

## External evaluation commends IITA's efforts in transforming agriculture

In a bid to position [IITA](#) strategically for the future, the IITA Board of Trustees commissioned an institute-wide external evaluation as part of efforts to achieve the goal of transforming African agriculture. The Center-Commissioned External Review (CCER) is part of a long-term plan to provide the Institute and its collaborators with indicators of areas to be explored in the next 10 years. The CCER paid special attention to innovation delivery for impact and aimed to provide IITA with an independent and rigorous assessment of institutional health, and its contribution in Africa.



The CCER comes at a time of global urgency for transformational action on sustainable food production, accelerated by population growth, environmental degradation, and climate change. The result from this review will further strengthen IITA's vision to transform Africa's agricultural landscape progressively and feed millions across the Continent.

Africa faces extreme conditions from population proliferation, rapid urbanization, and youth unemployment. Without increased efforts, achieving the [UN SDG 2](#) target of eradicating hunger, achieving food security and improved nutrition, and promoting sustainable agriculture by 2030 will be unattainable. Hence, the imperative nature of the CCER.

*The leadership of DG Nteranya Sanginga has positioned IITA as a product delivery gateway for agricultural innovations.*

Using the current strategic 2012–2020 framework of IITA, the five-member team that carried out the review exercise focused primarily on appraisal of a bold new idea for IITA to expand its exciting but

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## "STEP" identifies school for training in agribusiness

Fasola Grammar School (FGS) in Oyo, Oyo State, has been identified as a training center for the Start Them Early Program (STEP). The program, which is designed with the objective of erasing the bad perception about agriculture among secondary school students, aims to raise a generation of young leaders with education in agribusiness.

IITA Director General, [Dr. Nteranya Sanginga](#), visited FGS with representatives from STEP, the Communication Unit, and Facility Management Services (FMS) on 2 August. "The intention is to change the mindset of young people about agriculture; from being a punishment to



*IITA DG Sanginga addressing the IITA team after the inspection of the building site.*

a business venture from which they can make a living,” DG Sanginga said.

An abandoned building that was established for introducing technology about 30 years ago has been set apart for this initiative.

According to Jimoh Adedeji, a security guard of the school who has lived in Fasola Community for over 50 years, “The building was constructed about three decades ago as a workshop. Shortly after construction, it was abandoned and became dilapidated. After some years, a new principal was transferred to the school; he renovated the building and it was back in use. However, this was short-lived because the building was again deserted a short while after the Principal left.”

Principal officers of FGS have agreed that the abandoned building be renovated and transformed into a center for agribusiness education. “We appreciate IITA as an international body that cares about food security. Every reasonable mind ought to cooperate with IITA because the institute has the capacity and the best hands for the job. We are also happy to become IITA family members,” said M.A. Okunlola, FGS Vice Principal.

Proposed training activities for the center include food processing including baking, juice making, and cassava processing as well as information and communication technology (ICT). The center will also have provision for a library.

The piece of land in front of the school will be used as a demonstration site for agribusiness. The STEP center would be solar-powered because there is no public electricity supply in the community.

STEP currently carries out its activities in DR Congo, Kenya, and Nigeria. The training in agribusiness will merge with the school curriculum. This initiative seeks to transform FGS into a model for other schools to include agribusiness in their curriculum.

The school was selected because of its proximity to the government-owned Fasola Farms. The farm workers have agreed to provide their expertise once the STEP center opens. Along with the students, the entire Fosala community will have the opportunity to learn agribusiness.



*Aerial view of the proposed site for the STEP Center at Fasola Grammar School, Oyo State.*

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emerging work on delivery facilitation and associated capacity development of a diverse set of beneficiaries. This is so IITA can strategically become the gateway for more coherent delivery action plans and implementation across Africa and among partners, especially CGIAR centers.

The review report has been described as a document with a lot of learning points for IITA that will aid the planning of how the Institute is positioned for the future by [Dr Kwesi Atta-Krah](#), Director for Advocacy and Country Alignment Function (ACAF).

The report assessed IITA's progress on delivering its planned research and delivery for impact goals, and recommended for the CGIAR to encourage IITA to move forward in forming alliances for delivery that will develop action plans to be implemented

among key partners in agriculture. This according to the report will benefit and empower stakeholders to deliver demanded outcomes with far greater efficiencies.

