

## Top Tanzanian officials seek ONE-CGIAR collaboration on scaling research technologies

The Permanent Secretary (PS) at the Tanzania Prime Minister's Office (PMO), Ms Dorothy Mwaluko, has identified the scaling up of innovative technologies from research to farmers as a major challenge to the growth of the agriculture sector in the country and therefore a priority area of collaboration with ONE CGIAR. [to page 3](#)



The Permanent Secretary, Ms Dorothy Mwaluko (second right) with CGIAR delegation led by IITA-Eastern Africa Hub Director Victor Manyong (center).

## IITA celebrates World Environment Day

To celebrate this year's World Environment Day, the [CGIAR-IITA Forest Center](#), Corporate Services Directorate, and Communication Office organized a virtual event on 5 June as part of activities to create awareness and action for protecting the environment.



The theme for this year's event, which is celebrated annually, was "Time for Nature" to emphasize the importance of conserving the environment in keeping with the theme of International Biodiversity Day "Our solutions are in nature." The World Environment Day or Eco Day is also the [United Nations'](#) platform for promoting progress in the environmental dimensions of the Sustainable Development Goals.

In her opening talk, IITA Deputy Director-General Corporate Services, [Hilde Koper](#) said, "IITA is delighted to participate in this day of recognition as we are highly involved with nature and biodiversity. IITA's campus, known for its research in agriculture, is also known as a rich center of biodiversity and as the site of one of the few remaining forest reserves in Nigeria." She further emphasized the need for the Institute to do its best to preserve the unique and endangered species on campus.

IITA has 350 hectares dedicated to forest and wildlife conservation. [Birdlife International](#) has designated the IITA Forest Reserve as an Important Bird and Biodiversity Area (IBA) due to the presence of 67 unique

Guineo-Congolian bird species in the forest. It has also recorded over 450 plant species, 272 birds, 236 butterflies, 48 mammals, and 28 reptiles.

During the virtual event, Olasupo Olukunle, Forest Center Field Supervisor, emphasized the need to educate the younger generation on conserving the natural environment. "We need to take care of our heritage and conserve it to have something of worth to pass to the next generation," he said.

In pursuit of this, the IITA Forest Center coordinates the School Conservation Club (SCC), which the [US Embassy](#) in Lagos sponsors, with about 40 schools in the south-west. The club engages students in activities such as conservation education, collection of indigenous seeds and trees, bird monitoring, planting and gardening, and upscaling waste like plastics to store seed and plants.

Two students from the [IITA International School](#) and [Ibadan International School](#) who are members of the SCC, along with their teachers, joined the event virtually to share their experiences since they joined

the club and visited the IITA Forest and other conservation activities.

The IITA Forest Center continues its mandate through funding from donors and collaboration with partners, including the [Leventis Foundation](#); [Centre for Environment, Renewable Natural Resources Management, Research and Development](#); [Direct Aid Program of the Australian High Commission Abuja](#); [Stanley Smith Horticultural Trust](#); and the [Mohammed bin Zayed Species Conservation Fund](#).

Other conservation partners such as [Botanic Gardens Conservation International](#), [Butterfly Conservation Ghana](#), [IUCN Red List](#), and [Nigerian Conservation Foundation](#) play a major role in the Forest Center's work, ensuring that forest and environment conservation is promoted in Nigeria.

The Forest Center's bird-focused activities and research receive support from [A.P. Leventis Ornithological Research Institute](#), [BirdLife International](#), [Nigeria Bird Atlas Project](#), [World Migratory Bird Day](#), and [Spring Alive Project](#).



*The IITA Forest Center maintains a rigorous system of nature conservation in its parks and forest.*

## 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.

### Got a story to share?

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



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The PS noted that farmers in the country continue to use traditional farming practices, which are also not profitable. As a result, they remain poor, and the growth of the country's agriculture sector remains slow.

The PS said this while speaking to a delegation from [CGIAR-IITA](#) and the Alliance of Bioversity and CIAT (ABC). The team paid a courtesy call to present on ONE CGIAR and its activities in Tanzania, along with the successes and challenges.

