

Building the future of Africa today through Agribusiness



Contents

Summary	1
IYA Strategy	2
From the Head, Youth in Agribusiness Office	3
IYA Nigeria	6
IYA Onne	37
IYA Abuja	42
IYA Kano	51
GREENWEALTH Agripreneurs	55
GREENMAGIC Agripreneurs	62
IYA Kalambo	65
IYA Kinshasa	73
IYA Tanzania	76
IYA Uganda	78
KIBWEZI Hortipreneur Youth Group	83
Photo Gallery	92



Summary

IITA Youth Agripreneurs recognize that African youth need to create decent and gainful employment in the agricultural sector for other youth to reduce the rate of unemployment in the continent. The involvement of youth in the sector will also help salvage the continent from the ageing population of its farmers which is put at 60 years of age.

We are committed to help Africa and the youth realize that dream through our advocacy for an enabling environment for youth to practice agriculture as a business. We are also committed to share first-hand experiences and information on improved varieties and technologies; providing on field and classroom trainings, mindset changing activities, incubation platforms, and improved planting materials; and forging strategic alliances with stakeholders in the sector.

Our passion is to also see that we establish our independent agribusiness enterprises along the value chains, create jobs, and ensure that we contribute immensely to the transformation of the agricultural sector.

Year 2016 brought many achievements and challenges, including expansion of our agribusiness enterprises as well as replication of the group outside Ibadan to other locations within Nigeria, partnership with the private sector, institutionalization of the youth in agribusiness unit by the Board in IITA, and approval of the Pan-African youth in agribusiness program ENABLE Youth, just to mention a few.

In response to the voice of the African Youth, we continue to be guided by our strategic plan and by the determination to ensure that Africa, once again, becomes the food basket of the world and the continent is able to feed itself. This is by ensuring that we contribute our quota in terms of our skills and technology to develop the agricultural sector and change the narrative of the sector globally.

IYA Strategy

In her revised strategy of 2014, IYA is embedded in a vision of national and peaceful agricultural transformation and reconstruction, whereby enterprises are developed or conceived, weighed or tested, and then adopted when proven viable or profit worthy. The businesses adopted are expanded to a scale that will ensure the group's financial independence and sustenance, whilst the linkages to more projects will also be facilitated as this will continue to constitute a major source of funding for exploration of newer business ventures.

In a bid to also reach its target of reorienting youth towards a more productive engagement in Agriculture, IYA has continued to inquire and query it's model with a view to define and attain quicker result and faster growth processes within replication.

From the Head, Youth in Agribusiness Office-Evelyn Ohanwusi



Evelyn Ohanwusi

For IITA Youth Agripreneurs, 2016 was a year of moving forward our strong queue of projects even though we experienced a lot of setbacks in certain areas in terms of delivery on some major projects. Nevertheless, we remained focused on ensuring that every youth has the opportunity to tap into the vast opportunities available along the agricultural value chains just as IITA has also given us such opportunities.

The journey into youth engagement in agriculture started just like yesterday and four years down the line, the IITA Youth Agripreneurs has grown and gained so much recognition within Nigeria and beyond the shores of the country.

The achievements, impact, and success stories recorded in the space of four years to a certain extent have proved the hypothesis being tested that with support, training, mindset change, and adequate resources, youth can be productively engaged and create decent employment in agriculture.

The year 2016 recorded expansion across our locations in Nigeria and other African countries. We were also able to crowd in private sector funding to implement certain projects that aid in reaching out to other unemployed or under-employed youth. Among such projects were Hello-Tractor sponsored by USAID and the MasterCard Foundation and Chevron projects.

Following IITA's Board meeting in May 2016, the notion to have the program formalized within the Institute's framework was approved. This is in recognition of the fact that young Africans will become the drivers of economic growth and also out-scale the scientific technologies in agriculture.

Based on this, the program was institutionalized in October 2016, under the Institution's newly renamed Partnership for Delivery (P4D) directorate headed by Dr Kenton Dashiell. The unit will lead in advocacy, capacity development, and policy dialogue for Youth in

Agribusiness. It will oversee and coordinate the implementation of ENABLE Youth and other youth projects in Africa and partner with IITA's Business Incubation Platform on business plan development and implementation, particularly for youth in agribusiness.

In 2016, the ENABLE-Youth project gained recognition and has so far been adopted in over 30 African countries with some countries like Algeria, DRC, Nigeria, and Sudan being approved. The approval was based on series of appraisals as stand-alone projects while about twelve other countries have theirs as a component within existing projects.

About 15 project preparation facility (PPF) operations are ongoing and many more are expected in the coming year. IITA through its cadre of youth have and will continue to provide necessary support in advancing the ENABLE program across the African continent.

Also in 2016, Agripreneurs all over Africa held a workshop where bankable business plans were developed in clusters for different agribusiness enterprises along the value chains. The business plans are being reviewed to secure funds from financial institutions.

The year 2016 was indeed a productive year filled with intensive advocacy and increased awareness for the youth in agribusiness, intensive training for youth, extensive communication with our partners and publics, improved sales, and also winning awards during competitions both within and outside Nigeria.

Two more IYA offices were opened in Onne in Rivers State and Kano State. Some of our colleagues in Ibadan were transferred to these locations to replicate the model.

In coming years, I will be working with a host of partners, donors, supporters, and colleagues to make impact and deliver in the agribusiness space for youth.

There is no question that we need to maintain the momentum gathered so far through our achievements and impact. We also need to re-evaluate and re-invent ourselves so as to stay focused.

If there must be agricultural transformation then youth must be motivated to embrace agribusiness thus becoming the drivers of the change required.

I invite you to enjoy more details of our story from Nigeria, DR Congo, Kenya, Tanzania, and Uganda.

IYA Nigeria

The IITA Youth Agripreneurs in Nigeria started in 2012 at the IITA headquarters in Ibadan, Oyo State with forty Agripreneurs who were posted to the institution for the National Youth Service Corp (NYSC) Scheme. The youth, who were from diverse educational backgrounds, were trained, mentored, and coached by scientists on some of IITA's mandate crops. After being trained, the youth established pilot agribusiness enterprise on cassava, cowpea, maize, soybean, plantain, vegetable, fish, pigs, poultry, and value addition of some of the commodities.

Development interests deservedly started to take note of this success and provided some additional modest support for the group's expansion. This support allowed for the mother group in Ibadan to formalize their operations and to expand into new parts of Nigeria.



To reach out to youth, policy makers and stakeholders in the northern part of Nigeria, the IITA Youth Agripreneurs Abuja was established in the Federal Capital Territory in 2014. The Agripreneurs in Abuja are into the production of fish, sorghum, rice, cassava, maize, and vegetables.

The team in Onne were transferred from Ibadan to Rivers State in 2016 to extend

the vision of IYA to the youth in the South-South region of the country. They make use of the IITA station which had been abandoned for over 10 years. The youth in Onne are into the production of plantain suckers, vegetable, fish, cassava, and poultry.

Some Agripreneurs were also transferred from Ibadan to Kano in 2015 to replicate the model in the northern part of the country. The Kano team are into the production of sorghum, maize, tomato, and ram fattening.

The Borno team were replicated after a training organized in 2014 by IYA Ibadan for some unemployed graduates in the State. The training sponsored by the Bill and Melinda Gates

Foundation under the N2Africa Borno project gave IYA the opportunity of mentoring the youth on how to create decent jobs in agriculture. The youth, who were given some start-up funds, have established various independent agribusiness enterprises in the area.

The Green Wealth and Green Magic Agripreneurs are the incubatees of the group. They are currently undergoing an 18-month incubation program with IYA Ibadan. They are expected



IYA Ibadan

to develop bankable business plans and source for funds to establish their businesses based on the experiences gathered during the incubation period.

The total number of IITA Youth Agripreneurs in Nigeria is currently put at 235.



Production Arm

This section highlights the activities, success stories, and achievements of the production and operations arms of the IYA Ibadan. It reflects the success story in terms of the production and sales of commodities when compared to 2015. The report shows how well each unit under the production arm fared in 2016 especially in terms of business with the support of the Business Incubation Platform of IITA.

Cereals and Legumes

The attention of this unit in 2016 was in the production of improved varieties of maize and soybean seed. The unit after some survey and interaction with farmers in the northern part of the country realized that there was a high demand for improved seeds but the supply has been minimal because most farmers have limited access to it not only because there are few seed companies in existence, but also due to the fact that most of the existing companies produce less than 1,000 tons of seed.

This unit identified this gap and has been able to provide some succour to some targeted farmers by doubling the production from 32 hectares which was planted in 2015 to 89 hectares in 2016.

To achieve this, members of the team acquired land in three locations in the North-Niger, Zaria, and Nasarawa. The locations were also favorable in terms of climate and availability of an ever-ready labor force that assists on the field.



The varieties and the breakdown on hectares planted in the three locations include:

- TGX 1951-3F, TGX1987-62F for soybean and DT-STR-Y-SYN2 for maize in Zaria. The total hectares of land planted in Zaria is 25 (10.3 ha of maize and 13.7 ha of soybean).
- TGX 1951-3F for soybean on 20 hectares in Nasarawa. Soybean was the only commodity planted in this location because the operation was in partnership with a privately owned and operated farm in the area.

TGX 1951-3F for soybean and SAM 39 (PVA) for maize in Niger. The total hectarea of land planted in Niger is 44 (10 ha for maize and 34 ha of soybean).



A timeline of activities for the cereals and legumes unit in 2016

Known for producing improved variety seeds for farmers, the unit also provided consultancy services to corporate bodies and individuals.

Among such is the Evergreen farm owned by Ambassador Lewu in Kabba, Kogi State. About 2 hectares of soybean were established as a demonstration plot for the farm.

About 0.8 hectare of cowpea demonstration field was also cultivated for Nestlé Nigeria Plc. The demonstration field established for the company is expected to provide a bigger opportunity for the team in terms of partnership.

The activities of the cereals and legumes team created indirect employment for about 190 rural youth in the three locations. They served as the support team to a host of technicians on field.

The team however recorded some challenges as some of its fields were attacked by a disease-Armyworm- that broke out in the area of operation.

Other challenges include:

Storage facilities: There is need for storage facilities to accommodate the increase in farm produce as a result of doubling production in 2016.

Threshing machine: A combine thresher is needed for smooth running of maize and soybean processing.

Registration with National Seed Council: This is a major constraint in selling to targeted farmers outside the Institute.

Mechanization to ease farming stress (tractor and implements): Farm implements such as tractors and harrower are needed to ease drudgery and encourage cultivation of larger areas of land.

Clear agreement with partners such as Memorandum of Understanding

High cost of labor in Nasarawa field: The Nasarawa location paid the highest amount to casual laborers during farming activities.

Plantain and Banana

The activity of this team over the years has been to multiply and make available disease-free plantain suckers for farmers. Adopting the use of macro-propagation technology to increase the availability of suckers, the unit expanded from six macro chambers which were constructed in 2015 to 12 in 2016. The team in 2015 had the challenge of meeting up with requests from farmers, hence the need for them to expand.



To be ahead of the challenge, the team were trained by experts from the plantain and banana breeding unit in IITA on the best agronomic practices to increase the yield in each macro chamber and the training yielded positive results as the team now harvest over 1500 suckers from each macro chamber. This is a 50% increase in the production as each chamber was only producing 800 suckers in 2015. During the training, they were also introduced to another technique known as “cutting back.” This technique enables them to get maximum yield from each corm planted in the propagator. To maintain the required level of agronomic practices and also produce disease-free suckers, a standard nursery facility for weaning the plantlets harvested from the macro chamber was also established by the team.

The unit also acquired 2.7 hectares of land in IITA in addition to expand the initial 0.9 hectares to increase field sucker multiplication.

They have also become professionals who now train youth who are interested in plantain sucker multiplication and production.

The training provided to a set of young farmers in Oyo State earlier in 2016 yielded some fruit as the trained youth acquired 100 hectares of land and 35 macro chambers for plantain sucker multiplication in Iseyin, Oyo State, with the aim of expanding over time.

Activities	Location	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Field Maintenance	IITA												
Weeding of plantain multiplication field at iita			■	■	■	■	■	■	■	■		■	■
Spraying of herbicides at A6 and A7											■	■	
Spraying of herbicides at 10 C										■			
Spraying of herbicides at Orchard 3								■	■				
Planting at Macro-Chamber	IITA												
Planting of existing Macro chambers			■			■			■				■
Planting of newly constructed Macro chambers													■
Planting the fallow site	IITA												
Planting at Ochard 3									■	■	■		
Activities of Macro-Chamber	IITA												
Planting in the macrochambers			■		■	■		■			■		■
Harvesting of Suckers from field and Propagators				■	■	■		■	■		■	■	■

A timeline of activities for the unit in 2016

After operating the business within the premises of IITA for three years, the three-man team is now set to establish their plantain field outside the premises of IITA.

Cassava Value Chain

This unit recorded a major milestone in 2016 with a multi-million naira project of Nagari Fresh Farm Limited in Nasarawa State. The owner of the farm who is a serving senator in the country approached the organization earlier in the year to seek technical advice on how to set up a functioning and profitable cassava processing center.

Thrilled by the experience of the youth, the Senator decided to hand over the operations of the project to the youth.

