

Agro-processing facilities at IITA Kalambo excite DRC's First Lady

Madame Olive Lembe Kabila, the First Lady of the Democratic Republic of Congo, paid a visit to the IITA-Kalambo Station on 7 July. She was accompanied by her children, the South Kivu Governor, and top government officials.

Dr Chris Okafor, IITA-Kalambo Officer in Charge, and Dr Marie Yomeni, SARD-SC Cassava Commodity Specialist, received the visitors and took them on a tour of the station. This included the fabrication unit, processing units for cassava and soybean, the product exhibition center, greenhouse, e-library, and laboratories.

The First Lady showed her keen interest in the facilities which were established because of the pressing need for improved agroprocessing technologies and agroprocessed foods in DRC. During the tour, she was briefed about the cost of the agroprocessing equipment, how cassava and soybean processing technologies would be extended to farmers and agroprocessors, the use of crop diversification to minimize farmers' risks, soil and plant analyses, and fertilizer application.

The First Lady inquired about how the dissemination of improved technologies was taking care of women's needs. She



Her Excellency Olive Lembe Kabila, DRC first lady (third from left), with (from left) IITA's Chris Okafor (first from left), the Honorable Minister of Agriculture, Marie Yomeni (IITA), and His Excellency the Governor of South Kivu (first from right) during the visit to IITA-Kalambo.

was assured that IITA had the capacity and technologies to address the issues she raised and was willing to support and collaborate with her initiatives, especially in North Kivu and Katanga provinces.

In her parting words, she wrote in the visitors' book "*Je suis impressionnée par la qualité de cet Institut avec tout*

son personnel. Ceci dit là où sont les humains, il y aura toujours évolution de la science..... Merci pour cet accueil aussi chaleureux." "I am impressed by the quality of this Institution and its staff... meaning that where human beings are, evolution of science always occurs. Thank you for your warm welcome."

Smallholder groups in Sierra Leone get 11 new cassava processing factories

IITA with funds from the United States Agency for International Development (USAID) has constructed and equipped 11 cassava processing factories for smallholder groups. This is part of efforts to support the Smallholders' Commercialization Program (SCP) of the Ministry of Agriculture, Forestry and Food Security (MAFFS) in the Eastern, Southern and Northern provinces of Sierra Leone. IITA has also supported these smallholder groups and farmers in their immediate vicinities to establish cassava farms of improved varieties to feed the factories.

Dr Braima James, IITA Representative in Sierra Leone, also said that the SARD-SC cassava project has plans to establish four more factories with support from the African Development Bank. Two will be in Tonkololi district, one in Bo district, and another in Kono district.

In addition to the various products already widespread in Sierra Leone, the

new factories will process the improved varieties into four new value-added products that IITA is promoting—odorless *fufu* flour, attiéke/cassava couscous, tapioca pap, and cassava ice cream.

To ensure that there is a viable market for these new products being promoted, a consumer acceptance and sensory evaluation survey was led by Dr Bussie Maziya-Dixon, Head of IITA's Crop Utilization Unit. The survey showed that the new products were "good to go". This survey was undertaken to capture consumers' perceptions and acceptance of the new products and possible recommendations for their improvement. Ibironke Popoola, Research Associate, Crop Utilization Unit, said the exercise also provided marketing information for small- and medium-scale industries wishing to commercialize the new products.

Other partners working to ensure the sustainability of this project include

the Sierra Leone MAFFS, Sierra Leone Agricultural Research Institute (SLARI), World Vision International, Future in Our Hands, and World Hope International.



A participant tastes the new cassava products being promoted by IITA during the sensory evaluation survey.

Got a story to share? Please email it with photos and captions to Andrea Gros (a.gros@cgiar.org), Katherine Lopez (k.lopez@cgiar.org), Jeffrey T. Oliver (j.oliver@cgiar.org), Godwin Atser (g.atser@cgiar.org), Catherine Njuguna (c.njuguna@cgiar.org), or Adaobi Umeokoro (a.umeokoro@cgiar.org)

Humidtropics organizes field visit for farmer-stakeholders

Humidtropics in Uganda organized two field visits for farmers and local community partners in field demonstration plots in Kiboga and Kyankwanzi districts where maize and soybean are cultivated. The aim was to see and learn from the farmers involved in the program.

