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IITA hosts Australia Awards symposium on irrigation and water resource management

Irrigation specialists from Australia, Cameroon, Ghana, and Nigeria gathered for a symposium at IITA headquarters on 28 March, as part of the Australia Awards Africa short course on Irrigation and Water Resources Management for Agriculture (IWRM).

The Australia Awards, funded by the Australian government and managed by the Department of Foreign Affairs and Trade, offers awardees the opportunity to study and participate in research and professional development activities.

In his opening address, Kenton Dashiell, IITA Deputy Director General for Partnerships for Delivery, welcomed the group and said that IITA's research is channeled towards making agriculture a profitable venture and a means of moving farmers from lower to middle or upper class. He also expressed the need for IITA to start a project on irrigation.

Gunnar Kirchhof, Soil Scientist and IWRM Course Leader at the University of Queensland, Australia, explained the important role irrigation plays in the world. He said that by providing water for agricultural activities throughout the year, irrigation helps to increase agricultural productivity, and as a result, improve food security and livelihoods.

He noted, however, that drylands likely experience higher temperatures, greater frequency of droughts, and increased water scarcity. According to Kirchhof, "the similarity between the Australian and many African agroecological environments places Australia in an excellent position to work with African irrigation professionals to achieve food security through efficient and sustainable irrigation systems."

Soil Scientist and Course Leader Gunnar Kirchhof addresses participants at the symposium.

In his keynote address, Vice Chancellor Joshua Ogunwole of Bowen University in Osun State, Nigeria, appreciated the efforts of IITA in championing African agriculture. He also encouraged the participants to start creating solutions to African agricultural problems, because "we are the ones who know our background, land, and resources".

Participating IWRM experts, academics, researchers, and policymakers made key recommendations for irrigation in the drylands, including:

- Sensitization for end-users through capacity development.
- Promotion of the watershed approach to land, water, and biomass management.
- Inculcating a maintenance culture in end-users.

They also noted that private investors, research institutions, government, and farmers must consider it a responsibility to partner and work together to make irrigation a constant practice in the drylands.

Project to improve nutritional value of plantain launched in Cameroon, Gabon, and Nigeria

IITA staff with partners from Cameroon, Gabon, and Nigeria.

IITA in partnership with the University of Buea, Cameroon; Institut de Recherches Agronomiques et Forestieres (IRAF), Gabon; and the National Horticultural Research Institute (NIHORT), Nigeria, have launched a new project that aims to enhance the nutritive quality of plantain in the three countries. The launch ceremony of the project, which is funded by the African Union Research Division, took place at IITA Headquarters in Ibadan, Nigeria on 8–9 April.

Over the next three years, the four institutions will implement the new project titled "Enhancing nutritional quality of plantain food products through improved access to endophyte primed and high pro-vitamin A (PVA) plantain cultivars under integrated soil fertility management practices in Nigeria, Cameroon, and Gabon." The goal is to address the challenge of malnutrition among the approximately 190 million preschool children and women of child-bearing age who consume plantain as one of their key staple foods.

Speaking during the launch, IITA West Africa Hub Deputy Director, Michael Abberton noted that the new project is well aligned with IITA's vision of success across sub-Saharan Africa of reducing the number of malnourished children by 30% and revitalizing over 7.5 million hectares of degraded farmlands.

The project has five objectives:

1. To determine the diversity and bioactivity of beneficial microbial endophytes associated with plantains in smallholder farms in Cameroon, Gabon, and Nigeria.
2. To prime high PVA content plantains with endophyte formulations and protect them against banana pests and diseases.
3. To assess the efficacy of endophyte formulations under variable fertilization regimes using organic manure and complex mineral fertilizer formulations.
4. To produce innovative high PVA plantain-based products and assess consumer acceptance.
5. To disseminate effective combinations of endophyte, manure, and fertilizer formulations, and create awareness on plantain products that could alleviate vitamin A deficiency (VAD).

