively.

Yam production has always faced challenges such as the unavailability and high cost of high quality, disease-free seed yam, high levels of on-farm losses of tubers during harvesting and storage, low soil fertility, high labor costs associated with land preparation, and diseases from pathogens and pests.

YIFSWA's goal is to increase yam productivity by 40% for 200,000 smallholder



Djana Mignouna during his presentation.

yam farmers in Ghana and Nigeria through the establishment of functional pre-basic seed yam units, reliable basic certified seed yam producers, and reducing tuber pest damage in storage barns, thereby increasing food security and reducing poverty.

The Yam Miniset Technology (YMT) is one of the technologies that has helped

in moving people out of poverty. YMT was developed in early 1970s by NRCRI and IITA to address the challenge of seed quantity and quality. It involves cutting yam tubers into small sets of 25–50 g, and increasing the multiplication ratio from the traditional 1.5 to 1.30. It was modified into AYMT (Adaptive Yam Miniset Technology) to address farmers' complaints about the size of tubers produced incorporating the use of up to 80 g sets and chemical treatment to reduce pest and disease pressure. He revealed that AYMT had incremental yield estimates of 15.9% in Ghana and 12.3% in Nigeria.

Mignouna concluded by stating that YIFSWA in its first phase succeeded in reducing poverty among the rural population by about 10%, translating into 144,217 individuals that were moved out of poverty in both Nigeria and Ghana. This was confirmation of the AYMT project's potential to curb poverty in yam growing areas and

CLiP success story

Forage production addresses need to improve milk production for better living conditions

For many years Appoline Mapendo M'Manobe and her family invested their time, resources, and energy on their four cows in the hope of turning a sustainable profit from the dairy venture. However, not once had Appoline and her family received significant returns from their effort. On the best days, they received just under a liter of milk per cow.



Appoline's cattle.

With 12 children to provide for, she could never get the desired quantity of proteins and vitamins from the milk to improve the nutrition of her children. As a result of low income from livestock and crop production, she was unable to meet the educational fees of her children, their medical needs and food for the family.

Appoline lives in Cibinda village, Miti location in Kabare Territory, South Kivu Province, Democratic Republic of Congo where poverty and malnutrition are prevalent. Several studies have attributed this situation to low crop production and poor livestock husbandry practices, presence of pests and diseases, limited access to improved seed varieties and improved animal breeds. This situation was exacerbated by the civil war which ravaged the Eastern Congo between late 1900s and early 2000s. After the war, a few households that have retained their cattle against the odds now have recovered limited resources to sustainably engage in farming. As a part of post-war recovery efforts, a number of local associations, farmer organizations to mobilize farmers

and engender collective actions for self-help and more importantly to access new technologies sprang up for agro-pastoral activities in their communities. Some of these ensembles offer good opportunities to farmers for learning, sharing experience and disseminating of information on good agricultural and livestock practices. It is with this perspective that, in 2015, the Crop-Livestock Integration Project (CLiP) mobilized farmers and trained them in forage production to improve animal feeding. Appoline participated in the training activities and received Napier grass (*Pennisetum purpureum* var. French Cameroon) cuttings and Velvet bean (*Mucuna pruriens* var. Sericolla) seeds. As recommended in the training she planted forage seeds in her maize-beans intercropping farm, by integrating the forage seeds into maize-beans intercropping to increase productivity. Appoline has planted the *Pennisetum* and *Mucuna* forages for the past two cropping seasons. Excited by the outputs (crop and livestock) she recorded, Appoline happily recounted her experience

"Before this CLiP project, I was getting only 4 L per day from my four cows, but now I produce more than 10 L of milk per day. My

children look healthy, they complain less about sicknesses, and they eat 3 meals per day. I can sell milk to my neighbors after meeting my household needs. I can process the milk into traditional cheese for value addition which I take to the market twice a week and get an extra income. Nowadays, I affordably cater for school fees and meet their medical needs."

Appoline said that she feels very happy sharing her experiences with other farmers. She has recommended to all her community members to plant forage despite the land scarcity to boost productivity and increase household income. With the desire to share knowledge with other farmers, Appoline volunteered to be a CLiP Champion Farmer in her community by positively impacting other farmers who are following her footsteps. She is a resourceful person in her community as she encourages other women to get involved in R4D activities as much as they can to enhance their livelihoods. She trains other farmers on forage production and cattle feeding options. She commended the CLiP team for training her on forage production for improved livestock feeding for better human feeding options.



Above: Appoline's Mucuna farm and Pennisetum farm (below). Photos by Christelle Muhigirwa, IITA.