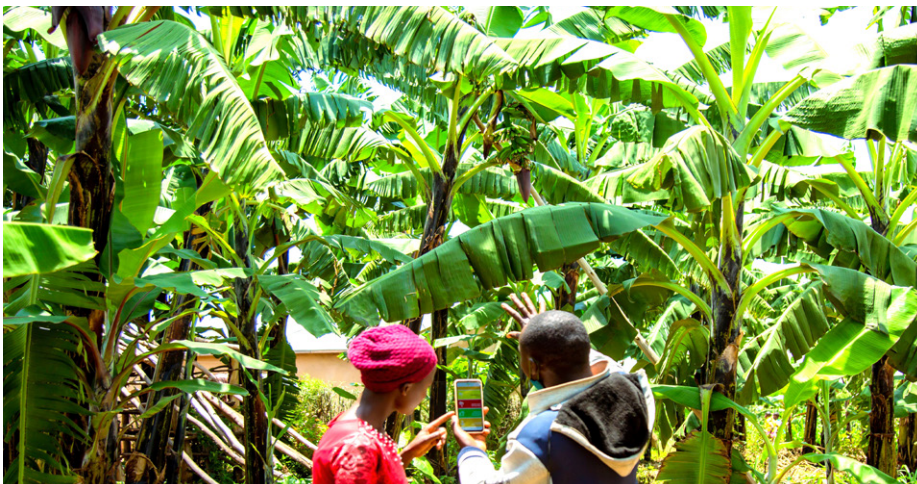


IITA's research intervention transforming Rwandan agriculture

[IITA-CGIAR](#) in [Rwanda](#) generates innovations that contribute to agriculture technology through its work on improving crop varieties and strengthening the seed system of the country.

In conjunction with other national partners in Rwanda, IITA-CGIAR has developed and released six improved cassava varieties that are resistant to two viral diseases—Cassava Brown Streak Disease (CBSD) and Cassava Mosaic Disease (CMD). The Institute has also facilitated the establishment of cassava clean seed systems to support the Rwanda Agriculture and Animal Resources Development Board (RAB).

In collaboration with private seed businesses, quality cassava seeds are increasingly becoming accessible and available to cassava farmers in the country. The partnership with RAB has also contributed to the review of the cassava seed standards and quality regulations. [to page 3](#)



Farmer-promoter diagnosing diseases on a farm with the BXW App developed by IITA.

Muhogo Bora project validates socially inclusive model for selecting cassava seed entrepreneurs in Tanzania

The [Muhogo Bora \(MB\) project](#) brought together 28 regional and local government authorities comprising Regional Agricultural Advisors (RAAs); District Agricultural, Irrigation and Cooperative Officers (DAICOs); Regional Community Development Officers (RCDOs); and District Community Development Officers (DCDO) at a workshop held on 16 August at Nazareth social hall in Tabora Region, Tanzania.



Stakeholders in the Muhogo Bora project come together in a workshop.

The workshop's goal was to share with the government officials the modified socially inclusive model for recruitment of cassava seed entrepreneurs (CSEs) for discussion and feedback and to pilot the model with farmers to determine its feasibility for the selection of CSEs for cohort II (2022 recruitment). This was important for ownership of the model as key stakeholders in the cassava value chain, whose influence would enable the selection of the right farmers, thus contributing to the project's outcome of enhancing the participation of rural women, youth, and other marginalized farmers from geographically underserved regions as CSEs.

In his remarks, the RAA of Tabora, Modest Kajjage, emphasized the

importance of improved cassava seeds and requested that workshop attendees get the right CSEs. He noted that if farmers produced more cassava, the market would be available, and food security would have been improved.

"I believe everyone understands the importance of cassava as a commercialized crop like other crops. Through this workshop, I anticipate that we will look at weaknesses that emerged during the implementation of the BEST cassava project model, which had low inclusion of youth and women in seed entrepreneurship to create a friendly environment to improve their livelihood," he said.

Millicent Liani (IITA Gender Postdoctoral Fellow) shared insights

on gender concerns in CSE work based on lessons from the [BEST Cassava gender study](#). After that, she presented the modified CSE selection criteria highlighting the need to focus on specific personal attributes of potential CSEs, such as those who are hardworking, interested in CSE work, and trusted by the community.

Participants were divided into three regional groups to provide recommendations to improve the model, which they presented at the plenary. The MB team also shared insights on improved varieties, the process of seed multiplication, schemes of cassava seed systems in Tanzania, and the use of digital agronomic tools.

In an interview, the RAA of Kigoma, Joseph Rubuye, noted that these efforts would enhance employment opportunities for many youths and increase family incomes for women engaged in agricultural practices. "I hope that the training offered by Muhogo Bora and TOSCI to cassava seed growers will assist them in recognizing agriculture as a business," he remarked.