Within a short period of time, the youth cultivated about 36 hectares of cassava farm to supply raw materials for the continuous operation of the processing center. The processing center, which is fully managed by members of this unit, has the capacity to produce 4 tons of gari per day.

Through some projects in IITA, the cassava unit was actively involved in the production of stem multiplication.

Among such projects are the CTA (Cassava Transformation Agenda) and HQCF (High Quality Cassava Flour) projects.

The purpose of these projects is to increase the production of high quality roots for cassava flour production in order to supplement wheat flour in Nigeria. Part of the mandate of the unit under the project was for them to train some rural youth on the economic benefits of cassava production.

Through the projects, the unit cultivated 90 hectares of cassava within Oyo State and 191.320 tons of cassava root were harvested for the production of high quality cassava flour and sold at \$11,825.

Known for producing disease-free, drought-tolerant, and high starch content planting materials, the unit received lots of requests for the supply of cassava stems in Nigeria.

With referrals from some of the top personnel at the African Development Bank, the unit supplied over 2,000 bundles of cassava stems to a commercial farm of 500 ha in Abraka, Delta State.

Towards the end of 2016, the unit was also able to partner with some private investors- Primplaks Ltd and T.J farms-where about 50 and 8,000 hectares of land, respectively, will be cultivated for cassava production.



Agripreneurs also train rural farmers on the agronomic practices on cassava.

Through its training component, the unit has successfully trained and backstopped some rural youth on best agronomic practices to increase cassava production yield and the production of high quality cassava flour. Such projects include the High Quality Cassava Flour Project (HQCF), the Chevron Project, and Agripreneurs who are under the unit as incubatees.

Challenges faced in the course of the year include:

- Land Acquisition: The unit experienced some difficulties in acquiring land from the traditional rulers in the host community due to the fact that the crop is a perennial crop. They find it difficult to lease their land for a long period of time.
- Weeds: This is a major challenge faced especially in the location of operation. To get a good yield, one must ensure that the weeds do not compete with the crop but this is difficult to achieve because of the high cost of labor to help weed the farm and even if there is available funds to pay for weeding, getting the labor is another problem.
- Herdsmen: This is a serious issue for farmers in cassava production. During the dry season, the herdsmen and their cows encroach on farms to uproot cassava root for the cows to feed on during the day and even at night.
- Bush burning: During the dry season the herdsmen deliberately set fire to cassava farms in order to allow fresh grass to grow for grazing.

Vegetables

Vegetables are consumed daily in large quantities in Nigeria. Identifying the economic benefit of venturing into vegetable production, the IYA vegetable unit partnered with two companies in Nigeria: East –West Seeds and Akwill.

The partnership will enable the unit to have access to quality vegetable seeds and also coco peat. The unit, which is managed by three young people, revived the unit which was practically not operating as expected in year 2015.

The first thing they did was to identify which vegetable was in high demand and which variety performed best in the area of operation.



The team harvesting some vegetables on the field.

To maximize their operation, the unit adopted the use of new technology which enabled them to supply vegetables constantly to their customers unlike the seasonal supplies experienced in 2015.

They adopted the use of coco-peat in nursery production of over 1000 seedlings of tomato. This technique ensures rapid growth, lessens the time seedlings spend in the nursery, and gives uniform seedlings.

Securing a 8 by 24 m greenhouse, the seedlings were transplanted and the unit recorded a reasonable quantity of harvest for Prosthar variety of tomato. Prosthar was a preferred choice because it has a high yield and shelf life of about 3 weeks. Tomato production was a new crop introduced by the unit in 2016.

Realizing that vegetable production is input intensive and require specialized skills and materials for their seedling production, irrigation, fertilization, pest management, grading, and postharvest handling, the unit adopted necessary measures and this yielded a positive response as they introduced other exotic vegetables like lettuce, cauliflower, sweet corn, spinach, cucumber, okra, and cabbage.

Also reviving the production of papaya, the unit has about 300 stands of mature pawpaw. The varieties of this pawpaw include Mega F1, Shanghai, local varieties, and the dwarf pawpaw. The dwarf pawpaw which is about 150 cm tall has more than 24 fruit on each stand, which makes it a very fascinating variety.

Some constraints encountered in the year were the outbreak of fusarium wilt which affected the tomato at fruiting stage. To mitigate this, a disease-resistant tomato variety was planted with production only in the greenhouse to protect the tomato.

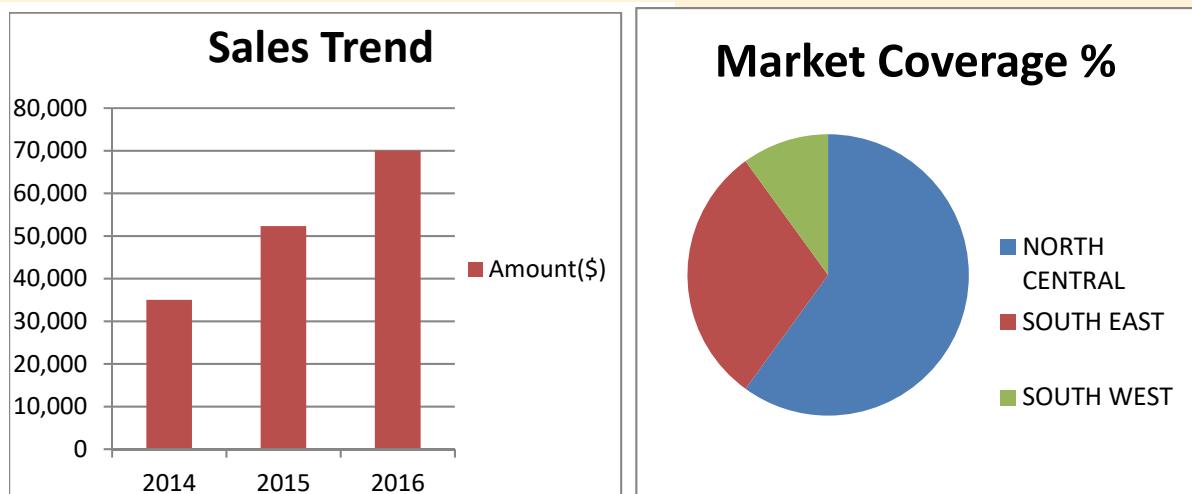
Another constraint is heavy flooding which washed away seedlings on the field during the rainy season. This will however be mitigated in 2017 through the construction of contours before the rainy season.

Also, depletion in soil nutrients has been a major issue in attaining maximum productivity; this will be addressed in 2017 through the acquisition of a new field for production.

Fisheries and Livestock

The unit started in 2014 with no prior knowledge about fish farming. But after 2 weeks' training in Durante Fish Industries, the fisheries and livestock team has surprised many with the success recorded in the business. It started from 4 ponds in 2014 and has now expanded to 17 (in 2015).

The unit became the big winner for IYA in Ibadan and within a space of three years, the unit recorded an increase in sales of catfish that tripled when compared to year 2014 and 2015, respectively. The unit also enjoys a large share of the market as consumers come from east, west, north, and south to Ibadan to buy from the unit.



A graph illustrating IYA fish sales and market trend for 2016

A total of 55 tons of different sizes was sold to different markets with a total income of 70,000 USD.

The unit has also been able to stabilize its young fish production (fingerlings and juveniles) after several challenges faced by the team in terms of generating and producing the fingerlings.

Through its constant trials and operation of the hatching process, the team also recorded success and stocked its 17 ponds with fingerlings from its hatchery. They have, however, not started selling to farmers yet because of their immediate needs for the fingerlings.

Recently, a sudden hike in the price of fish feed has drastically increased the overall cost of production which in turns has led to an increase in the cost of production per unit of fish, while both intending and existing customers are yet to adjust to the newly proposed selling price. Attempts has been made to further develop synergy with other farmers in the state while discussion on market linkage is still ongoing with the Catfish Farmers Association of Nigeria (CAFAN) Oyo State chapter for better markets, customers' database, and price regularization.

The team, who were once novices in the fish farming business, are now experts who offer first hand training and technical backstopping to other youth in Nigeria and other African countries on fish farming.

Over 200 youth have been trained by the group on fish farming business with more than 70 ponds of different capacities (46 ponds in Bukavu-DRC, 5 in Abuja, 17 in Ibadan, 5 in Kibwezi-Kenya) established across the continent of Africa.

The unit through its expansion of activities has been able to create job opportunities to ten other youth (both graduate and undergraduate) who are indirectly engaged through the business.

Other activities engaged in by this team include: Technical backstopping/visit to IITA Abuja station, IITA Onne station, and Afe Babalola University in Ado-Ekiti (ABUAD), and a Farmer's Field Day-an open seminar/sensitization program organized by Skretting Nigeria Limited.

Finally, the unit in collaboration with Taiyo Industry Africa has established and managed a demo compound type project where reports are being submitted on a quarterly basis through IITA's Project Development and Administration Unit to Taiyo Industry's Management.

Some challenges faced in the course of the year include:

- Inconsistent demand from existing customers.
- Sudden increase in the cost of fish feed.
- Insufficient water supply during the dry season.
- Low survival rate of young fish due to low genetic variation from parent stock and environmental conditions.

Processing

This unit is responsible for developing new products from the mandate crops of the organization. Processing adds value to commodities and also make them accessible to the final consumers.

In 2016, the unit achieved an initial step in the certification of its products by NAFDAC. The unit was able to secure a trade name-IYA FOODS-and this is expected to fast-track the certification process.

Well known for producing soymilk and Tidbits, the unit introduced Tidbits snacks to the local market and penetrated three states in the southwestern part of the country in 2015.

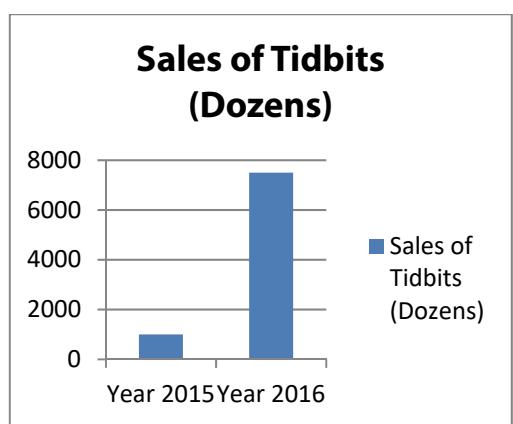
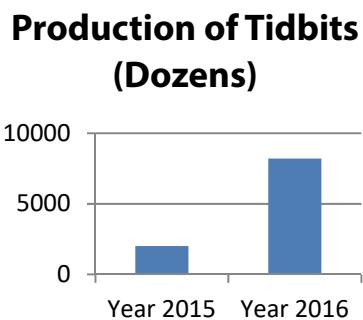
Due to demand, the production of Tidbits increased from 20 dozen per week in 2015 to 500 dozen in 2016. This increase was based on an aggressive marketing strategy employed by the team for the sales of their produce.

A market survey was conducted by the group and promotion was also carried out in Oyo, Osun, and Ogun states in order to attract more customers. Through the market survey and promotions, the unit was able to get new customers and the product gained massive recognition in these states.

Currently, there are over 10 distributors in Oyo State, five in Osun State, and three in Ogun state. The distributors further sell the products to retailers and consumers.



An Agripreneur with one of the major distributor of Tidbit Delight in Ife, Osun State

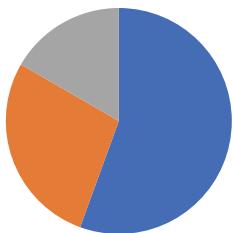


A graph illustrating the production and sales of Tidbits in year 2015 and 2016

The business has also created jobs for 12 youth-four who manage the unit and eight others who assist in production and packaging.

The major constraint faced by the unit in 2016 was sourcing for raw materials. One of the major raw materials used for producing Tidbits is cassava flour, and there are few companies producing vitamin A cassava flour in Ibadan.

Distributors



- Oyo State
- Osun State
- Ogun State

An illustration on the sales penetration of Tidbit- Delight within the South- Western region

Partnership, Resource Mobilization, and Advocacy

Advocacy

Advocacy is another spotlight of IYA in 2016. The unit created several platforms for interactions with different stakeholders for advancing the movement.

Through this arm, IYA was able to engage in aggressive advocacy and awareness creation to increase group visibility.

Conferences and Workshop

Some notable conferences and workshops organized and attended by IYA include:

- ICT meets Ag, Ibadan, 12 January 2016 – a conference organized by IYA to showcase the importance of ICT in agriculture especially for young agripreneurs. This event had in attendance the Co-Founder of FarmDrive, Rita Kimani and Bunmi Ajilore, a young ICT in Agriculture expert.
- JCI Nigeria SouthWest Conference, Ogun State, 12 February 2016 – IYA gave a keynote presentation on “Sustainable agro allied business practice towards economic development: Option for young Nigerians”
- Joint Pan-African Grain Legume and World Cowpea Conference, Zambia, 28 February to 4 March 2016 .
- ENABLE Design Workshop, Abuja, 20 and 21 April 2016.
- African Agribusiness Incubation Network Conference, Ghana, 4 – 6 October 2016.
- Representation at the African Development Bank, 2 December 2016.
- African Economic Submit, Abuja, 5–7 December 2016.
- Strategic Management in Agribusiness, Ibadan, 17–21 October 2016.



