

IITA Mozambique office inaugurated



The board chair waters a tree as the US ambassador looks on. Photo by C. Engoke, IITA.

The Mozambican Minister of Agriculture and Food Security, Mr José Pacheco, and the IITA Board of Trustees (BoT) led the inauguration of the new offices of IITA in Nampula, Mozambique, last week, 8-12 May. The event also marked IITA's golden jubilee celebration attended by IITA's senior management team and the US Ambassador to Mozambique.

The BoT members were in Mozambique for their spring annual meeting, where among other things, Director General [Nteranya Sanginga](#) briefed them on the progress IITA has made since their last meeting in November last year, achievements, challenges, and investments. Tree planting by the IITA Board chair [Bruce Coulman](#) and the Minister of Agriculture, tour of the office facility, exhibitions, dancing, and a field visit were some of the activities that took place to mark the occasion.

IITA started work in Mozambique in 1988 with research focused on cassava breeding. It has now added soybean, cowpea, and sesame as the main crops being promoted in Southern Africa. A total investment of about US\$800,000 has been made on the new facility that comprises 11 offices, three

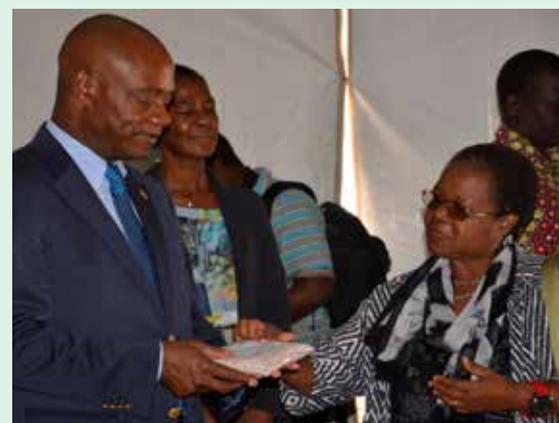
labs that deal with plant health, agronomy and soil fertility, and seed quality, an IT lab, seed storage facilities, and sample preparation area.

The station was officially opened in 2007 and as the number of staff grew, office space and other important research facilities became a major constraint. Management later approved a business proposal to source funds from within Mozambique and through cost recovery to assist in the construction of a new facility. IITA initiated several fund raising drives including production and sale of basic seed to different companies and farmers and consultancy services. So far, five varieties of soybean and four varieties of cowpeas have been officially registered in Mozambique. Mozambique has an acute shortage of basic seed and IITA is trying to address that challenge by working

with Instituto de Investigação Agrária de Moçambique (IIAM), [ICRISAT](#), [CIAT](#), and other partners to meet the demand for improved legume seeds. IITA Mozambique has access to over 155 hectares of land, part of which could be used for seed production activities.

IITA is the only [CGIAR](#) center in Mozambique that has invested in facilities of high standard. Sanginga described IITA-Mozambique efforts as 'modest and honorable to the vision and targets of IITA'. He acknowledged the support provided by USAID and other partners to make this possible. To meet the gap and challenges that exist in Africa on seed supply there is a need for good quality seed and good storage facilities.

Briefing the board, the Minister, and dignitaries at the function, IITA Country Representative [Steve Boahen](#) explained that the yearly budget of IITA Mozambique has grown progressively from \$417,000 in 2007 to \$3.3 million in 2017. The station now has 6 international staff and 35 nationally recruited staff, and employs over 150 temporary workers during the growing season. The station has trained over 25,000 farmers and established about 150 hectares of disease-free cassava planting



A farmer briefing the Minister of Agriculture (in suit) on processed end product as the Director General of IIAM looks on. Photo by E. Mwale, IITA.

materials for distribution to farmers during the last six years. IITA Mozambique has also trained over 20,000 women on soybean home processing and utilization.

“The facility is a symbol of our commitment to the government of Mozambique, our colleagues at IIAM and partners to fight hunger and poverty in Mozambique. We are on the right path to transform African agriculture,” added Boahen in his address.

In Mozambique, IITA is operating in Nampula, Tete, Manica, and Zambezia provinces. Also present at the function was the Director of IIAM, Dr Olga Fafine. She acknowledged the support IITA is giving to IIAM with its research work and leadership in the field and particularly with

the development of improved technologies for agriculture.