In implementing the strategic 2012–2020 framework across hubs in Africa, IITA Director General, [Dr Nteranya Sanginga](#), has created a system wherein IITA takes on projects that contain research, but also a large “product delivery” component through partnerships thereby positioning IITA as a gateway for enhanced delivery of CGIAR innovations.

This is key to addressing transformational changes in African agriculture that demand competence, efficiencies, and dynamic partnerships towards convergence of needed factors for improved productivity and rural development.

Delivering the 74-page report, Eric Kueneman, Director of Kueneman Consultancy, the firm that carried out the evaluation, commended the wealth of research information at their disposal and the transparency displayed by key informants during the exercise. He said, “African agriculture must move beyond mere subsistence. Donors can have confidence that resources invested in IITA partnerships will be well utilized toward goals of Africa and for African empowerment.”

The team of reviewers noted that the recommendations outlined in the CCER report will provide useful background and guidance for IITA in the future, as the Institute continues its efforts to bring meaningful improvements to African agriculture and food systems.

# Sasakawa Global 2000 appreciates collaboration with IITA

“Sasakawa Global 2000 (SG 2000) recognizes the relevance and importance of [IITA](#) to its extension service delivery and appreciates the continued positive partnership with IITA.”

A senior management team of [Sasakawa Africa Association](#) (SAA) stated this on 5 July, during a visit to the IITA Kano Station in Northern Nigeria. Mr Osaka Katsuhiko, Senior Executive Director, led the team which comprised Ms Fumiko Iseki, Executive Director; Dr Mel Oluoch, Regional Director; Prof Sani Miko, Country Director, SAA Nigeria; and Prof Oladele Idowu, West Africa Regional Coordinator.

In his opening remarks, Prof Sani Miko said, “SG 2000 has been a long-time collaborator of IITA.” There has been collaboration in KKM, TL III, TAMASA, N2 Africa, and other projects of IITA, which were all successfully executed as mutually agreed. He further highlighted the importance of the two organizations to each other as they jointly work for the benefit of farmers and ensuring food security in the region.

Prof Miko also mentioned maize and soybean varieties developed by IITA and promoted by SG 2000 that have had a positive impact on the life of farmers in the region. He also thanked IITA for assisting SG 2000 staff with logistics in Lagos especially airport assistance, pick up/drop-off, and use of the Institute guesthouse in Ikeja at any time the request is made.

Speaking on behalf of the Kano Station Head, [Alpha Y. Kamara](#), Seed Systems Specialist [Lucky Omoigui](#) described SG 2000 as a worthy partner in research for development. He then requested SG 2000 to add cowpea to their extension activities as it is important for food and nutrition security due to its high protein content. In addition, it is a valuable food crop used by many households and a cash crop for women farmers who make and sell snacks from cowpea.

In her comments, Ms Fumiko Iseki said they were in Nigeria to meet with their partners and collaborators to further strengthen their responsibilities of disseminating agricultural technologies to farmers. She thanked IITA for the existing mutually beneficial relationship while encouraging further and stronger collaboration.

The visiting team embarked on a tour of the IITA Kano Station with Station Administration Ado Rabo as their guide.



Top: The Sasakawa team in a meeting with senior IITA Kano staff.

Bottom: The visiting team on a tour of the IITA Kano Station.

## 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.

# Scientists discover factors influencing FAW damage in African maize fields in Eastern Zimbabwe

Since the presence of the fall armyworm (FAW, *Spodoptera frugiperda* J.E. Smith) was reported in Central and Western Africa in early 2016, and later in most of sub-Saharan Africa, it has become a serious threat to food security in the region. Although the immediate reaction of governments was to invest in chemical pesticides and their use remains the main strategy of farmers to control the pest, this has yielded mixed results.

The impact of FAW on maize yield in Africa has been reported as very large with an estimate of between 22% and 67% yield loss in Ghana and Zambia, resulting in losses running into millions of US dollars, while that of Ethiopia and Kenya were placed at 32% and 47% yield loss, respectively. These estimates are, however, based on socioeconomic surveys focusing on farmers' perceptions.

Following a rigorous scouting protocol, a team of scientists from the [International Maize and Wheat Improvement Center](#) (CIMMYT), [GOAL](#), [University of Zimbabwe](#), and [IITA](#), have [reported their findings in a study](#) conducted in the Chipinge and Makoni districts of Manicaland Province in Zimbabwe. They carried out the study to understand the factors influencing FAW damage, quantify yield losses due to FAW damage as well as estimate FAW damage in smallholder maize fields in the two districts.