DG, IITA, Dr Nteranya Singinga (3rd from left) enlightening the participants on the IITA Youth in Agribusiness Model

Visits of Dignitaries

IYA received various dignitaries from within and outside Nigeria and they included Government officials, entrepreneurs, and private organizations who came to learn more on the model and successes of the group. Some of these visits led to partnerships being formed. Some of these are:

- Tony Elumelu Foundation
- Ada Osakwe - Chief Executive Officer, Agrolay Ventures
- Catholic Relief Services
- Global President/CEO of TechnoServe
- AfDB delegation in preparation for the ENABLE Youth Nigeria mission
- Job Creation Unit of Agric and Agro Allied (JCU-AA) – Office of the Vice President, Federal Republic of Nigeria
- Landmark University, Omu-Aran, Kwara State
- Prof Adewumi from the Pennsylvania State University
- His Excellency, Mr Paul Lehmann, Australian High Commissioner to Nigeria
- Dr Ojukwu (Director, Agriculture and Agro-Industry Department, AfDB) and Mr Kanu (Lead Agricultural Expert, AfDB).



A group photograph with IFAD President, Dr Kanayo Nwanze during Agripreneurs' workshop

Also in September 2016, the President of the African Development Bank, Dr Akinwunmi Adesina visited IITA Youth Agripreneurs. The visit was his first official trip to Nigeria after his election as the President of the African Development Bank.

On 19 October, Dr Kanayo Nwanze, President of the International Fund for Agricultural Development (IFAD) visited IITA to kick-off the 50th Anniversary celebration of IITA. This event featured debates by the Agripreneurs with a motivational speech from the President.

IYA members across Africa visited the African Development Bank Headquarters in Côte d'Ivoire in December 2016. IYA members were invited to share testimonies with the Bank officials and to inspire other youth in Africa.

Capacity Development

The year 2016 for the capacity development unit was quite an engaging one for the team members as they organized and facilitated a number of trainings. The year also enabled them to monitor and check the impact of the training being given to the target youth. In the course of doing this, the unit recorded some success stories as the majority of the trained youth are directly or indirectly putting to use the experienced gathered through the agribusiness trainings.



IYA member facilitating a training program in Warri Delta State

Also in 2016, the capacity development unit developed and published some training manuals and tools for use by trainees in French and English in preparation for the Pan-African Youth in Agribusiness Program, ENABLE Youth. These manuals are flexible to the host community or country and are enterprise specific. Examples of some of these manuals include:

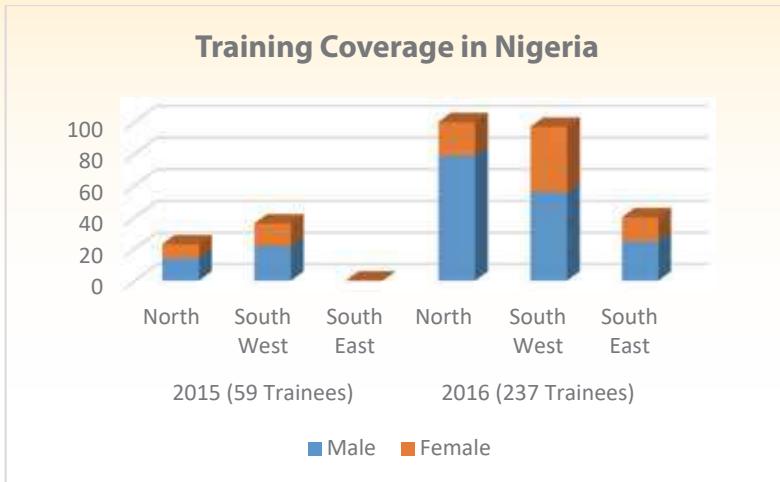
- Guidelines for IITA Youth Agripreneur Business Incubation (French and English).
- Youth Agribusiness Incubation Training Manual (French and English).
- Enterprise specific manual (cassava, plantain sucker multiplication, seed (maize, soybean, cowpea), catfish production, piggery, rice seed production, vegetable, etc.).
- ENABLE Training Workbook for Youth Agribusiness Incubation.
- ENABLE Training Workbook for Youth Agribusiness Incubation on Business Development.

Statistical data on externally trained youth.						
Gender	2015 (63 Trainees)			2016 (237 Trainees)		
	North	South West	South East	North	South West	South East
Male	14	23	0	79	56	25
Female	9	17	0	21	41	15

The unit carries out its activities with a business orientation and passion to help youth succeed in agribusiness. It employs effective and adaptive training methodologies and approaches that include but are not limited to classroom trainings, case studies, educational tours, group exercises, and hands-on practical sessions. The starting point of the transformation journey is a reorientation exercise, where youth are engaged in mindset changing activities. The essence of this is to expose youth to various opportunities in the agricultural value chains and to give them a business outlook on agriculture. Our business development training tools and methods have been adapted to the unique nature of agricultural investments. It emphasizes the business model the business plan, cash flow projections, and the analysis of business enterprises.

To achieve this, a lot of partnerships were established to strengthen the delivery of the the unit across different projects. These partners cut across the private sector and institutions of learning. Partners in the private sector include: EKIMIKS Nigeria Ltd, LA Consult, The Lagos Business School (LBS), Durante Fish Industries, Tee-ess farms (Fish processor), and Niji Lukas farms. The benefit of these partnerships is the high level exposure of trainees to different areas of business not practiced by the group, and these partners serve as mentors to youth.

Institutional partners like the AfDB (African Development Bank), the MasterCard Foundation (MCF), USAID, the University of Ibadan School of Business (UISB), the Federal University of Agriculture Abeokuta (FUNAAB), ICRISAT, and Michigan State University (MSU), and a host of others have both provided funding and technical support to aid the activities of the unit in reaching out to thousands of youth across Africa.



A graph illustrating IYA's training coverage areas in Nigeria

The projects implemented in 2016 include:

N2Africa Borno - Agribusiness: Key to Productive Youth Engagement

The N2Africa Borno project is funded by the Bill and Melinda Gates Foundation. Its first phase started in 2014 and concluded in 2016 with the last two batches of training in February and April, respectively. A total of 130 youth were trained in Borno State. The training is targeted at the unemployed youth in the state, to build their capacity on agribusiness as an income generating option with an emphasis on the value chain of nitrogen fixing crops. The project recorded a success of about 70%. The trained youth have started their businesses ranging from fabrication of farm machinery to groundnut value addition, poultry etc.

Below are some of the stories of the trained Borno Youth.

Yohanna Yakubu

Yohanna Yakubu is a graduate of Zoology who currently operates a groundnut processing enterprise from the seed fund he received from the project. Before being trained, Yohanna was working in one of the first generation banks but was retrenched due to the economic recession.



Yohanna Yakubu displaying his product with an Agripreneur

He participated in the training and has since started adding value to groundnut by producing peanut snack. Distributing to major stores, markets, and schools in Kano State, Yohanna's business has a Cost Benefit Ratio (CBR) of 1:1.8.

Zubairu Mohammed

Zubairu Mohammed, a graduate of Accountancy, who runs a fabricating business located in Borno State, is earning some income from fabrication of Agro labor saving tools. He has employed two young graduates.



Zubairu Mohammed at his workshop

Another outstanding female is a young lady by name Hajara Bitrus, a graduate of metal work technology but who now operates A and I Enterprises which deals with the production of African Catfish. The business is located in Biu, Borno state with a CBR of 1:1.2 and also employs two other graduates to work with her.

CHEVRON Nigeria - Harnessing the Energy of the Youth in the Niger Delta

This project is a result of the first self-written proposal by IYA. It is a two-year project which is funded by Chevron Nigeria Ltd as a way to engage the youth of the oil producing region of the Niger Delta.



The educational visit of the chevron trainees to IITA

The purpose of the project is to change the perspective of the youth in the region about agriculture and ensure that they see and embrace the economic opportunity in the sector. Execution of this project started in February 2016 and so far, has trained 40 youth across eight communities in the first phase. The youth were engaged in the various methodologies

and have been trained in the agricultural value chain. The overall goal of the project is to productively engage 120 youth across the agricultural value chains of cassava, catfish, and plantain and banana and their value addition.

HELLO TRACTOR - Engaging Youth in Agribusiness: Mechanization

This project is sponsored by USAID under its “Feed the Future Partnership for Innovation” program. The project is a two-year program (June 2016-May 2018). The CDU is to mobilize and conduct three trainings per year for 100 Agripreneurs across three different cities-Abuja, Kano, and Ibadan. The training is to prepare and support the Agripreneurs in designing, developing, and refining businesses to manage a fleet of Smart Tractors. These 15 horse power smart tractors have been upgraded with both software and hardware that enables owners to efficiently manage and monitor their usage.



The trainees under the HELLO TRACTOR project learning how to use the smart tractor

These smart tractors will be made available to the youth on hire purchase. The first phase of the project which was completed in 2016 empowered 60 youth in the area of business development and tractor operation. Asides creating an opportunity for unemployed youth to earn a living, the project will also enhance and increase the productivity of smallholder farmers.

Other trainings include:

LIFIDEP-The Livestock and Fisheries Development Team

The LIFIDEP team visited IITA to seek for ways to address the challenges faced by the project in executing its program in Cameroon. A number of study visits were included in the workshop's program to expose the participants to the Nigerian aquaculture system and various levels and scales of fish farming operations in the country. The LIFIDEP project took particular interest in understudying the IYA fish farming activities because of the youth component of its project in Cameroon. Four representatives from the project coordinating office in Cameroon attended the workshop which was organized and facilitated by the Capacity Development Unit in conjunction with the Fishery and Livestock unit of IYA.

KSN - The International Kolping Society of Nigeria

The group received training on selected agribusiness enterprises which include farm mechanization, vegetable farming, plantain and banana production, cassava production, and value addition to cassava roots. The training was aimed at developing the agribusiness skills of the representatives in the identified value chain.

The table and graphs below provide more insight into the projects and trainings conducted by the unit.

Clients/Partners	Number of trainees	Training role	Identified outcomes
Bill & Melinda Gates Foundation (N2Africa Borno)	43	<ul style="list-style-type: none"> • Specific crop & livestock production • Business Development 	70 business start-up
Hello Tractor/ USAID	60	<ul style="list-style-type: none"> • Mechanization • Business development 	Business start-up in progress
Chevron Nigeria	40	<ul style="list-style-type: none"> • Specific crop & livestock production • Business Development • Market linkages 	Business start-up in progress
MasterCard/MSU (Agrifood Youth Opportunity Lab)	Yet to be Executed	<ul style="list-style-type: none"> • Specific crop & livestock production • Business Development 	
AfDB/Nigerian Government (ENABLE Youth)	Yet to be Executed	<ul style="list-style-type: none"> • Specific crop & livestock production • Business Development • Financial Linkages 	

External trainings

Clients/Partners	Number of trainees	Training role	Identified outcomes
WECA - Ondo State	42	<ul style="list-style-type: none"> • Re-orientation exercise • Specific crop production 	Business start-up in progress
Kolping Nigeria Limited (Abia State)	5	<ul style="list-style-type: none"> • Cassava, Catfish, Plantain & Banana production 	Business start-up in progress
Akinyele Local government (NYSC members)	50	<ul style="list-style-type: none"> • Reorientation exercise • Training on Banana, Cassava and Catfish production 	
LIFIDEP Cameroun	4	<ul style="list-style-type: none"> • Catfish and Tilapia fish value chain 	

Internal Trainings

Clients/Partners	Number of trainees	Training role	Identified outcomes
EKIMIKS Nigeria		<ul style="list-style-type: none"> • Business Plan development 	22 business plans
IITA Cassava Processing Unit	25	<ul style="list-style-type: none"> • HQCF and Garri processing 	
AfricaRice	10	Rice seed Production	10 Certified rice farmers/Rice production business group
Member furthering their academic career	20	MBA	
Tee-ess farms	5	Smoked fish Production	Fish processing business group
External Facilitators		<ul style="list-style-type: none"> • Public Speaking • Presentation Skills • French Language 	

Projections for 2017

AGRIFOOD Youth Opportunity Lab

This is a five-year project funded by the MasterCard Foundation; the project was designed by Michigan State University (MSU) to expand youth employment opportunities in the agrifood systems of Nigeria and Tanzania. This program will train 16,250 out-of-school, disadvantaged youth to create new agrifood enterprises or take up quality employment in targeted areas in these countries. The CDU office will coordinate all activities related to training, incubation, business plan development, and youth engagement with financial institutions. Year 2016 was dedicated to program preparation and planning.

ENABLE YOUTH- Empowering Novel Agri-business Led Employment

ENABLE Youth is a five-year project financed by the African Development Bank. So far, it has been adopted in 31 countries in Africa and is targeted towards empowering 37,000 youth and creating over 185,000 decent jobs in Nigeria. The Pan-African program was designed based on IYA's model" and will require the input of the CDU in its execution. This year's activities on the program were towards preparation and planning as the unit will be offering its training and technical backstopping service to ensure the success of the program. The unit has already started expanding the scope of its enterprise training and identifying private, public, and institutional partners.



Some challenges faced include:

- In some cases, trainings needs of participants are not fully met because of the limited scope of IYA activities.
- Limited number of facilitators for IYA business enterprises.

