

IITA launches STEP at planning workshop

A 3-day planning workshop for the Start Them Early Program (STEP) was held at [IITA Headquarters, Ibadan](#), on 10-12 September. IITA Director General [Nteranya Sanginga](#) formally launched STEP at the workshop and country representatives made plans for the program's operations in the next year.

STEP currently operates in the Democratic Republic of Congo (DRC), Kenya, and Nigeria. The program has the vision of transforming African agriculture through partnerships with secondary schools. This initiative aims to change the mindset of young Africans from seeing agriculture as undesirable to realizing it as a viable source of income.

Jemimah Njuki, Senior Program Specialist in Canada's [International Development Research Center \(IDRC\)](#), said in her keynote address, "We see a huge potential to make agriculture work for young people. This is the first time we have done something like this and we hope that the vision is achieved." Njuki

also commended IITA for being committed to providing solutions to agricultural problems.

STEP aims to build the next generation of agribusiness leaders in Africa. The training in agribusiness will be merged with the school curriculum in participating schools and turn this into a model for other schools to adopt.

Sanginga highlighted the mission of STEP and the commitment of IITA's partners to the program. He spoke of the program's prospects, saying "When next there is an evaluation, you will see all the changes that have been made. STEP will grow to become an institution on its own."

Sofar, STEP has reached over 800 students in DRC where 33 pupil-initiated agribusinesses are thriving. Some are involved in rabbit farming, guinea pig breeding, poultry keeping, and vegetable production. School Managers are also involved in agricultural production, especially poultry and rabbit rearing to improve school incomes and pupils' practical knowledge.

STEP focuses on helping young people to explore the various opportunities across the agricultural value chains. Participants at the workshop agreed that agriculture needs the involvement of young people who are "innovative and tech savvy" to achieve an economically stable and food secure future. In the same way, young people need agriculture to meet their personal goals and to sustain the family.

At the end, Sanginga advised all country representatives to be creative, hardworking, and strict with timelines, to achieve the goal of the program.



A group photo of participants at the workshop.

Scientists show which genetic loci are associated with bunch weight in highland banana

Scientists have, for the first time, located major quantitative trait loci associated with bunch weight and its component traits in Matooke, the East African Highland cooking banana. This is an important breakthrough in efforts to speed up breeding of improved high-yielding varieties for both food security and improved household incomes in the region.

Increasing banana bunch weight is a major objective in banana improvement since it determines yield. Scientists previously did not know much about the genetic factors regulating it.

Scientists, therefore, sought to understand the genetics underlying bunch weight and its component traits in banana. The

components of bunch weight include several traits such as number of hands and fruits, fruit length and circumference, and the diameter of both fruit and pulp.

Through a genome-wide association study (GWAS), researchers found that chromosome 3 was most associated with bunch weight in banana. This breakthrough has been published in a paper entitled “Association genetics of bunch weight and its component traits in East African Highland Banana” in the journal [Theoretical and Applied Genetics](#).

The team studied a population of 307 genotypes of East African Highland banana in the breeding program of [IITA](#) under three different environmental conditions.

Scientists showed which genetic loci are associated with bunch weight in highland banana. “The findings of the study will facilitate marker-assisted breeding which allows breeders to save time and money by identifying early in the breeding cycle hybrids with poor fruit-filling characteristics and hence low bunch weight,” said [Rony Swennen](#), Head of IITA’s Banana Breeding Program and corresponding author of the paper.

Cooking banana is an important food and income crop for over 80 million people in the East African Great Lakes countries of Burundi, DRC, Kenya, Rwanda, Tanzania, and Uganda.

A team of researchers at IITA in Tanzania and Uganda carried out the study in collaboration with researchers from the Department of Plant Breeding, [Swedish University of Agricultural Sciences](#); Institute of Experimental Botany, [Centre of the Region Haná for Biotechnological and Agricultural Research](#) from Czech Republic; and Laboratory of Tropical Crop Improvement, Division of Crop Biotechnics, [Katholieke Universiteit Leuven](#), Belgium.