The visit was organized by the innovation platform (IP) established by the program in the two districts and brought together different stakeholders including farmers, extension workers, universities, private sector and civil society organizations, among others. The visit also included two members from the other Humidtropics platform in Uganda—the Mukono/Wakiso site.

In the two districts, the program established 40 trials on various farmers' fields. Each trial consists of six plots: soybean, maize, soybean-maize intercrop; the other three plots have the same layout but with fertilizer application.

During the visit, the farmers were able to observe the differences between plots with and without fertilizer. They also learned about the importance of soybean in improving soil nutrition by fixing nitrogen from the air into the soil. The explanations were done by members of the platform notably local government extension workers, university representatives, civil society members, and host farmers.

The idea for the field visit to Kiboga district came up after a visit to one of the demonstration sites by the District Extension Officer (District NAADS Coordinator), Mr Sekyanzi Ben, and other officials. They were impressed with the field sites and Mr Sekyanzi offered to organize the field visit through his office.

One of the issues the farmers raised was the fear that there may be no market for soybean. However, the platform assured



Pre-visit with NAADS and local government officers one week before the field visit.



Field visit at Kiboga subcounty, Kiboga.

them that it is exploring ways to improve the links in the local as well as outside markets.

The Kyankwanzi district officials praised the systems approach as the way to go instead of people depending on only one commodity and in the end selling it at a lower price. They called for diversification at the farm level to overcome poverty and food insecurity.

After the field visits, the Kiboga farmers forum chairperson, Mr Kitaka Mayanja, requested Humidtropics to extend the research to other areas in the district especially Kiboga town council where he said there was potential for the development of the maize-soybean-piggery system.

IITA Cassava Weeds Management project hands over assets to partners

IITA has handed over equipment to collaborating institutions working under the project Sustainable Weed Management Technologies for Cassava Systems in Nigeria. These are the National Root Crops Research Institute, Umudike, and

the Federal University of Agriculture, Abeokuta.

The transfer of these critically needed assets is part of efforts to tackle the problem of weeds ravaging cassava farms across Nigeria in particular, and Africa in general.

Each of the collaborating institutions received a Toyota Hilux vehicle, office equipment, a motorcycle, and 20 sprayers among others. The third collaborating institution, the University of Agriculture, Makurdi, will receive the same set of equipment.

Dr Alfred Dixon, project leader called on partners to ensure good use of the equipment so that the project's objectives are fully delivered at the stipulated time.

Managed by IITA, this is a 5-year project involving these three institutions. Other partners include government representatives, international cassava scientists, the donor community, and the private sector. The project is seeking solutions to the labor-intensive weeding that is usually done by women and children with the goal of increasing productivity for at least 125,000 Nigerian farm families. The project has the potential to serve as a livelihood transformation model for all cassava-growing states in Nigeria.



Dr Alfred Dixon (third from right) handing over assets to collaborating institutions. With him are project staff and partners

IITA's Genebank gets ready for cryogenic preservation

IITA's Genetic Resources Center (GRC) sponsored a 3-week training course at the National Institute of Agrobiological Sciences (NIAS), Tsukuba, Japan, for Olubimpe Abiola Akinyemi, a research supervisor/ cryoBank officer. She was trained on the management of the cryogenic conservation of vegetatively propagated crops and learned about updates on the latest cryopreservation methods using cryo plate techniques (V- and D -Cryo plate procedures).

Cryopreservation refers to a process where plant cells, whole tissues, or organs are preserved by cooling to an ultra-low temperature (in liquid nitrogen at -196° C). It is a method used for the long-term storage of the international collections of clonally propagated crops (yam, cassava, banana, and plantain) held at IITA. This conservation system is complementary to those existing at IITA for clonal crops, i.e., field and in vitro (medium-term storage) banks.

