



New project on Cassava Weeds Management launched this week

IITA and partners this week launched a new multi-year project assessing sustainable weed management technologies for cassava-based farming systems in Nigeria in Ibadan.

The project is seeking to find solutions to the labor-intensive weeding usually performed by women and children and to increase cassava productivity for 125,000 Nigerian farm families. The project has the potential to serve as a livelihood transformation model for all cassava-producing states in Nigeria.

Cassava is generally grown by smallholder farmers, who appreciate its tolerance of drought and poor soils. However, its prospects in Nigeria—the world's largest producer—is being threatened by insufficiently developed weed management practices. Hand and hoe weeding are the predominant weed control practices on smallholder cassava farms and takes 50-80 percent of the total labor budget of cassava growers with women contributing more than 90 percent of the labor and 69 percent of farm children between the ages of 5 and 14 forced to leave school to perform weeding.

“Weeding requires up to 500 hours of labor per hectare to prevent economic losses in cassava roots in Nigeria,” says Project Manager Dr Alfred Dixon. “This burden compromises the women’s responsibilities and the children’s education, and Nigerian farmers will continue to record low yields until weed control in cassava is improved. Farm families cannot plant a larger area than they can weed,” he says. According to him, “Addressing the



L-R: IITA Director General Nteranya Sanginga; Bill & Melinda Gates Foundation Senior Program Officers Vasey Mwaja and Lawrence Kent; and Project Leader, Sustainable Weed Management Technologies for Cassava Systems in Nigeria, Alfred Dixon, during the kick-off workshop in Ibadan 28-31 January.

complex issues of hunger and poverty is no easy task, and so we see the value in engaging in new research and deploying our best resources to ensure that smallholder farmers have access to the best innovations to increase their agricultural productivity and improve the nutrition of their families.”

The ultimate aim of this research is to develop state-of-the-art weed management practices, by combining improved cassava varieties with proper planting dates, plant populations, and plant nutrition options. These particular practices may include the use of herbicides—all of which currently meet globally-accepted conventions and safety thresholds appropriate for smallholder farmers—to make weed control in cassava more efficient. Any herbicide activity will be part of a comprehensive

strategy of effective agronomic practices that are collectively striving to make weed management more effective and sustainable.

The IITA-managed project is supported by a US\$7.7million grant from the Bill & Melinda Gates Foundation, and involves the National Root Crops Research Institute (NRCRI), Umudike; University of Agriculture, Makurdi; Federal University of Agriculture, Abeokuta; government representatives, international cassava scientists, the donor community, and the private sector. “The project will also offer policymakers better information on modern, relevant, and appropriate weed management technologies. This information could be used to expand the project to 5 million farm families in Nigeria,” says Dr Friday Ekeleme, the project’s Principal Investigator.

The sustainable cassava weed management project aligns with Nigeria’s Agricultural Transformation Agenda and will help to meet the Government’s goals to increase domestic food production, reduce dependence on food imports, and expand value addition to locally produced agricultural products.

The project will be handed over to one of the key national institutions in the development and extension of improved cassava technologies, NRCRI, for scaling up the project’s outcomes on a national level.



Workshop participants during the kick-off program

Got a story to share? Please email it with photos and captions to Andrea Gros (a.gros@cgiar.org), Katherine Lopez (k.lopez@cgiar.org), Jeffrey T. Oliver (j.oliver@cgiar.org), Godwin Atser (g.atser@cgiar.org), or Catherine Njuguna (c.njuguna@cgiar.org).

Africa's biggest maker of ethanol from cassava cites IITA



L-R: Godwin Atser, Kenton Dashiell, Rajasekar Rajavelu, Director (Agro), AADL and an AADL official during the commissioning.

Allied Atlantic Distilleries Limited (AADL), Africa's biggest maker of ethanol from cassava, says improved varieties and best-bet agronomic practices in the production of cassava, which it obtained from IITA and passed on to farmers have doubled the yield of the root crop, making it possible for farmers to supply more of this raw material to the industry than earlier expected.

Commissioned on 30 January in Lasada, Igbese community in Ogun State, the ethanol factory will produce 9 million liters per annum of extra neutral alcohol, requiring approximately 250 tons of cassava per day.

Already over 8,000 farmers located within 70-km radius of Igbesa covering Ogun and Oyo states, southwest Nigeria, have been engaged and the factory is providing more than 40,000 indirect jobs to people in the area, Mr Ola Rosiji, Chairman of AADL said.

"With the support of IITA, our farmers have doubled their yields from an average 12 t/ha to 22 t/ha; our farmers now earn double what they would have earned," he added.

Commending the board and management of the company, Dr Kenton Dashiell, IITA Deputy Director General, Partnerships & Capacity Development, representing

Director General Nteranya Sanginga, said the inauguration of the factory was indeed a good opportunity for Africa, and especially cassava growers, who now have more markets for their produce.

He said that the factory would create jobs, attract foreign investment, and create wealth for the people, adding that IITA is willing to partner with the private sector to lift 11 million people out of poverty and also reclaim and put into sustainable use 7.5 million hectares of degraded land.

