

CGIAR spells out priority interventions to accelerate research uptake and strengthen Africa's agriculture

CGIAR participated in the African Green Revolution Forum (AGRF) 2021 themed: Pathways to recovery and resilient food systems through a side event organized by Africa-based CGIAR centers led by [IITA](#). The side event, held on 6 September, had the theme "Science and Innovation for Sustainable and Resilient Food Systems in Africa."

The session introduced One CGIAR and its Africa research, innovation priorities, and commitments; and outlined and proposed priority actions, and steps for One CGIAR to accelerate progress towards inclusive agricultural transformation in Africa.

During the session, [Claudia Sadoff](#), CGIAR Managing Director, Research Delivery and Impact, delivered the keynote talk and spoke on how CGIAR serves as an accelerator for inclusive agricultural transformation in Africa.

Sadoff said: "One CGIAR will prioritize five impact areas over the coming decades to help Africa unlock progress to sustainable development goals including forest, nutrition, health, and food security; poverty reduction, livelihood and jobs; gender equality, youth and social inclusion; climate adaptation and mitigation; and environmental health and biodiversity." She explained that these impact areas would be delivered through dynamic partnerships with diverse actors to scale out knowledge, technologies, and innovations generated from over 50 years of research.

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CGIAR Managing Director, Research Delivery and Impact, Dr Claudia Sadoff.



IITA Director General Dr Nteranya Sanginga.



IITA Deputy Director General Dr Kenton Dashiell.



AfricaRice Director General Dr Harold Roy-Macauley.

IITA collaborates with Dutch government to enhance sustainable insect production

On 15 September, the Business Incubation Platform (BIP) of IITA hosted the official launch of the "Insects4Feed Impact Cluster" project at the Institute's Conference Center. The Government of The Netherlands awarded the project to Nigeria, and IITA BIP is one of the implementing partners together with the University of Ibadan (UI), New Generation for Nutrition (NGN), among others. The project seeks to raise insect entrepreneurs in Nigeria that will provide needed alternative protein sources and feed for fish and poultry.



Abel Neering highlights the strong collaboration between the governments of the Netherlands and Nigeria.



The stakeholders celebrating the launch of the Insects4feed impact cluster project.

IITA-BIP CEO [Frederick Schreurs](#) said that the project is a step forward for BIP. He explained that BIP creates businesses by incubating innovations and technologies and collaborating with private organizations for a sustainable market and to ensure job creation. He further explained that the project would create sustainable jobs for Africa, especially for the youth.

Representing the acting UI Vice-Chancellor Prof. Adebola Ekanola, Deputy Vice-Chancellor Administration Prof. Kayode Adebowale said that any innovative action to make food available is appreciated. He explained that the problem of climate change had been linked to the accumulation of greenhouse gases from several sources, including livestock that are the conventional source of protein for humans.

He expressed his excitement and said that the stakeholders had found an ingenious way to provide protein sources through the insect called black soldier fly (BSF). He emphasized the willingness of UI to support the project and its objectives. He explained the benefits of growing BSF, which can be used as a substitute in any animal feed and reduce the cost of fish and poultry feed due to its rapid multiplication.

NGN CEO [Marian Peters](#) spoke about the opportunities around insects, noting that the COVID-19 pandemic resulted in more consumption of local foods. She said that BSF production in Nigeria would require good climatic conditions for local production to thrive. BSF would provide good nutritional quality for feed as a replacement for fish meal or any other animal protein.

A member of the UI Crop Protection and Environmental Biology Faculty, [Adebayo Omoloye](#), highlighted the

role of insects in the circular economy. The high demand for animal-based protein has negatively impacted the ecosystem, making it necessary to look for viable and sustainable protein alternatives. He said insects are a valid substitute in human and animal nutrition for protein. Their treatment and management as a good food source have a low environmental impact and efficient food conservation ability.

