

Continuing to strengthen food systems in Africa

With the global food systems facing a major challenge with the outbreak of COVID-19, it has become imperative for countries to achieve a measure of self-sufficiency in their food production. [CGIAR-IITA](#) continues to work with governments in sub-Saharan Africa to facilitate this.

IITA R4D Director for Central Africa, [Bernard Vanlauwe](#), has spoken of multiple initiatives being discussed across all the Institute hubs. He noted that there are at least 50 ongoing conversations with governments,

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Recently planted cassava field.

Government of Zambia keen to support development of agricultural value chain

The Finance Minister of Zambia, Dr Bwalya Ng'andu, announced that the government is keen to support any initiative that targets the development of the agriculture value chain because of its substantial benefits to farmers and other players in the chain. The Minister said this during a courtesy call by IITA Director General [Nteranya Sanginga](#), in Lusaka, on 27 April.



Zambian Finance Minister Dr Bwalya Ng'andu (left) discussing development targets with DG Sanginga.

The Minister said that the Ministry would be happy to work with partners to harness the potential in the country's agricultural sector, which remains largely untapped. He noted that the economy of Zambia would receive a major boost from robust agricultural value chains and he welcomed the partnership with IITA to help achieve that.

In his remarks, Sanginga gave an overview of IITA's history and work in sub-Saharan Africa. He emphasized that the Institute's research-for-development (R4D) focuses on addressing the development needs of tropical countries.

He said the Institute had established a branch in Zambia to promote the production of high-yielding and healthy crops in the country. IITA works with partners to enhance crop quality and productivity, reduce producer and consumer risks, and generate wealth from agriculture, with the ultimate goals of reducing hunger, malnutrition, and poverty.

The DG spoke specifically of cassava because of the high return on investment and drought and disease resistance that the crop has. He said, "At IITA, we are dedicated to alleviating these problems and working to transform agriculture in Africa."

IITA's mission is to assure food security for some of the world's poorest people and provide them with viable strategies that create real, long-term results for economic development and community stability, while building an ecologically sound future that takes into account the issues of climate change.

Sanginga highlighted IITA's outlook for the future, including plans to out-scale the technologies developed in sub-Saharan Africa to the rest of the global tropics. "IITA sees a bright future for Africa. We see a continent that can become a world leader in agriculture and sustainability," he added.

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donors, and partners. If actualized, these will benefit the countries involved and, if only 30% of these come to fruition, IITA will be able to continue its work unhindered even through these trying times.

Vanlauwe said, "Almost every single organization that operates in Africa is now developing COVID-19 response strategies but which organization dealing with smallholder agriculture is better placed than IITA to move beyond talking and writing to putting responses into action?"

While adhering to safety and security guidelines, IITA has continued to engage in research activities in countries where this is still possible. Examples of accomplishments during this time include the planting of over 870 ha of secondary cassava multiplication gardens in Eastern Democratic Republic of Congo. "In Burundi, we have finished installing 2 specialized cassava flour (with flash dryer) processing units, 4 standard cassava flour processing units, 12 cassava collection centers, 2 banana flour and chip processing units, 5 vegetable collection/processing units,

3 fruit (pineapple, passion, tamarillo) processing units, 5 milk processing units, 3 milk buying points, 2 milk sales

points, and 13 standard nurseries with propagator and greenhouse," he added.



Installing a cassava processing unit.

Got a story to share?

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.



STEP trains five as Oyo commissioners of agriculture and education visit IITA

The CGIAR-IITA Start Them Early Program (STEP) has trained five students of Fasola Grammar School (FGS) on the use of machines for agricultural productivity. The training took place at FGS and coincided with the visit of Oyo State commissioners for agriculture and education.



Top: STEP representative showing the parts of a machine to trainees.

Bottom: A trainee reiterates what she has learnt as commissioners, teachers, and STEP representatives listen.