Communication

The communication unit work towards creating a favorable image for the organization by embarking on different means of communication to reach out to identified audiences within and outside the organization's area of operations.

In this regard, the unit in 2015 focused on both internal and external means of communication.

Internal communication

To effectively communicate within the members of the group, the communication unit managed the organization's group mail- iitaagripreneur@cgiar.org. This is a means of enhancing the flow of information in the group. Another method used in exchanging information is through the unit's WhatsApp group. With this platform, members get first-hand information when needed.

External communication

This is the means employed by the unit to reach out to various target audiences and this includes donors, investors, youth, government, and farmers.

The external means include the use of:

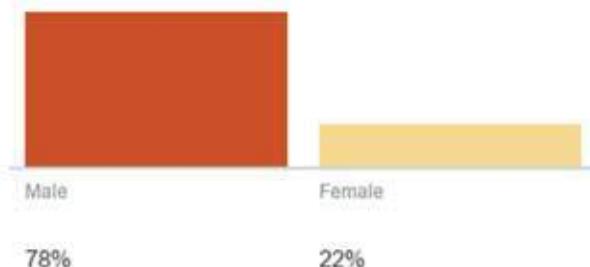
- Social Media such as Twitter, Facebook, Instagram, YouTube, and the website
- Print Media
- Broadcast Media/Partnership
- Outdoor displays
- Promotional items

Social Media

The Social media platform gave the unit an opportunity to reach out to a larger audience through the daily update of the social media platforms of the group. The publications and other educational materials were uploaded on the Internet using social media.

With regular updates, the social media platform of IYA recorded an increase in the number of followers in 2016.

For Twitter, @IITAYOUTHAGRIP, the unit recorded an increase in the number of followers from 1311 in 2015 to 3958 with an impression of 110 per day.

Gender**Country**

Country name	% of audience
Nigeria	55%
Kenya	12%
United States	6%
United Kingdom	3%
South Africa	3%
Ghana	2%
Uganda	1%
India	1%
Tanzania	1%
Canada	< 1%

On the Facebook page of the organization,

<https://www.facebook.com/iitaYouthAgripreneurs>, the unit has linked up with other Agripreneurs in other hubs. The Facebook page also recorded an increase in the number of likes from 3069 to 8645 in 2016.

Using the YouTube channel, the unit uploaded inspiring short videos telling the success stories of Agripreneurs to encourage others to embrace agriculture as a means of generating income.

The unit upgraded the official website of the group which was an upgrade of the blog used by the group in the past.

Following this link, www.youthagripreneurs.org, first-hand information about the group is available for prospective investors, donors, and youth.

Print media

Realizing the importance of documentation, the communication unit published quite a number of books to enable the organization to keep track of its baseline activities from inception, monitor the progress, and share with the target audience.

IYA published 11 editions of its Newsletter which is a bi-monthly compendium of key stories, events, and information from all hubs of IITA Agripreneurs. Four special editions were published in June, August, September, and October 2016 to celebrate key achievements and stakeholders of the organization.

The unit published “The Chronicles” which are the compilation of all the newsletters published by the organization for 2016 into a booklet for record purposes.

Two photo albums celebrating key mentors, Dr Kanayo Nwanze President of IFAD and Dr Akinwumi Adesina, President of the African Development Bank (AfDB) were re-published to showcase the contributions of these founding fathers and mentors of the organization to the development and growth of the organization. The photo albums were titled “The journey so far” and “Grooming the future Billionaires”.

To further advocate for the success of the group among the stakeholders in the agricultural sector, the communication unit contributed to some articles and editorials of international magazines.

The group also designed handbills and flyers for major events that occurred in the course of the year.

Outdoor Displays

For outdoor displays, the unit designed 10 roll-up banners that cut across all the activities of the organization. These roll-up banners are for display at events and to promote the group within and outside Nigeria.

The unit effectively made use of the display panels in IITA to promote the activities of the group within the IITA community.

Promotional items such as t-shirts, face caps, bags, pens, and flash drives were produced in large quantities by the unit for distribution at seminars and workshops.

Other achievements

The unit also produced three videos which were used as a source of advocacy and resource mobilization during seminars and conferences.

Monitoring & Evaluation

This report summarizes monitoring and evaluation activities in the year 2016. Other activities were jointly developed with other units (Capacity development, Communication, and Production) and projects including Hello tractor and Chevron.

The monitoring and evaluation training of youth in Agribusiness office received a training on DevResults (a monitoring and evaluation tool for mapping, reporting, and collaborating, which can be used at project and organizational levels) from Dr Eric Koper as part of its ongoing efforts to boost the sharing and reporting of real time information on key findings, results, and intelligence to the management for key decision making, strategic planning, and risk management.

The following activities were carried out by the team:

- Conducted site assessment and baseline survey for eight Niger Delta communities in Warri under the Chevron project; harnessing the energy of the youth in the Niger Delta to be productively engaged in agribusiness.
- Developed a project monitoring and evaluation plan for the Chevron project.
- Developed a monitoring and evaluation plan for the Enable Nigeria implementation plan.
- Developed and updated monitoring and evaluation metrics for the Chevron project.
- Co-developed Chevron progress report.
- Co-developed training evaluation questionnaire and monitoring questionnaire for Hello tractor project.
- Co-developed monitoring tools and survey questionnaires for Hello tractor and Chevron projects.
- Conducted training for trainees in the Chevron project on Introduction to monitoring and evaluation and reporting of progress in agribusiness.
- Developed a monitoring progress and reporting M & E system, compiled databases in monitoring and evaluation, monitored agribusiness progress and shortcomings, reported to sponsors and investors, compiled section of the Enable training work book for the youth agribusiness incubation training manual.

- Updated the historical timeline: key activities, progress, visitors received, and other production and field practices of the youth in agribusiness.
- Co-developed a progress matrix template which underscores the key achievements, constraints, and lessons learnt by the youth in the agribusiness unit and groups.
- Conducted a site visit of IITA Onne station, Rivers State with other key players in the youth in agribusiness office.
- Reviewed youth in agribusiness unit's performance matrix and key indicators.
- Co-developed agribusiness planning; synthesis of a workshop organized by IITA Youth Agripreneurs.

The following were the challenges faced by team in 2016:

- No clear pattern for organizing a system of reporting and developing a feedback mechanism for the Youth in Agribusiness office.
- Difficulty in tracking implementation (process indicators) of the agreed processes that are intended to lead to the desired outcomes due to unforeseen engagements.
- Monitoring and evaluation is not receiving the attention and buy in it warrants.
- YIA units feel alienated from the monitoring and evaluation processes.
- Insufficient human resources and capacity to conduct monitoring and evaluation, only one staff thinking, scrutinizing, developing, talking, and carrying out monitoring and evaluation functions thus leading to failure of meeting up with deadlines.

Different kinds of interventions/activities such as resource mobilization strategies, support services etc. require different evaluation tools and methods and, thus identifying the most appropriate method to measure results seems difficult.

IYA Onne

The begining

The operations of the team in Onne kicked off officially on the 15 February 2016. The team had earlier visited the station and its environs to check for produce peculiar to the region and more importantly, in high demand in order to give proper direction on establishment of enterprises. The major target in 2016 was to develop at least three enterprises at trial phase and check their viability.

The objectives of the team are to develop profitable agribusiness enterprises that can be scaled-up to a commercial level and also plan and implement training programs for youth in the south-south and south-east region of Nigeria.

The Onne Station had been abandoned for 10 years and it looks nothing like the office or location where the team were transferred from (Ibadan). Not much infrastructure was in place and even the few available ones were not functioning. There were no well-polished tables, no fancy doors or functioning air-conditioners to cool off after a hot day on the farm.

In the previous location, the transport system was to walk from the gate to the office and back, and in most cases, have someone offer a lift on the road to the destination. The case was totally different in Onne. From the office to the gate were beautiful bushes with no car in sight. And this also meant a long trek from the gate to town because transporters dreaded that route as a result of previous experiences.

For about three months after transfer, there was no choice of transportation but to trek for about 40 minutes to town.

The Work Started



Agripreneurs from Ibadan on an exchange visit to their colleagues in Onne

Inspite of this, the team was not shaken as they were committed to achieve their purpose in the Rainforest area. Through hard work, commitment, and teamwork, the team was able to create ten units:

1. Cassava
2. Vegetables
3. Plantain & Banana
4. Fish
5. Rice
6. Capacity Development
7. Sales & Marketing
8. Poultry
9. Value Addition
10. Finance & Logistics

Production

The team planted 2 hectares of cassava in April with a projection of 30 tons at harvest. Also, 364 m² of land for pumpkin leaves was planted and 78.5 kg was harvested and sold. Due to the high demand of plantain in the region, the team planted plantain on 1 hectare of land in June and the expected yield is put at 20 tons. In order to provide quality planting materials for farmers in the area, 12 macro chambers were constructed and this so far has produced about 4000 suckers in the space of 5 months. The team also ventured into fish farming.

The abandoned concrete fish ponds were stocked in June with 510 Juveniles and 437.59 kg was harvested and sold. About 0.6 ha of upland rice was planted in August and was harvested in the first week of December. This is to be sold as seed.

The team also identified the economic benefit of poultry farming and stocked about 302 birds targeted at the production of eggs and white meat.

The value addition unit produced about 30 kg of value-added products from cassava flour.



Customers waiting to convey their purchased plantain suckers

Training

The capacity of the team was built progressively with a number of trainings ranging from seminars to workshops attended. These include:

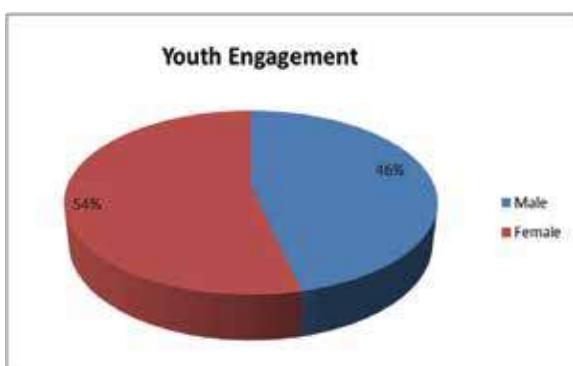
- Training on ATASP-1 commodities in Abuja
- Ag Innovation Entrepreneurship Academy in the USA
- Catfish Production and Management in Onne
- Hello Tractor training in Ibadan
- Business Plan training in Ibadan and Abuja
- Poultry and Snailery training in Sapele, Delta
- Financial management and Planning training in Ibadan
- Participation at the African Economic Conference 2016 in Abuja
- Participation at the Global African Agricultural Accelerator Platform in Zambia

With activities of the team, about 41 youth were productively engaged.

Sales and Marketing

The marketing unit was able to establish contact with one of the largest fast-food franchises in Port Harcourt on the supply of catfish; the current capacity of the team is unable to meet the demand which is an average of 100 kg per week.

Partnership



Graph 1. Level of youth engagement in 2016

To engage other youth, the team was also involved in prospective partnership visits to the Rivers State University of Science and Technology, the Permanent Secretary to the Rivers State Ministry of Agriculture, the University of Port Harcourt, and the Imo State Polytechnic in preparation for the ENABLE Youth Program and other collaborations.

The team also engaged in team building activities with colleagues from Ibadan.

Finance and Logistics

The Finance and Logistics unit was responsible for resource management of the team, maintenance, and close monitoring of all office and field equipment.

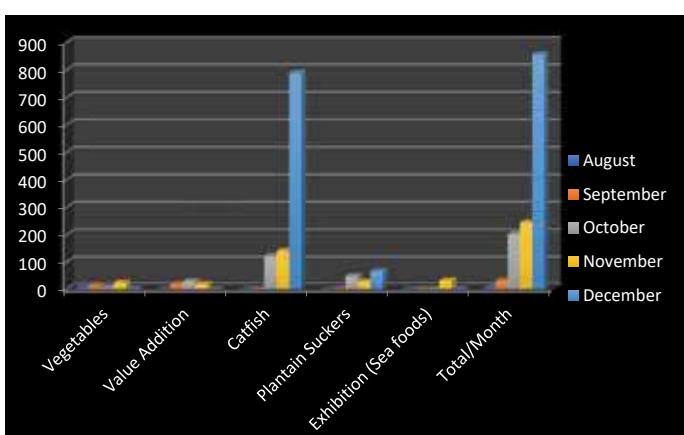
Financial Statement

Table 1. Year 2016 expenditure in \$ (May to December).

ITEMS	DATE								GRAND TOTAL (N)
	MAY	JUNE	JULY	AUGUST	SEP	OCT	NOV	DEC	
PETROL	9,800.00	58,300.00	32,880.00	71,140.00	49,745.00	37,670.00	32350	37300	329,185.00
CASSAVA	26,000.00	43,800.00	0	16,000.00	13000	33000	0	12,000	143,800.00
VEGETABLES	21,500.00	31,000.00	6,400.00	3,300	0	2,600	3500	3000	71,300.00
RICE	0	0	13900	125300	14100	45000	33500	16500	248300
MAIZE	0	0	0	0	0	3000	0	3000	6,000.00
PLANTAIN	14,200.00	54,900.00	22,500.00	45,200.00	35020	93100	41,700.00	30500	337,120.00
VALUE ADDITION	0	0	0	0	54506.4	6400	37400	0	98,306.40
FISHERIES	0	60,280.00	49,100.00	-	99500	20400	72500	3000	304,780.00
POULTRY	0	0	0	0	3900	0	108800	95,550.00	208,250.00
LOGISTICS	0	1,720.00	-	12140	7000	44200	10150	32560	107,770.00
ENTERTAINMENT	0	12530	7500	5000	1500	0	0	0	26,530.00
VEHICLE	0	2100	700	12800	100	8800	1400	1700	27,600.00
MARKETING	0	0	0	0	0	0	13000	0	13,000.00
GRAND TOTAL	71,500.00	264,630.00	132,980.00	290,880.00	278,371.40	294,170.00	341300	235110	1,921,941.40

Table 2. 2016 Revenue in \$ (August to December).

