



## IITA in good financial health, says DG

Notwithstanding the 19% budget cut announced by the [CGIAR](#) earlier this year, Director General [Nteranya Sanginga](#) has assured members of the IITA community of the strong financial standing of the Institute. He also reminded staff of the need for reserves and a strong resource mobilization strategy.

In a memo sent out on 5 August, Sanginga announced an increase of \$4.405 million in the budget of [CGIAR Research Programs](#) between November 2014 and June 2015 and enjoined staff to increase efficiency in execution rates of projects and to also continue to deliver to win donors' trust.

"In general," said Sanginga, "the Institute is in good financial health compared to the same period last year. The June 2015 financial statements continued to reflect IITA's healthy financial position despite the fact that we are already halfway through the calendar year and there has still been no disbursement of any 2015 Windows 1 and 2 funds from the CGIAR Fund Office. That means we have already in 2015 pre-financed about \$18 million (and counting) from our bilateral funds...although still challenging, I am optimistic that 2015 will be much better than 2014."



Dr Nteranya Sanginga.

The DG also highlighted major avenues currently being explored to ensure that the Institute continues to stay relevant and resilient in the coming years. One such opportunity is the IITA Youth Agribusiness Development initiative.

"The [IITA Youth Agripreneurs](#) (IYA) is now very active in DR Congo, Kenya, Nigeria, Tanzania, Uganda, and Zambia, and has participated in many events, demonstrating how the youth can create their own employment. This program is one of the priorities of the Obama Administration and IITA is linking with [USAID](#) for more impact."

He added that as a major activity, [IITA](#) will develop a program titled Empowering Novel Agribusiness-Led Employment for Youth in Africa ([ENABLE Youth](#)) to be funded by the African Development Bank ([AfDB](#)) alongside other donors including the [Bill & Melinda Gates Foundation](#) and the International Fund for Agricultural Development ([IFAD](#)).

"IYA which started here at IITA is a priority in the Strategic Research Framework of CGIAR and is mainstreamed in major AfDB and IFAD agricultural loans to be managed by IITA. This is already happening in Cameroon, DR Congo, Tunisia, and Uganda, and we expect this to be done in 20 countries by 2017."

The DG also reported that [Ylva Hillbur](#), DDG, Research for Development, has provided an update on the involvement of IITA in the CRPII pre-proposals in which IITA actively pursued and negotiated for flagship leadership positions in seven CRPII pre-proposals: Policies, Institutions and Markets (PIM), MAIZE, Dryland Cereals and Legumes Agri-Food Systems (DCLAS), Roots, Tubers and Banana (RTB), Nutrition and Health, Climate Change, and Genebanks.

## Conference on Women in Agriculture held in IITA Kalambo

On 11 August, IITA Kalambo hosted a colorful event that attracted many eminent guests who took part in – and made their contribution to the Conference on Women in Agriculture with the theme "Women in Agriculture: Our Heritage, Challenges, Opportunities and Way Forward".

A key feature of the day was the presence and keynote address of [Dr Denis Mukwege](#), a human rights activist whose dedication to championing the cause of sexually abused women has earned him many international awards including The Sakharov Prize.



L-R Front row: Dr Denis Mukwege (third) and Dr Nteranya Sanginga (fifth) with conference participants.

As a forum for sharing and reflecting on critical issues affecting women (especially sexually abused women), the event was attended by leaders from various IITA partner NGOs, private sector actors, women's associations, and top government officials at both provincial and national levels, including the provincial governor of South Kivu, HE Marcellin Cishambo, and two national ministers in charge of Scientific Research and Land.

Welcoming the dignitaries, IITA Director General [Nteranya Sanginga](#) recalled how the idea to organize the conference was nurtured two years ago after Mukwege visited Panzi Hospital and participated in a conference in Bukavu. Sanginga assured Mukwege that [IITA](#) is proud of his achievements and would be happy to work with his Foundation to lift the status of sexually abused women by improving their access to agricultural knowledge, food and nutrition security of their families, and income-generating opportunities.

