



IITA Board of Trustees visits Uganda

IITA has been working in Uganda since 1992. Currently, close to 60 staff and 30 students, are engaged in a wide range of activities to increase productivity of some of the most important food crops such as cassava, bananas and plantains, and coffee, among others. Activities include tackling destructive pests and diseases, researching for crop improvement through breeding and transformation, developing and promoting good farming practices and value chain development. and providing advisory services to the government of Uganda.

The IITA Board of Trustees meeting was held in Kampala from 24 to 28 November. The members of the Board and IITA Management had the opportunity to visit some exciting examples of the impacts that IITA-Uganda research has created for many farmers in the country.

The visitors were invited to participate in a Humidtropics R4D platform meeting that included major partners coming from the District Government, National Research Organizations, Makerere University, CSO, and farmers' representatives. Over the past years, IITA-Uganda has invested increasingly in agricultural systems analysis. This has led to large multi-actor and multi-scale projects such as Humidtropics that engage with policymakers, the private sector, and other decision-makers.

"One of the main bottlenecks to the development of Africa's rural economy and agriculture sector is the often divergent agenda of the government, private sector, researchers, and NGOs." said Kwasi Atta- Krah, Director of Humidtropics. "Someone needs to 'connect the dots' to enhance synergy and avoid giving

contradictory advice for farmers. Our R4D platforms are filling in here."

A lively discussion on the involvement of stakeholders in research activities throughout the value chain developed during the meeting, tackling issues such as the participation of the private sector in agribusiness, post-harvest research activities, the participation of women, and strategic communication for the development of the platform. "Our way forward is the involvement of more farmers in the R4D platform," said the chairperson of the Humidtropics platform, Dr Fred Mukulu. "To achieve impact, we have to answer the farmers' needs."

Augustine Kigoonya is one of the farmers whose needs were answered by the program. He lives in Naggalama, a village close to Kampala, and is the chairman of a farmers' group which is made up of 30 farmers engaged in the production of different crops including five indigenous vegetables: African eggplant, spider plant, *Amaranthus*, Ethiopian mustard, and tomato. The IITA Board of Trustees visited him

continued next page...

(Top to bottom) IITA management and Board members listening to presentations at the Humidtropics R4D Platform in Mukono-Wakiso field site; IITA Board members visiting the vegetable farm of Augustine Kigoonya in Naggalama village close to Kampala; Leena Tripathi explaining her work to find solutions to BXW disease; IITA management and Board members engage in lively discussions while on the road to visit sites in Uganda.



to see on the ground what impact the research facilitated by the Humidtropics R4D platform would have at the farm level.

"I was working as a shop attendant in Kampala. I had to spend all my money on food, transport, and rent, and would have to run back to my father to ask for some financial help," said Mr Kigoonya and added, "Today I can keep a valuable amount as income and I continue to further diversify my crops." The Board members had the opportunity to follow-up on the farming techniques he is using and were impressed by the produce resulting from them.

Another stop was made at the National Research Laboratories, where IITA researcher Leena Tripathi and partners are finding solutions to the deadly banana disease *Xanthomonas* wilt (BXW) to

which all varieties are susceptible. Breeding of banana and plantain is difficult as they are mostly sterile and no genes of resistance against the disease have been identified. IITA scientists and their partners in Uganda have successfully genetically engineered banana lines resistant to BXW using a gene from sweet red pepper and these are now at the stage of confined field trials. The IITA Management and Board members visited the field trials with great interest.

Leena Tripathi explained, "We took genes from sweet pepper, donated by the patent-holder Academia Sinica Taiwan, and put them into the banana genome. After laboratory trials, and later confined field trials at NARL in Kawanda, we established that some of our new banana lines achieved 100% resistance to BXW through three

successive crop cycles. We have just published these results in the world-leading scientific journal *Nature Biotechnology*, and our approach could have great value to protect other crops in other countries against diseases."

The Board members took back home the impression of diverse research approaches and impact at scale resulting from the IITA-Uganda work led by Piet van Asten. "I am glad that IITA-Uganda directly engages with policy actors and the private sector at local and national level," said Bruce Coulman, IITA Board Chair, at a reception in Kampala. "Only through collaboration and partnerships can we find the solutions we are looking for. I am extremely happy that this is happening in Uganda."

IITA Abuja Station hosts youth-in-agriculture activities

IITA's Abuja Experimental Station has successfully organized sessions to educate members of the National Youth Service Corps in Bwari LGA, FCT, Abuja, on agribusiness and link them with Station researchers. The meetings also aimed at starting the process of replicating the IITA Youth Agripreneur scheme in the FCT.

