



IAEA, NAEC, and IITA explore areas of collaboration

Officials of the nuclear energy watchdog, the International Atomic Energy Agency (IAEA) and the Nigerian Atomic Energy Commission (NAEC) paid a courtesy visit to IITA in Ibadan on Tuesday to explore areas of possible collaboration.

During the visit, Dr Mulugeta Amha, Section Head, Division for Africa, Department of Technical Cooperation for IAEA; and Dr Imoh Obioh, Commissioner International Cooperation & Liaison Directorate for NAEC, held discussions with Dr Ylva Hillbur, IITA Deputy Director General (Research).

Areas of interest to the team included plant breeding, micronutrient analysis, soil-water nutrient studies, extension of shelf life of crops using nuclear technologies, postharvest technologies and capacity development. More areas of collaboration may come up when interactions with the organizations advance. Crops of interest to IAEA and NAEC include cassava and yam.

Dr Amha who was impressed with the visit said his organization had been working on yam and cassava with the Nigerian



L-R: Drs. Hillbur (IITA), Obioh (NAEC), and Amha (IAEA) during a visit to IITA in Ibadan

government, stressing that research could help tackle most of the challenges to global food production.

Dr Obioh on the other hand noted that the spiraling population and climate change were a wakeup call for Nigeria to pay greater attention to agriculture. He promised to strike collaborative efforts with IITA with a view to

applying nuclear science in food security.

The two institutions — IITA and NAEC — agreed to move further by considering the signing of an MoU that will define mutual activities for the future.

Dr Hillbur expressed IITA's willingness to work with IAEA and NAEC to improve the fortunes of farmers and consumers.

Tanzania calls for IITA's biological control solution for aflatoxin



Participants at the aflatoxin stakeholders' workshop in Dar

Tanzania has identified biocontrol of aflatoxin, as one of the strategies they will employ to control aflatoxin contamination of food and feed in the country.

The biocontrol solution, developed by the United States Agricultural Research and adapted for Africa by the International Institute of Tropical Agriculture (IITA), works through the deployment of non-toxic forms of fungi that are indigenous to Tanzania and which can out compete and greatly reduce the poison producing ones.

This was among the recommendations at a recent meeting in Dar es Salaam, Tanzania,

from the 03 to 04 of December 2012 that brought together key stakeholders from various government departments, research, trade, regulators, farmers, and development sectors and was organized by Abt Associates and the Tanzanian Food and Drug Agency Authority (TFDA) to discuss the extent of aflatoxin poisoning in food and feed in the country and identify potential mitigation strategies.

Abt Associates presented the findings of a major survey undertaken to determine the prevalence and economic impact of aflatoxin in Tanzania. The preliminary findings showed that a high proportion of maize samples

collected were contaminated with aflatoxin in particular from the east and west regions of the country.

Fen Beed, IITA pathologist, while making a presentation at the meeting said that "the clear benefits of the biocontrol technology are that it is effective across all vulnerable crops, cost effective, and control is achieved in both the field and in storage".

By the end of a the two-day meeting, a National Forum for Mycotoxins Control whose secretariat will be housed by the Tanzania Food and Drugs Authority (TFDA) under the Ministry of Health and Social Welfare was created.

A national Steering Committee was also constituted and its members selected. The SC will meet at the end of January 2013 to organize resources to implement the action plans defined during the workshop. IITA will provide technical backstopping to this committee.

Victor Manyong, Regional Director for IITA Eastern Africa and also member of the Steering Committee of the Partnership for Aflatoxin Control in Africa (PACA) who was also at the meeting, commended the group for its energy and the commitment to form a national alliance and action plan to coordinate efforts to fight aflatoxin in the country.

Manyong also joined a small delegation of the SC that presented the findings and recommendations of the workshop to the Minister of Health and Social Welfare on 06 December 2012.

School children raise funds for IITA Forest Project

School children between 3 and 12 years from the Ibadan International School (IIS) have raised about three hundred and fifty thousand naira (N0.35 million or \$2,000) to support the International Institute of Tropical Agriculture's Forest Project. The donation is part of the school's efforts towards supporting good causes in the society.

"This donation is to support the Forest Project for the positive impact on the lives of the children," says Mrs Helen Chatburn-Ojehomon, the Primary Years Program Coordinator at IIS.

The IITA Forest Project has over the years provided children and teachers with the opportunity to learn about forest conservation, biodiversity, and the negative effects of deforestation.

