

Researchers discuss cocoa R4D strategy in IITA Cameroon

Researchers engaged in cocoa R4D in IITA met in the IITA station in Yaoundé, Cameroon, on 20-22 March. [Bernard Vanlauwe](#), IITA Director Central Africa Hub (CAH), said the meeting will facilitate a better understanding of the cocoa R4D portfolio at IITA and identify major gaps in relation to the status of cocoa production in sub-Saharan Africa. Vanlauwe was visiting the Cameroon station to acquaint staff with the new IITA 2020 strategy and also get feedback.

Other meeting objectives were to explore cross-station cooperation on cocoa R4D; and to develop an institute-wide cocoa R4D portfolio and a strategy towards its implementation.

The meeting started with presentations on ongoing activities and immanent approaches.

The [CCAFS](#) focal point and IITA Project Coordinator – Systems Agronomist, [Laurence Jassogne](#), explained the overall approach on climate-smart cocoa. Jassogne also elaborated on the step-wise investment pathways.

[Richard Asare](#), Cocoa Scientist, gave a comprehensive overview on



Healthy cocoa pods.

[Continued on page 2](#)

IITA and ICRAF researchers hold consultation workshop

[IITA](#) and [ICRAF](#) scientists active in the cocoa sector met on 23 March, in Yaoundé for a strategic consultation workshop. The objectives of the meeting were to (1) better understand the various skill sets at IITA and ICRAF that are relevant for the Congo basin, (2) identify a priority set of ideas that cut across those skill sets for translation into projects or proposals, (3) develop strategies to integrate agroforestry into agricultural practices through upcoming initiatives, and (4) explore the cooperation around perennials, the intensification for conservation using existing available resources between the CGIAR Research Program on Forests, Trees and Agroforestry ([FTA](#)) and the CRP on Climate Change, Agriculture and Food Security ([CCAFS](#)).

The two institutions were led respectively by IITA Central Africa Hub Director



Researchers and cocoa farmers discussing ways of protecting cocoa plants from stresses.

Bernard Vanlauwe and ICRAF Deputy Director General for Research Ravi Prabhu. Participants learned about recent developments in the two institutions with presentations by ICRAF Regional Director Zack Tchoundjeu and Vanlauwe.

Some common areas were identified: cocoa and other tree crops, intensification pathways, Redd+, market and institutions,

entrepreneurship, and youth and IPM. A series of cocoa technical guides on IITA know-how was presented. Three groups were formed to reflect on sustainable intensification pathways, cocoa and three other crops, and Redd+.

Plenary sessions identified some action points including a one-day workshop that could be organized in DR Congo

to partner with FAO and the valley rehabilitation project in Burundi through which IITA and ICRAF could demonstrate how to successfully combine trees and crops, and generate incentives.

The meeting was attended by 10 researchers from ICRAF and 7 from IITA.

Researchers discuss cocoa R4D strategy [Cont'd from page 1](#)

projects and programs related to cocoa that involved IITA. His presentation revealed that some donor organizations have become implementing agencies themselves and are now also competing for funds. This development needs to be taken into consideration in strategies of liaising and competing in setting up project consortia.

[Rachid Hanna](#), Entomologist/Biocontrol Specialist and Country Representative, presented an overview of the plethora of ongoing activities in the cocoa sector where IITA Cameroon is active. These include fertilizer trials, training of farmers in good agricultural practices (GAP), rehabilitation, occupational health and safety, development of biological control methods for capsids, and research on the impact of cocoa production on climate change. Visiting Scientist Giovanni Forgiore then talked on the experiences and planned activities on the use of tissue culture in the multiplication of cocoa genetic material.

[Denis Sonwa](#), CIFOR Senior Scientist, who represents both IITA and CIFOR, presented on cocoa farming, agroecology, and forest activities.

Eglantine Fauvelle, Visiting Scientist, explained about her field work that uses various technologies, comparing the results. Syndhia Mathé, CIRAD Visiting Scientist, and Maria Geitzenauer, IITA Socioeconomist for Innovation Systems, presented results from a baseline study



Scientists working on cocoa meeting in Cameroon.

on cocoa households in Cameroon and further elaborated on the socioeconomic research.