Dr Gbassey Tarawali, who represented DG Sanginga and the DDG-PCD at the event, in his presentation entitled *Exploiting agribusiness to create employment for the youth: The IITA Agripreneurs Model* said that the IITA was empowering educated young people to be gainfully employed in agriculture through the Agripreneurs' scheme. "Take up the challenge after your service year," he advised them. "IITA is ready to facilitate activities through training programs and capacity building to get the youth better equipped to go into agriculture and agribusiness. To ensure this, the Institute will monitor your progress until you pass out from the service."

Evelyn Ohanwusi and Barituka

Bekee, two members of the IITA Youth Agripreneurs, also interacted with them and encouraged young people in Abuja to start with the resources available at their disposal because the opportunities and prospects that agribusiness offers were tremendous. "We started small but through the inspiration and support of the IITA Directorate, we have now moved to great heights," they said.

Young men and women in Abuja have taken advantage of this mentoring and intensified their efforts in their cassava, maize, and vegetable production activities currently in progress.

A flurry of youthful activities at IITA's Abuja Station (top to bottom): The Sanitation Group from NYSC, Gwari LGA, doing a clean-up activity at IITA-Kubwa, Abuja Station on 8 August 2014; Group photo of NYSC members during their visit to IITA Abuja Station on 31 October 2014; Members of the Ibadan Agripreneurs holding a meeting with Dr Gbassey Tarawali at the IITA Abuja Station on 4 November 2014.



Stories from the field: For soybean farmers in Malawi, access to seeds of improved varieties is a vital lifeline

Soybean constitutes an important component of the smallholder cropping systems in Malawi and has considerable potential for arresting soil fertility decline, raising household incomes, and enhancing household food and nutrition security. The dramatic increase in world soybean prices has influenced domestic prices in Malawi, with the result that the production of soybean and other oilseeds has become potentially more rewarding to farmers relative to other food or cash crops. There is a growing demand for soybean due largely to the rapidly growing demand for soybean-derived products for poultry feeds, edible oils, and manufactured human foods thereby creating opportunities for improving farmers' incomes. Indeed, smallholder participation in soybean production and marketing can increase rural incomes at a time when a number of factors are driving the development of the soybean industry in Malawi. These factors include the commitment of the government to promote crop diversification and the increased demand for soybean meal for the domestic poultry industry. However, the competitiveness and profitability of smallholder soybean production in Malawi is hampered by inaccessibility of seed of improved varieties and therefore, use of farmers' local varieties with yield levels well below a ton per hectare (MOAFS, 2012).

In this context, the IITA-implemented 'Development of Sustainable Soybean Seed System to Enhance Availability and Accessibility of High Quality Seed of Improved Varieties for Farmers in Malawi' project was initiated with a sub-grant from the Development Alternatives Initiative's Integrating Nutrition in Value Chains (DAI-INVC). The 2-year project started in 2013.

Upon inception, the project established a revolving fund for basic seed production. In the first year of operation the project produced 5.4 tons of basic seed that was distributed to certified seed producers during the 2013/14 season. In the second year, 28.85 tons of basic seed was produced. That seed is being distributed now for certified seed

production in the forthcoming season of 2014/15. About 4 tons of basic seed will be harvested from the 2014 winter basic seed production for distribution hopefully for the 2014/15 season. By December 2014, about 38.25 tons basic seed will have been distributed. The sales will maintain the revolving fund for further basic seed production activities at IITA.

Parallel with the establishment of the revolving fund and basic seed production, a basic seed storage facility was constructed. The facility is fitted with pallets with concrete footings for organised stacking of bags of basic seed. Air conditioners are installed to keep seed under low temperatures to maintain seed viability. The windows of the storage facility are fitted with wire gauzes to keep storage insect pests out. Doors and windows of the facility are fitted with burglar bars for security.

Capacity building was one of the deliverables in the project. To achieve capacity building among the farmers in the zones of influence; Mchinji, Lilongwe, Dedza, Ntcheu, Balaka, Machinga and Mangochi, a guide to soybean production was prepared as a training and reference material for seed and grain producers. Using this guide, a total of 143 farmers, National Smallholder Farmers' Association of Malawi and Farmers Union of Malawi Field Officers were trained in seed and grain production in the seven districts. The guide is now in circulation all over Malawi.

Considering that farmers will have choice of variety to grow depending on the buying market, the project took the initiative to do quality traits analysis of some of the soybean varieties on the market. Makwacha, Tikolore, Serenade, Ocepara 4, UG-5, Magoye and Nasoko were analysed for protein, oil, calcium, potassium and ether extract.

It is hoped that IITA will continue to produce and distribute basic seed. The capacity building among growers and Field Officers in the zones of influence will have a multiplier effect so that quality seed of improved varieties will be made available and accessible to all soybean seed and grain producers across the country.