The team also gave a presentation on how ONE CGIAR can assist the country in its efforts to address some of the challenges posed by COVID-19 to the country's agriculture sector and food and nutrition security.

IITA-Eastern Africa Hub Director [Victor Manyong](#) led the team, which comprised IITA's Head of Resource Mobilization and Uganda Country Representative, [Regina Kapinga](#) and the Regional Communication Officer for Eastern Africa, [Catherine Njuguna](#). ABC was represented by Mr Fadhili Kasubiti, a Seed Development Specialist based at Tanzania Agriculture Research Institute (TARI)-Selian, in Arusha.

The PS was assisted by the Head of Resource Mobilization of the country's Agriculture Sector Development Program (ASDP2), Mr Zakaria Muyengi. ASDP2 is the country's blueprint for

developing the agriculture sector, contributing to the country's overall economic development, and is based in the PM's Office.

The PS said more conversations were needed to explore further how her office and CGIAR centers can work together to contribute to the ASDP2, particularly in scaling of technologies from research.

For his part, Manyong thanked the PS for the opportunity to share on ONE CGIAR with its 15 centers, 10 of which are active in Tanzania with many ready-to-go technologies for scaling to smallholder farmers in the country.

### One CGIAR impact in Tanzania

Regina Kapinga made the presentation highlighting ONE CGIAR and the activities of the various centers in Tanzania. She said all CGIAR centers were keen to ensure they were aligned to government priorities in all the countries they were working.

She said ONE CGIAR contributes to five impact areas which are related to the United Nations' 2030 Sustainable Development Goals (SDGs). These are on poverty reduction, nutrition and food security, gender equality, climate adaptation, and environmental health. All these are priorities of the ASDP2.

She further explained that all CGIAR centers in Tanzania are hosted through

an MoU with TARI, the Tanzania Livestock Research Institute (TALIRI), the Tanzania Forestry Research Institute (TAFORI), or the relevant research body. They were now seeking collaboration with PMO which coordinates ASDP2.

Kapinga also highlighted some of the achievements of ONE CGIAR in Tanzania including the development and release of improved varieties of essential staple crops with new, positive traits such as vitamin A-rich orange maize, orange flesh sweet potato, drought-tolerant maize, and iron-rich beans. Others are the development of the Tanzania livestock masterplan, the commercialization of the beans value chain, fertilizer trees, development and scaling of Atlasafe technology to keep foods safe from the poisonous aflatoxin, the Tanzania youth agripreneur program for youth job creation, and various policy studies.

### Way forward

As a follow-up, the party agreed to have further meetings. The CGIAR delegation also met the whole ASDP2 team led by its national coordinator Dr Salim Nandone.

Manyong also invited the PS and the ASDP2 team to the IITA offices in Dar es Salaam, Tanzania, to continue the discussions and to meet other CGIAR centers hosted at IITA, including CIP, ICRISAT, ILRI, IRRI, and ICRAF. The PS accepted the invitation.

## Middlemen play a vital role in strengthening Ugandan coffee value chain, study finds

In many countries in Africa, middlemen are often perceived as the "bad guys" out to exploit and defraud farmers. However, a study by IITA found that on the contrary, middlemen play an important part in the Ugandan coffee value chain. It further recommends the exploration of opportunities to include middlemen as active contributors in building a strong Ugandan coffee value chain.

In Uganda, coffee farmers can choose between formal markets, which are producer organizations like cooperatives or farmer groups, or informal markets, which include independent intermediaries, commonly known as middlemen. If a farmer is a member of a producer organization, selling to middlemen is seen as "side-selling", a behavior perceived to threaten the economic viability of the producer organization.



Wodada Wilberforce from IITA interviewing farmers for a survey.

To understand the role of side-selling and middlemen in Uganda's coffee sector, IITA undertook a study to analyze the socioeconomic and institutional factors driving farmers' choice of marketing channels. The study was conducted in five districts of Buikwe, Luuka, Masaka, Mityana, and Mubende through participatory household and stakeholder surveys, interviews, and a validation workshop in 2019. Results are based on the 2017/2018 season.