It was supported with funding from the Bill & Melinda Gates Foundation and European Regional Development Fund (ERDF) project, “Plants as a tool for sustainable global development” and contributions from the [CGIAR Research Program on Roots, Tubers and Bananas](#) (RTB).



The East African Highland cooking banana.

Events

- **Africa RISING Internally Commissioned External Review Team visit to project sites** in northern Ghana, 15–21 September
- **Youth in Agribusiness Sensitization and Launch Workshop** - IITA Station, Republic of Benin, 19 September
- **Launch, Start Them Early Program (STEP)**, IITA, Kalambo, Democratic Republic of Congo, 21 September
- **Africa RISING Internally Commissioned External Review Team visit to project sites** in southern Mali, 22–28 September
- **Subnational climate-smart agriculture action planning: lessons from Kenya and Tanzania (Webinar)** 1 October, 2019 3pm (SAST). For more details: <https://www.iita.org/news-and-events/>
- **Commissioning of Pres. Olusegun Obasanjo Research Campus**, IITA, Kalambo, Democratic Republic of Congo, 8 October
- **Board Meeting and R4D Week**, IITA headquarters, 18-22 November



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IITA joins push for gender-responsive climate change action in Tanzania

[IITA](#) in Tanzania, alongside other actors in the field of climate change, organized a session for members of Tanzanian Women Parliamentary Group (TWPG) to create awareness about the importance of gender responsive policies, plans, and strategies for climate change adaptation and mitigation. The parties, under the umbrella of the [Tanzania Climate Smart Agriculture Alliance](#) (TCSAA), organized the seminar on 4–5 September as part of efforts to address the disparate impacts of climate change on women.

Women are disproportionately vulnerable to the effects of natural disasters and climate change when their rights and socioeconomic status are not equal to those of men. [The World Bank](#) estimates that the gender productivity gap in Africa is \$105 million in Tanzania, \$100 million in Malawi, and \$67 million in Uganda. The Bank of America notes that achieving women's equality could boost global GDP by up to 31%.

The seminar, among others, enhanced the knowledge of MPs on the critical role gender plays in implementing climate change action to facilitate the formulation and implementation of gender sensitive policies, plans, and strategies at national and sub-national levels. It also created a platform to kick-start the process of the revision of the Tanzania's Gender and Climate Change Action Plan.

The [CGIAR Research Program on Climate Change, Agriculture and Food Security](#) (CCAFS) provided financial support for organizing the meeting. Other partners included the Ministry of Health, Community Development, Gender, Elders and Children; [Ministry of Agriculture](#); the TCSAA; Agricultural Non-State Actors Forum (ANSAF); [CARE International](#) (Tanzania Office); Forum on Climate Change (ForumCC), and IITA. IITA participated in the event as part of its Building Capacity for Resilient Food Security project in Tanzania led by [Catherine Njuguna](#), IITA-EA Hub Communication Officer.

The Deputy Speaker, Hon. Dr Tulia Ackson (MP), officially opened the meeting, which took place in Dodoma City, the national capital of Tanzania. Ackson highlighted the key role women play in agriculture and the challenges they face in the advent of climate change.



Hon. Dr Tulia Ackson (MP) while giving opening remarks.

“We are dealing with the issues of climate change every day in our constituencies. The rains are not coming on time. The farmers spend money on seeds and work on their farms but they get nothing by the end of the day. Women who take care of their families have the worst struggle. They work the most on the farms,” she noted.

Her remarks were reiterated by Hon. Margaret Sitta (MP) the Chair of the TWPG, who also chaired the meeting. Hon. Sitta thanked the organizers of the event and requested them to reach out to all Members of Parliament to increase their awareness on climate change. “We thank the organizers of this event for imparting to us this knowledge which will help us to know how to advise the Government on issues of climate change.”

By the end of the meeting, the group agreed to identify gender and climate change champions to advocate for the

mainstreaming of gender and climate change into national and district development planning and budgeting. The champions will strengthen engagement with the MPs, relevant ministries, departments and agencies, District Executive Councils, CSOs, and other actors at different levels in the design and implementation of Climate Change Actions.

