

## FMARD - Nigeria: IITA holds critical position in Nigeria's agricultural sector

Mr Richard-Mark Mbaram, the Technical Adviser on Knowledge Management and Communication to Nigeria's Minister of Agriculture and Rural Development, Honorable Mohammed Sabo Nanono, has highlighted [IITA's](#) role in the nation's agricultural sector. He spoke on this during a visit to the Institute on 18 December 2020.

According to Mbaram, the visit aimed to explore opportunities to encourage the country's youth to engage in productive and profitable agricultural enterprises. In his words: "Young people, by their nature, are capable of generating the economic energy needed to recalibrate the Nigerian economy."



Mbaram with IYA members at the board meeting discussing purpose of visit.

IITA Deputy Director General, Partnerships for Delivery, [Kenton Dashiell](#), received the Ministerial aide and a team of [IITA Youth Agripreneurs](#) (IYA). Mbaram watched a presentation highlighting IITA's innovative contributions to agriculture, particularly the IYA program, which aims to improve Africans' quality of life by creating employment. A significant highlight of the visit was a tour of the IITA campus, including the hatchery, TAAT Aquaculture Compact demonstration site, the fishpond, and cage culture.

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## IITA focuses on integrated digital tools for accelerating agricultural transformation in sub-Saharan Africa



Communicator explaining the use of a digital tool to a farmer.

[IITA](#) has been at the forefront of using information and communication technologies (ICTs) for research management and knowledge sharing, including extension, scaling out, e-learning, collaboration, and agricultural services enhancement.

Recently, ICTs have emerged as frontline tools for transforming agricultural systems in sub-Saharan Africa. Governments, developmental organizations, and the donor community are increasingly depending on ICTs to unleash the potential of rural

economies and bridge agricultural value chains for enhanced profitability.

According to [Alfred Dixon](#), Director, Development and Delivery, "IITA believes that sharing and delivery of knowledge and products for adoption by intended end-users using digital platforms are critical to achieving research and development outcomes." Dixon, along with [Lava Kumar](#), leads the Working Group on Digital Delivery in IITA.

He further pointed out that the use of ICTs to facilitate awareness creation, promote behavioral change among knowledge users, e.g., farmers or processors, and facilitate the adoption of technologies could contribute to the success of delivery efforts.

IITA has used ICTs for precision agriculture, digitalization of the research process, knowledge sharing, and service delivery through tailor-made digital tools, data repositories, and web platforms. Many of these developments emanated from

various R4D projects and were designed to fit the project purpose with scope for broader applications.

Two workshops held in late 2019 brought together IITA teams and collaborators to showcase various apps developed in IITA. They also introduced IITA-developed digital tools to extension workers, media, and collaborators working in the same digital space and agricultural solutions or topics. The workshops improved coordination and developed complementarity between and among ICT tool applications and users in the Institute. This led to practitioners establishing a working group that would develop the beginnings of a strategy on digital delivery and knowledge sharing for IITA.

Kumar said, "These workshops emphasized the need to integrate and coordinate such efforts as it provides IITA the leverage to showcase its expertise and experiences in this field, among several other benefits."

A Working Group on Digital Delivery was thus formed to improve the coordination, collaboration, and communication among the various developers of ICTs currently in use for research, development, and delivery at IITA. This is expected to enhance synergy between the ICT applications, reduce redundancy, and expand the reach of digital delivery of solutions to farmers and end-users for increased impact.

In 2020, the Working Group undertook a survey to determine the available digital tools and the talent involved in the in-house development of such tools. This baseline survey on ICTs and mobile apps revealed the use of over 50 ICT applications developed in-house.

The Working Group also came up with a strategy document that outlined several elements to enhance delivery and knowledge sharing. The story highlighting IITA's efforts in this area can be found on this link [2019 Annual Report](#).

## IITA holds critical position in Nigeria's agricultural sector

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While there are so many ways young people can be economically engaged, Mbaram stated that the Minister is pushing for a revitalization of Nigeria's agro-industrial competencies, with its attendant benefit of job creation. He noted that the African Development Bank (AfDB) is supporting this objective through the \$500 million Special Agro-Industrial Processing Zones (SAPZ) Program.

The IITA DDG noted that "Youth have the fundamental background that gives them the capacity to learn quickly, to be ingenious, and come up with ideas."

