

IITA partners in launch of Tanzania's national cassava strategy

[IITA](#) and other cassava stakeholders came together for the official launch of the [National Cassava Development Strategy](#) by Tanzania's Minister of Agriculture on 7 May in the country's capital, Dodoma. to page 3



Tanzania's Honorable Minister of Agriculture and other cassava stakeholders displaying the National Cassava Development Strategy book.

British government strengthens partnership with IITA while planning for more areas of collaboration

On 21 May, His Excellency, [Ben Llewellyn-Jones](#), the new British Deputy High Commissioner, visited [IITA](#) headquarters, accompanied by his Political Adviser, Wale Adebajo. His visit aimed to explore and understand the activities and technologies of IITA contributing to climate-smart agriculture (CSA), combating climate change, increasing yield, and supporting food security on the continent.



His Excellency, Ben Llewellyn-Jones, the new British Deputy High Commissioner, meeting with the IITA Management Team. Photo: IITA.

During the introductory meeting, [Kenton Dashiell](#), Deputy Director General, Partnerships for Delivery, mentioned the long-standing partnership between IITA and the British High Commission. "IITA would like to help with whatever can be done to strengthen the partnership, even with British private sector companies such as agricultural companies," he said.

Llewellyn-Jones affirmed that there is much that the British Government and IITA are doing together already. However, it was necessary to strengthen the already existing partnerships and identify future areas of collaboration. He mentioned that his responsibility is Economic Development, which includes climate change, supporting British businesses, representing the UK, and the South West of Nigeria. He sought to understand IITA's perspective on reforestation in Nigeria while looking into the impact of deforestation on climate change, as well as how CSA can increase production yield for farmers.

[Michael Abberton](#), Director of Research for Development in IITA-West Africa, shared ongoing activities and projects in the various IITA stations in West Africa, especially at the headquarters. He stated that IITA is working with partners and donors to upgrade facilities at the

institute. "IITA is interested in helping farmers know how research knowledge and products translate to increased yield on the farm. We are also working to increase employment opportunities in Africa," he added.

[Kayode Awobajo](#), Head of Project Development and Administration Unit, mentioned how IITA has received tremendous support from the UK government since 2004 and has collaborated with some UK organizations in accessing funds. "We are open to a further collaborative partnership with your team and hope this visit results in specific areas that we could work on together," he said.

Dashiell added that IITA is addressing climate change through CSA. While highlighting other challenges linked with climate change, he also stated that youth unemployment is another issue that interacts with climate change, and contributes to terrorism. "A key factor that can help reduce terrorism in Africa is providing massive employment opportunities through agriculture. Climate-smart technologies not only increase productivity but also give opportunities to youth," he explained.

Dashiell explained that IITA has forged and maintained a good relationship with the federal and state governments

and other private organizations. "In every state with an IITA station, we have a good rapport with the state government. IITA is proactive at taking opportunities to partner with the government on projects before commencement, which has helped its relationship with the government."

To affirm this, Abberton gave an example of IITA's response to COVID-19, helping farmers access planting materials despite the massive interruption to the agriculture process caused by COVID. Aside from agriculture, IITA works in partnership with the government and private organizations in providing technical expertise, he said.

Following the meeting, His Excellency, Llewellyn-Jones was taken on a tour of the Virology Laboratory, Food Science and Nutrition Laboratory, and the Genetic Resources Center.

During an interview, Llewellyn-Jones said that his visit to IITA was to meet the most professional scientific researchers working in the space, including female researchers. "It has been a fascinating visit and I am very impressed by the professionalism, reach, and planning that has been going into more partnership for the future," he said.



The Deputy High Commissioner visiting the Virology Laboratory (left) and touring the gene bank at the Genetic Resources Center. (right). Photos: IITA.

IITA was also among the main sponsors and played a key role in organizing the event, which provided a forum for stakeholders to discuss how to operationalize the strategy to commercialize and industrialize cassava in Tanzania.

During the event, the Agriculture Minister, Hon. Adolf Mkenda assured the stakeholders that the government is prepared to collaborate to develop a cassava value chain to improve smallholder farmers' livelihoods.

"We cannot meet the demand for cassava in China without farmers adopting good agronomic practices and improved varieties. Researchers are doing a good job in these efforts; without research, we cannot succeed in agriculture," the Hon. Minister said.

The minister identified the priority areas for cassava commercialization, including research on diseases, good agronomic practices, and improved varieties. He noted that developing seed systems with rapid multiplication technologies would enable farmers to access clean planting materials easily. He also emphasized that good extension services that incorporate advanced technologies, including digital extension tools, are needed.