[Ranjana Bhattacharjee](#), Molecular Geneticist, elaborated on the situation of cocoa germplasm in West and Central Africa, highlighting the presence of mislabeled genetic materials in seed gardens and breeders' collections which have an impact on the cocoa improvement program. She said that low genetic diversity had been observed in both collections. The need for having a regional germplasm collection consisting of true-to-type genotypes was also discussed.

Based on all these presentations, the group decided that internal and external

communication would be supported if the plethora of expertise and knowledge was organized and prepared in a standardized way. The team is currently working on technical briefs that could help support the development of an IITA R4D cocoa strategy. To support the development of such a strategy, regular interactions are envisaged.

As part of the meeting, one afternoon was dedicated to interactions with partners from the cocoa sector in Cameroon. Representatives from cocoa buyers/exporters, NGOs, funding development agencies, and ICRAF participated. The interaction triggered the interest of the partners and the openness for further dialogue and collaboration.

IITA is 50!



Watch some of our IITA50 promotional materials: IITA documentary trailer (The Visionaries) at <https://www.youtube.com/watch?v=VwYuMuiOSuA&feature=youtu.be>, 50 years of improving lives of farm families in Africa at <https://www.youtube.com/watch?v=0cQP6FdOWHk&feature=youtu.be>, 50 years of adding value to African agriculture at https://www.youtube.com/watch?v=0uypml_xBc4&feature=youtu.be.

<http://50years.iita.org/>

Got a story to share? Please email it with photos and captions every Wednesday to Katherine Lopez (k.lopez@cgiar.org), Jeffrey T. Oliver (j.oliver@cgiar.org), Catherine Njuguna (c.njuguna@cgiar.org), or Adaobi Umeokoro (a.umeokoro@cgiar.org).

IITA Cameroon hosts meeting of international organizations on REDD+ activities

Member institutions of the CCPM (Consultation Circle of Partners of Ministry of Forests and Wildlife and Ministry of Environment, Protection of Nature and Sustainable Development) REDD+ came together in Cameroon on 10 March to identify bottlenecks, discuss best practices, and exchange knowledge on solutions and pathways for moving the REDD+ agenda forward.

The Sub-Group is made up of institutions working on REDD+ (Reducing emissions from deforestation and degradation, including forest conservation, sustainable forest management and enhancement of forest carbon stocks) and related issues. The last CCPM REDD+ Sub-Group meeting was held in GIZ-ProPFE in July 2016. This meeting is the first for 2017 and was co-hosted by IITA and CIFOR.

Rachid Hanna, IITA Entomologist and Country Representative, welcomed participants and stressed the importance of the meeting in terms of networking and collaboration and the support to the REDD+ process in Cameroon. Denis Sonwa welcomed the participants on behalf of Richard Eba'a, CIFOR Yaoundé Office Team Leader.

The meeting was chaired by Sonwa and focused on issues such as the status of the REDD+ process in Cameroon

and REDD+ initiatives, missions, and studies undertaken by partners.

On the first issue, participants reiterated the need for sectoral ministers such as on Agriculture to be involved in the process of REDD+, particularly in mobilizing the private sector.

On the second issue, IITA shared their ongoing activities around REDD+, the main one being cocoa intensification followed by support to some councils in planning for REDD+ in their localities.

Institutions represented at the meeting included IITA, CIFOR, ICRAF, Bioversity, CBI (UCLA-IITA), ZSL (Zoological Society of London), WWF, IUCN, Transparency international, GIZ ProPFE, USFS, JICA, and PNDP.

ACAI field staff trained on simplified data collection tools and management for field activities in Tanzania

The [African Cassava Agronomy Initiative](#) (ACAI) project has trained its staff and partners on agronomy database management and the barcode labeling system. The training was necessary due to the increased number of field trials the project is conducting in the country, and which in turn has created the need to clearly label and identify each attribute being studied. The training was held in Mwanza, Tanzania, from 27 February to 10 March.

The training aimed to make the 21 participants (16 males and 5 females) understand database management including adding data to the ACAI-database platform through

mobile or web-based tools and how to assign "entity identifiers" through barcode labeling. A hands-on training on how to use the new open data kit (ODK) tool forms for data collection in ACAI activities was also conducted.