In his remarks, the Centre Director of TARI-Tumbi in Tabora, Dr Emmanuel Mrema, observed: "Empowering and promoting youth and women is one of the project goals to reduce poverty. Women play a vital role in farm-related activities such as managing farms, and spending more time during postharvest activities, thus contributing more to rural economic development."

On 17 and 18 August, the Muhogo Bora team visited the Kigwa Ward in Uyui District, Tabora Region. They met with ward committee leaders and smallholder farmers to create awareness about the project, improved cassava varieties, and the plans for the second recruitment of CSEs and piloting of the model. During the meeting, many attendees were very enthusiastic about the seed business.

"I am really pleased with the Muhogo Bora project, and I'm eager to become a CSE if I get the chance. I hope that even my fellow villagers will accept this positively since it is a good thing that can benefit all of us," said Johari Saidi, a 27-year-old farmer from Kigwa Ward.

Contributed by Hadi Rashid and Millicent Liani



Top: Workshop participants engaged in a group exercise. Photo: IITA/H. Rashid.

Bottom: Farmers and Kigwa ward committee members during the meeting. Photo: IITA/H. Rashid.

The development of the ICT-based tool, [BXW App](#), has helped smallholder banana farmers get early warnings of the Banana Xanthomonas wilt (BXW) disease; they are in a better position to take timely action to control the disease.

The App also provides advisory services to farmers, helping them address the far-reaching consequences of the bacterial disease for individual farmers and Rwanda's collective food and nutritional security.

With over 7,800 farmers registered on the App, and more than 378,700 farmers with access to banana agronomy and BXW management information, this cutting-edge tool is being integrated into Rwanda's public extension system.



The development of a mobile digital [system](#) by IITA-CGIAR's researchers gives Rwandans access to information on diet quality. The system has been deployed to about 400,000 Rwandans and provides relevant, scalable, and transferable intelligence to increase understanding of the regional and seasonal dynamics of diet quality across Rwanda.

This system also serves as a compass for policymakers in the health and agricultural sectors in formulating improved policies and interventions.

In the area of biocircular economy, IITA-CGIAR is leveraging private sector partnerships to assess the value of organic waste in Rwanda. This focuses on four primary areas—organic waste composting, breeding Black Soldier Fly (BSF) larvae, small-scale cassava peel processing, and treating human waste. The partnership converts these resources into value-added products for sustainable development.

IITA-CGIAR contributes immensely to transforming and strengthening Rwanda's agricultural sector through institutional innovations, policy engagement, capacity development, and partnerships. *Contributed by Timilehin Osunde and Tolulope Akinola*



Top: The High Quality Cassava Peel (HQCP) mash is a research innovation being increasingly adopted in Rwanda. Bottom: Students and interns taking part in IITA's capacity development programs.

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).



Take responsibility! Stop the spread of COVID-19!

Always clean your hands; practice physical and social distancing; wear face masks properly; avoid crowds and public places; keep a 2-meter distance from the next person; and practice general sanitation and hygiene.

IITA scientists train WFP Kano third-party warehouse managers on grain management best practices

[IITA-CGIAR](#) and the World Food Program (WFP), Kano, conducted grain management and hermetic storage training for WFP Kano third-party warehouse managers. The workshop took place on 29 and 30 August and aimed to build the participants' capacity to manage food commodities effectively, preserve food quality and value, minimize damage and food waste, and safeguard the health and well-being of consumers.

WFP and E-health staff were trained on the grain management chain and grain sampling for physical assessment. They also learned how to safely store and protect their grain using PICs bags, applying chemicals where necessary, and sampling each bag to check for damage before dispatch. They also learned standard cleaning techniques of grains and levels of pest attack and control in the store, and the different pests that attack grains in storage.

IITA Host Plant Resistance Entomologist [Abou Togola](#), Food Safety Scientist [Titilayo Falade](#), and Research Associate Ishaya Jockson anchored the training. The workshop participants underwent training on commodity safety and human health, and focusing on store and environmental hygiene. They also learned to identify safe grains for consumption.

Food safety is vital, and food quality control ensures that consumers eat safe food. Quality control can be achieved by identifying, eliminating sources, and rectifying any defects in food commodities during the supply chain. Togola's presentation highlighted the common problems with warehouse food storage such as impurities, incorrect temperature, improper sanitation, insects, molds, rodents, lizards, water, and high humidity. He added that to achieve excellent preservation of grains, grain cleaning and drying, packaging, and good storage conditions are very important.

Applying good management standard procedures during the entire cycle of commodity storage gives complete protection and avoids quantitative and qualitative losses. Thus, the immediate actors (store holders) need to be trained in managing commodities during storage in a sustainable way. This includes suitable identification of commodity deterioration factors and a good knowledge of the rules and principles of commodity management from receipt until delivery to the consumers.