According to the study, both districts are characterized by high environmental suitability for FAW and dry season

cultivation of maize—using irrigation and on riverbanks—which probably allows the pest to persist all through the year.

The study also noted that although governments have invested heavily on chemical pesticides, this is not cost effective and control methods based on agronomic management would be more affordable to resource-constrained smallholders while minimizing risk to health and the environment. However, little is known about the most effective agronomic practices that could control FAW under typical African smallholder conditions.

In addition, the impact of FAW damage on yield was reported as large based on farmers' perceptions and not on rigorous field scouting methods.

The study grouped soil types into five categories in the 791 fields assessed during the growing season, though only a subset of 167 fields were selected for yield assessment. The researchers used structural equation models to quantify

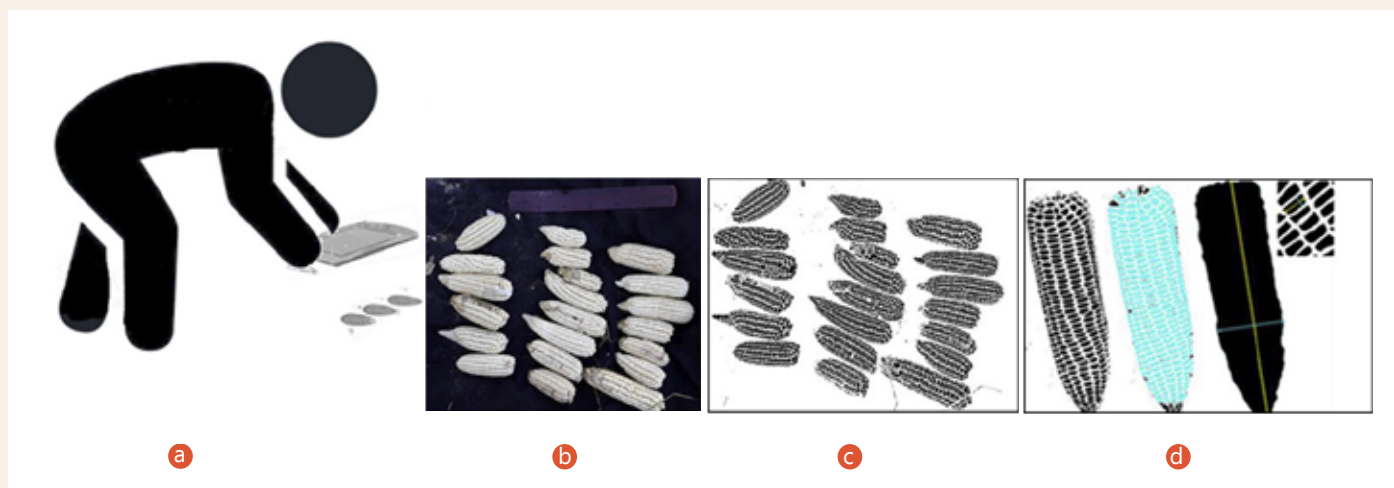
yield losses due to FAW damage while accounting for the fact that variables influencing FAW damage may also influence yield directly.

The study found that several factors influenced FAW damage in smallholder maize fields. However, the results are seen as preliminary, as data analyzed were generated from only two Districts of Zimbabwe and from only one planting season.

The study revealed that frequent weeding operations, through minimum- and zero-tillage significantly reduced FAW damage, while it was observed that pumpkin intercropping significantly increased FAW damage. In addition, damage was noticeably higher for some maize varieties.

Although the levels of FAW damage recorded in this research are commensurate with levels found by other studies conducted in Africa, the best estimate of the impact on yield (11.57%) is much lower than what other studies found. However, the researchers noted that the threat FAW represents for African smallholder farmers, although very real, should not divert attention from other pressing challenges that they encounter regularly.

Frederic Baudron, Mainassara Abdou Zaman-Allah, Isaac Chaipa, Newton Chari, and IITA's [Peter Chinwada](#), TAAT FAW Compact Leader, carried out the study, which is available in Crop Protection at <https://www.sciencedirect.com/science/article/pii/S0261219419300304?via%3Dihub>.



Yield assessment (a,b) photo acquisition procedure using a tablet, and (c,d) key image processing procedure. Credit: Makanza et al., 2018 (<https://plantmethods.biomedcentral.com/articles/10.1186/s13007-018-0317-4>)