



## Reports: N2Africa revitalizes legume production in Nigeria

Within the Nigerian context, a revival of the groundnut pyramid era of the 1950s is the main idea that comes to mind from the objectives of the [N2Africa](#) project. Since 2009, the project has been taking proactive and practical steps away from theory and putting nitrogen fixation to work for smallholder groundnut, soybean, and cowpea farmers, by supporting soil agents such as rhizobium for improved yield.

To achieve this, N2Africa advocates an integrated approach through the use of a combination of the fertilizer Single Super Phosphate (SSP), improved legume seeds, and an inoculant for rhizobium developed by [IITA](#) and known as [Nodumax](#). Farmers in sub-Saharan Africa are encouraged to grow legumes due to their ability to fix nitrogen from the air and improve soil fertility, and also for their nutritive and commercial values. A preliminary market analysis conducted by IITA suggests that Nigeria requires about 300 t/year of soybean inoculant for 30,000 t of seeds grown on 500,000 ha. Inoculation was found to result in an additional 150,000 t/year of soybeans worth US\$93 million per year to the farmers.

Nodumax was developed because of the lack of supply of inoculants to West Africa. "Its use is also economically profitable; farmers



Dr Vanlauwe encourages partners to focus more on solving real problems in more sustainable ways.

spend only \$5 per hectare using inoculants compared with more than \$100 on urea fertilizer for the same expanse of land," said Dr [Bernard Vanlauwe](#), IITA's Director for Central Africa.

On 23-25 March, over 70 project partners, implementers, seed companies, public- and private-sector stakeholders converged at De Bently Hotel, Abuja, for the N2Africa-Nigeria Annual Planning Meeting. They shared and discussed constraints identified on the field particularly for women and the youth, reviewed project milestones, evaluated progress, identified new gaps, ensured the integration and sustainability

of project impacts, and also developed strategies for implementation in 2015. Challenges identified by state Agricultural Development Programs working with the farmers were also addressed at the meeting with the expectation of an improvement in this second phase.

Dr Vanlauwe commended the progress which partners have achieved so far. He said that the tasks before the scientists in Phase II were more than writing scientific papers. They revolve around creating jobs for the youth, and solving real problems that affect many farmers by developing value addition, value chains, networks of markets, and storage systems. He also enjoined all partners to work towards ensuring sustainability and the practical use of the project results. "Sustainability means private sector engagement; it's not the job of IITA to commercialize agricultural inputs. We need to integrate and work with partners in the private sector to achieve this."

On the need to improve the availability and accessibility of Nodumax, Dr Vanlauwe said the project would not demonstrate inoculants which the farmers could not buy. "The IITA Business Incubation Platform has been repositioned to this end. The first acceptable product is now being manufactured and production of 16 tons is the target by mid-April 2015."

Based on the project's action pillars, some challenges were noted. These included poor yields, lack of awareness of Nodumax, gender constraints, the selection of trial plots, and the need for value addition to legumes to promote nutrition. Dr [Emmanuel Sangodele](#), N2Africa Country Coordinator, noted that legume yields were still low and far below their potential. He attributed the low yield to inadequate application of scientific knowledge by both farmers and researchers.

"The cowpea and soybean yield per hectare in Nigeria is still hovering between 1 and 1.8 tonnes. To improve this, N2Africa is working to enhance yields through the application of scientific knowledge



Meeting participants in a group photo.

including the use of improved varieties and rhizobium inoculants to maximize the yield potential of grain legumes. We have resolved to identify and promote legume varieties which have performed excellently in their regions. We are also proactively building the capacity of young people in degree and nondegree programs," he said, "so they can be able to promote the science of rhizobiology even after our generation retires."

Other resource persons at the meeting were Dr [Fred Kanampiu](#), N2Africa Project Coordinator; [Theresa Ampadu-Boakye](#),

Project Monitoring and Evaluation Specialist; [Joost Van Heerwarden](#), Wageningen/N2Africa Coordinator research and data; and [Edward Baars](#), Senior Business Development Officer of the N2Africa Project.

At the end of the deliberations, Dr Vanlauwe spurred the partners to action saying, "We can do this. The rapid and almost magical transformations in the agricultural and infrastructural scene of the country show that the project can achieve its milestones in Nigeria with the concerted efforts of all partner organizations. If this momentum continues, I firmly believe we will take all

the necessary risks and achieve all we have set out to in 2015 and move the Nigerian agricultural sector forward".