Speaking on the business aspect, he introduced the term "entomopreneurship", which means insect farming presenting an opportunity for youth and gender empowerment. He further explained that sustainable circularity is a step above the recycling system, the linear and circular economy. It can also be used as fuel for domestic and industrial purposes.

Representing Honorable Muiwa Ojekunle, Commissioner of Agriculture and Rural Development of Oyo State, Alhaja Bola Oloko, Permanent Secretary, Ministry of Agriculture, appreciated the organizers of the program, especially IITA in promoting agriculture. The Insects4Feed Impact Cluster is another program that the State has adopted, which will bring about a positive result in agriculture. "The government is ready to make everything possible for the success of agriculture in Oyo State," she said.

Abel Neering, Dutch Vice-Consul, Economic Affairs, said that The Netherlands and Nigeria governments signed a memo of understanding to strengthen trade and economic development collaboration. This partnership is one concrete project that intensifies the cooperation and is an excellent example of the "Diamond approach" to collaboration between government and the private sector.



Marian Peters highlighting the opportunities of insects around the equator.

"I'm very happy to open the official Insects4Feed Impact Cluster, and I am convinced it is going to be a heritage," he said.

IITA Deputy Director General for Partnerships and Delivery, [Kenton Dashiell](#), commended UI for its partnership with IITA and its research. He highlighted the importance of the partnership to convert waste into wealth and make it a renewable technology. "The government will be a key driver to the success of this project," he stated.

Linda Agbotah, Project Lead-Insects4Feed NGN, explained the partnership with UI, which carried out the baseline studies and IITA-BIP to incubate the new entrepreneurs around the insect value chain. "This will be scaled up by an industry in Nigeria to build a market around it, and it will be replicated by other countries," she added.

Discussing the next steps, "There is going to be an opening at the insects training center at UI. Also, a demo farm and business incubation will be established under IITA-BIP with the first cohort of trainees expected in 2022," she said.

Cies Roskam, Founder of ProEnto, explained the life stages of BSF and business scales associated with it. They include small-scale BSF production, which produces up to 28 tons per year, medium-scale BSF production of up to 28 to 600 tons per year, and large-scale BSF production above 600 tons per year.

John Amole, Project Lead-NGN Nigeria, appreciated all the implementing partners and participants for making the launch a reality.

The impact would deliver diverse, healthy, safe, sufficient, and affordable diets, improved livelihoods, and greater social equality within planetary and regional environmental boundaries.

Peter Ballantyne, Consultant, Communications and Knowledge Management, and Cynthia Mugo, Policy and Stakeholder Engagement Advisor, International Livestock Research Institute (ILRI), moderated the session. The three CGIAR regional directors—Aly Abousabaa, Director General of ICARDA, [Harold Roy-Macauley](#), Director General of AfricaRice, and [Nteranya Sanginga](#), IITA Director General—set the context for CGIAR's work in Africa and discussed how CGIAR will help accelerate inclusive agricultural transformation in Africa.

DG Sanginga highlighted that youth unemployment and politics are the major challenges affecting agriculture in the West and Central African region. "CGIAR is focusing on development and deployment of climate-resilient and nutritious crop varieties and animal breeds; establishing seed systems and institutional arrangements to improve farmers' access to improved varieties and investing in digital advisories and early warning systems related to weather, plant health, and markets, among others."

"CGIAR will invest in technologies for improved agroprocessing and increased food safety as well as investing in the circular bioeconomy," he stated.

He added that livestock feeds had become an important area of research in IITA; therefore, poultry and fishery are becoming attractive to the youth. He said that "delivery" and "impact" are the value propositions CGIAR is promoting.

Abousabaa spelled out the needs and priorities in Central and West Asia, and North Africa (CWANA), including water scarcity. He said CGIAR would provide solutions to these challenges focusing on diversifying food systems, improving dryland biodiversity and genetic resources, and supporting the sustainable and equitable intensification of farming systems to increase the profitability of local and regional value chains.