Singinga also talked about the '[Agripreneurs](#)' initiative which aims to create jobs for the teeming unemployed youth in Africa through agribusiness enterprises. "We want to train young people to take up agriculture as a business," said the DG.

In his keynote address, Mukwege commended Sanginga for inspiring the youth across Africa and for the excellent facilities at IITA Kalambo. He praised the women for their hard work and leadership role in agricultural production to feed the nation as well as sustaining household food and nutritional security. According to him since populations in African rural areas depend on agriculture for their livelihood, we should support reforms that enable rural women to have access to land for agricultural activities as well as empower them to exercise control over economic resources. "We need to encourage women to establish their own enterprises," he said.

During the conference, successful women farmers gave testimonials on how improved agricultural practices have increased their productivity and, subsequently, their incomes; how processed soybean has improved household nutrition; and how cassava

processing methods learned from IITA allowed them to diversify their diet.

Speaking on behalf of the central Government, the Minister of Land, Dieudonné Bolengege Balea, commended IITA's work and achievements, and said that he would encourage more ministers and governors of other provinces to visit the IITA Kalambo Station to borrow a leaf from agricultural changes that are taking place.

"I am truly impressed. When I used to hear my colleague from the scientific research ministry talking about 'research', I never paid much attention; from now on, I am sure that things will be different: I will be supporting him whenever he addresses any issues touching on IITA," he said.

To support the women's activities, the national Minister of Scientific and Technological Research, Daniel Madimba Kalonji, donated 2.4 million Congolese Francs to the Mulamba women's group to purchase a manual grinder and another 1 million Congolese Francs to sustain the agricultural activities of the Uvira women's group and Réseaux des Agro-Transformateurs du Sud-Kivu network.

In his closing remarks, Governor Ruhoya praised the women for their devotion to agriculture and for their efforts to feed the nation.

"We are grateful that you fed us for so long; it is high time that we started feeding you as well," he concluded. He further expressed the wish to see IITA expanding its research centers throughout the country.

At the conclusion of the workshop, participants recommended that – in collaboration with all development partners – the Government should take immediate steps to

- Develop and implement peace-building and security strategies
- Improve access to land by harmonizing land policy and land reform processes
- Implement appropriate policies to ease access to agricultural loans based on farmer performance
- Facilitate access to markets through collective marketing, and a partial tax waiver on key agricultural products
- Develop community centers for training and information
- Help in the dissemination of productive technologies and processing units for agro-products
- Support IITA's initiatives related to processing and marketing across the South-Kivu Province
- Encourage community based organizations and cooperative formation in favor of women in rural areas
- Coordinate and harmonize intervention strategies between all development partners.



HE Marcellin Cishambo (wearing a bow tie), Dr Nteranya Sanginga (wearing a blue tie), South Kivu national ministers, youth Agripreneurs (wearing lemon green shirts), and IITA researchers in a group photo.

# IITA plant health science featured in international media

Four renowned international media outlets recently featured IITA's progress in plant health sciences and their impacts on the lives of people in sub-Saharan Africa.

In the article [Aflatoxin, A Silent Threat to Africa's Food Supply](#), the National Geographic draws attention to the importance of IITA's pioneering efforts in eradicating aflatoxins in maize and groundnuts in sub-Saharan Africa.

[Aflatoxins](#) are highly toxic, cancer-causing fungal chemicals that can suppress the immune system and retard growth, and cause liver disease and death in both humans and domestic animals. These naturally occurring poisons produced by the fungus [Aspergillus flavus](#) affect Africa's food supply and severely constrain trade opportunities.

By adapting a technology already successful in the US, IITA, in partnership with the United States Department of Agriculture – Agriculture Research Service (USDA-ARS) and national institutions, have developed and deployed a natural antidote to these toxins called aflasafe™. Aflasafe™ is a biological control product that contains harmless non-toxin producing strains of the same fungus. When applied to crops before flowering, the harmless strains in aflasafe™ outcompete and lower the population of aflatoxin-producing strains.

