

IITA - enabling youth in agriculture

For six years, [IITA](#) has been supporting the dreams and aspirations of many African youth by creating a platform that encourages them to choose a career in agriculture. The [IITA Youth Agripreneurs \(IYA\)](#) initiative, which started at IITA Headquarters, Ibadan, Nigeria, in 2012 has spread across Africa, guiding vibrant, energetic, young people to become owners and co-owners of independent agribusiness enterprises.

Many of these young people were unemployed and underemployed before their encounter with IYA and did not see themselves creating a career along the agricultural value chains or embracing agriculture as a business. According to them, IITA showed them how to take advantage of the potentials of agriculture.

Initially, many of them had a negative perception about agriculture, but IITA helped changed their mindset by organizing training on agricultural commodities, business management, and leadership skills, and providing mentoring and facilities to explore available opportunities.

Within a short time, the initiative recorded successes and became an adoptable model used by organizations and corporate bodies to execute youth-in-agribusiness projects. One such project is the ENABLE-TAAT project.

The ENABLE-TAAT project, which is funded by the [African Development Bank](#) (AfDB), is one of 15 Compacts comprising the Technologies for African Agricultural Transformation program (TAAT) and led by the Youth in Agribusiness Unit of IITA.



Director General, Dr N. Sanginga, screening some of the plans submitted by the youth.

Implementing one of the objectives of the project, IITA is providing support for agribusiness establishment and expansion by screening business plans and ideas in the applications from Agripreneurs seeking funds to establish and expand their agribusiness enterprises.

The exercise is being done in partnership with business experts from [EKIMIKS Nigeria Limited](#). To date 34 businesses have been selected out of the 51 applications received from Agripreneurs in DR Congo, Kenya, Nigeria, Tanzania, and Uganda. These young people will receive start-up and expansion funds, which will be disbursed in four tranches as loans and grants.

Gathering on Thursday, 19 July, at the office of IITA Director General [Nteranya](#)

[Sanginga](#), some of the youth spoke about their dreams and business plans.

A co-owner of F-Step Cassava enterprise, Seun Ogidan, while giving an update on the business, said that the company has acquired 15 hectares of land at Ago-Owu in Osun State to establish a cassava farm. The business, which is registered by the Corporate Affairs Commission, will be operated in partnership with another Agripreneur, Funmi Lamidi. She added that a sum of 600,000 Naira (about \$1,700), which she borrowed from an uncle, has so far been invested in the business. She stressed that the partners are willing to expand their production to 25 hectares if they have access to funds.

Taking a step ahead, the CEO of Gracevine Ventures, Abosede Idowu, explained that she requires some funds

to expand and to help her business penetrate a larger market in Lagos. Abosede, who started her business in 2016, needs to upgrade her packaging to meet international standards. She is also planning to invest some funds in cultivating cowpea to produce cowpea flour, a major raw material used in her products. Located at Moniya in Ibadan, Nigeria, Gracevine produces yam flour, plantain flour, packaged stoneless beans, and many other products.

Frotchery Farms, which is another spin-off from IITA Youth Agripreneurs, has done well within a short time, venturing into the business of catfish smoking. The business is owned by three young graduates—Ngozi Chituru, Babatunde Ismail, and Oni Hammed, and is planning to acquire about 17 ponds to enable them to have access to raw

materials. The business has existing markets, but is facing challenges in meeting demand due to the non-availability of the required sizes of catfish. Since inception a year ago, the business has realized a revenue of \$18,000 and penetrated 12 states in Nigeria and three countries. It has also launched a website to enhance the visibility of the company. The business has provided direct employment opportunities for three youth and indirect employment for 26 others through retail, distribution, and sales.

Other Agripreneurs expressed their plans along the value chains of various crops and livestock that include bread production, snailery (production, processing, and packaging), cowpea grain and seed production, rice production, maize aggregation,

plantain flour production, plantain chip production, and maize seed and grain production.

Addressing them, DG Sanginga enjoined the young people to be humble and to work as a team. He encouraged them to always support each other as they all need one another to grow their businesses.

Similar opportunities are being given to the Agripreneurs in East, West, and Central Africa to pitch their business ideas before a panel at an agribusiness workshop slated to take place in Nairobi in August.

Adequate monitoring and evaluation will be carried out for further checks and balances and backstopping to monitor the growth of the businesses.

TAAT holds inception workshop with Business Innovation Facility

The [Technologies for African Agricultural Transformation](#) (TAAT) held its inception workshop at the [IITA](#) Conference Center on 9 July. The workshop, organized in conjunction with the [Business Innovation Facility \(BIF\)](#), aimed to address the scaling up of production and supply of High Quality Cassava Peel (HQCP) mash as a key ingredient in the production of livestock feed in Nigeria.

