



## Unlocking the potential of tropical regions: Humidtropics kicks off activities in the West Africa Action Area

Efforts to improve livelihoods and agricultural productivity in the tropical regions of Africa, Asia, and Latin America received a boost with the take-off of Humidtropics, a CGIAR Research Program, in the West Africa Action Area.

Researchers from CGIAR and other partner organizations held a workshop in Ibadan to kick off the implementation activities of the program last week.

Dr Kwesi Atta-Krah, Executive Director of Humidtropics, said "The program is part of efforts to save the tropical region from hunger and poverty."

Organized by the Humidtropics focal point and West Africa Action Area coordinator, Dr Stefan Hauser, the launching workshop gathered a wide range of stakeholders in agricultural production and rural development.

The Action Area workshop provided participants the opportunity to:

- learn about the regional and national stakeholders' work and their development challenges that guide their institutional agenda, considering past experiences with regional research for development projects in the region,
- identify points of convergence between Humidtropics' goals and those of the regional and national organizations,
- learn about the Action Sites selection criteria and launch the identification process of potential Action Sites by country,
- define entry points in the region,
- introduce the R4D platform approach of Humidtropics.

Humidtropics, a multi-stakeholder program, aims to advance productivity in a sustainable manner, and to transform the lives of the rural poor in the humid tropics.

The program objectives include enhancing the productivity of production/farming systems while sustaining natural resource integrity, improving livelihoods and incomes, assets and nutritional status, and increasing capacity for technical and institutional innovation.

"The program will also increase opportunities for women and

vulnerable groups, and offer them greater control over assets, inputs, and promote their participation in decision-making," Dr Atta-Krah explained at the launch.

With an area of about 3 billion hectares, the humid tropical region is home to about 2.9 billion people, mostly poor. Agricultural intensification in the region is still low, and the combination of risk factors such as soil degradation, deforestation, biodiversity loss, pests and diseases, postharvest losses further limits the potential of the region.

The program emphasis is on improving the livelihoods of smallholder farmers, women and children, while at the same time paying attention to production systems, the natural resources, and partnerships and policies.

Systems thinking and analysis is central to the program. It also involves enhancing innovation capacity, including systemic and institutional innovation.

Describing the tropics as a vast area with huge opportunities, Atta-Krah noted that the opportunities were not yet fully harnessed.

Over the next 15 years, Humidtropics will contribute to the overall targets of CGIAR by increasing staple food yields by 60%, average farm income by

50%, and reducing the number of malnourished children by 30%. The program will also help lift 25% of poor households above poverty, and restore 30% of farms to sustainable resource management.

Partners collaborating with IITA in implementing Humidtropics include the International Center for Tropical Agriculture (CIAT), International Livestock Research Institute (ILRI), the World Agroforestry Centre (ICRAF), International Potato Center (CIP), Bioversity International, International Water Management Institute (IWMI), International Centre of Insect Physiology and Ecology (*icipe*), Forum for Agricultural Research in Africa (FARA), AVRDC—the World Vegetable Center, and Wageningen University.

### Action Site in Osogbo launched

After launching the West Africa Action Area, researchers and partners moved to Osogbo—a 3-hour drive from Ibadan—to inaugurate the Osogbo Action Site. The Action Sites are the areas where innovations would be deployed with the possibility of scaling out. Stakeholders interacted with local policymakers and also visited a village/farm to further highlight the kinds of constraints farmers face in the tropics.



*Humidtropics emphasizes improving the livelihoods of smallholder farmers, women and children, while at the same time paying attention to production systems, natural resources, and partnerships and policies.*

# Promoting standards to enhance regional trade and improve livelihoods of smallholder farmers

IITA-Tanzania hosted the first of a series of workshops to create awareness on the harmonized standards for cassava and potato in East African countries for all actors along the (potato and cassava) value chains. This is part of efforts to improve the livelihoods of smallholder farmers in the region through the promotion of processing and regional trade.

The workshop, held on 20 June, in Dar es Salaam, Tanzania, brought together farmers, processors, traders, and regulatory authorities in the country to enlighten them on the cassava standards, their requirements, and their importance in promoting processing and regional trade.

According to Adebayo Abass, value chain specialist in IITA-Tanzania, cassava holds great potential for improving livelihoods of farmers in the rural areas as it is not only a reliable food crop but is also a source of industrial raw material, such as starch and high quality flour.

"A lot of work has been done by many different actors to increase the knowledge and capacity of farmers/processors on improved and mechanized methods of processing cassava into these high-value products. But now, we need to ensure that the processed products are of high quality, meet the requirements of different users in the region, and are safe for consumers," he said.

The workshop is part of a project on 'Enhancing adoption of harmonized standards for roots and tubers in Eastern and Central Africa' being implemented in Kenya, Rwanda, Tanzania, and Uganda. Similar workshops will be held in the other countries. The project will also train the regulatory bodies to monitor compliance with the standards.