"We will focus on promoting the wide-scale adoption of our technologies by digitalizing research to address climate, drought, and heat risks. We will also stress sustainable water and landscape management and promote sustainable energy," he said. His value proposition to One CGIAR is to partner with National Agricultural Systems (NAS) to bring global solutions to address local problems.

Roy-Macauley said East and Southern Africa is the climate hotspot with increased frequency and severity of floods and droughts, leading to disease and pest outbreaks that have jeopardized business and supply chains and undermined livelihoods. "CGIAR will align its research and development agenda to the region's needs and priorities and focus on forming collaborative partnerships to deliver climate information services and climate-smart sustainable intensification technologies," he emphasized.

Furthermore, "we will work with a range of diverse partners to scale, across the region, climate-smart technologies and practices; strengthen the capacity of value chain actors, and work with policymakers to develop and enact appropriate policies to facilitate the process," he added.

All regional directors stressed the importance of addressing youth unemployment and gender empowerment. CGIAR will prioritize developing employment and entrepreneurship models for youth and women, including providing business support and technical assistance. Providing science-based evidence to support policymakers and institutional innovations was another cross-cutting issue.

Part of the side event was a panel discussion that engaged various stakeholders involved in the agricultural transformation process. They provided feedback and helped identify priority research actions for CGIAR that will create more sustainable and resilient food systems in the face of climate change and make recommendations on how CGIAR can better work with various actors.

One of the speakers, Martin Fregene, Director of Agriculture and Agro-Industry, [African Development Bank \(AfDB\)](#), stressed the importance of research and innovations to address current challenges facing the continent concerning climate change and COVID-19.

"There can be no progress without innovation; therefore, research and development are fundamental. At AfDB, we work very closely with CGIAR to scale out the best technologies and solutions generated by science and research," he said.

[Emma Naluyima](#), a veterinarian and smallholder farmer in Uganda and [Africa Food Prize](#) 2019 Laureate, welcomed CGIAR's new way of working and delivering, with most farmers integrating their farming; keeping livestock and growing crops.

"In the past, we had to consult each CGIAR Center individually, but if they all work as one, they will be able to address better the challenges we face as farmers," she said. "We will also like to see increased efforts to ensure that innovations and technologies from research reach farmers."

Wrapping up the session, [Juan-Lucas Restrepo](#), Global Director of Partnerships and Advocacy at CGIAR and Director General, [Alliance of Bioversity International and the International Center for Tropical Agriculture \(CIAT\)](#), stressed the importance of collaborating with CGIAR traditional partners, National Agriculture Research and Extension Systems (NARES), and national governments, to create innovations that are demand-driven and adapted to the local context.

CGIAR priority interventions include better alignment to the needs and priorities of African countries; demand-driven partnerships in using digital tools to disseminate and scale-out research knowledge and technologies to increase agriculture production while taking care of the environment; providing science-based evidence for decision making to increase farmers' resilience to climate change; and addressing youth unemployment.

Two other side events involved IITA: The African Union and European Union-organized session—"AU-EU game changer for resilient food systems" facilitated by [Kwesi Atta-Krah](#), Director, Advocacy and Country Alignment Function; and another session organized by TAAT (Technologies for African Agricultural Transformation) called "Technology brokerage for a resilient food system in Africa."

In the TAAT side event [Kenton Dashiell](#), IITA Deputy Director General, Partnerships for Delivery, said that organizations and people who have in-depth knowledge about technologies could help solve problems on food systems in Africa or those that need the technologies and innovation to solve agricultural problems. The side event described how TAAT provides the brokerage and processes in effectively transferring technologies in Africa. Speakers also included Innoent Musabyimana, Head of the TAAT Clearing House, among others.

AGRF serves as the world's premier forum for advancing Africa's agricultural agenda to achieve the vision and goals laid out in the AU Malabo Declaration, the Sustainable Development Goals (SDGs), and Africa's Agenda 2063.