IITA's team was led by the IITA Eastern Africa Regional Director, [Leena Tripathi](#),

who noted that cassava is one of IITA's priority crops, but that Tanzania has not fully maximized its potential.

"As the strategy is launched today, we look forward to working with the government and stakeholders to implement the strategy and promote cassava industrialization," said Tripathi.

She pointed out some of the technologies and initiatives available at IITA that can support the implementation of the strategy. "We recently started using the [Semi-Autotrophic Hydroponics \(SAH\)](#), a rapid multiplication technology for cassava seed in Tanzania. IITA has trained researchers from our partner, Tanzania Agricultural Research Institute (TARI), to apply the technology in their laboratories," added Tripathi.

IITA aims to increase agricultural productivity and farm income of smallholder cassava farmers through access to improved cassava seed varieties.

In the follow-up discussions, stakeholders noted the importance of collaboration of all stakeholders throughout the cassava value chain for crop sustainability and increased demand for cassava in the domestic and international markets.

Joel Emmanuel, a farmer from Karagwe, commended the existence of the cassava



Leena Tripathi, Hub Director for Eastern Africa region giving her remarks at the ceremony.

strategy. He said it will help create and expand the domestic market of cassava as the export market can still be challenging due to the country's policies and priorities.

During the event, stakeholders also exhibited technologies and products along the cassava value chain. The meeting was also attended virtually by Tanzania's ambassadors from Rwanda, Burundi, Uganda, and China, the main importers of Tanzania's cassava.

IITA played a big part in the publication of the National Cassava Strategy book, editing and printing 2000 copies. The strategy is a blueprint to guide cassava commercialization and industrialization in the country.

IITA partnered with the Ministry of Agriculture, Tanzania Agricultural Research Institute (TARI), Mennonite Economic Development Associates (MEDA), and Tanzania Official Seed Certification Institute (TOSCI) in organizing the event.

IITA projects that took part and supported the event included [Building an Economically Sustainable Cassava Seed Systems in Tanzania \(BEST Cassava\) project](#) led by MEDA; Technologies for [African Agricultural Transformation \(TAAT\) Cassava Compact](#) (Establishing Cassava as an Agro-Industrial Crop); IITA-led [African Cassava Agronomy Initiative \(ACAI\)](#); and the Cassava Virology group.



Former IITA agripreneur, Edwin Ndibalema, explaining to the Minister the cassava root waxing technology.

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Please send your story with photos and captions every Tuesday to iita-news@cgiar.org or Katherine Lopez (k.lopez@cgiar.org) and Uzoma Agha (u.gha@cgiar.org) for headquarters and Western Africa, Catherine Njuguna (c.njuguna@cgiar.org) for Eastern and Southern Africa, and David Ngome (d.ngome@cgiar.org) for Central Africa.



GRC expands facilities for cryobanking and conservation

On 19 May, [IITA](#) Genetic Resources Center (GRC) inaugurated its revamped, ultra-modern gene bank and office complex at the Institute's headquarters in Ibadan, Nigeria. The new building provides more workspace and facilities for cryobanking—the long-term conservation of crops such as cassava, maize, plantain and banana, cowpea, soybean, yam, and some of the important underutilized crops of Africa.

During the celebration, [Hilde Koper](#), IITA Deputy Director General for Corporate Services, hailed the building project as a huge milestone, achieved despite the COVID-19 pandemic. "IITA keeps moving forward and improving with inner energy like solar energy and modern office blocks, which is a good achievement," she said.

[Michael Abberton](#), Head of GRC, said the building's design is ecologically friendly with solar power to reduce electricity costs. "I hope this will attract people who have an interest in genetics, genetics resources, conservation

resources, and utilization for food security in Africa," he stated.

[Waheed Quader](#), Head of Facilities Management Services (FMS)—a principal facilitator of the project—shared his experience throughout the process. He explained how challenging it was to build the structure on an existing terrace. "Our main aim was to build a greener side of the structure as we are moving to more efficient building," he said.

Olaniyi Oyatomi, IITA Seed Bank Manager, explained that the building

project is in line with IITA's mission of putting the right facilities together towards fulfilling the goal of fighting hunger and poverty in Africa. He also highlighted the challenge for staff to utilize these facilities to move forward and make IITA genebank the best in CGIAR.

[Nteranya Sanginga](#), IITA Director General, congratulated Abberton, his team, and FMS on their success. He summarized his philosophy on the power of leadership in two major pillars: people and infrastructure. He stated that people are "built" first because it is the people who will build the infrastructure. "Once you have people with confidence, they start producing. Hence, they will need more equipment and space, which led to this expansion," he added.