In 2010, the Association for Strengthening Agricultural Research in Eastern and Central Africa (ASARECA) supported a technical team of experts from Kenya, Rwanda, Tanzania, and Burundi, to harmonize cassava and potato standards. These were later approved and adopted by the EAC Standards Committee. However, there is low awareness and low implementation of the standards, hence the need for the project.

"The project aims to create awareness among all actors along the cassava and potato value chains, including the regulators, on the availability and the requirements of the harmonized standards for cassava and potato," said Stella Apolot, from the Uganda National Bureau of Standards (UBS) and the project coordinator. "We are focusing on cassava standards in Uganda and Tanzania and potato in Kenya and Rwanda."



*Stella Apolot, Uganda National Bureau of Standards*

One activity of the project was a baseline study of the cassava and potato value chains in the four project countries to understand the constraints of trade, knowledge of value chain actors on existence of

standards, and how to comply with the standards. According to Richard Mulwa, an Environmental Economist from the Centre for Advanced Studies in Environmental Law and Policy, University of Nairobi, who conducted the baseline study, the level of awareness was found to be very low.

"In Tanzania, only 1% of the 200 people in the cassava industry interviewed were found to be aware of the harmonized standards. There is therefore a lot to do to create awareness of these standards among the actors in the cassava value chain in the country and to ensure that they are implemented," he said.

Project partners are the Uganda National Bureau of Standard, Rwanda National Bureau of Standards, University of Nairobi, and IITA. The project is funded by World Bank through ASARECA.

## DG Talk

DG Nteranya Sanginga met lab technicians, students and corpers, and other support staff on 21 June at the conference center.

His message: IITA wants to create opportunities for excellence for young staff and students working in IITA.

"You have a very important role to play in furthering science. Create your own career opportunities at IITA. As a science-driven institution, IITA provides numerous opportunities for capacity development, innovation in the workplace, and creating more impact," he said.

"You should think about solutions and innovations, and not about problems," he added. "IITA is investing in people and in initiatives such as the Business Incubation Platform where the products of research are being commercialized with partners. Let us know how we

can help strengthen capacities and increase your chances for a better career," the DG said.

*The students and young staff at IITA get an opportunity to ask the DG questions, provide feedback, and comment on important issues at work during the interactive forum, Chat with the DG.*



## IITA boosts mobile extension delivery to West Africa

IITA is collaborating with Grameen Foundation to explore how the latest smart phone technology can make a real difference in the lives of the poorest farmers.

For resource-constrained farmers in the developing world, a crop failure can be catastrophic, putting already marginalized families at risk of disease, malnutrition, and financial ruin. In 2012 IITA contacted the NGO Grameen Foundation to join forces in delivering our knowledge in even more efficient ways to farmers on the African continent. Grameen Foundation had developed the Community Knowledge Worker (CKW) program in Uganda, which uses mobile phone applications and human networks to provide poor farmers with relevant, timely agricultural information on issues such as crop management, treating pests and diseases, and getting fair market prices, with the aim of increasing their productivity and income.

In recent years, IITA developed training curricula to help farmers and their organizations to learn about topics such as good agricultural practices, integrated crop and pest management, and safe and healthy farming practices. Curricula for several crops and notably cocoa in West Africa have successfully been used in farmer field schools and farmer learning groups, where farmers learn through doing and experimenting.

Several initiatives to scale up such programs have shown positive results and for example led to impacts among an estimated 150,000 cocoa farmers in West Africa under the Sustainable

Tree Crops Program led by IITA in collaboration with multiple donors and the chocolate industry, as represented by the World Cocoa Foundation.

IITA has been able to translate our paper curricula on cocoa and banana for use on Grameen Foundation's innovative smart phone-based platform and also instantly reach many thousands of Ugandan cocoa farmers in the most rural, "last mile" villages by employing a network of CKW. As farmers themselves, respected in their community and chosen by their peers, these workers serve as "feet in the field," helping other farmers to access specific information and encouraging ongoing use.

Grameen Foundation identifies recruits and trains rural community members as CKWs who act as "trusted intermediaries" in their communities, using basic smart phones loaded with an application that helps them provide information services to their fellow farmers on over 40 crops and different livestock. Since this is supplemented with weather, market prices, transport directories, input locations and mobile-money agent locations, CKWs can help farmers make important decisions and improve their practices, enabling them to increase their yields and earnings.

A unique feature is that the system helps to keep the information updated and relevant, since CKWs collect data via mobile phone-based surveys of the farmers they help, improving the service and better addressing farmers' needs. Agricultural ministries and other organizations pay to have



*Smallholder farmers benefit from ICT and new communication technology.*

surveys administered, providing an important source of revenue—and thus sustainability—for the program. Now that the curricula has been field tested in Uganda since the beginning of the year, the CKW system and the IITA/CGIAR knowledge it features is ready to be rapidly scaled up to other parts of Africa.