Using CSI technologies for food security and rural livelihoods

Agriculture is one of Africa's most important economic activities, providing employment opportunities and contributing to the average GDP for exported produce. Moreover, African agriculture generates income and enhances food production to meet rapidly growing population demands.



Top: Increased adoption of CSI technologies has resulted in increased crop yield and income. Bottom: CIALCA aimed to reduce poverty among smallholder farmers through increased farm productivity, household income, and improved nutrition.

IITA, in partnership with two other CGIAR centers, the International Center for Tropical Agriculture (CIAT) and Bioversity International, had been implementing the Consortium for Improving Agriculture-based

Livelihoods in Central Africa (CIALCA). CIALCA aimed to reduce poverty among smallholder farmers through increased farm productivity, household income, and improved nutrition.

For the project, IITA focused on developing and disseminating Cropping System Intensification (CSI) and improving market access for banana-based farming systems. Bioversity International introduced and disseminated new banana cultivars that led to the selection of best-performing cultivars that were later multiplied and disseminated to smallholder banana producers. CIAT focused on developing and distributing stress-tolerant and biofortified crop varieties for the market, which could be adapted to the local conditions of the project areas.

A [study](#) was carried out by a group of scientists, including [Paul M. Dontsoy Nguetzet](#), IITA Project Coordinator and Impact Economist in the Great Lakes region, including Burundi, Eastern DR Congo, and Rwanda. The study assessed the poverty reduction impacts of CSI technologies introduced into the region through the project.

The research revealed an increase in the adoption rate of CSI technologies which resulted in increased crop yield and crop income. This increase led to reduced poverty in the region and an increase in the consumption rate. Overall, Eastern DR Congo experienced the highest reduction in poverty of about 13%, followed by Rwanda (6%) and Burundi (2%). This contributed to removing nearly 200,000 households out of poverty in the region.

One of IITA's missions is to overcome poverty and increase food security by partnering with other research organizations to facilitate agricultural solutions; CSI technologies have been adopted to improve rural household welfare and reduce poverty through policy intervention. Subsequently, research organizations need to reach out to non-adopters to embrace the technologies to enhance livelihoods.

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.



Response plan against viral pandemics and other cassava diseases in DRC to be operationalized

Last August, [IITA](#) in partnership with INERA, the Yangambi Faculty of Agricultural Sciences Institute, the WAVE program, Food and Agriculture Organization, with the financial support of the Bill & Melinda Gates Foundation, USAID, and the Foreign Commonwealth & Development Office (FCDO) organized an advocacy workshop on operationalizing the national cassava disease response plan in DRC.

The workshop aimed to come up with and implement a coordinated operational tool to deal with the alarming cassava situation in DRC in an emergency. The following recommendations emerged from this workshop: (1) Establishing various structures for operationalizing this plan, (2) Strengthening the capacity and empowerment of facilitators for ownership and sustainability of actions; and (3) Making available effective communication channels addressing the targets.