The workshop included discussions on ways to increase awareness among smallholder farmers, cassava processors, and end users on the extensive potential of using cassava peel. The intensive use of advocacy was encouraged along with other promotional methods including a strategy to promote cassava peel as a cost-effective alternative to maize as a source of energy for livestock feed.

Another important point was the promotion of independent small agribusiness entrepreneurs deploying commercially sustainable models, linking sellers with buyers of cassava peel grits. Identifying and tackling constraints in scaling up the incorporation of cassava peel grits in livestock feed was also discussed as crucial to the achievement of the TAAT objectives.



Participants at the TAAT inception workshop.

The workshop was multifaceted comprising multiple TAAT value chain compacts as stakeholders from the poultry industry, feed industry, fabricators, government representatives, poultry farmers' association, catfish farmers, garri processors, and academia were present.

Speaking at the workshop, Nigeria Country Representative of the [International Livestock Research Institute](#) (ILRI), [Dr Tunde Amole](#) said cassava peels are a major

environmental pollutant and investing in this transformative technology not only provides feed for poultry, pig, cat fish, etc., but also creates more wealth for farmers and helps in waste management.

Various presentations were made on the results of several trials and participants discussed other possibilities for wider use of HQCP mash as well as relevant issues and opportunities related to the technology. The workshop was concluded with an overview of

a workplan to improve livestock productivity using this alternative feed resource.

BIF is a five-year (2014 – 2019), DFID-funded market systems development program that aims to improve the lives of the poor in Malawi, Myanmar, and Nigeria.

BIF works to identify and address constraints in selected markets, providing technical assistance (and some grant funding) to businesses and other market players.

IITA capacity building on banana and cassava breeding produces three students

Building the capacity of its staff and partners is an important mandate of [IITA](#) as part of efforts to address the major challenges facing the agriculture sector in Africa. Recently, three students supported by IITA's breeding program graduated—two with the banana breeding program and one with the cassava molecular breeding team.

Two IITA banana staff obtain their degree on the same day

On 12 July 2018, Moses Nyine obtained his PhD at the Institute of Experimental Botany, [Palacký University Olomouc](#), Czech Republic, for his work "*Genomic selection to accelerate banana breeding: Genotyping by sequencing of banana hybrids.*"

His PhD was both supported by IITA and the Institute of Experimental Botany. His supervisor was Prof Ing. Jaroslav Doležel, DrSc and his IITA co-supervisors were [Prof Rony Swennen](#) and Drs [Brigitte Uwimana](#) and [Allan Brown](#).

Nyine is part of IITA's breeding program in Sendusu, Uganda, where breeding of highland cooking bananas, called *Matoke*, is taking place in collaboration with the [National Agricultural Research Organisation](#) (NARO).

Moses started as a lab technician at IITA in 2005, at the molecular and cytogenetics laboratory of the banana breeding program, Sendusu. He went for his MSc degree in 2012 at [Makerere University](#), Kampala, Uganda, with an IITA scholarship. His thesis was on "*Gene transcript analysis in drought stressed 'AAA' and 'ABB' bananas*



Moses Nyine (second from left), who received his PhD from Palacký University Olomouc in the Czech Republic, with his IITA supervisors.

using next generation sequencing technologies."

The other student, Hassan Shabani Mduma, obtained his MSc in December 2017 and his certificate on 12 July 2018. His Master's in Life Science (Sustainable Agriculture) was supported by IITA and obtained at the [Nelson Mandela African Institution of Science and Technology](#), Arusha, Tanzania. His thesis was entitled "*Role of plant parasitic nematodes (*Pratylenchus goodeyi* Sher & Allen) on *Fusarium* wilt disease incidence and severity on banana.*"

His supervisors were Dr Ernest R. Mbega and Prof Patrick Ndakidemi; he was co-supervised by Dr Allan Brown and Prof Rony Swennen. Hassan started as a research supervisor at the IITA banana breeding team in Arusha in 2012.

Shabani is part of the IITA breeding program at Arusha, Tanzania, focusing on breeding *Mchare* bananas, another type of a highland cooking banana, in collaboration with the Nelson Mandela African Institution of Science and Technology.

Moses is now a Postdoctoral Research Associate at the Department of Plant Pathology, Kansas State University, while Hassan continues his research at IITA, Tanzania.