Plans are being developed for launch in West Africa in collaboration with the private sector and national agricultural research and extension systems. It is anticipated that these kinds of applications of mobile ICT solutions that provide smallholder farmers with localized information and services will take an enormous flight on the continent in the next couple of years.

IITA is determined to continue to contribute to the quality and relevance of this information provision to farmers in collaboration with our national partners, (inter) national development partners, the private sector and especially by increasing participation and interactivity with farmers.

## MIRACLE postharvest engineer visits sites for crop processing centers in Malawi

MIRACLE Project's plans of establishing crop processing centers in Malawi are moving along despite some challenges. This was noted during a visit to the proposed sites and shelters following discussions held in March 2013 in Nkhatabay and Lilongwe Districts with project partners (World Vision, extension officers from Ministry of Agriculture, lead farmers) and IITA/Miracle Project staff led by Melba Mussagy, project manager of the Miracle Project, and Oluwatobi Oluwasola, project postharvest engineer.

The visit was intended to identify potential groups or individuals to run the postharvest processing plant in the project's quest to help beneficiaries successfully transition to sustainable reliance on own production of nutritious foods and income generation.

The site visits also aimed to assess the suitability of the proposed sites/ or shelters as processing centers and other related engineering requirements; meet local leaders and project partners to get



*Engineer (second from left) on site leads in making structural measurements and dimensions with extension officers and site owner in Sanga in Nkhatabay.*

confirmation about community agreements and plans re processing equipment and share with them the expectations for running and managing the plant; and provide construction designs and dimensions

and a list of things that need to be done.

Engr Oluwatobi Oluwasola visited Sanga and Chikwina sections in Nkhatabay district and in Mpampa and Chilenje sections in Nkhatabay and Lilongwe districts. Local leaders (e.g., Traditional Authority Timbiri in Nkhatabay) strongly welcomed and support plans of contributing to poverty reduction in the area through provision of crop processing machines. The processing center will improve the quality of products in the area, e.g., cassava (kondowole) flour, simplify and reduce the processing time compared to the traditional method, and thus help uplift the living standards of the beneficiaries.

The volunteer individuals and groups are very much ready, willing, and eager to participate in the project. The community will provide land or shelter, and construction materials, etc. They also expressed their appreciation for the visit and to the project.

## Fascination of Plants Day marked to inspire young scientists

IITA-Tanzania invited children from a neighboring school, East Africa International School, for a tour of its facilities and briefing on the institute's research activities in the country.

Over 50 students from Grades 6 and 7 accompanied by three teachers took part in the visit that was organized as part of events to mark this year's Fascination of Plants Day.

They were welcomed by IITA R4D Director for the Eastern Africa hub, Dr Victor Manyong, who briefed them on IITA's research efforts to increase food production. He said farmers in the country were facing many challenges that the institute was trying to solve through science including tackling pests and diseases and adding value to the crops so farmers can get more money.

He encouraged them to take up science as the future of the country is based on scientists who find solutions to problems affecting farmers.

The children visited two laboratories—plant health where Rudolph Shirima explained IITA's research on cassava diseases, and the food science lab where research supervisor Mwanahamisi Msangi explained IITA's research



on adding value to cassava. They then toured the greenhouses where Mary Maganga talked about ongoing research on vegetable pests and diseases.

The children appreciated the visit and afterwards shared what they had learned.

"Some cassava plants have diseases. IITA scientists are trying to find out what the diseases are to help our farmers," said Juliet Maeda, 13, Grade 7.

"Plants are like humans. They spread diseases to each other. Some insects spread diseases to plants. IITA shows people how to take care of plants so they cannot get infected, like growing them in a greenhouse," explains Joseph Baranyikwa, 12, Grade 7.



*From left, above, clockwise: Victor Manyong welcomes children to the Science Building; In the lab, Research Technician Frank Fovo explains how IITA detects diseases; In the greenhouse Mary Maganga explains ongoing research on tomato diseases.*

## IITA International School organizes 'Water World'

Pupils of the IITA International School marked Water World, as part of efforts to bring attention to the importance of water and why the resource needs to be conserved.

Currently, more than 783 million people do not have access to clean, safe water, and approximately 2000 children die each day from diarrheal (water-borne) diseases caused by unsafe water and poor sanitation, according to WaterAid.

These facts provided a sober reflection for the children and parents who attended the event, and made them give thanks to the fact that they do not need to search for water.

'Water World', which is the last event for the school's academic year, began with a song number by the choir and dovetailed seamlessly to other activities such as dances, and role-plays on how people, especially

women, use energy and time in search for water.

There were also works of art, highlighting the importance of water, measures to conserve this precious resource, and scientific ways of treating water.

Ms Carole Inniss-Palmer, Head of IITA School, thanked the children, parents, and teachers for making the 'Water World' event a success.



*IITA School pupils and guests during Water World.*