The national response plan promotes the establishment of an Emergency

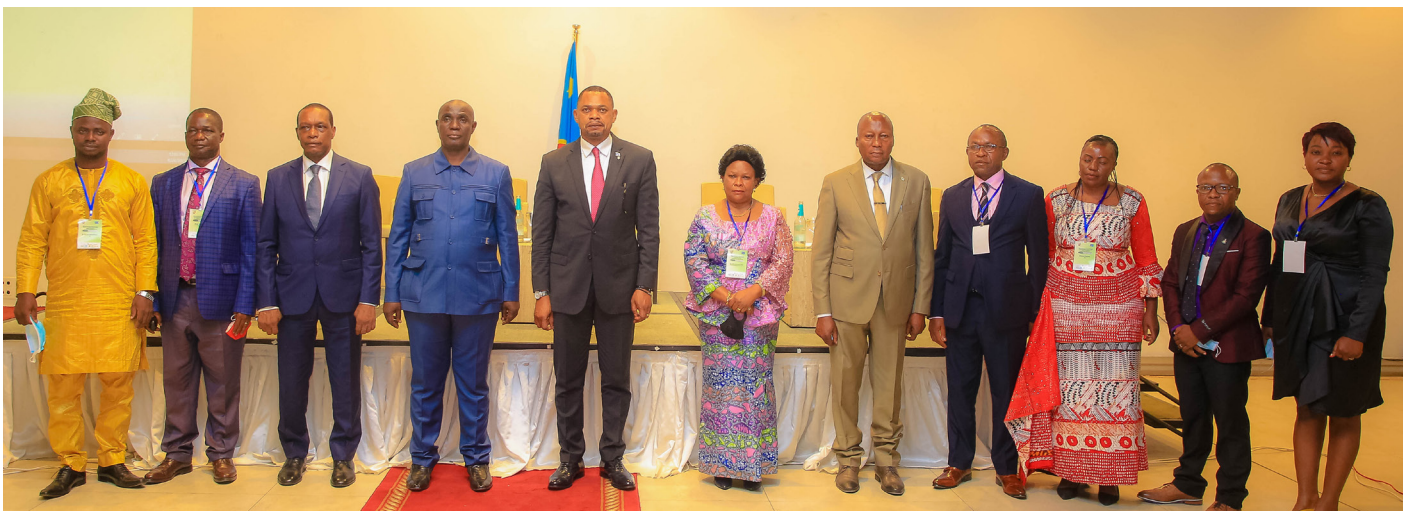
Operations Center (EOC/COU) that the Ministry of Agriculture will endorse. Its mission is to:

- Prevent and respond to epidemic risks of cassava viral diseases.
- Coordinate cassava viral disease control interventions.
- Plan any rapid intervention in the event of an epidemic of cassava mosaic disease (CMD), cassava brown streak disease (CBSD), and cassava root necrosis disease (CRND) [*maladie des necroses racinaires du manioc (MNRM)*], including the mobilization of human, financial, and material resources.
- Implement activities pertaining to prevention, mitigation, detection, monitoring, and evaluation before, during, and after the epidemic.
- Ensure data collection, consolidation, and analysis.
- Exchange information on cassava viral diseases and their control, prevention, phytosanitary measures, and results obtained.
- Harmonize the views of all EOC stakeholders.

The COU will be under the management of the Ministry of Agriculture under phytosanitary regulations in DRC, and in accordance with the law on fundamental principles of agriculture requiring “The State, in consultation with the provinces and agricultural professionals, defines and implements the policy of surveillance and crop protection.”

At the regional and international levels, the COU is respectively in line with the prescriptions of the African Union’s strategic crop protection frameworks and the International Plant Protection Convention (IPPC).

The COU will be supervised by a steering committee set up by ministerial decree. The committee comprises IITA, WAVE, the Plant Protection Directorate (DPV), FAO, INERA, the Faculty of Agronomic Sciences of the University of Kinshasa, and the Plant Clinic of Kinshasa (CPK). IITA will be responsible for surveillance and diagnosis and communication (mobilization, awareness, and dissemination).



L-R: CBSD Project manager Dr Mouritala Sikirou, INERA DG Prof Armand Mbuya, IITA DRC Country Rep Bamba Zoumana, Minister of Agriculture Excellency M’zinga Birihanze, Minister of Scientific Research and Technological Innovations Excellency Mpanda Kabangu, Provincial Agriculture Minister of Lualaba Province Excellency Louise Ilunga Mweleshi, Agriculture General Secretary Evariste Bushabu, WAVE Project DRC Country Rep Prof Monde, Director of Plants Clinic of Kinshasa Prof Lyna Mukwa, CBSD Project Postdoc Fellow Dr Clerisse Casinga, Agriculture Uvira District Officer Mrs Esther Basimika.

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.