Esther Masumba gets her PhD in Genetics

Esther Andrew Masumba successfully defended her PhD thesis in Genetics in June at the Forestry and Biotechnology Institute of the [University of Pretoria](#),

South Africa. She presented her prestige seminar titled “*Mapping of QTL associated with resistance to Cassava Brown Streak and Mosaic Disease in cassava farmer varieties from Tanzania.*”

Esther completed her research under the supervision of Dr Albe van der Merwe and Professor Zander Myburg from the university and [Dr Morag Ferguson](#) of IITA in Kenya.

Esther’s study focused on two genetically related varieties of cassava (*Manihot esculenta* Crantz) grown by farmers in Tanzania. One, named Namikonga, is tolerant of cassava brown streak disease (CBSD) and susceptible to cassava mosaic disease (CMD), while the other, Albert, is resistant to CMD and susceptible to CBSD.

These contrasting attributes enabled Esther to genetically map the positions of contributing disease resistance genetic factors on the genome of cassava. This will ultimately enable molecular breeders to track these portions of the genome and ensure that future, improved varieties carry the advantageous segments.

This will benefit breeding programs in CMD- and CBSD-affected countries



Esther Masumba with her PhD diploma.

in South, East, and Central Africa, which have experienced declines in yields. Such markers will also help other countries such as Nigeria, the largest producer of cassava, prepare for the arrival of CBSD, by breeding for resistance.

Ferguson said “Esther has worked extremely hard during her PhD

studies, has mastered many new skills, particularly in the sphere of bioinformatics, and has enhanced her understanding of genetics. She has produced an excellent thesis and will no doubt make very valuable contributions to the Tanzanian Agriculture Research Institute as she returns to her position at the Institute, based at Kibaha. Congratulations Esther!”

Statistics with R: Workshop for UI-IITA researchers

To improve the statistics knowledge of researchers at the [University of Ibadan](#) (UI) and [IITA](#), the Carnegie Africa Diaspora Fellowship organized a workshop on statistics with R at IITA headquarters in Ibadan. The workshop was held 18 June-3 July to complement the statistics training of graduate students and scientists of the University and IITA. It focused on enhancing the programming skills of participants as it is expected that more graduate students will opt to use R in their research at the end of the training.

The statistics with R workshop began with a one-week introduction to Statistics and Econometrics, followed by two weeks of data analysis and exercises. The subjects covered in the applied section of the course ranged from basic cross tabulation and plotting trends to advanced-level regressions.

For most purposes, R is free to anyone with access to the Internet as obtaining licenses for packages like STATA and



Dr Michael Olabisi explaining the use of R environment.

SARS can be expensive. In addition, it provides access to a versatile and free data analysis tool. R addresses several

challenges faced by young researchers in the Nigerian context, where resources are limited.

The workshop instructor, Dr Michael Olabisi, described R as a programming language like FORTRAN and C+, stating that it is accessible and easy to understand. He said it combines programming language and statistical analysis platform.

In addition, Olabisi noted that some of the alumni of the previous workshop have published papers in reputable

journals in Nigeria. For the sustainability of this project, he said an online community has been created, where participants can share codes and ask questions to enhance communication and learning.

Kolade Olupademi, a PhD student of Agricultural Economics at UI and a workshop participant, said that prior to the training, he was completely ignorant

of R as a package for analysis. At the end of the training he said he now has more confidence and better insight into the [R environment](#).

An IITA research administration manager, Bunmi Bossey, said the training was relevant because R is a basic programming tool that can be used for analysis and for preparing good graphics for publication.

FCT agricultural secretariat donates improved coconut seedlings to Abuja station



Mallam Aminu Abubakar of FCTA presenting the coconut trees to the Head of Abuja Station, Dr Gbassey Tarawali.

The agricultural secretariat of the Federal Capital Territory Administration, Nigeria, has donated 150 improved coconut seedlings to the [IITA](#) Abuja station. A presentation ceremony was held on 13 July at the station grounds with a handful of staff from both organizations attending.

Presenting the agricultural materials on behalf of the FCT Minister, the FCT agricultural resident desk officer at the

Abuja station, Mallam Aminu Abubakar, stated that they were “meant to add more beauty to the environment.”

Receiving the seedlings, IITA-Abuja Head of Station, [Gbassey Tarawali](#) thanked the Minister for the gesture, saying that these would be adding to the natural aesthetics of the environment.

The trees have been planted in

strategic locations around the station.

The presentation of these seedlings further strengthens the burgeoning collaborative relationship between the FCT Administration and IITA. It would be recalled that the FCT Minister visited the station a few months back, when he promised to support the growth and development of the station. He was the first ever FCT Minister to visit the station since it was established in 1993.

Got a story to share?

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