The study found that 55% of farmers sold their coffee to intermediaries for various reasons including, the middlemen offer to buy at farm gate which reduces transport costs for the farmer; middlemen usually do not have high demands on coffee quality as opposed to producer organizations; and they offer instant cash payments and often buy different coffee forms, such as red cherries which is an attractive option for

poor farmers who cannot or do not want to invest time and money in processing.

The findings of the study were shared at a forum that brought together members of the National Coffee Platform—a public-private sector platform that brings together key government and private sector stakeholders to dialogue and share lessons on strengthening Uganda's sustainable coffee production.

The forum participants agreed that middlemen have diverse marketing niches allowing them to buy all forms of coffee at different prices. Middlemen also have more access to market information, and in some cases, were found to give farmers better prices. Their services can also complement what producers offer farmers, and their ability to buy larger quantities makes them the major suppliers to private companies.

The findings and policy recommendations from the study have been summarized in a policy brief: IITA, 2019. Middlemen: Threat or opportunity for the Ugandan coffee value chain? Policy brief, Kampala, Uganda.

The findings will support efforts by the government and all other actors in the National Coffee public-private partnership (PPP) Platform in making evidence-based decisions and policies to develop Uganda's coffee sector.

The study was funded by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH (German Development Agency). It was conducted by Theresa Liebig, an IITA consultant and Juliana Ewert, an MSc student from Georg-August-Universität supported by the IITA-CSA Coffee program in Uganda.

## Scientists recommend additional herbicides for weed control in cassava farming

Cassava is the second most-consumed staple food after maize in sub-Saharan Africa, feeding more than [300](#) million people. Nigeria is the world's biggest producer of cassava at 59 million tons per year.

However, this food security crop that can tolerate prolonged droughts is yet to attain its yield potential. Smallholder farmers in Africa harvest 8–12 t/ha of cassava against a potential yield of 25 t/ha. Weeds are the leading cause of this poor yield.

The most damaging effects of weeds on cassava occur during two periods: the first 2-3 weeks after planting when the growth rate is still low, and in the third month after planting as the roots start forming. The recommended weeding schedule for cassava is at 4, 8, and 12 weeks after planting in the first growth phase. However, most farmers do not weed their fields on time, given the costly and backbreaking nature of hand-hoe weeding, on which the majority of African farmers depend. Delayed weeding leads to reduced yields since weeds compete with cassava for nutrients. Given the difficulties of using hand-held hoes, several farmers in Nigeria are resorting to herbicides for weed control.

The most common preemergence herbicides used in Nigeria by cassava farmers are formulations containing atrazine, diuron, and S-metolachlor. These herbicides need to be applied

at high doses if they are to be effective, which makes them quite expensive for smallholder farmers. It is, therefore, essential to provide farmers with an efficient and affordable weed management system to enhance cassava yields.

A study was carried out by [IITA](#) researchers to identify safe and environment-friendly preemergence herbicide options for weed control in cassava production in Nigeria. The results are published in a paper titled: [Screening pre-emergence herbicides for weed control in cassava](#). Authors [Friday Ekeleme](#), [Alfred Dixon](#), [Godwin Atser](#), and [Stephen Hauser](#) identified several preemergence herbicides (Fierce 75 WG,

Merlin 75 WG, Bullet 700 SC, Gardoprim Plus Gold 500 SC, and Lagon 575 SC). These herbicides have excellent efficacy against broadleaf weeds and grasses for up to 8 weeks after planting cassava when combined with good agronomic practices.

"These treatments plus one postweed control at 10 weeks after planting resulted in root yields that more than doubled the national average in Nigeria," they reported. The preemergence herbicide applications alone, at rates safe for cassava, did not provide adequate season-long weed control. Therefore, the researchers recommend one supplemental postweed control to supplement the herbicides.



Many farmers still rely on labor-intensive methods of weeding, leading to poor yield.