"The project is designed to run through the whole plantain value chain within the three countries including plant multiplication, crop management, processing, and training of women and youth on existing business opportunities," explained Project Leader Amos Alkonya.

"The vision we have for this project is very big and noble. Improving pro-vitamin A in plantain will help greatly in cutting down the current annual mortality rate of 6% among children under the age of 5 in sub-Saharan Africa arising from pro-vitamin A deficiency," he added.

During the two-day event, partners also took time to develop detailed workplans and budgets for the next 12 months. The event also entailed sessions on requirements for financial and technical reporting, auditing, and AU expectations, as well as partners' roles and capacities for implementation of project activities.

Stakeholders engaged in group discussions.

IITA hosts STMA 2019 Annual Planning Meeting

A 3-day planning meeting was held 24-26 April to review project implementation progress and present work plans for the Stress Tolerant Maize for Africa (STMA) project activities in 2019. National Agricultural Research Institutes (NARIs) and universities in Benin, Ghana, Mali, and Nigeria are implementing the STMA project, which aims at contributing to livelihoods of smallholder farmers and many maize value-chain actors.

The objectives of the meeting were to present 2018 progress reports of STMA and the work plans for collaborative research projects in 2019, as well as to create a platform among partners for sustained collaboration, adaptation, and learning in effective implementation of the STMA project.

Cross-section of participants at the meeting.

In his welcome address, Michael Abberton, Head of Genetic Resources Center, on behalf of Robert Asiedu, Director, Research for Development, West Africa, said, "STMA is an example of IITA's work and partnership to improve farming." He emphasized the importance of maize in sub-Saharan Africa and the delight of IITA to partner with NARIs and seed companies towards achieving food security in Africa.

Participants included researchers and representatives of seed companies. The meeting featured presentations on collaborative research between the STMA project and partners, breakout sessions for countries to map out key interventions and draw up work plans for 2019, and general discussions. Gaps in project implementation were identified and strategies for implementation were formulated.

During the final national working group session, Abebe Menkir, IITA Maize Breeder, enumerated the issues to consider while making plans for the Annual STMA meeting in Zambia, one of which is to indicate in figures the contribution of STMA to the economy of the host countries. IITA Maize Breeder and STMA Coordinator, Baffuor Badu-Apraku, gave a presentation on the funding allocated to the countries.

Some of the challenges of the project, as enumerated by research leaders, are inadequate seed and extension staff, and insecurity caused by cattle rustlers and kidnapping in some countries. Another major challenge identified is the high cost of the variety release process and the fact that some of the variety release and registration committees do not meet.

In response to the high cost of variety release, it was recommended that IITA, through the STMA project, organize a policy workshop for Variety Release and Registration Committees to facilitate the release process. Other recommendations include commercialization of released varieties which could be facilitated through enacting Intellectual Property Rights law. Maize working groups were advised not to rely solely on IITA for all their germplasm.

On the third day of the meeting, awards were given to the Mali and Benin teams as the best breeding team and best technology dissemination team, respectively. In his closing remarks, David Chikoye, IITA Director of Research for Development, Southern Africa Hub, encouraged members to keep up the spirit for productive research.

Group photo of participants.

Interventions to Enable African Rural Youth participation in agribusiness record more success

African governments and development partners such as IITA, the International Fund for Agricultural Development (IFAD), and others, have devised ways of engaging youth in agribusiness to reduce unemployment and increase standards of living, especially in rural areas. These are outlined in the recently published journal article, "African Rural Youth Engagement in Agribusiness: Achievements, Limitations, and Lessons" by Mastewal Yami, Shiferaw Feleke, Tahirou Abdoulaye, Arega D. Alene, Zoumana Bamba, and Victor Manyong.

Africa has the highest number of young people in the world, as 60 to 70% of the population is below the age of 30. Most African youth live in rural areas and have limited opportunities for gainful employment. However, they have unexploited potentials to transform the agricultural sector through innovation and entrepreneurship. If supported with increased investment and favorable legal and policy frameworks, agriculture holds substantial possibilities to provide gainful employment opportunities to many youth, from producing food to providing services such as storage, transport, processing, and marketing.