2016 REVENUE (\$)						
Commodity	August	September	October	November	December	Grand Total
Vegetables	6.98	13.33	4.76	24.44	0.31	49.82
Value Addition	0	18.28	29.17	18.66	0	66.11
Catfish	0	0	121.65	141.42	788.96	1052.03
Plantain Suckers	0	0	47.61	28.57	66.66	142.84
Exhibition (Sea foods)	0	0	0	32.38	0	32.38
Total/Month	6.98	31.61	203.19	245.47	855.93	1343.18
Cassava					1,619	1,619
Plantain Suckers					1,905	1,905
Plantain Fruit					5,079	5,079
Grand Total						9,946.4



Graph 2. 2016 Revenue (August to December)

Year 2016 was not all rosy as the team encountered a few challenges including: inadequate power supply, lack of Internet facility, access to funds, and disease outbreak on the rice field. From these challenges, the team learned about problem solving and learning culture.

IYA Abuja



IYA Abuja

The IITA Youth Agripreneurs Abuja was established in 2014 to serve as a point of contact to reach out to the youth, policy makers, and other stakeholders in the North-Central part of the country.

In 2016, the youth were trained by commodity specialists on the production of rice and sorghum. While trying to establish seed enterprise on rice and sorghum, they moved to villages near the neighboring towns to establish rice and sorghum fields.



Some IYA Abuja team on one of the rice fields

At harvest, the field yielded 82 50-kg bags of rice seeds of FARO 44 and FARO 52 from the 2.5 hectare field in Koso village, Nasarawa State. In another location-Agaie village in Niger State, the youth harvested 140 bags of 50-kg rice seeds, 46 bags of 100-kg sorghum seed, 22 bags of 100-kg soybeans-, and 67 bags of sorghum seed.

The farming operations at Agaie, and Koso created some job opportunities for the rural youth. Apart from the core Agripreneurs directly involved in the operation, the other support laborers employed were the youth in the host community.

The rice enterprise also availed the youth an opportunity to train and build the capacity of the youth in the host community. The 27 youth including seven females were given informal training on best agronomic practices for rice, soybean, and sorghum. The locals also gained from the depth of theoretical knowledge of the Agripreneurs by working with them to better establish their farms. Before the end of the production cycle, five of the locals had established their own farms close to the Agripreneurs.

Apart from rice, sorghum, and soybean farms, the group also planted about 15 hectares of cassava in 2016.

The youth also ventured into fish farming in 2016. After the first cycle of catfish production they realised revenue of 1,300,000 Naira (about \$3900).

A breakdown of the varieties of the commodities planted includes:

Maize

Pro-Vitamin A Maize SAM MAZ variety was planted on a 0.2 hectare within the IITA Abuja station and 8 bags of maize seed was harvested.

Cowpea

Five varieties of cowpea were planted on 0.2 hectares and they are:

1. IT 07K- 318-33
2. IT90K-277-2
3. IT97K-499-35
4. IT99K-573-1-1
5. IT99K537-2-1

Groundnut

The unit planted a demonstration plot of the following groundnut varieties:

S10, S11, S21, and S22, on 0.2 ha within the IITA Abuja station.

A total of 100 kg of all varieties of groundnut was harvested.

Soybean

A total of 3 ha of V.TGX 1448 variety of soybean was planted on 2 ha in Nasarawa and 1 ha in Niger. A total of 2.2 tons was harvested.

Root and Tubers

Yam

This is a new crop adopted by the youth in 2016. Two varieties of yam namely: Water Yam (*Dioscorea alata*) variety TDA 01166 and White Yam (*Dioscorea rotundata*) variety

TDR was planted on 0.1 ha as a demonstration plot within the IITA Abuja station for seed multiplication. A total of 27 tubers seed of Water Yam was harvested and 67 tubers, seed yam of White Yam was also harvested.

Cassava

The unit upscaled its production based on the experience of its first planting season in 2015. The following varieties were planted on a total of 14.6 ha of land with harvesting to be done in 2017.

- TME 419
- TMS 0505
- TMS 0581
- TMS 30572

The youth embraced the use of mechanization while planting.



The Agripreneurs cultivating a land with a cassava planter

Vegetable Unit

Producing all year round using the irrigation system, the following vegetables were produced:

- Pepper
- Okra
- Pepper (yellow pepper)
- Spinach
- Pumpkin leaves

Fisheries and Livestock

The livestock unit started the year 2016 with the completion of the 800 m² pond construction. The pond was stocked with 5500 juveniles on 28 January 2016. General pond maintenance and feeding was consistently and efficiently carried out. By the end of July harvesting and sales of the fishes were done and a total revenue of 1. 3million naira was realised. Four other ponds were constructed in August as well as a grasscutter and snail house.

The grasscutter house was stocked with six families while 20 snails were stocked in the first week of September.

Marketing and Processing

The processing unit started a new initiative in 2016. They realised the economic importance of adding value to the fresh catfish produced by the fishery unit. This has increased the IYA market share and value in the catfish business in Nigeria. Also the group started producing Tidbit, a snack developed by IYA Ibadan. The well branded and packaged snack received immediate acceptance in the market with a sales record of 79 dozen packets of Tidbit within 3 months of production.



The processing team producing tidbit

The main target of the unit was to sell the group's commodity and maintain a healthy relationship with the consumers. Their strategy is expected to give the enterprise an edge over competitors.

The unit, however, has the challenge of meeting up with demand as they do not have a permanent processing center to produce Tidbit snack on a large scale.

Communication and ICT

Identifying that a lot is happening off the field and embracing ICT as a tool of attracting youth in agriculture was of great importance. This tool has simplified the mindset change campaign for youth to embrace agriculture.

In 2016, the group participated in an ICT competition organized by CTA. The competition was based on how ICT can aid Fish farming. As a result of the hard work put into this competition, the group won \$5,000.



The award winning communication team in Abuja

For effective communication internally and externally and for proper visibility, the communication unit ensured the already established communication procedure for project visibility and publicity. During the period under review, the communication produced samples of roll up banners and flyers and contributed to the monthly IYA newsletter.

The unit also acquired the new DJI phantom 4 drone flying camera. So far, the unit has been able to take an aerial photograph and map its field.

Monitoring and Evaluation

The M&E team developed a work plan for proper monitoring of activities both on and off field.

The team also ensured all units of the Abuja group follow their plans for the year as projected in the timeline/work plan. To ensure accountability in responsibility, the M&E team went round the established fields to ensure reported data corresponds with the actual and also collected appropriate data for further evaluation.

Outside station production was at the following locations:

- Agaie Niger State where sorghum, rice, and soybean was cultivated.
- Kwali, FCT where only cassava was cultivated.
- Grace farm, Nasarawa,where sorghum, soybean, and cassava was cultivated.
- Koso, Nasarawa State, where only rice was cultivated.

The team also ensured timely collation of monthly reports.

Capacity building

The year 2016 for the Capacity Building Unit was filled with quite a number of training activities ranging from training on agribusiness skills and commodity trainings such as sorghum, rice, cassava, fish processing, grasscutter and snail production to soft skill trainings such as business plan development, project management, and leadership and managerial skills trainings.

The various trainings carried out have built the capacities of Agripreneurs to equip them with the knowledge and skills for agribusiness. These skills range from good agronomic practices for production of various commodities to value addition and how to write a bankable business plan to ensure the successful running of a business.



An IYA member sensitizing the Youth Corp Members at the Orientation camp in Abuja on youth engagement in Agriculture

Activities	Output
• Developing training needs and workplan for 2016	Draft and Budget of all identified training needs.
• Continuation of in-house trainings and dry-run presentations	Built confidence and presentation skills of Agripreneurs
• Orientation program for new IYA members	Adequate knowledge about the IYA program, past and present activities and projections.
• EKIMIKS training on 'Developing Strategic Skills for Agribusiness' (29 April–2 March)	Developed skills in different areas of agribusiness such as strategic thinking, building a financially viable business, identifying opportunities within the value chain, etc.
• Step-down training by EKIMIKS participants (11–15 April)	Shared knowledge on the various components of agribusiness and building training skills.
• ATASP_1 Commodity training on rice, sorghum, and cassava (6–11 May)	Acquired knowledge on best practices to ensure high productivity and opportunities along the value chains of each commodity.
• Business Plan Development course (31 May–3 June)	Acquired knowledge on how to make financial projections and the contents of a business plan
• Export Grade Cassava Chips and Pellet Production by Boma Simeon Anga (18 June)	Knowledge and opportunities in cassava production, processing and export.
• IITA SOP training by Ijeoma Animam, Vera Azubuike, Adenekan Gbolahan and Yemi Osonowo (21–26 June)	Knowledge on the correct steps and procedures to follow to ensure smooth and timely achievement of requests, procurements, and activities.
• Project Management training at IITA Ibadan (21–26 June)	Knowledge and skills needed for the successful management of projects.
• Grasscutter and Snail training by Mr Taiwo Oluwasegun (19–21 July)	Acquisition of knowledge on the modern concepts, knowledge and management practices for grasscutter and snail production.
• Biometric Training by Dr Sam Ofordile (27 –29 July)	Knowledge on data collection, processing and management.
• Introduction to business Plan Development by Mr Adebawale Akande (10 September)	Components of a bankable business plan and how to pitch a business plan to potential investors.
• Business Plan Development by Mr Kazeem Ademola Aido (28–30 September)	Business plans developed by Agripreneurs who were grouped according to their areas of interest.
• Food Processing and Quality Control by Mrs. Stella Denloye (5 November)	Knowledge on NAFDAC requirements for food processing and laws and guidelines to follow for various businesses.

Major Events and Visitors

Abuja Agripreneurs hosted and participated in major events

Abuja Agripreneurs also facilitated the hosting of major events that contributed tremendously towards the attainment of the overall objectives of the IYA.

In September, the President of Africa Development Bank (AfDB), Dr Akinwumi Adesina visited the Abuja station with 30 members of his cabinet. The visit provided the youth an opportunity to air their yearnings on their desire for support to establish their independent enterprise.

Two members of the IITA youth group in Abuja represented the youth in a conference in Dakar, Senegal. The conference was sponsored by the International Fund for Agricultural Development (IFAD) and was titled “YALESI 2016-Youth Agribusiness, Leadership Entrepreneurship Summit on Innovation”. Members that represented the group also served as panellists during the conference.

Four members of IYA-Abuja also attended an AfDB workshop on “De-risking the agricultural sector”. During the discussion section, one of the Abuja-IYA featured as a panellist.

Locally, the Agripreneurs carried out a sensitization visit to the Abuja NYSC Camp where the youth corps were sensitized on the need for “Youth Involvement in Agriculture”.

The Akwa Ibom State Commissioner of Agriculture, Hon Mathew Ekaette visited IITA Abuja station on a fact finding mission on the IITA Youth Agripreneurs program. The commissioner marvelled at the operations of the IYA model. The commissioner said the model will be adopted for the State's youth in agriculture program.

IYA Kano

IYA KANO

IYA Kano consists of a four-man team who were transferred from Ibadan to Kano in February 2016. Since relocation, the team has been engaged in various value chains especially the ones that are of high economic value in the northern region.

Production

Ram Fattening

After the deployment to Kano, the team acquired the ILRI facility in Minjibir for ram and goat fattening. The facility was renovated to house the rams and goats. For experiential learning in the business, about eight rams were purchased and fattened for 90 days and sold during the Muslim festival.



Kano team vaccinating the rams

Vegetable Production

A thorough survey conducted by the team in the year showed that vegetables were always scarce during the rainy seasons in the region because most farmers concentrate more on the production of grain. Taking advantage of this the group ventured into tomato farming to bridge the gap during the rainy season. An improved variety called "Chibly" from Syngenta was planted.

Chibly is known for withstanding decay after harvest for close to two weeks and can keep producing throughout the year if properly managed. It also has a high market demand.

For the year 2017, the team intend to go into the production of other vegetables such as lettuce, cabbage, cucumber, and watermelon on 1.5 hectares of land.

Soybean and Sorghum

Through partnership with Honeywell Flour Mills the team ventured into the production of sorghum and soybean. About 2.1 tons of sorghum seed and 2.5 tons of soybean seeds was harvested and will be sold to Honeywell Flour Mills.

Cowpea

Over 1.2 hectares of cowpea was cultivated in 2016 for seed multiplication in preparation for the 2017 planting season.

Trainings

In 2016, the Kano team also engaged the Youth Corp members in the local government of operation. The training involves a monthly talk and discussion on mindset change on agriculture, and tries to make them see the business opportunity in agriculture so they can venture into agribusiness on successful completion of their program.