Success stories have included healthier food for more families and improved marketability of crops with the potential of reversing a portion of the estimated US\$450 million losses in trade in Africa due to contaminated crops. Remarkable reductions in incidences of aflatoxin contamination in several African countries where this technology is deployed have been reported. Farmers in



Nigeria, for instance, have seen aflatoxin contamination of maize and groundnut consistently reduced by 80-90%.

These accomplishments have increased access to farmers' produce of organizations such as Nestle and developmental bodies like the United Nations World Food Programme, which are now sourcing their maize locally, thereby contributing to the increase in farmers' income.

A film on the widely viewed [Discovery Learning Channel](#) titled "Agriculture Innovators for Discovery Learning Alliance" corroborated the effectiveness of aflasafe™ and how it helped to transform the lives of smallholder farmers in Kenya who needed it the most. It explains the science, development, and application of the product based on the accounts of the pioneers of the technology [Prof Peter Cotty](#), USDA-ARS Plant Pathologist, and IITA scientists [Charity Mutegi](#) and [Ranjit Bandyopadhyay](#).

IITA's [goal](#)—in partnership with collaborators and stakeholders—is to deploy this innovative biocontrol technology on a wide scale across countries where aflatoxin contamination is endemic.

Quite naturally, challenges exist in scaling out innovative technology like biocontrol on a wide scale. The popular [Scientific American](#) magazine, while acknowledging the pressing need for aflasafe™ intervention, details these challenges typical in developing economies where knowledge of the insidious effects of aflatoxin contamination is limited.

Since aflasafe™ incorporates native microbial non-toxin producing strains of *A. flavus*, identifying suitable strains, subjecting these to trials for efficacy and safety, and getting regulatory approval for their use can be time consuming. Funding needed for commercial manufacturing to meet demand is also limited.

Aflatoxins affect between 10 and 60% of maize and groundnut in sub-Saharan Africa and over 90% of children in some African nations show detectable levels of aflatoxins in their systems. It is clear therefore, that massive gains stand to be made in health, agricultural, and economic terms through aflasafe™.

IITA's plant health programs are not just limited to reduced pesticide use and environmental impact and improved market access for agricultural produce. IITA scientists are leading collaborative efforts on plant health surveillance to improve preparedness for, and response to, exotic plant pest and disease incursions into sub-Saharan Africa.

A recent [CNN feature story](#) highlights ongoing efforts spearheaded by IITA scientists to contain the spread of [Tropical Race 4 \(TR4\)](#) of Fusarium wilt, a fungal disease that threatens banana cultivation on the continent.



Similar to the disease that wiped out the previously dominant Gros Michel species of banana, TR4, which was first observed in Asia and Australia and now widespread in Africa, poses serious threats to the Cavendish species and other local varieties in Africa.

The squeeze on the local economy in Mozambique is already apparent, with the disease having been detected on two plantations. Millions of dollars are being lost monthly and the spread of this disease across Africa will bring about severe repercussions on food security and income

generation for more than 100 million people depending on banana.

TR4 could potentially have disastrous consequences for countries in East and Central Africa where bananas aren't just a staple in the national diet, but also contribute around US\$4.3 billion to the economy annually.

With funding from various donors, IITA plant pathologists [George Mahuku](#) and [Joao Augusto](#), in partnership with other institutions, are leading implementation of strong preventive and mitigation initiatives to ensure that the disease is contained.

Plant health research thus plays a vital role in IITA's mission to continually find solutions to hunger, malnutrition, and poverty. IITA aims to reduce the effects of insect pests and diseases on the yield, quality, and marketability of agricultural produce by using effective and environmentally sustainable practices.

Commercial application of IITA's biocontrol products against pre- and postharvest diseases are contributing greatly to higher standards of safety and quality of agricultural produce, reduced poverty, and improved food security.

## IITA opens doors to potential private sector partners from Japan

A delegation of agribusiness representatives from private businesses under the umbrella of the Japan External Trade Organization ([JETRO](#)) and the Japanese Embassy in Nigeria visited IITA on 6 August.