In addition to being the most reliable technique for the long-term storage of plant genetic resources, cryopreservation avoids the disadvantages of tissue ageing and possible somaclonal variation caused by in vitro conservation. It is less time and labor consuming and may potentially eliminate fungal and bacterial contamination. Cryopreservation techniques have been increasingly used for the long-term storage (LTS) of plant biodiversity.

Dr Badara Gueye, IITA's In vitro Propagation and Conservation Specialist, says this conservation system is carried out in such a way that the plant materials are stored for a very long period (up to many decades) without losing their ability to regenerate a whole plant. The different steps of the protocol prepare the cells against the harmful effects of the cooling process (the formation of ice during freezing). The new



Bimpe with her Japanese host and friends in NIAS.

cryo-plate protocol developed by the NIAS genebank is fascinating and has been praised by cryopreservation communities around the world as it allows the net improvement of cryogenic conservation. "As we are about to start cryobanking IITA's clonal crop collection, the new system that Olubimpe has learnt will nudge us in the right direction," he said.

Dr Shin-Ichi Yamamoto was Olubimpe's host in Japan. He is Gene Bank Principal Researcher in NIAS—one of the reference laboratories in plant cryopreservation and the home of vitrification methods, the world's most used cryopreservation technique.

Olubimpe said she was excited about the training. "The decision to send me to this training has demonstrated in more ways than one that it is important to plan a journey before embarking on it. With

the novel Japanese cryopreservation techniques that I have learnt, we have commenced some experimental work. This will guide us on how best to improve IITA's cryopreservation methods and techniques."

Olubimpe's study with the NIAS has also paved the way for future collaboration with the Japanese genebank on cryopreservation. "Dr Yamamoto is showing great interest in visiting IITA for further partnership. We are working together to elaborate research programs that we hope will result in a good future and fruitful collaboration," said Dr Gueye. This new asset in the conservation strategy of important international collections will confirm the leading role played by IITA's GRC in safeguarding the diversity of staple crops for food security, particularly in sub-Saharan Africa.

IITA-Zero Gravity Solutions Ltd sign MOU

IITA has signed a memorandum of Understanding (MoU) with Zero Gravity Solutions Limited (ZGSL), a UK-based subsidiary of Zero Gravity Solutions Inc. (ZGSI).

This cements a partnership targeted at implementing projects that will revolutionize agricultural technologies. The technologies are intended to provide valuable solutions to food insecurity, eradicate threats to agriculture, satisfy the food needs of the rapidly growing population, and intensify sustainable agricultural practices in sub-Saharan Africa.

The MoU was signed in April and was inspired by the need to establish a link to foster cooperation for the development and implementation of collaborative programs and also define the framework for the cooperation of the organizations.

This collaboration will allow ZGSI to deploy its proprietary BAM-FX™ and Directed Selection™ technologies for

collaborative research. The BAM-FX™ technology, an organic, cost-effective, ionic nutrient delivery system for plants, was originally designed for the US National Aeronautics and Space Administration (NASA) spaceflight program but is now being used to achieve healthier, and more robust and productive crops while reducing chemical use.

Under the MoU, IITA and ZGSL are partnering to:

- Exchange scientific information and develop specific cooperative programs and projects,
- Link IITA and ZGSL scientists,
- Exchange research materials, publications, and other materials of common interest,
- Hold consultative meetings and personnel visits, and
- Share results of collaborative research in reports.

Hilde Koper-Limbourg, Head of the Project Administration Office,

signed the document for IITA. She said the collaboration was in line with IITA's commitment to science-driven improvements in agriculture. "BAM-FX™ could provide a valuable tool to help us accomplish our goals of raising 11 million Africans out of poverty and redirecting 7.5 million hectares of agricultural land to productive and sustainable use."

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1. Powered off all unnecessary electrical office/ lab equipment;
2. Turned off air conditioners; and
3. Switched off all lights.

Welcome, new staff

Godwin Atser has joined the project Sustainable Weed Management Technologies for Cassava Systems in Nigeria as a Communication and Knowledge Exchange Expert.

Prior to his appointment, Godwin was

IITA's Communication Officer for West and Central Africa (2008 to 2014) and also served as a Senior Reporter with the Punch (Nigeria's most widely read newspaper). He has also worked as a freelancer for several international media including the BBC World Service, Trust, and Spore.

