

IITA/AfDB to launch a bold plan to revolutionize African agriculture

Scientists, development specialists, agricultural experts, representatives from national agricultural research and extension systems (NARES), and entrepreneurs from the private sector mainly from Africa will assemble in IITA, Ibadan, Nigeria on 22-25 January, for the inauguration and planning workshop of the long-awaited [African Development Bank](#) (AfDB)-funded program called [Technologies for African Agricultural Transformation](#) (TAAT).

The multi-year, multi-partner TAAT program was conceptualized based on “Africa Feeding Africa,” a core priority of AfDB and aligned with the Bank’s Ten-Year Strategy (2013- 2022) for inclusive and green growth in the continent. The program, aimed to revitalize African agriculture, was conceived in a high-level conference on African agricultural transformation attended by leading experts in agriculture, research



TAAT aims to increase agricultural productivity and diversification, improve socioeconomic status of farmers, and create jobs for millions of Africans.

institutions, academia, financial institutions and civil society held in Dakar, Senegal, in 2015. TAAT was first announced during the [World Food Prize](#) events held in Des Moines, Iowa, in October, 2017, where

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IITA success story: Beneficiary sends 4 sons to university; is now a consultant for plantain seedlings in South-South Nigeria

Farmers in the South-South and South-East regions of Nigeria continue to thank IITA for reviving the Onne station. Michael Akekue, the first Agripreneur to be associated with IITA and one of the beneficiaries of the Plantain and Banana improvement program (PBIP) of IITA, was trained on improved methods of production 30 years ago. He says, “IITA has made me what I am today through its developmental efforts of eradicating poverty among rural resource-poor farmers through

improved agriculture and agricultural technologies.”

Akekue is a subsistence farmer from Kpitem Village in Tai local government area (LGA) of Rivers State who used traditional production methods. Luck, however, shone on him when he was selected in the 1980s to participate in the PBIP training at IITA Onne station. He was trained on improved methods of planting and was provided with improved varieties (SH 3436-9,

Cooking Banana, and Km-5, etc.) for multiplication and distribution.

He encountered setbacks as the new varieties provided by IITA were at first unacceptable to farmers who were skeptical to even try it; nevertheless, that did not stop him from multiplying these varieties; he observed all improved management practices he learned and engaged more farmers. “In the 1980s, farmers did not like the varieties but now they rush to get them

because they bring more suckers, are resistant to Black Sigatoka and other pests, and have a fantastic taste. Unlike with the local varieties, if you plant 1000 suckers, you are not sure of getting 100 suckers from it because of pests and diseases,” says Akekue.

With IITA support, farmers began to see the yield difference between these IITA-introduced varieties and local varieties; the news spread like wildfire attracting both young and old farmers. Plantain and banana production became a money-making venture as the improved suckers were sought after by farmers throughout the state and in neighboring states.

From the proceeds of his plantain and banana business, Akekue sent four of his sons to university; two are awaiting entrance into higher institutions. His sons are now professionals in the fields of medicine and surgery, engineering, and agricultural science. Currently, he is a consultant for seedling supply. Years ago he set up macropropagation chambers for different varieties of plantain and banana. He has supplied over 100,000 suckers to farmers, government and private agencies including the NDDC (Niger Delta Development Commission), and the IITA Youth Agripreneurs (IYA) in Onne station.

“IITA improved technologies have helped farmers in this area to improve their farming methods and leave the



IITA staff present three new varieties (BRS Princesa, BRS Victoria, and BRS Pacovan ken) to Farmer Akekue for evaluation.

traditional ways of farming, largely improving our livelihoods. We are grateful to IITA for the intervention and for making me what I am today,” Akekue said.

Due to his passion to learn new ways of farming and adopt new technologies, the ever-hardworking farmer was engaged as an IITA contract farmer. [Rony Swennen](#) (Senior Banana Breeder previously based at IITA Onne, 1979 till 1990) who was on a 3-day working visit to the station, together with Postdoctoral Fellow [Josephine Agogbua](#), visited Akekue and commended him for being an active IITA Ambassador. Agogbua shared with him three new sweet banana varieties (BRS Princesa,

BRS Victoria, and BRS Pacovan ken) developed in Brazil by EMBRAPA. He intends to grow these in his backyard for research evaluation and feedback purposes that will strengthen and validate documentation on hybrids.