In his inaugural speech, Minister Pacheco called on more commercialization of soybean products emphasizing that farmers are struggling to get markets once they harvest. He commended the working relationship between IITA and the government and the contribution IITA has made to the agriculture sector in Mozambique. “I challenge IITA to increase production of seed to cater for the huge shortfall we have. The partnership with my ministry dates back to 15 years and the results are evident as we have gathered here.”

The United States Ambassador to Mozambique, Dean Pittman, said that because of the trust they have for IITA, they

have made it possible to construct the seed store where quality control is assured. He also commended the great strides that have been made by IITA in aflatoxin control in maize and groundnuts. [USAID](#) under the [Feed the Future](#) is funding one of the biggest projects in Mozambique called [SEMEAR](#). Under the project, IITA is expected to spearhead the production of over 3,555 tons of soybean, 1,234 tons of cowpea, and 582 tons of sesame improved seed varieties in a 5-year period.

Video links: <https://youtu.be/H-c9Gy1q3Pk>
<https://www.youtube.com/watch?v=9cArBWIFCEk&feature=youtu.be>
<https://www.youtube.com/watch?v=My30fNgb8kk&feature=youtu.be>
<https://www.youtube.com/watch?v=9Lg494YnFjl&feature=youtu.be>



IITA staff in Mozambique and the Board of Trustees celebrating the inauguration of the new offices and IITA's 50th year. Photo by E. Mwale, IITA.

IITA partners with private sector to boost soy oil production

IITA has pledged to provide its best soybean varieties to Al-Abass Holdings—a private sector organization aiming to establish an edible oil refinery in Nigeria.



The IITA team (left) listen keenly to the proposition of the partners (right).

Nigeria consumes 70–80% of the palm oil it produces. Currently, 80% of oil palm production comes from scattered smallholdings spread over an estimated 1.6 million hectares of land. In contrast, plantations occupy only about 300,000 hectares, most which came up over the last decade with private sector investment.

According to Abdoulrasaq Abass, Chief Executive Officer, Al-Abass Holdings, the

projected edible oil refinery will create wealth for farmers and employment opportunities for Nigerians.

“We want to start an edible oil refinery in Nigeria. Our goal is to produce edible oil in the country. In line with IITA's vision, we want to create more employment opportunities for Nigerians and work closely with farmers, supporting them to produce to world standards,” Abass said.

Abass was accompanied by Lukman Idris, Risk Manager, and Andre Pouzet, Agronomist at [Avril Group](#)—a French agroindustrial group that specializes in oilseed for human and animal nutrition, renewable [chemistry](#), and renewable [energy](#).

Al-Abass Holdings works in partnership with Avril Group which primarily deals with the economic development of oilseed products such as rapeseed and sunflower.

“I am here to understand the structure of soybean in Nigeria. We want to partner with IITA to get the best quality soybean. Avril enables a difference between industrial and financial activities; we will ensure a fair distribution of added value for the entire chain, from producers to consumers,” Pouzet pledged.

The visitors were welcomed by [David Ojo](#), SARD-SC Soybean Scientist while [Zoumana Bamba](#), Head, Capacity Development Office, on behalf of IITA, formally set this collaboration in motion on 11 May, when both parties signed a memorandum of understanding (MoU) in Ibadan.

YIIFSWA enhances NACGRAB capacity for efficient pre-basic seed yam multiplication using Temporary Immersion Bioreactors



YIIFSWA's Morufat Balogun (second from left) handing over clean yam plantlets for multiplication in the Bioreactor.

Access to quality seed of improved varieties is the basis of sustainable crop production systems. This can only be achieved if there is a viable supply system, incorporating efficient seed multiplication and distribution within an organized formal seed system.

In the case of yam, a formal seed system is gradually being developed through the Yam Improvement for Income and Food Security in West Africa, phase two project (YIIFSWA-II). Also, capacities, including knowledge and infrastructure are being put in place at the individual and institutional level. The IITA-led YIIFSWA-II project is equipping institutional partners with infrastructure, technical know-how, and clean planting materials from the project's promoted varieties that will enable key research institutions like the National Center for Genetic Resource and Biotechnology (NACGRAB) to participate in the commercial multiplication and dissemination of yam planting materials.