The mission, composed of about 20 business professionals, visited IITA to learn about opportunities and challenges in the agriculture sector in Nigeria and West Africa and to explore potential areas of collaboration between Japan and Nigeria. Guests came from Honda Manufacturing (Nigeria) Ltd., Itochu Corporation, Kubota Corporation, Marubeni Corporation, Mitsubishi Shoji Kaisha (Nigeria) Ltd., Mitsui & Co. Europe Plc., NEC West Africa Limited, Nishizawa Nigeria Limited, Satake Europe Ltd., Sumitomo Corporation, Toyota Tsusho Nigeria Limited, Embassy of Japan in Nigeria, and JETRO Lagos.

[Robert Asiedu](#), R4D Director for West Africa, welcomed the mission to IITA. The group was given an orientation of the agriculture sector in Nigeria and Western Africa, and a guided tour of IITA facilities. The tour showcased IITA's work on youth engagement in agribusiness and commercialization of selected technologies such as aflasafe™, a biocontrol for food products;

Nodumax, a bioinoculant; and Go Seed.

Collaboration with the Japanese private sector received an impetus when Director General [Nteranya Sanginga](#) visited partner institutions and potential private sector collaborators to explore new areas of cooperation last April.

While welcoming the guests during cocktails, [Asiedu](#) said that IITA needs collaboration with the private sector to ensure the impact of its work in the region.

In response, Taku Miyazaki, Managing Director/Trade Commissioner of JETRO Lagos, said, "We learned a lot today. This visit provided a good opportunity for collaboration between Japan,

Nigeria, and IITA. The Japanese Government, through JETRO, wants to help facilitate the collaboration between IITA and the Japanese private sector. Both Japan and IITA have advanced technologies so there is much room for collaboration that I believe will contribute to the development of the agriculture sector in Nigeria."

JETRO is a government-related organization that works to promote mutual trade and investment between Japan and the rest of the world. JETRO Lagos was established in 1955 as one of the first of its 76 overseas offices, and now actively works to encourage business between the two countries through this kind of mission, trade fairs, research, etc."



JETRO visitors to IITA.

# Collaborative project to set up business model for catfish and vegetable production

A team of experts from the Japanese Company [Taiyo Industry Africa Incorporated](#) are currently in Ibadan and have begun the construction of an integrated production system with the capacity to purify the water in catfish ponds and at the same time efficiently extract waste and nutrients from the ponds which will be channeled to produce high-quality vegetables.

This initiative springs from the agreement established earlier this year between [IITA](#) and Taiyo Industry where both organizations agreed to use technologies and products manufactured in Japan for the establishment of a business model that could serve the future of agribusiness in Africa, specifically for catfish and vegetable production. Taiyo Industry plans to achieve this feat by working closely with the [IITA Youth Agripreneurs](#) (IYA).

This is another milestone for IITA and IYA. IYA specifically has, for the past two years, pioneered various initiatives in agriculture and served as agribusiness icons for their counterparts across the continent. The results from this project will further enhance the innovativeness of IYA in terms of pond design, construction, and catfish culturing.



Ms Yukari supervising the construction of the ponds in Ibadan.

Ms Yukari Inagaki, project coordinator from Japan, said that the initiative is particularly important because [agribusiness](#) is one approach to maximize the potential of agriculture in Africa.

“We expect to accelerate this new technique and develop a business model

for catfish and vegetable production based on the results we obtain from these initial experiments,” said Inagaki.

The implementation of the research to verify the effect of using Japanese technologies and products is expected to begin in September.