The team also facilitated part of the trainings for Borno Youth under the N2Africa Borno Project. The youth were trained on various value chains of specific crops and other related skills in agribusiness including how to write a bankable business plan.

The team was also represented at a business plan training which was held in Abuja from 28 to 30 September 2016. The whole team also attended a business plan training in Ibadan alongside all Agripreneurs within Nigeria on how to present bankable business plans. The team has so far conducted feasibility studies and developed business plans on some chosen enterprises.

The training which was held in Abuja (IITA station) from 6 to 12 May 2016 was organized by the ATASP-1 outreach project.

The team also participated in a three-day training organized by the Capacity Development Office (CDO) with the Finance Directorate to boost the skills of project managers on financial planning, management, and reporting systems.

Visits

The Director General Dr Nteranya Singinga paid a courtesy visit to IITA Kano station on the 27 July 2016. During his visit, he went on a tour of the fields established by the team. Officials from the African Development Bank paid a visit to Kano station on the 26 August. The team took a tour of the facility to see existing facilities especially the ongoing youth training center.



IYA kano team with the DR Nteranya Singinga

GREENWEALTH Agripreneurs

GREENWEALTH Agripreneurs

The GreenWealth Agripreneurs are the first beneficiaries of the incubation program of the IITA Youth Agripreneurs which was created to harness the potentials of youth in agriculture with the aim to create and run profitable youth-driven enterprises having been equipped with sufficient skills in Agribusiness, Information and Communication Technology, and Mechanization. The group was established in 2015 and has started developing business plans in clusters along the agricultural value chains.

The group engages in various agribusiness enterprises ranging from production, value addition, and service delivery.

ICT Unit

In 2016, the ICT unit developed an online marketing platform that can also serve the purpose of networking for the ENABLE Youth program. The unit also developed a score card for data collection using tablets for rice data collection.

During a training organized for the WECA youth in Ondo State, 50 young farmers were trained on the use of ICT in agribusiness. The unit also identified some lapses in the ICT capability of its colleagues and trained 19 of them on both Business Intelligence System development and CorelDraw. Over 60 youth were also trained in Oyo, Abuja, and Kano on the use of ICT under the Hello Tractor projects. It has facilitated the registration of online registration and the selection of candidates for training through the use of Google forms.

In addition, the unit also implemented some M&E performance monitoring plans and training assessment data tools. Training evaluation and a participant's baseline survey was conducted for the Hello Tractor Project in all locations. In addition, A historic timeline was developed and a monitoring system data and incubation progress matrix was set up to track progress against milestones and targets for GWA.

In 2017, the unit plans to:

- Create an online platform for linking ENABLE start-ups to buyers and for networking purposes.
- To establish an ICT training center to build the capacity of participants of the ENABLE and MSU programs on various ICT in agribusiness skills such as: Effective use of ICT tools, the use of Microsoft Office, e.g., Excel for budget preparation and financing, Business Intelligence system development etc.

The challenges faced include:

- Platform Upgrading/Subscription
- Adoption of the platform by youth
- Lack of appropriate training for members to improve performance.

Mechanization

The mechanization unit is one of the new units in GWA. It aims at reducing drudgery and increase productivity in agriculture through the fabrication of machines and farm implements that can make agriculture attractive to youth, especially women.

In 2016, the unit organized a special training session for its members on tractor operation and repair. The training was essential to ensure that all members of the group understand the basics about tractor operations.



Some Green Wealth Agripreneurs using the mantis weeder

Year 2016 also gave the unit an opportunity to locally fabricate some machines for use. After carefully studying the imported mantis tiller, the unit fabricated four local motorized weeders for smallholder farmers. This machine, which is now being used, is effective and efficient for tilling, weeding, and making beds and ridges. The machine is gender friendly, lighter, and more economical than comparable weeders. Also fabricated locally is the Jab planter, Wiggle weeder, with standardization. Five seed planters and five threshing machines are being fabricated on request for IITA Tanzania station.

The unit also rendered some services with the locally fabricated weeder on vegetable (lettuce, okra and cucumber), pawpaw, maize, cowpea, plantain, soybean, and cassava fields alongside the brush cutter and compact tractor.

The unit was also involved in the repair and effective use of the multipurpose locally fabricated thresher to thresh rice, soybean, cowpea, and maize which produced well-graded seed at an affordable and reasonable rates and charges.

The mechanization unit was also involved in the training of 60 Agripreneurs in Oyo, Abuja, and Kano on the business of owning a fleet of smart tractors for service provision.

About 12 hectares of cassava are being cultivated mechanically at IITA's Research and Training field at Ago Owu, Osun State serving as a proof of concept and source of generating income.

The unit also took some time in 2016 to participate in farm demonstrations and exhibitions. Potential partners that share a common vision were identified. These include Technoserve, Honda Manufacturing Company (Nig.), AATF (CAMAP Project), and Guinness Nigeria Limited to exploit the possibility of sourcing their raw materials (high starch cassava, millet, sorghum and malt and barley) locally, leveraging on IITA expertise.

To expand its scope, the unit also

- Visited Durante Fish Industries for weeding service provision and synergy identification on mechanized farming operations.
- Made an expository visit to NCAM Ilorin along with the TAIYO Industry representative, Mr Yamamoto Yukio.
- Hosted the Nigeria Association of Technologists and Engineers (NATE) to officially introduce their rice de-stoner machine and to identify possible areas of collaboration.
- Meeting with International Tractor Limited (Sinolika and Solis) and Niji Lukas on the possibility of collaborating on training for tractors and their operation, repair, and maintenance in Ibadan, Kano, Onne, and Abuja stations bearing in mind the need to come up with a win-win proposal.

Challenges

- Funding (No precise budget to work with).
- Farmers' reluctance to adopt new technology
- Delayed approval of tendered requests.

Fish Processing

Adding value to the catfish produced by the mother group, the fish processing unit makes use of a smoking kiln to produce nutritious smoked catfish.

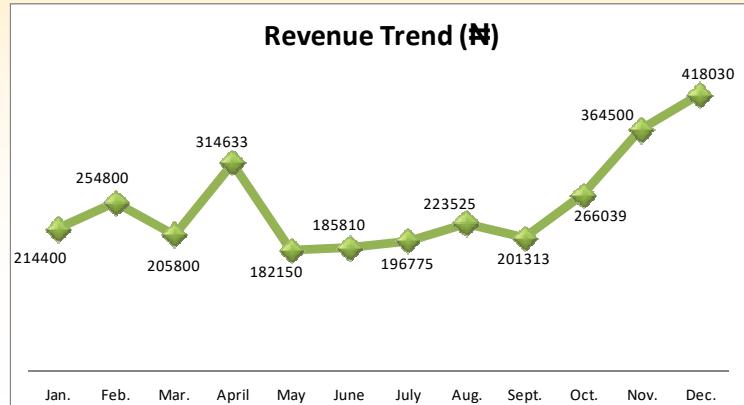


The smoked fish ready for packaging

The business which is booming fast has employed about 10 youth and trained over 35 other youth. Unit members were trained and certified by TEE-ESS Farms in Lagos State. The unit is also in close partnership with Durante Fish Industries while also aligning with various projects such as MSU/MCF, ENABLE, and TAAT.



In 2016, about 4 tons of fresh catfish was processed yielding over 3 million naira. The initial focus of the unit was on smoked fish production but the team later diversified into frozen catfish production. The frozen catfish enterprise is a new venture that is yet to be tapped into by many fish processors. The demand has however been amazing and in fact, is now becoming a major section of the unit. Other products developed and sold include fish eggs, fish snacks, and fish meal ingredients.



Processing Unit

The processing unit is set up to add value to staple crops and presently has two value-added products made from a maize, soybean and cassava composite. The unit was able to produce about 1.5 tons of croquant and about 500 kg of Sneh balls.

In 2016, the unit carried out a laboratory analysis on the product for nutrition analysis and this was successful.

The business in 2016 employed four youth.

The major challenge faced in 2016 was the certification of the product by NAFDAC. Lack of NAFDAC certification is restricting sales in supermarkets and schools.

Rice Unit

The unit is into the production of rice seeds of two popularly demanded varieties (FARO 44 & 52). About 700 kg (foundation seed) of the two varieties was harvested from the 0.3 hectares demonstration phase cultivated within the first quarter of the year.

During the last quarter of the year, the team cultivated over 0.4 hectares of land with about 2 kg seed each of the two varieties to multiply certified seed, which would be distributed to farmers and interested seed companies.

The unit gainfully employed about eight youth and also empowered them in the rice value chain.

Through the team's networking activity with some experts from AfDB, the team was able to secure a huge market with "Jumla" Seeds Company and have organized themselves into groups to take up the opportunity.



Some GWA at their rice field

GWA'S Financial Report 31 Dec 2016 (Jan–Dec 2016)

Description	\$
Revenue	
Smoked Fish Unit	13,905
Processing Unit	3,267
Total Revenue	17,172
\$ \$	
Cost Center	7035
Staff Cost	32,819
Admin/Operation cost	852
Materials and supplies	20,243
Travels	290
Finance cost	290
Total Cost	54,495
	129,394

Smoked Fish Unit

Income statement as at 31 December 2016

Description	\$
Revenue/Sales	13,905
Production expenses	7,505
Profit	6,400

GREENMAGIC Agripreneurs



GREENMAGIC Agripreneurs

The Green Magic Agripreneurs are the new set of Agripreneurs who were recruited in 2016 to strengthen the operations of the mother group. Earlier in 2016, some members of the mother group were transferred to other locations (Onne, Kano, Abuja), hence the need to bring in more young people who would also go through experiential learning while also discharging their duties.

Over 30 youth applied for the recruitment exercise but 11 were selected after a series of screenings and tests. After recruitment, they were taken round the normal first 2 weeks of orientation and mindset changing activities while the majority of them were later incorporated to work with the enterprises under the Business Incubation Platform.

They were to generate income and make the existing enterprise sustainable through the use of new technologies.



Green Magic Agripreneurs

2016 for the group was a success as they were able to:

- Adopt new techniques and apply them for production in a short period of time. This includes the use of cocopeat to nurse vegetable seedlings in order to have uniform growth and better yields. Macropropagation was used for sucker multiplication and the group also acquired a 2 ha field to increase sucker multiplication.
- Assist the pioneer group in increasing production and developing a sales strategy for Tidbits snack.
- Single handedly manage a multi-million naira cassava value chain project for Senator Abdullahi Adamu's Nageri Fresh Farm Produce Limited in Nasarawa state. Under this project, members of GMA cultivated and planted 36 hectares of cassava and also installed an operational garri processing center at Nasarawa for the company.
- Participate in several meetings and presentations towards approval of the ENABLE Youth Program. After going through some experiential learning with the mother group, the youth in 2017 are poised to establish independent agribusiness enterprises in order to train other youth and be employers of labor.

IYA Kalambo

IITA Kalambo Youth Agripreneurs

For the last 12 months, the group has been involved in the production of seeds, planting material, and grain (bean, maize, soybean, cassava), processing of cassava, soybean, and maize at Kalambo Processing Center (IITA Campus), and fish farming at Nyakabera, Murhesa, and Lwiro sites. In addition, IKYA has opened a youth center in town comprising a training room and a selling point. On the other side, IKYA started partnering with various youth groups in production, processing, and marketing of agricultural products.

In 2016, the group have accomplished the following activities:

- Bean seed multiplication (7 ha)
- Soybean grain production (9 ha)
- Maize grain production (6 ha)
- Cassava stem multiplication (27.5 ha)
- Approximately 85 tons of cassava tubers were processed this year and 6193 bottles (500 ml) of soymilk produced.
- Our reporters have published eight editions of our newsletter for the year, which were shared with colleagues in Ibadan.



An aerial view of IKYA fish ponds

1. Forty six internal trainings were organized ranging from fish feed production, integrating fishery to crop production, quality control of products and business plan development, Results based management and DevResults training, and Web2.0 and social media for development.
- The group successfully carried out nine major out-station trainings (in rural areas) for farmers' association and agricultural extensions from the provincial ministry of agriculture.
- Thirteen members successfully attended workshops, seminars, and conferences organized by different IITA partners engaged in the Youth Program.

Goals and objectives

The main objective of the group is to engage youth in agribusiness, reduce the unemployment rate among youth, serve as a model for youth, and provide agricultural extension services. IKYA, in partnership with various partners including the government, universities, and NGOs, is aiming to become a resource group where youth of DRC and Africa will be trained. The program aims to empower young graduates with agricultural and entrepreneurial skills and so enhance job creation using available opportunities along the value chains in the production and market at domestic and industrial scales.

Specifically, IKYA aims to:

- Engage in cassava cuttings multiplication.
- Engage in processing and marketing of cassava products.
- Provide training and capacity building opportunities through hands-on experience in various fields such as best agricultural practices, processing, and agribusiness skills.
- Engage youth in agribusiness.

Geographic Location

The group is based at IITA-Kalambo, Catholic University Site Bukavu, Road Birava, in Kabare territory, South Kivu Province and it is supervised by an advisory committee made up of selected senior staff of the International Institute of Tropical Agriculture.