N2Africa phase II started in January 2014 and is focused on five core countries: Ethiopia, Ghana, Nigeria, Tanzania, and Uganda. Implementing partners are IITA, the [International Livestock Research Institute](#), and the [Alliance for a Green Revolution in Africa](#). They collaborate with the national agriculture research systems and local and international NGOs. The project is funded by the [Bill & Melinda Gates Foundation](#) and led by [Wageningen University](#).

## A better future comes in a pod

In countries where large-scale commercial farming is common, soybean is considered a "superstar" crop because of its significant contribution to the economy of the nation and the wellbeing of the people. Unfortunately – and ironically – in many parts of Africa where soybean could give so much in terms of improving the lives of the farmers that grow it, soybean does not enjoy the same level of use and recognition.

A project being implemented by IITA with partners and funded by the Common Fund for Commodities (CFC) in Mozambique and Malawi is trying to change this. Dubbed "Integration of small-scale farmers into the market economy through soybean value chains in Malawi and Mozambique", the initiative aims to increase the productivity of soybean and facilitate the sustainable development and commercialization of the soybean subsectors to better the lives of stakeholders, particularly the small-scale farmers and processors.

Use diversification is one of the major thrusts of the project. In Mozambique where the use of soybean at the household level is still very limited, the project is pulling all stops to maximize the use of, and benefits derived from, the "gold in a pod" by raising people's awareness and building related capacities. And so far its efforts are paying off.

Recently, the project trained 60 mostly-female community trainers, with 6 being nurses stationed at local health centers. Topics included good hygiene practices and identifying signs of malnutrition and addressing it through improved diets using local produce but integrating soybean. In turn, the nurse-trainers conduct talks on these topics to community members at their respective health centers once a week,

while the rest does it at least twice a week in their respective villages. The talks are always followed by practical demonstrations of different nutritious soybean-based foods for children and adults, and how to prepare each dish. Demonstrations include proper cleaning of soybean before processing, correct roasting (duration and how the grain should look like when ready), dehulling and grinding soybean using a local stone grinder commonly found in almost all households, winnowing, sieving using a local sieve or clean cloth, measuring ingredients, and cooking.

Dishes introduced include porridge (maize meal and soybean) for children below 5 years, "nshima" (porridge-like dish but firmer) for older children and adults, soya milk, and soybean-enriched relish. Through this approach, the project has also introduced

production of baked products using soybean flour.

Although cooking has been traditionally the domain of women, these training sessions have also increasingly attracted the participation of men. Surveys conducted by the project showed that almost 3000 individuals (68% women) have so far benefited from the talks and demonstrations, which consequently lead to about 350 children bouncing back from being malnourished.

The initial outcomes of these community nutrition promotion efforts by the project have resulted in a change in the mindset of the soybean-growing households – families now keep part of their harvest for home consumption and use unlike before the project came.



"Because of soybean use promotion, I have become a queen in my community. I have gained so much respect from people. Being a volunteer, I am not paid for what I do. Nevertheless, I have so much pride and motivation for what I do because I have helped save lives of many children. Many households have learned to value soybean because the community had witnessed the improvement in children's health. People learned that soybean is not only for selling. Producers of soybean (including myself) used to sell all the harvest, but today, people have become so conscious of keeping part of the harvest for home use. However, it is sad to know that there are people who do not produce soybean or could not afford to buy even a small quantity. This project will not be here forever, but I, together with the mothers who I have trained, would like to continue what we have started. We may survive from little in-kind contributions from households to continue training other people." -- Delfina Sidonio (right), a volunteer community nutrition promoter in Ruace, Mozambique, with IITA Agroenterprise Development Specialist Melba Davis-Mussagy (in orange t-shirt).

# Ugandan Agriculture Minister approves revisions to country's National Seed Policy

Last month, the Ugandan Minister for Agriculture, Animal Industry and Fisheries validated the revisions made to the country's National Seed Strategy. This can now be submitted along with the National Seed Policy document to Uganda's cabinet for review.