In previous agronomy trials, data were collected using both field books and ODK forms, which was tedious and time consuming. Also, the collected data were easily mixed up or duplicated because there was no clear assigned unique identity (label with the barcode) of the field, trial, plots, treatment, and plants.

By the end of the training the participants were able to assign the unique entity identifiers of the fields, trials, treatments, plots, and plants and trace them back during data collection. This technique will assure good data management, simplify data collection, and reduce the possibility of missing data.

ACAI seeks to address major constraints of cassava production in Tanzania—poor agronomic practices and low soil fertility. These constraints have contributed greatly to reduced production levels of <5 t/ha, compared to the previous yields of 10 t/ha. If these constraints are not addressed timely and appropriately, this may soon lead to further yield reduction.



The ACAI training consisted of classroom (left) and practical field sessions (right).

IITA looks to spur cassava sector growth in Zambia as it hands over processing center to national partner

IITA, through its “Support to Agricultural Research for Development of Strategic Crops in Africa” (SARD-SC) project funded by the African Development Bank (AfDB), turned over a modern cassava processing center to its national partner, the Zambia Agriculture Research Institute (ZARI), on 12 April in Mansa, Luapula Province, some 800 km north of the capital Lusaka.

The processing center is part of the project’s commitment to support ZARI in developing the country’s cassava industry.

The cassava processing center is equipped with a mechanized cassava grater, presser, firewood-fuelled fryer, sieving machine, and high-capacity milling machine. It also has an office, workers’ washroom, loading and drying dock, and cassava washing bay. The center can process 5 tons of fresh roots daily into chips and high-quality cassava flour (HQCF), among other products. The cost of building and equipping the center was about 1.2 million Zambian Kwacha (US\$120,000).

The handover and commissioning event was attended by representatives of IITA, ZARI, AfDB, and the provincial government, as well as by cassava farmers, farmers’ associations, and the media. Rody Chakaba, Mansa District Commissioner, gave the keynote address.

Pheneas Ntawuruhunga, cassava breeder based at IITA’s southern Africa Hub in Lusaka, Zambia, and representing the Institute, said that the construction and handover of the Mansa cassava processing center “is one of the key

outputs of the SARD-SC project that will empower ZARI to conduct cassava-based capacity building and livelihood activities to benefit smallholder farmers, especially the women and the youth, by making available machinery and equipment for training on and producing value-added products.”

“Later you will see and sample some of the food products that could be produced from this center, which have been prepared by local women and members of the Zambia [IITA Youth Agripreneurs](#),” he explained.

Lewis Bangwe, AfDB representative, added that the establishment of the processing center “is aimed at helping address some of the gaps in agriculture in Zambia: the lack of crop processing infrastructure, weak capacity in practical areas of agricultural research, and non-interest/non-participation of youth in agricultural activities.

The Bank is proud to be associated with IITA and ZARI, which are partnering to implement SARD-SC that is helping to develop the cassava sector in the country. This center is a concrete manifestation of the Bank’s commitment to help improve the plight of Zambian smallholder farmers,” Bangwe added.



IITA/SARD-SC cassava processing center building at ZARI-Mansa.

“I would also like to emphasize that this is part of our efforts to make agriculture attractive to our Zambian youth by demonstrating that money could indeed be made from cassava.”

Monde Zulu, Deputy Director of ZARI, indicated that “ZARI will use this facility to conduct training among farmers and youth on processing cassava to produce high-value products such as HQCF, which in turn can be used to make food products such as biscuits, titbits, and cakes. These could then be additional sources of income for farmers, and more importantly, stimulate the demand for cassava and spur the growth of the sector in Mansa and northern Zambia.”

District Commissioner Chakaba, in his address, said “I am honored to give the keynote address at this important event and to officially inaugurate this cassava processing center. As ZARI and IITA find more ways for our farmers to produce more cassava, I am happy to note that both institutions have also not lost sight of the importance of adding value to the crop through processing.”

“I also thank the AfDB for supporting this initiative. Farmers cannot continue to be just raw material suppliers and expect their plight to improve. For farmers to move forward—and for our youth to take over agriculture from us old people—we need to show that better income could be realized by processing cassava into high-value products. This is what this facility is for,” he added.