Located in the IITA campus, the group benefits from the scientific, logistical, and administrative support from IITA at all levels from the DG's office to the hub director's office and up to the Kalambo Officer-in-Charge. In addition, IKYA get support from researchers and administrative staff in IITA Kalambo station.

Primary Production

Root and tuber production constitutes one of the major IKYA business lines. The IITA-Kalambo Youth Agripreneurs (IKYA) roots and tubers unit is responsible for the production of improved cassava cuttings and quantity roots for IKYA processing. This year, in partnership with youth groups in rural areas in three different sites and four locations: Murhesa (2.5 ha), Bushumba (16 ha), Walungu (3 ha), and Katogota in Ruzizi plain (6 ha), two varieties were planted due to their resistance to diseases and good yields. This includes Nabana (V8) and C1661. Only the Walungu site (3 ha) has been harvested with a yield of 20 tons of cassava roots.

Beside cassava farms, IKYA has successfully gone into mass seed production of others commodities including maize, biofortified bean seed, and soybean. IKYA has achieved:

- 7 ha of biofortified bean seed multiplication: 3 ha have been harvested from which we obtained 3 tons of certified beans seed.
- For soybean, IKYA relied on youth groups who cultivated 9 ha and harvested 10.8 tons of soybean seeds.
- KYA imported hybrid seed from Rwanda (Tembo or SC 719) in order to intensively produce grain seed for its processing unit. This was done in partnership with youth groups on 6 ha. This year, IKYA has already harvested 20 tons and expects to get 25 tons from all the maize farms.

Processing Unit

After one year of exploration and intense training, IKYA built a profitable business around cassava. Besides cassava processing, IKYA has engaged in maize and soybean processing. The unit works with the marketing unit to ensure that the product harvested meets market opportunities able to generate income from sales.

- 35 tons of maize grain harvested and processed into High quality maize flour.
- 85 tons of cassava tuber and 20 tons High Quality Cassava Flour (HQCF) produced.
- 25,000 pieces of various cassava-soybean-based products were produced and 600 bottles (300 ml) of soymilk.

Through its selling point, the IKYA processing unit has been able to increase its processing activities to 45%.



IKYA team bagging the High Quality Cassava Flour

Marketing and Sales

In 2016, IKYA adopted an energetic marketing strategy to increase volumes of sales at the selling point. The marketing aimed to create awareness of the open youth center and the services it can offer to both rural and urban consumers. At the Youth center, IKYA has two wings:

1. The marketing wing

- IKYA sells the various nutritious processed products it develops.
- IKYA is engaged in a commercial partnership with various groups including the Cassava community processing center for HQCF, HarvestPlus for biortified seed, grain, and flours and with rural youth groups for rice, beans, and Irish potato.

2. The training wing

IKYA has opened an outlet containing books and newsletters to showcase IKYA achievements in order to attract more youth to agripreneurship. The outlet contains also a well-equipped training room and kitchen for various trainings.

The newly
opened sales
point



Capacity Building

The training unit was actively engaged in both internal and external trainings to develop and maintain mental ability and skill sets within the organization.

3. Forty six internal trainings were organized, ranging from fish feed production, integrating fishery to crop production, quality control of products and business plan development, Results-based management and DevResults training, and Web2.0 and social media for development.

External training

- Training of youth and women group in fish farming: 44 participants.
- Training of youth group in good agricultural practices: 31 participants .
- Training of youth and women group in food processing and market intelligence: 26 participants.

Institution or group Name	Location	No. of trainers	Gender	Type of training	Observations
			Male	Female	
SENAQUA	Nyakabera site	2	2	0	Training on clearing and fish ponds management Internal
SENAQUA	ISP Lab & Kalambo site	1	1	0	Fish feed production and data collection Internal
BCDC Bank & Private expert	Bukavu city	3	2	1	Quality control of products and business plan development Internal
CLIP Project	Nyakabera site & Murhesa site	1	1	2	Integrating fishery to crop production Internal
Centre international d'agriculture tropicale (CTA)	Kalambo site	2	1	1	Web2.0 and social media for development Internal
Humidtropics program	Rwanda (Kigali town)	2	1	1	RBM and DevResults training Internal
IKYA	Nyakabera site & Kalambo site	3	2	1	Training of youth and women in fish farming External
IKYA	Murhesa site & Bushumba site	4	3	1	Training of youth group in good agricultural practices External
IKYA	Kalambo site	5	3	2	Training of youth and women group in food processing and market intelligence External
Total					9 Trainings

Apart from trainings, IKYA has participated in a number of events and conferences. These include:

Agro-economic fair jointly organized at MINOVA (North Kivu) by IITA with World vision funded by USAID under the Jenga II Project. The general objective pursued through this fair is to encourage producers to understand the dynamics of a good marketing strategy for their agricultural production in order to benefit from it financially and economically.

- A fair displaying agricultural products by youth agripreneurs and women involved in entrepreneurship under the theme: "Promote the innovations and knowledge of local women and youth agripreneurs using agriculture to create their own employment" organized by Agriprofocus at CONCORDIA Conference room.
- Agricultural Fair held in Uvira with the theme: "Connecting agripreneurs with major economic operators and microfinance institutions (MFI)" organized under the leadership of Agriprofocus.
- Participation on the launching of the ENABLE YOUTH program in Abuja (Nigeria).
- Participation the youth workshop organized by the African Development Bank in Abidjan. The purpose of this visit was to enlighten the AfDB team about youth Agripreneurs, its activities, and plans for the next phase-ENABLE Youth.



Noel Mulinganya from DRC presenting the group's business plan to AfDB officials in Abidjan.

Capacity Development

IKYA is committed to build the capacity of young Agripreneurs through its incubation program. In order to attract more youth to agripreneurship for the establishment of agribusiness enterprises, IKYA organized a capacity development program which centers on mindset changes, skills in various value chains, and business development. The experiential period of incubation was five months and presently the incubatees are all writing their business plans to access loans to start their own businesses.

Selecting youth from Kalambo, Murhesa, Bushumba, Lwiro, Nyakabera, and Bukavu, about 10 young graduates from diverse educational backgrounds were recruited for the incubation program. They were trained on production and processing of beans, maize, cassava, and soybean. At the end of their five-month training, they realized that agriculture offers opportunities for job creation. They were also trained on business plan writing, each following their preferences in order to benefit from financial and technical support from various partners.

In the course of the incubation period, it was discovered that young people have knowledge, energy, and the commitment to venture into agriculture but lack of the finance is a major constraint for them in establishing their businesses.

IYA Kinshasa

IYA Kinshasa

IITA Youth Agripreneurs Kinshasa is a multidisciplinary team of 19 (10 male and 9 female) young people who studied economics, communication, accountancy, international relations and other disciplines .

Evolution in value chains: Production

In 2016, IITA Youth Agripreneurs Kinshasa's activities were centered on processing cassava, vegetables, and fish production.

For vegetable production, the youth acquired 5 hectares of land at Kasangulu, a town which is about 35 km to Kinshasa for the production of hot pepper, spinach, tomato, cucumber, and egg plants.

Also in 2016, IYAKIN was able to process cassava flour at the Agro-industrial Park of Bukanga Lonzo, 215 km from Kinshasa.



The team offloading cassava flour to be processed into flour

They purchased already peeled cassava roots at \$80/ton. A ton produces about 250 kg of flour, while a kilo is sold at \$1.

The team also acquired some ponds in Kasangulu and will begin full operation of Tilapia fish farming in 2017.

Capacity Building

IITA Youth Agripreneurs Kinshasa participated in lots of trainings and seminars. Among such is Web 2.0, and writing bankable business plans.



IYA Kinshasa team being trained on Web 2.0

Information and Communication Technologies

In 2016, IYAKIN produced 12 editions of its newsletter.. Plans are ongoing to ensure that the activities of the group are communicated via Twitter.

The group made use of every available means to ensure that all activities of the group were well communicated.

IYAKIN also participated in various workshops like the National workshop of Consultation on the Integration of Sites of CGIAR, the ENABLE-Youth Workshop design in Nigeria, the International Agricultural show Kinshasa, and participation in First Food Festival in Kinshasa.

IYA Bukavu also took time to share some experiences with their colleagues in IYAKIN during an exchange visit from Bukavu to Kinshasa.

The youth were also privileged to host their mentors, Drs Bernard Vanlawe and Paul Woomer.

IYA Tanzania

In 2016, the Tanzania Youth Agripreneurs (TYA) diversified into fish farming to generate additional income for the group.

Stocking the two ponds with 3000 fingerlings, the youth decided to go into tilapia fish farming because of the high demand for it in the region.

Identifying their market for the fish, the youth adopted an integrated farming technique to avoid waste and maximize their resources. The youth were trained by the Tanzania Fish Research Institution (TAFIRI) on fish farming and the importance of adopting the integrated farming technique. Through this technique, the waste and feed from the poultry will be used as fish feed, while water from the ponds will be used for the vegetables.

TYA in 2016 was also crowned as the youth ambassador in Tanzania after successfully defending the model during the National Agricultural Exhibition in August.

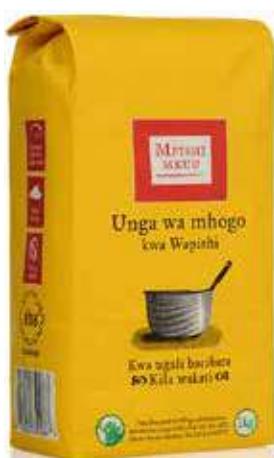


Agripreneurs in Tanzania attending to student at the National Agricultural Exhibition

The award was given by the Tanzania Agricultural Society (TASO) in recognition of the TYA's effort, commitment,, and active participation during the exhibition.

Also in 2016, TYA partnered with the Tanzania Agricultural Development Bank. TADB has been supporting the youth in building their capacity on writing proposals and developing business plans on how to secure funds to establish

their businesses. The financial institute will further look for areas to strengthen financial support for the project's activities. The group also benefited a lot from the whole experience, from learning about new technologies and innovations they could add to their ventures, to networking with potential partners including financial institutions.



A sample of cassava flour being sold by TYA

IYA Uganda



Uganda Youth Agripreneurs

Last year was unique in many ways for UYA. The group recorded some major impacts and also faced some challenges. Generally, it was another year that presented the group with great learning opportunities at business and personal levels. The use of ICT in agriculture; i.e. the online marketing system continued to be UYA's leading source of breakthrough. Progress was however recorded in other areas as well.

Online Vegetable Marketing

The business expanded creating more markets due to high demand. Today the group has moved the business from supplying only CGIAR offices to UNICEF, Kololo band café, and the United Nations' accounts department.

In order to be able to meet up with the increase in weekly demand, UYA has created farmer groups for outsourcing the vegetables in order to have constant supplies for consumers. This new system has helped the on-line vegetable market maintain a constant supply to its clients and it has also helped reduce the middlemen problem faced by farmers in the market. The vegetable on-line marketing has also expanded to other regions in the country.

For immediate supplies of vegetables to clients and monitoring of outgrowers, the group acquired a tricycle.



Agripreneurs in Uganda with Dr Sanginga during his visit

The program has further expanded and through different marketing strategies such as an immediate response to customer feedback from previous deliveries, changing products and provision of recipes for new and/or uncommon products on a weekly basis has helped to raise the number of clients from 25 to 40 a week. The quantity and quality of the vegetables is an important factor that has helped UYA maintain a large number of clients. UYA is determined to maintain good working relations with the clients and other farmers.



UYA and one of the out-growers

Through a FARA sponsored program, UYA was trained on value addition. The training, which was in collaboration with Farm Gain Uganda, Uganda Christian University (UCU), and scientists from the Faculty of Agriculture of Makerere University, provided the youth an opportunity to expand their scope and reach in online vegetable marketing.

UYA also participated in the Uganda National Youth Super Challenge. The inter-university youth challenge involved more than 72 youth groups from different regions in the country and UYA through its various innovative platforms emerged as second runners up.

Partnerships for Internship

To give other youth a chance to explore the opportunities in agribusiness, UYA in partnership with some higher institutions of learning in the country offered internships to give hands-on training and guidance on agribusiness to young graduates. The four month internship program gave students of Buganda Royal University the opportunity of learning from the UYA.

Production

UYA ventured into large production of vegetables such as sweet pepper, broccoli, amaranths, sukuma wiki, and water melon. In spite of its large production, the group was unable to meet up with the requests they receive via their online marketing platform.

UYA planted both on the open field and in the greenhouse. Through the activities in 2016, it was discovered that Greenhouse farming has more advantages than those of the open field.

The table below provides more information on this.

Greenhouse Farming	Open field Farming
Occupies less space	Investment capital may not require much
Easy to monitor	In order to earn income you must produce massively
Produce year round	Production is twice a year
Less risks of pest infection	High risk of pests because the place is exposed
Produces high quality produce due to weather conditions	Production depends on the weather conditions
Requires less labor	Labor depends on how much you need to produce
Less time is invested	more time must be invested to obtain a good yield

Even though the group prefers the greenhouse technique to on-field, the greenhouse requires more capital investment.

The challenges faced in 2016 include:

- Prolonged drought: UYA had less field work activities compared to 2015 due to prolonged drought in the country.
- Lack of funds.
- Transportation: more means of transportation are required as the group expands the on-line marketing.