(Top to bottom) Dimethoate and Follicur were applied to control leaf eaters and rust. Yields were as high as 2.5 tons/ha; Crop inspection – IITA Seed Systems Specialist, Office Mulekano (left) and DAI-INVC's Agricultural Productivity Specialist, Ian Goggin on a soybean seed crop inspection assignment at Khasu (Malawi). The Seed Services Unit (SSU) certified the Khasu seed lot 100% pure; A mountain of soybean harvest at Sindemisale. A worker takes a measure of harvest for threshing at one go. This procedure ensures almost no damage when threshing using light beatings with a small pliable stick. SSU analysis of this seed lot shows only 0.2% of cracked seed; IITA quality-accepted seed being loaded onto an IITA truck for delivery to the IITA seed storage facility.

New World Bank-IITA agricultural initiative in the Great Lakes Region looms on the horizon

A prospect of a partnership between the World Bank and IITA in eastern DRC looms on the horizon through a project named *Programme de Croissance Agricole Intégrée dans les Grands Lacs* (formerly designated as *Corridor Bukavu, Uvira and Kalemie*) which will be financed by the Bank to intensify and boost agriculture in the Great Lakes region.

On 11 November, the IITA-Kalambo Station hosted a visit by Mr Amadou Oumar BA, Senior Agricultural Services specialist at the World Bank and Team Leader for the preparation of this regional project, and Mr Franz Schorosch, FAO consultant in charge of R4D and extension, who is also a member of the project team. In his statement, Mr Oumar said, "We are visiting IITA Kalambo to be inspired by technological advances in terms of production and agricultural productivity but especially by post-harvest aspects with the aim of establishing a regional Center of Excellence for certain selected crops."

The meeting with IITA scientists and staff was chaired by Dr Nzola Mahungu, IITA Country Representative to DRC, who made a brief introduction of IITA and its activities in the country. This was followed by presentations from various scientists and the youth involved in IITA Kalambo-run projects including HumidTropics, N2Africa, SARD-SC, Legume Choice, IFAD, and IKYA, as well as from partners such as National Seed Service and National Institute of Agricultural Research.

The World Bank team was particularly interested in the N2Africa project and the Youth Agripreneurs Program as these were in line with certain aspects of the project being formulated. Mr Oumar said, "We have been very much impressed by the young Agripreneurs in different areas, either in cassava or soybean processing. We will be delighted to be a genuine partner of those who support such

(Top) The WB visitors pose for photo with Youth Agripreneurs, IITA scientists and staff at IITA-Kalambo Station; (bottom) WB visitors being briefed on IITA's work on crop value addition.



initiatives in the future as part of the project we want to develop in eastern DRC. And we can only encourage you to do more to develop initiatives of this kind for Bukavu and surrounding markets. We are delighted to see soybean and cassava products of very good quality."

The Bank delegation was so excited by the IITA youth program that they asked the Agripreneurs to send them their business plan, a special business opening for IKYA.

There was a meeting with a member of the provincial government of South Kivu and other stakeholders, including the delegation from IITA/IFPR, on 12 November at Mont Kahuzi Hotel in Bukavu. The delegate of the World Bank said, "The initiative *Programme de Croissance Agricole Intégrée dans les Grands Lacs* will target agricultural growth priorities such as nutrition, Infrastructure, and improved incomes that will focus on promoting development in the regional agricultural sectors in the corridor."

The project will have three components:

- The structuring of three value chains: rice, milk, and fishing had been chosen. The Bank would provide US\$70 million in DRC and US\$35 million in Burundi.
- Conflict management and regional development in which the Bank would provide US\$50 million to the DRC and US\$25



million to Burundi

- The promotion of regional integration in which the Bank would grant US\$30 million to the DRC and US\$15 million to Burundi.

The *Programme de Croissance Agricole Intégrée dans les Grands Lacs* is part of the US\$ 1 billion development package promised by the World Bank president during his visit in the Great Lakes region last year. According to Mr Oumar BA, the project may evolve to cover other countries in the region as well. The project is slated to start in January 2016.

The Bank's planning team noted the initiative of the DRC Government to establish an agro-industrial-park similar to the one recently inaugurated at Bukanga Lonzo located 200 km south of Kinshasa. A similar initiative in Ruzizi Valley would add value to the project being formulated, including the integration of the youth in agriculture and agribusiness.

Got a story to share? Please email it with photos and captions to Andrea Gros (a.gros@cgiar.org), Jeffrey T. Oliver (o.jeffrey@cgiar.org), Catherine Njuguna (c.njuguna@cgiar.org), or Katherine Lopez (k.lopez@cgiar.org).