For more than a decade now, efforts have been ongoing to engage youth in agribusiness. IITA, together with many African governments and development partners, has carried out various intervention programs to enable youth engagement in agribusiness, such as skills development, facilitating access to resources, and use of technologies in agribusiness. One of the intervention programs is the IITA Youth Agripreneurs program, which in turn has inspired the Empowering Novel AgriBusiness-Led Employment for Youth in African Agriculture (ENABLE Youth), implemented by IITA and funded by the African Development Bank (AfDB). The aim is to expand opportunities in agriculture and agribusiness to youth as a means of advancing rural livelihoods and economic development across Africa.

Another intervention, the Enhancing Capacity to Apply Research Evidence (CARE) in Policy for Youth Engagement in Agribusiness and Rural Economic Activities in Africa, was launched by IITA and funded by IFAD with the aim of providing fellowships for young African scholars, with a special emphasis on young female professionals and students.

More youths are in agribusiness, engaging in different value chains.

These interventions are increasing innovativeness among youth and have recorded some success in rebranding agribusiness as a competitive career path for youth especially in rural areas. However, some limitations have been recorded such as lack of emphasis on sociocultural challenges and misguided targeting of the youth or designing capacity development efforts that meet their specific needs. But the successes outweigh the failures.

The article was published in Volume 11 of the peer-reviewed Sustainability — Open Access Journal. Find the full article here: https://www.mdpi.com/2071-1050/11/1/185/htm.

Youths attending an agribusiness workshop at the IITA Conference Center.

Extension workers and agribusinesses receive aflatoxin management training in Ghana's Ashanti and Eastern regions

It was an opportunity for learning, capacity strengthening, and networking for participants at the regional training of trainers (ToT) workshop held in Ghana's Ashanti and Eastern regional capitals of Kumasi and Koforidua in

Group photo of Ashanti region participants.

As part of its Aflasafe technology transfer strategy, IITA, in partnership with the Green Innovation Center (GIC) of GIZ and Ghana's Ministry of Food and Agriculture, has embarked on a ToT on aflatoxin and its management for Agricultural Extension Agents (AEAs) and agribusinesses across seven major maize/groundnut/sorghum-producing regions. This is to strengthen the capacity of AEAs and field officers of agribusinesses on the risk of aflatoxin contamination and improved technologies for its management including the use of Aflasafe.

The training premiered in the Ashanti region, where the Regional Director of Agriculture, Rev. John Manu, officially opened the 2-day workshop, which took place 21-22 March, at the Joyflux Hotel. He highlighted the importance of the training subject matter, emphasizing its timeliness as it complements current government efforts to strengthen the capacity of change agents (AEAs) in disseminating information on improved agricultural technologies to farmers. Planting for Food and Jobs (PFJ) is the flagship program of the government to achieve this.

Rev. Manu was particularly excited about Aflasafe, as he was personally involved at the inception study that resulted in this novel product for aflatoxin management in Ghana.

Similarly, in the Eastern region, the Regional Director of Agriculture, Mr Henry Crenstil Jnr opened the workshop, which was held on 25-26 March. For the objectives of the ToT to be achieved, he encouraged the participants to actively engage in the training and charged his District Directors to ensure that the trained AEAs become resource persons for downstream training in their respective districts.

The workshops in Ashanti and Eastern regions had in attendance 29 and 28 participants, respectively, comprising AEAs, lead farmers, maize aggregators, representatives from agribusinesses, and maize traders associations.

Following both training sessions, the workshop participants said they increased their knowledge on the basics of aflatoxin contamination in crops and its management particularly, using Aflasafe as part of a package of good agricultural practices.

GIC Regional Coordinator, Mr Christian Adjei facilitated the workshops and was assisted by Eric Mensah for the Ashanti region and David Darkoh for the Eastern region. The training will continue through the coming months in the Brong Ahafo and Volta regions as well as three Northern regions.

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.agha@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.