Godwin has a bachelor's degree in Agricultural Economics and Extension (University of Agriculture Makurdi), a master's in Agricultural Extension and Rural Development (University of Ibadan), and a Postgraduate Diploma in Print Journalism (Nigeria Institute of Journalism) together with a doctoral degree in progress.

He has 16 years of subject matter expertise in strategic communication, public affairs/media relations, and teaching in both the public and private sectors.

Godwin is a Nigerian and married to Racheal and they have three children: Michael, Gabriel, and Favour.

His office is in the Weed Science Center. His email address is g.atser@cgiar.org

Clare Katwesigye Ruhweza, a Ugandan national, has joined IITA-Tanzania in Dar es Salaam, as Regional Facilities Maintenance Manager. Clare, a trained architect, has undertaken studies at post graduate level on Financial Management and Project Planning/Management. She is pursuing a master's degree in Management Studies; Project Planning and Management at the Uganda Management Institute. She obtained a



Certificate in Strategic Procurement and Logistics Management at the Makerere University Institute of Adult and Continuous Education in 2007. She has been trained in the Fundamentals of Fleet Management. She received her bachelor's degree in Architecture from Makerere University in 2002 and has an advanced certificate in Education.

She worked previously as General Manager at Knight Frank Uganda Ltd from 2012 until her recent appointment at IITA. She was a Consultant on Property/Facilities Management at INSITU Ltd (2012), Project Coordinator with Uganda Cooperative Alliance (2009 to 2012), Operations Manager at Interswitch (Bankom Ltd) (2007 to 2009). She was also the Head of Management at Knight Frank Uganda Ltd (2006 to 2007), and HR Manager at Knight Frank Facilities Management (2003 to 2007).

She can be contacted on C.Ruhweza@cgiar.org. Her office address is IITA-Tanzania, East Africa Hub, and her telephone numbers are +255222700092 and +255752180735 (mobile).

Ms Charlotte Klapwijk, a Dutch national, has joined IITA-Bukavu, DRC as a Visiting Scientist early this year. She holds a BSc in Agriculture from an Applied University in Holland (2008), and an MSc in Forest and Nature Conservation from Wageningen University (2011).

Prior to her appointment, she worked as a consultant for IITA in Uganda from September 2012 to February 2013. She was a Junior Researcher at both the Farming Systems Ecology group as well as the Plant Production Systems group of Wageningen University at one time or the other from 2012 to 2014.

She can be contacted on her official e-mail L.Klapwijk@cgiar.org. Her office address is IITA Kalambo with telephone number extension 9007.

Marc Schut, a social scientist from the Netherlands, has joined the IITA Team in Bujumbura, Burundi on 1 June 2014.

Marc obtained his PhD in Communication and Innovation Studies at Wageningen University, the Netherlands (2012). His PhD focused on better understanding drivers that influence the

role of research on policy and innovation processes. Prior to his appointment with IITA, Marc worked as Postdoctoral Researcher in the PARASITE Programme with Wageningen University and Africa Rice Center. In his postdoctoral research, he developed and tested a diagnostic tool for Rapid Appraisal of Agricultural Innovation Systems (RAAIS), which was applied to analyze the institutional dimensions of parasitic weed problems in rainfed rice production systems in Tanzania and Benin. He also coordinated a project supporting the operationalization and implementation of a policy framework for sustainable biofuels in Mozambique (July 2011 to June 2012). Marc holds an MSc degree in Rural Development and Innovation from Wageningen University, and a BSc in Agricultural Education from Stoas Professional University, the Netherlands.

For IITA, Marc will be mainly involved in coordinating the social science activities under SRT3 within the CGIAR Research Program for the Humid Tropics. The two main research for development themes are related to (1) backstopping the multi-stakeholder R4D and innovation platforms, and monitoring the performance of these platforms in terms of delivering development outcomes, and (2) exploring pathways for responsible scaling of technological and institutional innovations across the Humidtropics sites and areas. He will be closely collaborating with Wageningen University as well as with other Humidtropics partners in executing his activities.

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