The global outbreak of COVID-19 has affected school and STEP activities due to the measures put in place by different countries to combat the pandemic. STEP extracurricular and club activities have been suspended for over a month, so this training served to refresh students' memories as well as partially cover the scheme of work that has been missed since schools shut down and to sustain interaction with the school.

The training featured a demonstration on the use of the machines, a teaching session on the importance and functions of machines, repair and maintenance practices, and hands-on sessions.

When schools are allowed to re-open and lessons resume, the students trained and their teachers can train other students and ensure the transfer of peer-to-peer knowledge.

The commissioners visited FGS to view the extent of STEP's activities there and were impressed to see newly constructed incubation facilities, which consist of the processing center for value addition, classrooms, changing room, store, computer laboratories, the renovated school hall, renovated blocks of classrooms (painting, roofing, and furnishing), and newly constructed toilets. The construction of ultra-modern laboratories is ongoing. Since the commissioners witnessed the training, they provided support for trainers by motivating the students.

The STEP team was careful to maintain strict sanitary and safety measures to avoid the risk of COVID-19 contamination during the training and the commissioners' visit by providing soap, water, sanitizer, disinfectant, gloves, and face masks. Everyone was asked to wash their hands upon arrival, maintain physical distancing, and wear face masks and gloves whenever they had to touch general surfaces. The trainees wore their safety kits throughout, and every surface was disinfected before and after the training.

Both commissioners have now declared their support for IITA-STEP to ensure that FGS becomes a model in agribusiness education for other schools not only in Oyo State but throughout Nigeria.

Combating food waste due to postharvest diseases

Food waste has become a scourge with the Food and Agriculture Organization (FAO) estimating that 45% (about 1.3 billion tons) of harvested fruits, vegetables, roots, and tubers are lost annually. These postharvest losses may involve a loss in quantity over time or quality losses of important nutrients, which may be due to contamination, such as from mycotoxins.



Up to 45% of crops are lost after harvest.

In sub-Saharan Africa, the estimated postharvest losses of fresh produce occur between production and retail sites due to certain socioeconomic factors including inadequate marketing

systems, inadequate transportation facilities, government regulations and legislation, lack of tools and equipment, lack of information, and inadequate maintenance facilities.

In a [blog commemorating the #StopFoodWasteDay](#), postdoctoral scientist Feyisara Eyiwumi Oni at Ghent University, Belgium, and a senior lecturer (adjunct) at the Unit of Environmental Sciences and Management of North-West University, South Africa, highlights the need to invest in reducing postharvest losses and waste, which she said will lead to an obvious increase in food availability and, by extension, improve food security. In addition, she said that reducing postharvest waste will avert the adverse health effects of consuming contaminated food, thereby improving food safety.

Oni also highlighted how reducing postharvest losses will enable the conservation of resources used in food production, such as land, fertilizers, pesticides, fuel, and water. Another advantage she mentioned was the increase in profitability for actors in the food value chain, including smallholder farmers and agribusinesses.

A major focus of her blog was the nature of postharvest deterioration and the causes, which include physiological changes, chemical injury, and pathological decay. She writes, "Postharvest diseases significantly reduce the shelf life of harvested fruits, vegetables, cereals, legumes, roots, and tubers in sub-Saharan Africa. For example, the fungus *Aspergillus* spp. affects grains such as maize and produce mycotoxins (aflatoxins), which pose health risks to humans and animals. Some *Fusarium* spp. which produce mycotoxins are also postharvest pathogens of cereals and root and tuber crops."

She gives the example of the IITA-developed [Aflasafe](#), a natural biocontrol agent, which controls aflatoxin produced by *Aspergillus flavus*.

Read Oni's full blog post titled "[Combating the enemy: Towards mitigating postharvest disease losses in sub-Saharan Africa](#)", on the IITA Blog.

Take responsibility! Stop the spread of COVID-19!

Wash your hands regularly with soap and water; practice physical and social distancing; wear face masks; avoid crowds and public places; keep a 2-meter distance from the next person; practice general sanitation and hygiene.