In the first phase of YIIFSWA which ended in 2016, IITA used the SETIS type Temporary Immersion Bioreactor (TIB) technology for pre-basic seed yam production. The TIB technology will be outscaled to national partners

in Nigeria and Ghana under YIIFSWA II. In April 2017, YIIFSWA, assisted by IITA's Facilities Management Services (FMS) installed 24 units of the SETIS Bioreactors at NACGRAB for mass propagation of high-quality, pre-basic yam plantlets of improved varieties promoted by YIIFSWA-II. These would be made available commercially to other institutions for basic seed yam production.

According to YIIFSWA's Principal Investigator on TIB technology, [Morufat Balogun](#), each unit of NACGRAB's SETIS bioreactor can hold at least 50 plantlets with a total of 1200 plantlets at a time for the 24 units. This is more than a quarter of IITA's 128 units installed in 2013. A 10-KVA inverter system and programmable logic control were also installed by YIIFSWA alongside the bioreactors for sustainable utilization.

According to the Head of Tissue Culture at NACGRAB, Afolayan Adedotun, prior to this installation, NACGRAB was using recycled mayonnaise containers (Bama bottles) which held about 15 plantlets per unit. In addition, the Bama bottle system was not cost effective because they often had to change containers as

the bottle caps became loose, allowing for contaminants to enter.

The SETIS Bioreactor comes fitted with silicone gaskets for the screw caps allowing for perfect sealing of the bioreactor in addition to programmable logic control amenable to both research and production. Each unit of the new SETIS bioreactor can hold 6 times more plantlets per production cycle.

On 10 May, Balogun visited the institute to inspect what had been installed and also handed over 40 plantlets of the three improved varieties (TDr 89/02665, TDr 95/19177, TDa 98/01176) YIIFSWA-II is promoting. The Institute already has in its stock 900 plantlets of both land races and improved varieties introduced during YIIFSWA I. NACGRAB is expected to provide the National Root Crop Research Institute ([NRCRI](#)) with 1960 disease-free plantlets this year for planting in NRCRI's [aeroponics](#) facilities, also installed during YIIFSWA I.



Top: Newly established SETIS bioreactor system at NACGRAB. Bottom: New SETIS containers vs Bama bottles.

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 Adaobi Umeokoro (a.umeokoro@cgiar.org).

IITA marks Fascination of Plants Day with tomorrow's scientists

IITA joined other scientific institutions, universities, museums, schools, farmers, and companies all around the world to celebrate the Fascination of Plants Day on 18 May. The event was initiated by the European Plant Science Organization ([EPSO](#)) four years ago to create awareness on the importance of plants and plant sciences.

To mark the event, [IITA](#) brought together nearly 60 children from two neighboring schools at its Eastern Africa hub office in Dar es Salaam, Tanzania, to learn about ongoing research on plants and their importance in food security in the country.

The primary school pupils were welcomed by the Hub Director [Victor Manyong](#) who highlighted the activities of the Institute in supporting farmers in the country by addressing challenges such as plant pests and diseases, nutrition, and investing in soils.

He stressed the importance of having future scientists to continue addressing the many problems facing the agriculture sector and farmers in the future as climate change takes effect and the population increases for a hunger free-Africa.

"The population is increasing; however, the land remains the same or even less, yet we have more mouths to feed. The climate is changing too and we need to conserve our forests. Our scientists are working hard to find solutions to these but we also need future scientists. We are expecting some of you to be our future IITA scientists," said Manyong to the students drawn from East Africa International School and Ushindi Primary School.



Students getting an opportunity to use scientific equipment in the labs.

"This is the third year we have marked this event and brought young people to the hub to spend time with our scientists in the laboratories. This we believe is very important to expose them to the world of science and to motivate them to study sciences," he added.

"We want to thank IITA for this opportunity again. The children have learned a lot. And they have seen in real life the application of the subjects

they are studying in school," said Joseph Butale, a science teacher at Shindig Primary School.

The students also watched a short video on the importance of plants followed by a short tour the hub's four laboratories— Pathology, Molecular, Food Science, and Soil. They were met and briefed by the researchers about various research being conducted at IITA.

They also cut the IITA 50th anniversary cake as a part of the celebrations.



Students with their teachers and IITA staff celebrate IITA at 50.