Located on about 350 hectares in Ibadan, the IITA Forest Reserve is one of the few surviving and best protected secondary forests in western Nigeria with more than 230 different types of butterflies. It also plays host to 250 different species of birds, and over 450 plant species, most of which have medicinal uses.



Ms Bown admires a dummy cheque from IIS



School children from IIS pose for a group photo with their teachers and IITA staff during the presentation of the dummy cheque

Mrs Chatburn-Ojehomon explained that funds for the donation were raised by the children through the MathBuster Challenge—a sponsored educational program that encourages learning and enjoyment of mathematics. Funds raised from the sponsorship go into charity, and sponsors could be friends, parents, and relatives.

This year is the ninth in the series of the MathBuster Challenge, and the program has supported different projects in the past. The Forest Project of IITA was chosen in 2012 because the students had learnt about environmental degradation and deforestation during their numerous visits to IITA forest; as such the issues brought inspiration and interest in the project to them.

"The children feel this project should continue. And basically, we want to link their learning with action so that they can use their learning to help the community," Chatburn-Ojehomon said.

Ms Deni Bown, Coordinator of the IITA Forest

Project, commended the children and the school for the gesture, stressing that the conservation of Nigeria's forest is vital to the survival of the country's people.

Underscoring the importance of forests to human existence, Mrs. Bown likened the forest to the human skin.

"The forest is like the protective 'skin' of the planet earth. If you remove it, the earth gets hotter. And if we lose our forest to a certain level, we will have irreversible global warming" the forest expert said.

Ms Bown noted that the Institute's Forest Project was a clear demonstration of the link between forests and agriculture—that they could go hand-in-hand.

She also explained that the Forest Project has over the years organized educational and guided tours to the forest for children because of the belief that they are future leaders and would make good use of the knowledge.

Banana can protect coffee from the effects of climate change

Growing coffee and banana together not only generates more income for smallholder farmers, compared to growing either crop alone, but it can also help coffee production to better cope with the effects of climate change, a recent study has shown.

The study, which sought to understand the potential impact of climate change on coffee-based livelihoods in the East African highlands, found that the areas suitable for growing Arabica coffee will drastically decrease in the future leading to losses in the region that may exceed US\$100 million annually. This is not only a threat



A farmer on a banana/coffee farm

to the countries' foreign revenue, but it also puts at risk the livelihoods of millions of small-holder farmers depending on the crop.

The researchers from the International Institute of Tropical Agriculture (IITA) in collaboration with those from the Colombian-based International Center for Tropical Agriculture (CIAT), used climate models and climate analog to predict the impact of climate change on coffee production. The researchers walked down the slopes of Rwenzori Mountains, in Uganda, where the lower one goes, the temperatures get progressively warmer and drought stress becomes a more serious problem—similar to walking into a "future climate".

The approach illustrated that areas below 1300 m may well become completely unsuitable for Arabica coffee production. In areas between 1300 and 1700 m, coffee will be severely affected if current farming practices that use traditional varieties and make limited use of water conservation and shade technologies remain unchanged.

In Uganda, coffee is the most important export crop generating approximately 20% of the foreign exchange earnings. One-third of the coffee export value is from Arabica coffee, which requires a particularly cool tropical climate that is only found at higher altitudes, generally above 1400 m. Arabica is therefore very sensitive to a rise in temperature induced

by climate change. Coffee is also among the top three commodity exports in Ethiopia, Rwanda, Burundi, and Tanzania.

Shade provided by shade trees or banana can help coffee to cope with the warmer climate and with drought shocks. Research has shown that shade can reduce the temperature in the understory plants by up to 2 °C or more.

This study strengthens the case for growing coffee and banana together as it provides both short- and long- term benefits to farmers.

For more information, visit:

<http://bit.ly/Va8TAW>

Public Holidays in Nigeria

The Federal Government of Nigeria has declared Tuesday 25, Wednesday 26 December, 2012 and Tuesday 01 January, 2013 as public holidays to mark Christmas, Boxing day, and New Year celebrations, respectively.

In addition, IITA Management has declared Monday 24 and Monday 31 December, 2012 as work free days in appreciation of staff's dedication and commitment to the achievement of the Institute's goals.

While the Institute will remain closed for the holidays, supervisors are advised to please make necessary arrangements to maintain essential services.