Akekue hopes to train more farmers and disseminate the knowledge gained to other regions of the country. “In as much as some farmers have adopted the improved methods, the majority are still plagued by the crude and ancient methods of production. Before one can adopt modern technologies, one must learn from an institution such as IITA which has the mandate to improve agriculture,” he concluded.

IITA commences confined field trials... [Continued from page 1](#)

AfDB [President Akin Adesina](#) was given the 2017 World Food Prize award. TAAT will be launched on 22 January at IITA’s headquarters in Ibadan, Nigeria.

According to Dr Jonas Chianu, AfDB Agricultural Economist and TAAT program manager, “TAAT heralds a new dawn in African agricultural transformation because of its key benefits.” TAAT will lead to:

- Increased agricultural productivity and diversification, leading to improved food and nutrition security,

- Improved socioeconomic status of farmers including women and youth due to higher incomes,
- Reduced vulnerabilities to market fluctuation due to agricultural product imports, and
- Job creation, among others.

TAAT will execute an ambitious and bold plan to achieve rapid agricultural transformation across Africa by raising agricultural productivity along nine Priority Intervention Areas (PIA) and over 18 agricultural commodity value chains.

The execution of TAAT will involve close partnership among the AfDB, World Bank, and development partners to ensure increased financing for agricultural research and development along the value chains. [FARA](#), the [CGIAR](#) System Organization, and 11 of its 15 international agricultural research centers most active in Africa, have embraced the Bank’s initiative and are co-sponsoring the program to revitalize and transform agriculture within the shortest possible time while restoring degraded land and maintaining or strengthening the ecosystems that underpin agriculture.

N2Africa success story

Bean production improving livelihoods of farmers in Northern Tanzania

Ismail Abass, 47, is a farmer at Baga village in Bumbuli District as well as being the father of seven. He is one of the beneficiaries of the [N2Africa project](#). Before the project, his main produce were vegetables (tomato, cabbage), maize, and Irish potato. He grew common bean mostly for home consumption, but he did not use and was not aware of any improved seed varieties and he did not apply fertilizers to the beans.

“Here in Bumbuli most farmers cultivate common bean for home consumption as opposed to vegetables, which are cash crops. Many of us, including myself, practice indigenous bean production. We do not follow proper spacing, we use low quality seeds and zero fertilizer application, resulting in low productivity. On average I used to plant 35 kg of low quality seed on one acre and harvest only two and a half to three bags,” said Ismail.

In 2015, he was identified by the leaders and agriculture extension officer from his village to participate in N2Africa’s common bean demonstration trials where he learned a lot on improved common bean production including the use of improved seed varieties



Mr Ismail Abass feeding his cows.

(Lyamungo 90), the use of fertilizer, and timely planting and weeding.

“Since the project started in 2015, I have been planting 25 kg of improved seeds (Lyamungo 90) with fertilizer (DAP) and harvesting between 8 to 10 bags per acre,” said Ismail.

For the three years he has been involved with the N2Africa project, he has produced more than 54 bags from 6 acres. He started with one acre, then increased to three acres then to six acres. He has sold 48 bags of common bean at a price of \$0.9/kg, earning a total revenue of \$4,364.

“I used the money to pay school fees for my children from primary to secondary school, improved my house, purchased a television, and diversified to animal keeping. I now have eight cows, seven goats, and five sheep because of the N2Africa project, and I use manure from the animals for maize and vegetable production,” added Ismail.

“I now realize common bean is a cash crop like other crops, and I plan to expand land for its production in the coming seasons because I am no longer concentrating on tomato production.”

RTBfoods—a new program—announced by CIRAD to encourage better variety choices in Africa

A new program called RTBfoods (Breeding RTB Products for End User Preferences) was launched recently. It is a 5-year effort created to pinpoint the quality traits that determine the adoption of new root, tuber and banana (RTB) varieties developed by breeders. The 11.5 million-euro project will take a novel approach involving consumers, processors and researchers, and will eventually serve to boost food security.