Announcements

- **"Seeds of Renaissance" (distribution of seeds for revitalizing agriculture and rice seeds as food aid)**, 22 May, Maiduguri, Borno, Nigeria
- Launch of the Ago-uwo Farm Center, 1 June, Osun State
- **Congo Basin Grant Program** application for admission now open. Deadline for application is 1 June 2017. Log on to www.conservationactionresearch.net/apply.php for more details.
- Ringing of the bell, Nigeria Stock Exchange, 5 June, Lagos, to mark IITA's 50th anniversary
- Media day, 22 June, IITA, Ibadan, Nigeria
- **Africa RISING Science Advisory Group Meeting**, 22–23 June, Arusha, Tanzania
- **Africa RISING-INVC Bridging Activity Project review and planning meeting**, 29–30 June, Lilongwe, Malawi
- **Africa RISING-NAFAKA scaling project review and planning meeting**, 3–4 July, Dar es Salaam, Tanzania

Tributes

Dr Bede Nwoye Okigbo and Dr Barnabas Sanyaolu Oloruntoba

IITA is privileged to have worked with two very distinguished and outstanding individuals: the late Prof Bede Nwoye Okigbo, one of the most prestigious scientists in the African continent, and Dr Barnabas Sanyaolu Oloruntoba, the father of Nigeria's agricultural development.



Okigbo

Dr Okigbo had served as the first Nigerian assistant director of IITA, providing research leadership of the Farming Systems Program from 1974 to 1977. He was also the longest serving Deputy Director General of the Institute, serving from 1977 to 1988.

Considered as Nigeria's foremost agronomist and one of Africa's leading botanists, Dr Okigbo is a world-class scientist. His knowledge of African botany, his education, and experiences had greatly contributed to intellectual development in biodiversity and agriculture and the enhancement of agricultural science in Nigeria.

The son of an Ibo farmer in eastern Nigeria, Dr Okigbo obtained a doctorate

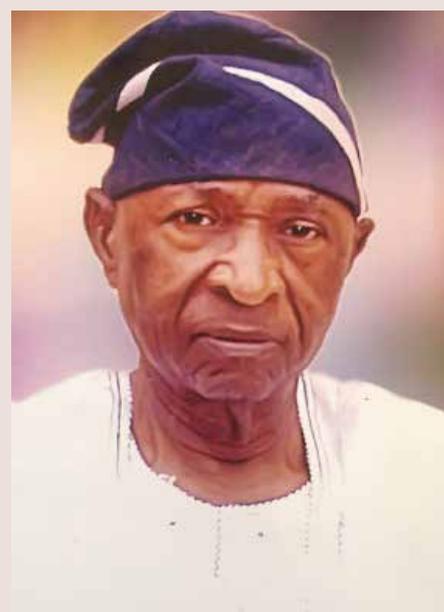
degree in agronomy from Cornell University, and was known as the "African Agricultural Encyclopedia" by colleagues. Former colleagues marvel at his huge and wide-ranging knowledge about African plants and agriculture in general. He was the "go-to" expert for botanical information and agricultural science.

As a research administrator he provided leadership of IITA's research agenda in the late 70s and 80s, and helped lead the development of IITA, which at that time had a very strong program on crop improvement and natural resource management with a focus on farming systems.

We thank Dr Okigbo for having been part of IITA, and for his invaluable contributions as a first-class scientist and research administrator. IITA had been looking forward to celebrating our 50th year anniversary in July with him in attendance.

Dr Oloruntoba served as the Vice Chair of the IITA Board of Trustees from 1976 to 1978 in his capacity as Permanent Secretary of Agriculture (1975-1979) at the Federal Ministry of Agriculture and Natural Resources, Nigeria.

As the father of Nigeria's agricultural development and a pioneer in agribusiness, Dr Oloruntoba epitomized the qualities of a visionary who knew that agriculture would always be the mainstay and driver of Nigerian development. His leadership, education, and experiences in the early years of his career and during the Nigerian civil war had greatly contributed to the development of the agricultural sector in Nigeria.



Oloruntoba

His legacies in institution building, agricultural enhancement, and economic and social development in Nigeria, and his leadership in developing the blueprint for the 'Green Revolution' in Nigeria based on the experiences of the Green Revolution in Mexico and India in the 1960s and 70s will always be remembered and given importance.

His important role and his vision for the development of agriculture and agribusiness in Nigeria had facilitated the support of the Nigerian Government, and had helped IITA evolve into a premier international center for agricultural innovations.

We thank Dr Oloruntoba for helping to make sure that IITA is here to stay in Nigeria, and to continue to do what it does best—helping improve the lives, health and nutrition, and profitability of smallholder farmers.