Climate change is currently the greatest challenge facing humanity across the world. The impacts of climate change in Tanzania include among others: higher temperatures, increase in frequency and magnitude of droughts and floods as well as rising sea levels. Current climate variability and change resulting in extreme weather events have already caused major economic losses in Tanzania, estimated at US\$200 million per year for the agricultural sector alone.

The organizers of the meeting will work with the TWPG Chair and selected champions to ensure the decisions from the event are carried forward to support the country's effort in addressing climate change.

TCSAA is a platform that brings together a broad group of actors including the private sector, farmer organizations, international NGOs, academic and research organizations, faith based groups, and the media. Other partners include youth organizations, women groups, civil society, and individuals. Together they speak with one voice, build public and political will, and advocate for policy support in the fight against climate change in Tanzania.



It was a full house for the session on gender and climate change for Tanzania Women Parliamentary Group.

Biodiversity focus:

IITA Forest Center monitors bird populations with mist nets

The [IITA](#) Forest Reserve is one of 27 sites designated as Important Bird and Biodiversity Areas (IBAs) in Nigeria. The 350-ha forest qualifies as an IBA because it holds 67 bird species that are restricted to the Guinea-Congo Forest Biome, and the entire IITA-Ibadan Campus, which consists of other habitat types, is a haven for birds as over 270 different species have so far been documented in the area. Apart from the ecosystem services these birds render, they also enhance ecotourism in the area—the campus remains one of the hotspots for bird watching in Nigeria.

With funding support from the [A.G. Leventis Foundation](#) and the [Nigerian Conservation Foundation](#), the [IITA Forest Center](#) uses different census techniques, including line transect, point count, and mist-netting, to monitor these birds quarterly. The aim is to understand their populations and other life history parameters. Although each of these techniques is unique, mist-netting is exceptionally interesting, especially for nonprofessionals, as they would have the opportunity of holding the birds in their hands for better appreciation of their beautiful feathers. The third mist-netting session for 2019 took place 10-12 September between 6a m and 11 am, during which 41 birds, distributed across 10 species, were mist-netted.

Mainly conducted by experts, mist-netting is a technique used to capture wild birds for ringing or banding. The mist-nets, made of nylon or polyester

mesh, are suspended between light-weight poles. When properly set up, the nets are virtually invisible to birds. As the birds are familiar with these routes, they enter the nets unknowingly and get trapped in the baggy pockets until they are carefully removed by an expert.

Explaining the process, Ornithologist and IITA Forest Center Manager Adewale Awoyemi said, “The safety of these birds is very important. We want to extract the birds from the nets, collect data, and release them back into the wild as healthy as possible. Therefore, if a bird starts struggling, we let it go.” Ideally, birds are checked for removal from the nets at 30-minute intervals. The nets are in various sizes, length, height, and mesh, depending on the specific bird species targeted for the survey.

After extraction from the nets, they take the birds to the ringing station for identification, ringing, and data



Mist-nets are normally set up along existing trails to minimize disturbance.

collection. With the help of field guides, the birds are identified to species level, after which a metal ring, containing coded identification numbers, is gently fitted on the tarsus with the aid of a special plier. The rings are in different sizes and are used, based on the size of the bird trapped.

Other morphometric data, such as wing, bill, head, and tarsus length, mass, breeding evidence (brood patch), age, moulting, and samples (blood, feather, and cloacal swabs), are also collected. This information, if collected systematically over a long period of time, can be used to unravel some aspects of bird ecology, physiology, behavior, and population structure.



*Red-cheeked Wattle-eye *Platysteyra blissetti* is an uncommon bird species in the IITA Forest Reserve, Ibadan. Photo by A. Awoyemi, IITA.*



Field guides aid bird identification during ringing. Photo by A. Ajayi, IITA.



Different equipment such as meter rule and Vernier Calliper are used to take morphometric data after ringing. Photo by A. Ajayi, IITA.