According to Dominique Dufour, a [CIRAD](#) researcher specializing in cassava, the project will serve to link local consumer preferences with quantitative quality criteria before integrating these criteria into breeding programs. The aim is to ensure more

widespread adoption of improved varieties, hence boosting food security and farmers’ incomes.

The RTBfoods project will be implemented with five partner countries: Benin, Cameroon, Ivory Coast, Nigeria, and Uganda. It will analyze three common uses of these target crops: cassava, yam, sweet potato, plantain, and tropical potato. The analysis will use a reverse engineering approach, working backwards from consumers to breeders.

RTBfoods will focus on five work packages:

- Socioeconomic aspects to answer the following question: along

the value chain, what are the criteria that determine whether a variety will be adopted or rejected? Aspects linked to gender (role of women and children in decision-making) will be closely examined;

- The link between the above users’ criteria and the biophysical properties of different varieties: how do people’s preferences (texture, consistency, taste, etc.) relate to biophysical data (starch and fiber content, etc.)?

- Building on CIRAD’s expertise in terms of near-infrared spectroscopy analysis (NIRS). This technology serves to detect the biological compounds that make up food matrices: it is used

as a fingerprint of foodstuffs, providing information on certain quality traits (cooking quality, firmness, etc.). This approach allows breeders to predict the quality traits of their new varieties;

- The genetic components of quality traits and assessing the impact of the environment on their variability, such as the climate, soil, etc.;
- Ensuring that breeders increase their use of selection tools for quality traits, and that new varieties better match the users' quality criteria.

The RTBfoods project inception meeting will be held in Buea, Cameroon, 3-28 January 2018.

--From <http://www.cirad.fr/en/news/all-news-items/press-releases/2018/rbfoods>



Cassava is a staple root crop in many African countries.

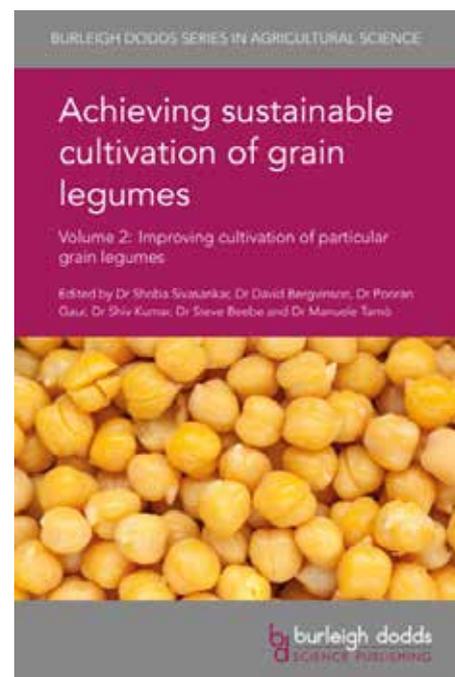
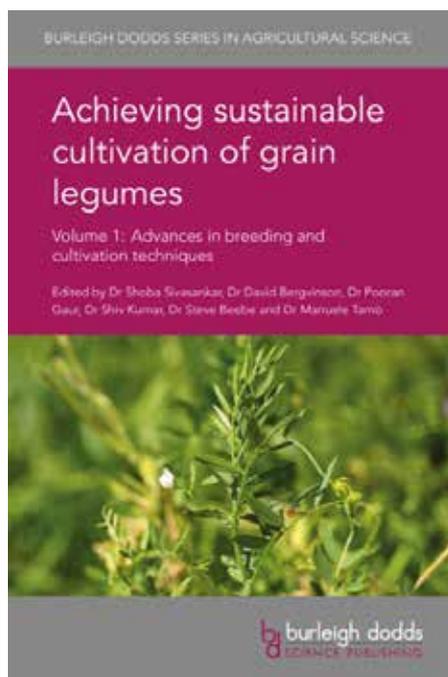
New publications off the press

Two new volumes about sustainable cultivation of grain legumes published by [Burleigh Dodds Science Publishing](#) are now off the press: [Achieving sustainable cultivation of grain legumes Volume 1: Advances in breeding and cultivation techniques](#) and [Achieving sustainable cultivation of grain legumes Volume 2: Improving cultivation of particular grain legumes](#). Some of the authors are from [IITA](#).