## Upcoming Events

- Farm typology meeting, Wageningen University, Netherlands, 31 August - 1 September
- Africa RISING phase 2 design meeting, Wageningen University, Netherlands, 1-4 September
- Institute-wide Gender Awareness Seminar, 1 September, and Workshop on Developing Capacity for Gender Mainstreaming, 2-4 September. Prof Jane Bennett of the African Gender Institute (AGI), University of Cape Town, will facilitate this workshop.
- Mobilizing Youth within Phase 2 CGIAR Research Programs (CRPs), co-organized by IITA, AfDB and the CGIAR Consortium, 8-9 September, CGIAR Consortium Office, Montpellier, France. For more information, visit workshop [website](#)
- TROPENTAG (day of the tropics) 2015, Humboldt University, Berlin, 16-18 September. IITA will have a special session to present its research portfolio and an exhibition to showcase its work as a CGIAR research institution.
- Africa RISING Program Strategy Workshop, Mali, 6-8 October
- The First World Congress on Root and Tuber Crops, Nanning, Guangxi province, southern China, earlier scheduled for 5-10 October, has been postponed to January 2016.
- R4D Week, IITA Ibadan, 22-28 November
- Joint World Cowpea and Pan-African Grain Legume Research Conference 2016, co-organized by IITA and the Feed-the-Future Legume Innovation Lab, 28 February to 4 March 2016, Zambezi Sun Resort Hotel, Livingstone, Zambia. For more information, please visit the conference [website](#) or download the [announcement](#) of the conference.

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

## Empowering research technicians in Africa for improved plant breeding

To boost the work of plant breeders in Africa working to make the continent food secure, [IITA](#) has just concluded a 3-week training for the first batch of research technicians from Nigeria and Ghana who support plant breeders.

The training, held on 27 July-14 August, was sponsored by the [Alliance for a Green Revolution in Africa](#) (AGRA) and focused on supporting research on maize, rice, cowpea, soybean, cassava, yam, plantain and banana.

[Zoumana Bamba](#), Head, IITA Capacity Development Office, said the training was organized as part of IITA's efforts to improve the output of plant breeders in Africa, many of whom have had to work with insufficiently trained research technicians over the years.

"Many of the research technicians lack the appropriate skills to support breeders in terms of field preparation, fertilizer application, management, collection, and analysis of data. The capacity for most of the countries in Africa is also very weak. IITA, in collaboration with [AfricaRice](#) therefore took the initiative to organize this learning experience as a way of easing the stress on plant breeders," said Bamba.

Prof M.A.B. Fakorede, training facilitator, said that the lessons from the training will make the technicians more effective in working with the breeders in their regions.

"The training covered the morphology, anatomy, and physiology of various crops with an emphasis on field work. The forum also ensured that more than theoretical lessons, trainees experienced practical experiences in the field and laboratories, and were trained on producing quality seeds. With all of these, our expectation is that they will be more effective when they get back to their jobs," he said.

Each training participant received a tablet for data collection in the field; training materials were uploaded weekly on the devices. The participants expressed satisfaction with the new knowledge gathered during the training.

Maria Okolo, Cassava Technician at the National Root Crop Research Institute, Umudike, Nigeria, says the training was valuable. "In my eight years of working as a cassava technician, I had heard about [iCheck](#)—a technology for determining the carotene level of cassava, but have not been able to practice this myself. During the course of the training, we visited an iCheck laboratory where

I learned how to effectively use the technology. It is a wonderful technology and I am taking this lesson back to Umudike to implement it."

Another participant, Sober Ernest Boadu, Rice Technician, Crop Research Institute Ghana, said the training showed so many gaps in the rice production systems of Ghana. "For instance," he said, "I have just learned about a new technology of submerging rice. The technology controls and allows rice varieties, lines, and genotypes to survive in flooded areas. This is particularly unique because in Ghana many of our lowlands are being flooded. The application of this technology can address flood conditions, benefit farmers, and make them happy. The participants from Ghana will definitely take this back home and begin to use the technology for the benefit of Ghanaians and West Africa."

IITA breeders will visit some of the training participants in their stations to monitor the impact of the training and what needs to be changed or improved in the curriculum.

The second leg of the training for French-speaking participants may be held at the [ICRISAT](#) in 2016. This leg will include millet and sorghum, two of the main crops in Burkina, Mali, and Niger.



Training participants from Ghana and Nigeria.