He added: "For the past nine years, we have had a major program with youth in agribusiness. A lot of mistakes have been made, successes celebrated, and we will continue to learn. But it all began with helping youth have a mindset change about agriculture, which was very negative. This was changed after they were exposed to modern agriculture as a business and not the traditional labor-intensive methods that rely on the use of hoes and cutlasses." Dashiell further indicated the willingness of the Institute to understand the vision of the Honorable Minister and to be part of his delivery team.

For Mbaram, the Federal Ministry of Agriculture and Rural Development's (FMARD) emphasis on the SAPZ program hinges on the immense economic growth potentials present in the agricultural sector. "When this is combined with the promise of qualitative job creation, one can see that the Honorable Minister intends to deploy it as a means to address the youth unemployment



*Mbaram on a tour of the hatchery.*

challenge." Speaking further, the Technical Adviser pointed out that the current high levels of postharvest losses experienced in the agriculture sector are alarming, with a total loss rate of 50–60% at different stages from harvest to consumption. "As a team, we believe industrialization is key to addressing this. Increased industrial off-take of farmers' harvest will surely reduce postharvest losses and guarantee good returns for our primary producers," Mbaram stated.

He also revealed the plan to roll out the SAPZ program in the early part of 2021 in different locations representing Nigeria's geo-economic zones. He added that the various zones would become hotbeds for job creation and agribusiness incubation for young people once the Program begins.

Also contributing, IYA representatives Adedayo Adefioye, Oluyemi Adunoye, Bolanle Larinde, and Idowu Osun, fully supported the SAPZ plan confirming that agribusinesses would be very successful in the supportive environment contemplated by the SAPZ and that the IITA Youth in Agribusiness programs would like to partner with the Ministry in the Program's implementation.

In his closing remarks, Dashiell said: "You have really motivated us to work even harder for the Nigerian youth in 2021. We appreciate your words of encouragement and advice and the goodwill message from the Honorable Minister, which reflects our shared ideologies in transforming agriculture in Nigeria. This is very encouraging for us."

# Adoption of gender-responsive approaches towards research on pest and disease management

[Studies](#) have shown that adopting a gender perspective while conducting agronomic research and extension work provides more efficient approaches to managing pests and diseases at the field level. This is because women and men farmers often play different roles in agricultural production. Women possess different knowledge levels about pests and diseases and are differently involved in their management practices. They also often have more limited resources to be able to execute these practices.



Uganda women potato farmers, explaining how they scout for pest. Photo credit: Sarah Mayanja/CIP

Despite these differences, research and training on pest and disease management often target “farmers”, neglecting the specific needs of women and men as well as the power relationships within households and communities. There is a need to address this neglect because providing gender-appropriate support to women and men farmers increases the adoption of appropriate crop protection technologies and practices, reduces farmers’ exposure to pesticides, and improves environmental quality.

[A synthesis of research cases](#) in Asia and sub-Saharan Africa provided specific insights into how a gender perspective can enhance agronomy research and extension practices. The research cases and synthesis

were done by a team of researchers, including [Béla Teeken](#) of [IITA](#)’s Cassava Breeding Unit and Social Science Group. The synthesis was led by [Nozomi Kawarazuka](#), Social and Nutrition Sciences Division, [International Potato Center](#) (CIP). The focus was on Roots, Tubers and Bananas (RTB), which are important crops for poor people in the global south. The control of pests and diseases has increasingly become important for these crops in reducing losses and improving productivity in the face of climate change, and improving the quality of crops for the commercial market.

Several control measures are available to address these concerns. However, to facilitate their adoption, it is

critical to explore farmers’ practices, perceptions, and experiences from a gender perspective.

The research cases showed that in countries like Burundi, Rwanda, and Uganda, pesticides are frequently used to control major insect pests in potato farming systems. Yet women are usually not among the extension workers that are trained on the safe use of pesticides despite their prominent role in potato farming.

In the East African highlands, banana production is primarily controlled by men, and extension services have often targeted men. This has proven to be challenging for many banana producing households since many men have migrated to mines and urban centers, while women have remained behind to manage banana production.

During fieldwork on sweet potato plots in Ethiopia and Ghana, the researchers realized that men and women use different languages and have different views on pests. Hence, they adopt different control methods, which are in line with their gender roles. Men are mainly in charge of plowing and practice early planting to prevent infestation, while women hunt and kill pests in the field as they are responsible for routine management. In Ethiopia, mainly women farmers failed to regularly implement agreed practices, such as spraying their fields due to a lack of financial resources to purchase fungicides. This usually led to sanctions and monetary fines for these women farmers, who did not have much access to financial resources like men.