Both volumes are edited by Dr Shoba Sivasankar, Director of both the CGIAR Research Program (CRP) on Grain Legumes and the CRP on Dryland Cereals, based at the International Crops Research Institute for the Semi-Arid Tropics ([ICRISAT](#)) in India.

Last year two volumes each on cassava and maize were also published:

- [Achieving sustainable cultivation of cassava Volume 1: Cultivation techniques](#)
- [Achieving sustainable cultivation of cassava Volume 2: Genetics, breeding, pests and diseases](#)
- [Achieving sustainable cultivation of maize Volume 1: From improved varieties to local applications](#)



- [Achieving sustainable cultivation of maize Volume 2: Cultivation techniques, pest and disease control](#)

The volumes on cassava were edited by Dr Clair Hershey, former Cassava Program Leader at the International Center for Tropical Agriculture ([CIAT](#)) in Colombia. Dr Dave Watson, former

Program Manager of the CGIAR Research Program on MAIZE, based at the International Maize and Wheat Improvement Center ([CIMMYT](#)) edited the maize volumes.

To order copies of the books, use the discount code IITA20 to get a 20% discount on all crop titles ordered at <https://shop.bdspublishing.com>.

Marrakech, Morocco to host conference on legume research

The [7th International Food Legume Research Conference \(IFLRC-VII\)](#) will be on 6-8 May 2018 at Palais des Congrès, Marrakech, Morocco. This year's event will be hosted by [ICARDA](#) and [INRA Morocco \(in French and Arabic\)](#) and will continue from past conferences in promoting international collaboration on basic, applied, and strategic research on food legumes.

The IFLRC website states that “Food legumes are smart crops and play a decisive role in sustainable agriculture by promoting biodiversity, biological nitrogen fixation and adding much needed organic matter to the soil. They contribute to climate change mitigation and adaptation and provide high quality food, feed, and raw materials for industries.” These smart crops are very important to food security and nutrition and are the focus of this conference.

There is also a plan to organize several crop-wise workshops on the second



day (7 May) of the conference to give an opportunity for participants to make oral presentations.

Early registration commences on 31 January 2018 on the [IFLRC-VII website](#).

The IFLRC was started in 1986 to disseminate current knowledge and achievements of research and development (R&D) in food legumes and identify research needs, new scientific approaches, and partnerships.

Events

- TAAT inauguration and planning workshop, 22–24 January, IITA, Ibadan, Nigeria
- CIALCA Open Data Kit training workshop, 23–25 January, Nairobi, Kenya
- ACAI Strategic meeting, 29 January – 2 February, Nairobi, Kenya
- CLIP Annual review and Planning meeting, 29–31 January, Bukavu, DRC
- CIALCA project launch, February, Kigali, Rwanda
- Nairobi Innovation Week, 5–9 March, The Great Court, University of Nairobi, Nairobi, Kenya
- International Women's Day, 8 March
- BASICS annual review and planning meeting, 14-16 March, IITA, Ibadan, Nigeria
- 2018 Annual Review and Work Planning Meeting, Cassava Weed Management Project, 19 – 20 March, Conference Center, IITA, Ibadan
- IITA Board Meeting, 24–26 April, [Center for Development Research of Bonn University](#) (ZEF), Bonn, Germany
- Special event on “African agricultural transformation: The IITA Agripreneur Approach to Job Creation”, 26 April, ZEF, Bonn, Germany
- 7th International Food Legume Research Conference, 6-8 May, Palais des Congrès, Marrakech, Morocco

Got a story to share? Please email it with photos and captions every Wednesday to iita-news@cgiar.org or Katherine Lopez (k.lopez@cgiar.org) and Uzoma Agha (u.gha@cgiar.org) for headquarters and Western Africa, Jeffrey T. Oliver (j.oliver@cgiar.org) for Southern Africa, Catherine Njuguna (c.njuguna@cgiar.org) for Eastern Africa, and David Ngome (d.ngome@cgiar.org) for Central Africa.