Closing the celebration, Kofoworola Ajani, Research Technician, appreciated the DG for the opportunity given to the Unit for expansion and encouragement that contributed to the project's success.



Left: IITA DG Nteranya Sanginga commissioning the new GRC building. Right: Director IITA-West Africa and GRC Head, Michael Abberton gives DG Sanginga a tour of the new facilities. Photos: IITA.

Circular economy: The driving force for sustainable coffee production in DRC

As part of the Rural-urban nexus: Establishing a nutrient loop to improve city region food system resilience (RUNRES) Project, [IITA](#) and its partners embarked on a field mission to Bukavu residential areas. They visited households to create awareness about separating biodegradable from non-biodegradable waste and waste from coffee.



Insufficient access to organic fertilizer has hampered coffee yield in Kabare. Photo: IITA Bukavu.

This activity in the Democratic Republic of Congo was a step in the gradual assimilation of households and coffee growers into the circular economy model. The team highlighted the importance of separating biodegradable from non-biodegradable waste to guarantee cleanliness in Bukavu city and the sustainable production of coffee using organic fertilizers from biodegradable waste.

IITA has been promoting the circular economy philosophy of “Nothing can be lost, everything can be transformed” through the RUNRES project, working with local partners.

The circular economy, in this case, is to process the biodegradable waste from households, coffee and wastes from public toilets of the Katana market (currently under construction) to organic fertilizer for coffee production.

“The coffee dealers here in Kabare have a market that requires them to produce coffee with organic fertilizers. The yield of coffee does not exceed 600 kg per hectare due to insufficient organic fertilizer. The potential for coffee production can increase to 2 tons per hectare in South Kivu, especially in Kabare territory,” said Paul Mulemangabo, Head of the coffee department in INERA Mulungu in South-Kivu.

The local partners constitute a consortium including household waste collectors in Bukavu, biodegradable waste transformers, and cooperatives of coffee farmers to produce “organic fertilizer” to increase coffee production in South Kivu.

The waste dumps located near family homes and the Kivu Lake are dangerous to public health and cause water pollution. The RUNRES Project continues to improve the quality of life by fighting environmental contamination and encouraging wealth creation, in this case, the management of household waste and the sustainable production of organic fertilizer.

Addressing nutritional deficiencies using dried small fish

Fish, especially small fish, is an important animal food source among vulnerable populations and increases the nutritional quality of their diets. Dried small fish has been found to significantly enhance nutrient deficiencies in the diets of pregnant or lactating women and young children.

A recent [study](#) carried out by a group of researchers, including IITA's Senior Scientist and gender focal point, [Steven Cole](#), assessed the nutrient content of two locally developed fish-based recipes, fish powder and fish chutney, and calculated the contribution of calcium, zinc, iron, and docosahexaenoic acid (DHA) to the diets of pregnant and lactating women and children between 6 and 24 months.

The study found that processing small fish into powder achieved the optimum nutrient density of iron, zinc, and calcium for the diets of children between 6 and 11 months old, a stage when adequate nutrient intake is highly critical. Fish powder is primarily essential fatty acids; one serving contains 50 mg of omega-6 fatty acids and 121 mg of omega-3 fatty acids.

The diet of infants and young children can be improved by adding small

amounts of fish powder, which provides additional iron, zinc, calcium, and DHA to a meal. A single 10 g serving of fish powder provides 12% of the iron recommendation for infants 6–11 months and 19% for children 12–24 months.

Furthermore, micronutrient deficiencies (also known as ‘hidden hunger’) can be combatted by consuming small dried fish as part of a daily meal in the first critical 1000 days of life.

The study also showed that the diets of pregnant and lactating women could be improved by the addition of fish chutney, which provides calcium and some iron and zinc. The fish chutney contains 1.9 mg of iron, 2.2 mg of zinc, and 510 mg of calcium per 30 g serving. Fish chutney also boosts women’s calcium intake and provides almost 2 g of fat. Adequate nutrients help pregnant and lactating women increase their energy and support the development of a healthy fetus, and compensate for the increased demand for milk production.

In line with IITA's missions to enhance food security and reduce hidden hunger, small fish, which are culturally acceptable, can be considered as one

of the foods to eradicate malnutrition when designing programs in low- and middle-income countries for nutritionally vulnerable populations.



Top: Fish chutney with nsima (thick maize porridge), vegetables, and beans. Bottom: Fish powder provides additional iron, zinc, calcium, and DHA for infants and young children.

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