The main topics covered were:

- Grain sampling for physical assessment and mycotoxin assessment
- Grain management while in storage
- Identification of cleaning levels for grains
- Pest management
- Physical grain assessment practice, sampling method, and use of PICs bags.

Contributed by Sarah Sallau and Ado Rabo



Top: Research Associate Ishaya Jockson demonstrating grain storage with PICs bags.
Center: Food Safety Scientist Dr Titilayo Falade presenting to WFP and E-health staff.
Bottom: IITA Host Plant Resistance Entomologist Dr Abou Togola highlighting pest management best practices.

PICAGL-supported NABANA cassava variety was the star at Luhwindja agricultural fair

The [IITA-CGIAR](#) Projet Intégré des Grand Lacs (PICAGL) participated in the agricultural fair organized from 29 to 31 August in Luhwindja, Mwenga territory in South Kivu, by the Agro Pastoral Cooperative for the Self-Promotion of Women at the Base [*la Coopérative Agro Pastorale à l'Autopromotion de la Femme à la base (CAPAFB)*].



Top: Fair participants examining NABANA cassava roots and stem cuttings.

Bottom: IITA partnership officer (South-Kivu), Francine Nsindabagoma, represented IITA at the fair.

The fair, themed “Promotion and sale of improved products and seeds”, aimed to popularize agricultural activities, technologies, and practices on a large scale.

The improved cassava variety NABANA, provided to farmers within the PICAGL framework, thanks to World Bank’s financing through the DRC government, was the focal showcase of the fair by producer associations of Luhwindja. The exhibition also included value-added products derived from NABANA by the IITA Youth team.

The farmers from Luhwindja, through CAPAFB, have benefited from 30 thousand meters of cassava cuttings that can cover 12 to 15 hectares of field.

NABANA, developed with the National Institute for Agronomic Studies and Research (INERA), has been certified and included in the national catalog of seeds. It is a variety tolerant to diseases such as cassava brown streak and mosaic as well as pests. NABANA also has a high yield potential, with sensory characteristics highly appreciated for its leaves and roots. This variety contributes to the increase of agricultural production in a very fertile soil (25 tons per hectare), better than the old varieties cultivated by agricultural households. *Contributed*

by Michèle Kimpwene

Tanzanian high school students request agricultural training

“The only person who is educated is the one who has learned how to learn and change.” This quote from Carl R. Rogers gives meaning to the request presented to [IITA-CGIAR](#) by Kibaha Boys High School students during the farmers’ field day held recently in Kibaha.

The students requested to be taught about cassava production following proper agronomy practices and digital tools like AKILIMO. They made this request after visiting the IITA booth to learn about the Institute’s activities and technologies during the field day organized annually by the Tanzania Research Institute (TARI) at Kibaha center. The objective was to bring together agricultural stakeholders, including farmers, extension officers, researchers, and other stakeholders, to share knowledge and expertise related to agricultural activities.

Isack Selemani, a 21-year-old advanced-level student, said that the practical learning of cassava production through AKILIMO is the most convenient method of learning since it provides ready information once they graduate and would enable them to apply the knowledge in their

home fields to produce high-quality cassava and contribute to increasing food security. “I wish this could be taught in schools. In a short time, we have learned a lot, including the right time for planting and harvesting cassava,” Selemani said.

“Knowledge about AKILIMO should be provided not just to farmers, but also the students, because our parents are also farmers. This makes it easier for us to pass this knowledge on,” Selemani added.

Moreover, another 20-year-old advanced-level student, William Geoffrey, praised the African Cassava Agronomy Initiative (ACAI) for the research that it has conducted to make this technology suitable and accessible to cassava growers. He stressed the importance of disseminating this knowledge to more farmers and

students in villages and schools. “Is it possible to come to our school and teach us about weeding?” William asked.

“We would be grateful if you could include us in your training schedules because we also study agriculture at our school. One day, I want to be the best cassava farmer in Tanzania and make a lot of money from this crop,” William added.

AKILIMO, a training package on good agronomic practices, offers a suite of tools and materials, both paper-based and digital, for cassava growers, extension workers, and organizations that promote improved cassava cultivation practices. It was developed under the ACAI project.

ACAI was a 5-year Bill & Melinda Gates Foundation-funded project in five African countries (DRC, Ghana, Kenya, Nigeria, and Tanzania) to increase the availability of appropriate and affordable technologies to sustainably improve short and long-term agricultural productivity in cassava in the target countries. *Contributed by Hadi Rashid.*



ACAI Agronomist Ali Ng'adoa (right) providing insights about the AKILIMO technology to students. Photo: IITA/H. Rashid.