The National Seed Policy had been reviewed and validated at a stakeholders' meeting held last year. This had brought together key players in the sector from private seed companies, local seed businesses, researchers, district officials, relevant ministries, and parliamentarians.

The seed strategy validation was followed by a further review of the regulations for agricultural chemical control in a process led by the [Department of Crop Inspection and Certification](#) of the agriculture ministry and the [Ministry of Justice and Constitutional Affairs \(MoJCA\)](#) in January 2015. The specific regulations for agricultural chemical control include those for seed and plant control, pest control, and pesticide application equipment.

The process was facilitated by the [Policy Action for Crop Intensification \(PASIC\)](#) project in which IITA, the [Economic Policy Research Centre \(EPRC\)](#), and the International Food Policy Research Institute (IFPRI) are working closely with Uganda's agriculture ministry to set up [policies and actions](#) for sustainable agricultural intensification to boost the production of small-holder farmers.

According to [Pamela Pali](#), PASIC Project Coordinator, "This is a great milestone for the project and the agriculture sector in the country; access to and use of improved seeds by farmers are critical in boosting production under agricultural intensification."

She said the seed supply system in Uganda was mostly led by the poorly regulated informal sector which had 80% of the market share; the formal sector took up the other 20%. "Currently we have around 20 seed companies. They make up the formal seed supply system that is monitored through the public regulatory system from production to certification. The informal seed system, on the other hand, has no organized production chain, and is entirely unregulated," she said.



IITA, through PASIC, conducts research on the engagement of stakeholders in the policy processes.

During the various discussions in the validation process for the National Seed Strategy, several issues were discussed such as the consequences of implementing a private sector-led national seed industry and the need for evidence to show how biodiversity would be protected and preserved—passionate issues for the advocacy bodies.

It was agreed that an autonomous body to regulate the seed sector should be established. Although quality control was seen as primarily the role of government, the formation of a private

sector partnership was advocated to encourage competitiveness and efficiency.

Other key areas agreed upon included the need to build the capacity of producers of quality declared seeds (QDS)—the seed policy targets to have 20% of the seeds as QDS produced by the informal seed sector. In addition, the mechanisms were to be strengthened for self-regulation and internal quality management among seed actors; seed companies should provide extension services beyond the demonstration fields and the seed traders should



Meeting participants in a group photo.

## Ugandan Agriculture Minister approves revisions to country's National Seed Policy, *continued*

have at least one seed technologist or technician among their staff.

The PASIC project is engaged not only in policy action for policies relevant to crop intensification such as those concerned with seeds, fertilizer, and extension; it is also conducting research to analyze the constraints in these policies. This component is led by the EPRC. From the stakeholders' perspective, IITA is conducting research on the engagement of stakeholders in the policy processes. This research includes analysis of the influence of policy processes, the connection or otherwise of actors on sustainable crop intensification in Uganda at national, district, and local levels and consideration of gender at these levels.

PASIC has also been collaborating with other projects such as USAID's [Enabling Environment in Agriculture \(EEA\)](#) - agricultural inputs activity and the [Integrated Seed Sector Development \(ISSD\)](#) to contribute to the project's efforts to create a policy environment favorable to the intensification of agriculture in the country.

## IITA to host AWARD Women's Leadership Program in June 2015

IITA is collaborating with African Women in Agricultural Research and Development (AWARD) in hosting the [AWARD Women's Leadership and Management](#) course to be held in IITA, Ibadan, Nigeria in June.

IITA warmly invites participants from partner organizations, colleagues, and other interested parties. Reservation deadline is 5 June 2015. Click <http://bit.ly/1Cd7lz8> to view details on how to apply.



## IITA and WECA: partners working for progress

IITA organized a week-long team/capacity building and business work plan workshop for managers of the Ondo State Wealth Creation Agency ([WECA](#)). The managers are the implementers of a [partnership](#) agreement between IITA and the Ondo State Government, established in 2014, to transform agriculture in the State by training and empowering the youth through agriculture.

So far, over 120 young men and women in [Ore](#) and many others in various locations of Ondo State are benefiting from this initiative. The proud "pro-farmers", as they are called, have been empowered to grow a combination of crops such as cassava and maize as well as engage in livestock rearing and fish farming. The need to multiply impacts in Ore formed the crux of the workshop.