“This facility symbolizes the livelihoods potential of cassava and the people that depend on it...I officially declare this center open,” he concluded.



Left: Alamu explaining about the cassava products on display as Mansa DC Chakaba tastes a sample prepared by local women and members of the Zambia IITA Youth Agripreneurs. Right: Pheneas Ntawuruhunga addressing delegates and guests.

Seminar on developments in yam production in Abuja ends with a feast

The yam program at the IITA Station in Abuja organized a series of seminar presentations by scientists from the station to educate staff on the progress made in yam research over the years, as well as providing an interactive platform for information exchange. The event was attended by all staff from the station.

[Beatrice Aighewi](#), Yam Seed System Specialist, presented an overview on the breakthroughs in rapid multiplication of yam under the [YIIFSWA](#) project as well as progress of the CAY-Seed project, which aims at improving the quality and availability of farmer-saved seed yam. She emphasized the sociocultural significance of yam, with an economic value which exceeds the top four food crops in Nigeria. However, yam production is faced with many limitations including slow multiplication rates, but the YIIFSWA project has been able to break the jinx by developing techniques to greatly increase the multiplication rates such as the [Temporary Immersion Bioreactor System](#) (TIBS) and [aeroponics system](#), which have already been established in Nigeria and Ghana.

Aighewi further noted that the YIIFSWA project and its partners including the National Agricultural Seed Council (NASC) have established a formal seed system through which private sector businesses can produce and sell certified seed yam to farmers.

“To increase productivity, it is essential to have sufficient quantities of certified clean seeds for farmers as it has been proven that yields from clean seeds far exceed yields from seed infected with viruses and other diseases,” she said.

YIIFSWA is now on its second phase and there is a provision to train seed private



Staff listen to presentations on IITA's yam R4D work.

sector companies to solve the problem of seed availability.

Further presentations were made by [Patrick Adebola](#) and [Asrat Amele](#), Project Leader and Yam Breeder, respectively, of the [AfricaYam](#) project. Adebola gave an overview of the project, which is on its third year of implementation. AfricaYam has constructed four yam barns, one each in Nigeria, Ghana, Benin, and Côte d'Ivoire, as well as seven screen houses to support the yam breeding infrastructure in the four target countries of the project.

The project has also equipped the national agriculture research systems across the four countries with modern laboratory equipment and digital data capturing devices to build staff capacity especially of young yam breeders. Apart from working with yam breeders from the four West African countries, the project also has partners in the United Kingdom, France, Japan, and the USA to develop molecular tools to support yam breeders.

Adebola noted that the project had already established an online forum called the Yam Community of Practice (YCoP) to enable interaction among the diverse stakeholders working on yam. The forum is accessible through the project website www.africayam.org.

The final presentation delivered by Amele was titled “Yam breeding for food security and wealth creation”. The presentation emphasized the yield gap, which is the difference between farmers' actual yield of 10–15 t/ha and the potential yield of 40 t/ha. To bridge the yield gap, improvements in agronomic

practices and genomics are essential to speed up seedling and clonal selection decisions by yam breeders.

Olurotimi Famodile, AfricaYam Project Administrator, led the interactive session and encouraged the Youth Agripreneurs to take advantage of the huge business potentials in seed yam production as well as yam processing. Comments and discussions on the presentations focused on the need to strengthen capacities to develop future yam scientists, inclusion of yam in the national agricultural strategy of Nigeria to portray the importance of the crop in income generation and food security, the impacts of climate change on yam production, as well as the need for the development of yam specific fertilizers.

There was expressed concern over the high cost of processed yam products. Other areas of the yam value chain that need attention are mechanization in yam production, making available clean planting materials of improved varieties, and improved agronomic practices. Solutions to these will help bridge the yield gap and translate to increased productivity and income for yam farmers.

An exhibition of yam composite products including yam cakes, cookies, bread, pancakes, and several local dishes prepared from yam were made available for participants to taste. All the preparations were highly appreciated. Participants comments include: “I never knew yam flour can be used for baking”, “It tastes really good”. Many were convinced that yam is indeed a valuable crop and the king of crops, and an important source of food and income in Nigeria.



Staff queuing to taste products made from yam.