The group in 2016 worked in partnership with:

- The International Institute of Tropical Agriculture
- Makerere University
- The Uganda Christian University
- The World Vegetable Centre
- Mukono district local government
- Agromax

Future plans

In 2017, UYA plans to train more interns and other youth on developing bankable. This is another means of generating funds for the group. There are plans to expand the reach of the group's on-line vegetable market to give more farmers the opportunity of working with the group and also ensuring that the clients get instant supplies.

UYA in 2017, plan to acquire two or more Greenhouses in order to increase production and produce healthy vegetables all year around.

KIBWEZI Hortipreneur Youth Group

Kibwezi Hortipreneur Youth Group

KHYG is a recently founded group (March 2015) that conducts irrigated vegetable farming in semi-arid eastern Kenya at the University of Nairobi Dryland Research Station. KHYG now has eight dedicated members (50% women) ranging in age from 23 to 29 years and four elected officers. Its location is remote, lacking mobile phone and Internet coverage, and even potable water, but the drip-irrigated growing conditions at Kibwezi are excellent and the farm is near the Mombasa-Nairobi commercial corridor. The group grows mixed vegetables in its 2000 m² greenhouses and has started fish ponds and fish feed production as well.

Below are brief summaries of the group's activities for 2016

Creation of employment opportunities

Eight out of the 12 youth at KHYG have managed to stay and be actively involved in the project. Their productivity has grown by more than 60% from last year which has seen them generate more income.

Greenhouse vegetables

- Several F1 hybrids were evaluated leading to a selection of cultivars Bingwa and ProStar as the most promising. The group prepares commercial quality potting mixture and also learned vegetative propagation of tomato from the “sucker” prunings. Second-hand plastic stacking crates were obtained from another grower that holds 24 kg for transport to market. Local prices are rather low (\$0.25 per kg) but a proportion is sold at a higher price in Nairobi (\$0.50 to \$0.67 per kg). Other crops tested inside the greenhouse as candidate crops include melon, capsicum, climbing bean, and cabbage.
- After a short prioritization exercise, KHYG focused on production of cucumber as the main crop and capsicum. After finding cucumbers somewhat difficult to market and highly infested with pests and diseases, tomato, which performs very well under irrigated greenhouse conditions, was then considered for crop rotation. Several hybrids were evaluated leading to selection of Bingwa F1 and ProStar F1 as the most promising.



KHYG team sorting tomatoes for sales along the Mombasa business corridor

- The technical advisor trained the group on how to vegetatively propagate tomato from the “sucker” pruning and prepare commercial quality potting mixture. The mixture consists of cocopeat, vermiculite, sand, and decomposed manure in the ratio 2:2:1:1/2 and a small amount of Di-ammonium phosphate (DAP) fertilizer.
- KHYG has now embarked on hydroponic greenhouse farming for their tomato and capsicum which should assist with the drought period when there is hardly any water to be pumped from the Kibwezi River.

Field Crops

Some of the preferred crops were maize, sorghum, and soybean which were performing well, but due to wild animals, especially baboons, the team had to re-evaluate and decided upon green vegetable production. This also did better in the local market.

Fish production

- Fish farming was initiated as a second enterprise in May 2015. Two 8 m × 8 m ponds were lined with UV resistant polyethylene because the soil is quite porous. The ponds

were filled and stocked with catfish and tilapia from a commercial supplier (Jambo Fish Kenya, Kiambu) and the Department of Fisheries (Sagana station).

- At first imported fish feed was provided, but later a blended fish feed was produced by the group to reduce costs. The feed consisted of fish meal, soybean, maize meal, powdered moringa leaf, cow's blood, and sawdust (to provide buoyancy). It is mixed, cooked, passed through a mincer, dried, and rolled into 4 mm pellets. This is now being purchased and sold to the local fish farmers in the area.
- Algal bloom resulted in poor aeration and slight fish die-off, a problem quickly resolved by installing an inexpensive aeration system.
- The first fish harvest was poor but the catfish have grown from 4 g to about 900 g in five months. KHYG has also moved to raise fingerlings and mature fish for sale. A freezer was purchased for storing fish that cannot be sold fresh.

Enterprise Development

Sweet Potato Crisps Enterprise

- Due to the government lobbying for more Vitamin A products in the market, the team came up with sweet potato crisps designed with the UoN Food Science Department as a viable enterprise in order to address the gap for potato crisps in the market. Their first product was launched at the IITA offices at the icerip campus on 17 June 2016.
- This venture has proved quite profitable as a number of local schools and supermarkets have shown interest in the product. KHYG have come up with a marketing plan to ensure sustainability of this enterprise.



A pack of the potato crisp on display

Grain Depot

- KHYG opened a store in the town center, which would allow them to sell grains, their vegetables as well as their fish. This would also act as the team's storage facility for any of their produce. This has helped increase their income as they are able to sell closer to the market.

Knowledge Management

- *Self-help Youth Groups* - KHYG registered in July 2016 as a self-help group with the Ministry of Sports, Gender and Welfare to ensure that they got assistance from the government and also to be able interact with other groups of their ilk.
- *Facilitation for Youth Innovation Conference 2016 Arusha* – One member of the group was able to attend this meeting which showcased youth innovation in all enterprises and KHYG were able to showcase some of their work at the conference. It was a great opportunity to interact with young entrepreneurs as well as start- up financiers.
- *AfDB ENABLE Conference 2016 in Abuja* – KHYG were able to participate in this conference and present their achievements as well as their lessons learnt and meet other Agripreneurs.



Representatives of KHYG (in blue) with the Dr Sanginga and their technical adviser Dr Paul Woomer during the conference in Abuja

- *AGRIF Meeting 2016 Nairobi* – One member of the team was able to attend this meeting and interact with fellow youth in agribusiness.
- *Local Training and Outreach Programs* – KHYG have offered to host training programs for local schools interested in Agriculture. St. Mary's High School visited this September and was given a tour of the farm and instructions and pointers to take home.
- *Visit by Deputy President William Ruto* – In September, the Deputy President visited Kibwezi to attend an exhibition organized by the University of Nairobi. KHYG were proud to showcase their achievements and products at their stand which the DP visited. This was a monumental event for the group as it opened up to the media and gave the team much needed publicity.
- *Technical Training* – Dr P.L. Woomer was instrumental in providing step-by-step technical advice to the group and ensuring that they had the information required to carry out day-to-day farm activities with vegetable and fish production.
- *Business Planning and Entrepreneurship* – AgroTEQ, with Dr Mpoko Bokanga leading the team offered training in entrepreneurship development; how to do market research and coming up with business plans that would allow the members to apply for financial assistance.
- *Mama Samaki* – KHYG members visited a local fish farmer who was able to train them on how to raise fingerlings and the best methods to get a good harvest of fish. They were taken on a step-by-step practical training through the full value chain.
- *Training Manuals* – Two training manuals were released both in French and English as a reference manual for other interns.

Most of the Agripreneurs are completing their internships in Kenya and are intended to start agribusinesses. In 2016, KHYG developed six detailed agribusiness plans to secure funds for their businesses.

Lessons Learnt

- The aridity of the area caused a lot of the outfield crops to wither during the dry season. The lesson learnt was to go with crops that did not require much irrigation for the outfield and come up with a better system such as hydroponics for the greenhouse plants.
- Transport costs were eating into the budget. IITA managed to provide a vehicle that helped with this and made it easier for the team to transport their produce. IITA also funded driving lessons in order to have as many drivers as possible within the team.

- The group was unable to capitalize on the enterprise development fund provided by IITA. Members learnt that those who are motivated to move forward should not be held back by the less ambitious.
- Poor Internet and mobile service inhibited the team from fully utilizing their communication and learning tools available online. It is important that communication is made accessible in order for the team to be able to receive timely information.
- Capacity building suffered due to the premature exit of some of the members citing difficulties in moving forward.

Conclusion

Even with a small number of interns, a lot was achieved by KHYG. Struggling between inadequate supply of water, logistical impediments, and lack of manpower, KHYG worked tirelessly to achieve what they have achieved so far. With more training on business management and marketing, better results could be achieved.

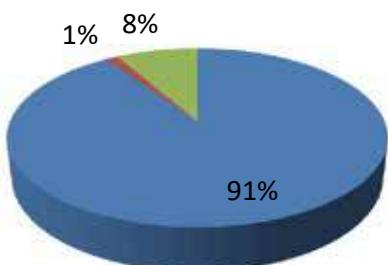
Financial Information for Year 2016

Revenue

For the year 2016 IYA has been able to mobilize its revenue from its main activities, which are production, communication, and training. Total revenue was \$198,197: production \$180,057 Communication \$2,429, and training \$16,431. The pie chart below illustrates in percentages revenue generated.

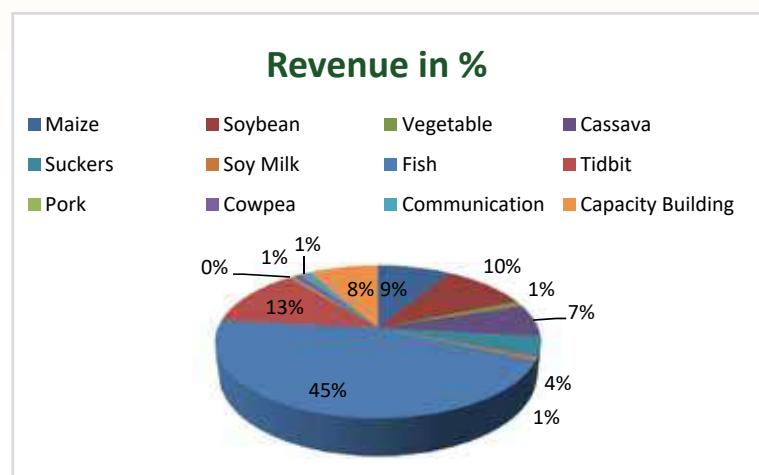
IYA Revenue

■ Production ■ Communication ■ Capacity Building



Revenue from Production, Communication, and Training activities

Figure 2 below indicates that 45% of IYA revenues from its commodities in 2016 came from fish sales, 9% from maize seed sales, 10% from soybean seed sales, 1% from cowpea, 7% from cassava sales, 3% from soymilk sales, 1% from vegetable sales, 4% from sucker sales, 12% from Tidbit sales, 8% from capacity building, 0% from pork sales, and 1% from Communication.



IYA Expenses

This section indicates the sum of the entire budget allocated and the actual amount spent as at the end of this accounting period. The total budget allotted to carry out IYA activities for the year 2016 was \$714,200. However the actual total spent was \$600,522.

Budget Monitoring Report For Year 2016

BUDGET MONITORING REPORT FOR YEAR 2016		A	C	F	G
BUDGET VS ACTUAL REPORT	TOTAL BUDGET ALLOCATED	ACTUAL SPEND TO DATE	BUDGET VARIANCE	BUDGET UTILIZATION %	
BUDGET ITEM:					
<i>Administration;</i>					
Administration and Logistic	46,066	23,331	22,735	49%	
Cassava	34,397	54,094	-19,697	-57%	
Cereals and Legumes	164,418	118,489	45,929	28%	
Plantain	34,396	24,086	10,310	30%	
Vegetable	34,396	18,942	15,454	45%	
Fisheries	159,170	139,075	20,095	13%	
Processing and Marketing	132,077	55,796	76,281	58%	
Partnership	0	16,227	-16,227		
Communication, ICT & M&E	39,127	85,927	-46,800	-120%	
Production	0	11,988	-11,988		
Capacity building/Training	70,153	52,565	17,588	25%	
Sub-Total(B)	714,200	600,520			
Total Program cost (A+B)	714,200	600,520			

Budget item expenses

Budget Categories	\$
Equipment and Mainten	58,739.89
Travels	54,796.12
Personel cost	253,836.16
Materials and Supply	197,027.89
ICT Cost	16,224.00
Training	17,855.70
Entertainment	2,043.00
Total	600,522.76

- Travels cost includes all travel made both locally and internationally for all units for the year 2016.
- Equipment and maintenance covers all units running costs.
- Materials and supplies cost include for supplies for all units.
- Training covers cost of training and School fees.
- Communication materials for newsletters and other publishing.

% of Unit Expenditure

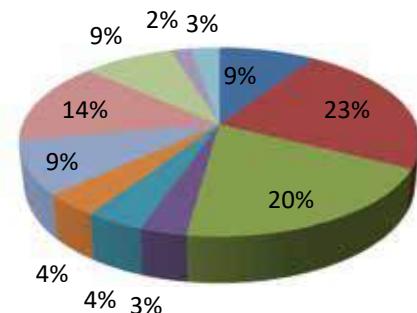


PHOTO GALLERY



IITA Youth Agripreneurs with Dr Akinwumi Adesina and Dr Nteranya Singinga at AfDB Headquarters in Abidjan, Côte d'Ivoire.



Agripreneurs with DG-IITA, Dr Nteranya Singinga presents a gift to Dr Nwanze Kanayo.



Hon. Minister of Agric. (Nigeria), Chief Audu Ogbeh (2nd from left) with Agripreneurs.



IITA Youth Agripreneurs with Mr Deji Haastrup (M) at the launch of Chevron Project.



Participants at the ENABLE Youth Workshop at Abuja, Nigeria.



Dr Akinwumi Adesina and Dr Nteranya Singinga plant a tree during a visit to the Youth Training Center in Abuja, Nigeria.