About 15 managers from WECA led by Barrister Bolanle Olafunmiloye, DG of WECA, were in Ibadan, 16-20 March, to learn about IITA's Youth Agripreneurs, mandate crops, value chains, GIS, farm management, postharvest practices, and agricultural mechanization. The workshop also aimed to consolidate the relationship between the two institutions.



Dr Antonio Lopez-Montes (center, in glasses), IITA Yam Breeder, pose with the WECA managers at the IITA yam barn after a briefing on yam.

Dr Richardson Okechukwu, Coordinator of IITA's Cassava Transformation Project, while welcoming the managers to the training, expressed the Institute's pleasure in hosting the workshop and enjoined the participants to participate fully.

"The focus will be primarily on mapping a working plan for the job in 2015...this workshop has been designed for all in management to understand what the facility at Ore really needs in terms of operations such as training, marketing, and networking. We are happy that this meeting is happening at this time," he said.

Barrister Olafunmiloye acknowledged IITA's efforts especially in creating a niche and route to progress for many young people through agriculture, and added that WECA is open to work more closely with the institute.

"We expect a more integrated, focused, and strategic relationship in working with IITA and in terms of our collaboration. We also hope to continue to see each other as partners in progress at the end of the meeting," she said.

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

# Ghanaian envoy: Need to strengthen partnership between IITA and ECOWAS

The Ghanaian High Commissioner to the Federal Republic of Nigeria, His Excellency William Azumah Awinador-Kanyirige, visited IITA headquarters on 20 March. He said that he came to IITA, a “center of excellence” in agricultural research in the region, to “learn and be inspired” by the scientists and also to seek new partners.

Dr [Kenton Dashiell](#), Deputy Director General for Partnerships and Capacity Development, welcomed the commissioner and his party of four, with briefings by Dr [Robert Asiedu](#) on IITA programs in West Africa particularly Ghana, and from DDG-CS [Kwame Akuffo-Akoto](#), on the IITA-Ghana memorandum of agreement.

In his response, Commissioner Awinador-Kanyirige said that he felt very much at home in Nigeria, and cited IITA for its strategic work on ensuring food security for the region through agricultural research. He said that the partnership between IITA and the Economic Community of West Africa States ([ECOWAS](#)), the regional group with a mandate of promoting economic integration in all fields of activity of the member countries, should be strengthened. ECOWAS covers Bénin, Burkina Faso, Cape Verde, Côte d’Ivoire, The Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Sierra Leone, Senegal, and Togo.

The Ghanaian envoy was taken on a tour of IITA facilities, including the Virology Lab, Crop Utilization Unit, Genetic Resources Center, BioScience Center, Seed Processing Unit, Youth in Agribusiness, Cassava Processing and Postharvest Engineering Unit, and the Business Incubation Platform.

The Commissioner thanked IITA for a very professional visit, and said he was looking at his mission as “serving as a bridge” among IITA, Ghana, and ECOWAS, playing a more strategic role in food security, and engaging in more meaningful activities in Nigeria.



The Ghanaian High Commissioner (center) and party listen to a briefing by Dr Peter Kulakow, cassava breeder (right).



At the aflasafe plant, IITA scientists and engineers explain the benefits of using aflasafe to manage aflatoxin contamination in food crops.

# Nigerian undergraduates encouraged to choose agribusiness

Over 90 undergraduate members of the Agricultural Economics Students’ Association from the Federal University of Agriculture, Abeokuta, have been encouraged to consider [agribusiness](#) and agri-entrepreneurship in their choice of a future [career](#).

Dr Kenton Dashiell, DDG Partnerships and Capacity Building in IITA, addressed the students during their field trip to the Ibadan campus on 9 March. He said that agriculture in Africa offered enormous opportunities for young people who were ready to support the continent to become food secure and urged the visitors to embrace the agriculture-related opportunities around them for a better and secure future.

“I urge you to take agriculture seriously because in the near future it will be the only [sure means](#) of survival,” he said.

The IITA Youth Agripreneurs presented a series of enlightening talks to the students about their activities as a team who are redefining agribusiness and

making a living from agriculture. The visitors were taken on a guided tour around the Ibadan campus to see the facilities and ongoing projects.



“I believe in agriculture. Who else does?” Dr Kenton Dashiell asked the students.