Considering the future threat of the cassava brown streak disease in Nigeria, it will also be crucial for breeders to consider important food product quality traits in developing disease-resistant varieties. This is because processing and marketing of these products is mainly done by women as they are important sources of income for women and food security for households. [Fieldwork](#) in Nigeria led by [IITA](#) showed that more often than men, women mention the need for cassava varieties as they are well suitable for food products.

These findings suggest that clear attention should be given to the different roles and positions of men and women within the farming of RTB crops. Women and men should be given targeted training on management measures, the safe use of pesticides, and other agrochemicals considering their different gendered tasks, so that they can avoid pesticide poisoning while contributing

to effective crop management. Extension workers should include more women and train both men and women on good agronomic practices for crop production. Importantly, the team concluded that understanding both genders' knowledge of pests, and their control methods based on years of practical experience, is important in addressing their concerns and providing appropriate practices.

The team calls for gender-responsive participatory research and participatory approaches in extension work. "Agricultural research and extension should include a gender perspective, with a clear eye for the possible different opportunities, working conditions, tasks, knowledge, and skills of men and women as a result of gender norms," Teeken said.

## New publication tackles how best to support smallholder farmers

Burleigh Dodds Science Publishing are delighted to announce the publication of their new title – [The sustainable intensification of smallholder farming systems](#).

This title provides a comprehensive review of recent research on effective support measures to improve the livelihoods of smallholder farmers in sub-Saharan Africa. It features detailed discussions on improving access to critical resources, such as seeds, tools, and expertise for soil health improvement and integrated pest management (IPM) programs.

Dr Dominik Klauser and Dr Mike Robinson of Syngenta Foundation for Sustainable Agriculture, Switzerland edited the book, which features an [impressive chapter](#) on improving integrated soil fertility management written by [IITA](#) scientist [Bernard Vanlauwe](#).

The book, which features contributions from over 30 international experts, will be a key reference for governments

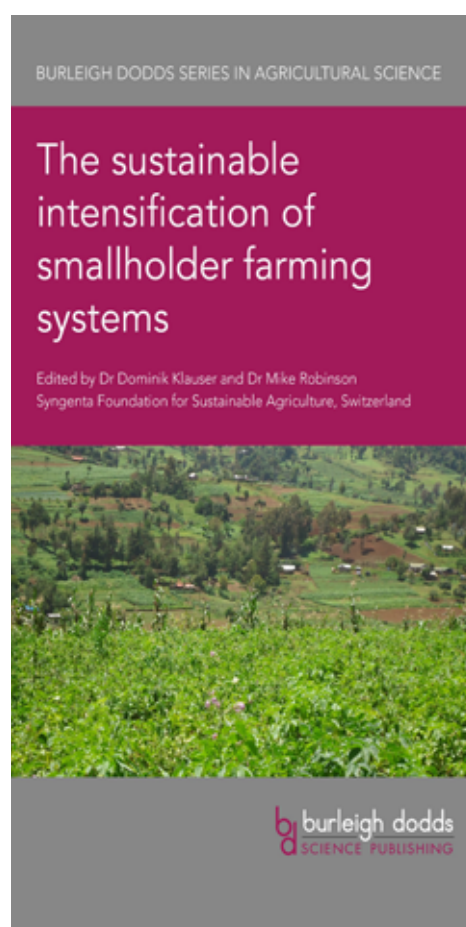
and NGOs involved in development programs focusing on smallholders, particularly in sub-Saharan Africa.

**Mark Huisenga**, Senior Program Manager, USAID-US Government Bureau of Food Security, USA, says about the book:

"It is fabulous to see that these distinguished experts on the intensification of smallholder farming systems bring together their years of knowledge and experience into a volume that will be accessible to all. Many strands of agricultural development expertise that are often disconnected from each other are brought together in these pages, including some of the latest evidence and approaches that can yield direct benefits to smallholder farmers."

### \*SPECIAL OFFER\*

Benefit from 20% off the book if purchased via the [Burleigh Dodds website](#). Enter code IITA20 at checkout to receive this discount. Discount expires on 4 February 2021.



## 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.agha@cgiar.org](mailto:u.agha@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.



## 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.