Collaboration between IITA and AADL, a subsidiary of the Lexcel Group began in the early 2000s when the project was conceived and IITA provided inputs to the feasibility study of the investment. Also under the Cassava Transformation Agenda, which is being coordinated by Dr Richardson Okechukwu, IITA is again linking farmers to the factory. In addition, the Institute is also providing training and improved planting materials and technical advisory support to the firm.

HarvestPlus Country Manager Paul Ilona said the factory would change the outlook of cassava from the global perspective of "a poor man's crop" to an industrial crop.

The Governor of Ogun State, Senator Ibikunle Amosun commended IITA for the good work it has been doing to improve the lives of people in Africa.

N2Africa Phase II in Uganda launched

The second phase of the N2Africa project in Uganda was launched at a two-day workshop held in Kampala 16-17 January. The project partners came together to develop an action plan for the first year.

The main aim of the project, funded by the Bill & Melinda Gates Foundation, is to increase biological nitrogen fixation and productivity of grain legumes among African smallholder farmers, contributing to enhanced soil fertility, improved household nutrition, and increased cash income. In addition to Uganda, phase 2 of the project is also being implemented in Ethiopia, Ghana, Nigeria, Ethiopia and Tanzania.

N2Africa focuses on cowpea, groundnut, and soybean in Ghana and Nigeria, on common bean, cowpea, groundnut, and soybean in Tanzania and Uganda, and on common bean, soybean, chickpea, and faba bean in Ethiopia.

Speaking at the event, Bernard Vanlauwe, IITA Director for Central Africa and who is also leading the project from IITA's side, said N2Africa stresses the importance of soil science in agriculture: "This project is the biggest in the IITA soil department, and we need to deliver as the Bill & Melinda Gates Foundation has given us their trust."

The project is led by a consortium of institutions: Wageningen University (WUR), the International Livestock Research Institute (ILRI), the Alliance for a Green Revolution in Africa (AGRA), and IITA, which will oversee project implementation and ensure consistency in terms of research and dissemination approaches, research-to-development learning loops, and capacity building.

The project brings together diverse local partners and stakeholders to ensure that the activities and outcomes of the project reach the intended farmers. In Uganda, Makerere University, VECO East Africa, World Vision-Uganda (WVU), and Africa 2000 Network (A2N) are facilitating activities

through the creation of platforms with many stakeholders from different sectors to find synergies that will make the project successful.

The workshop participants developed an activity plan for the first year in selected sites in Uganda: Northern region, Lira; Eastern region, Mt. Elgon and Tororo, and Southwestern region, Kisoro.

N2Africa's vision of success is to build sustainable, long-term partnerships to enable African smallholder farmers to benefit from use of mutually beneficial N₂-fixation by grain legumes through effective production technologies including inoculants and fertilizers.



Stephen Byantwale, an assistant commissioner at the Uganda's Ministry of Agriculture, giving the opening remarks

Agricultural transformation in Africa now in sight



Ghanaian Consul General with IITA officials.

Ghanaian Consul-General Alhaji Abdulai Abukari, who paid a courtesy visit to IITA, says research outputs and innovations at the Institute are signs that agricultural transformation in Africa is no longer a distant reality.

Since 1967, IITA has been working with national and international partners to develop agricultural innovations including high-yielding crop varieties that are addressing the issue of yield gaps on the continent and putting money into

farmers' pockets.

"I am impressed ... and Africa is lucky to have an institution like IITA ... I also see that your research is relevant and is addressing the challenges facing farmers. I see Africa feeding itself in the near future," Mr Abukari said.

The Ghanaian envoy who was received by IITA Management—Acting Director General Kenton Dashiell; Deputy Director General (Corporate Services) Kwame Akuffo-Akoto; Humidtropics Director

Kwesi Atta-Krah; and Director for Western Africa, Robert Asiedu—visited the Genetic Resources Center, Crop Utilization Unit, Postharvest Unit, Business Incubation Platform, yam aeroponics facility, the IITA Youth Agripreneurs office, and also made a tour of the 1,000-hectare campus.

Easy-to-make machines that reduce drudgery in cassava processing by women and children, food-safety strategies to tackle aflatoxins, conservation of Africa's key staples, and the aggressive focus on capacity development and youth were areas that struck a chord with Mr Abukari.

While thanking IITA staff for their dedication to their work, Mr Abukari urged IITA to partner more with his government and pay closer attention to the issues around policies, markets, and institutions.

He commended IITA for its focus on smallholder farmers, stressing that more than 70 percent of those involved in agriculture in Africa operate on a small scale and that interventions targeting them would have positive benefits.

Dr Robert Asiedu gave an overview of IITA activities in West Africa, highlighting that the Institute has had good relationships with partners and institutions in Ghana.

Mr Abukari also had discussions with DDG Akuffo-Akoto on areas that would facilitate an increased presence of IITA in Ghana.

COMPRO-II project team meets to plot for year 3

The Scientific Advisory Committee (SAC) of COMPRO-II, an IITA-led project that assesses the quality and effectiveness of commercial products in the marketplace that claim to increase crop yields, held its Planning Meeting on 21–23 January at the Golden Tulip Hotel, Kumasi, Ghana. It was hosted by one of the project partners, Kwame Nkrumah University of Science and Technology (KNUST).

The purpose of the meeting was to discuss progress made so far and the challenges faced and come up with strategies to address these in the third year of implementation. The meeting brought together 35 participants from the project team and key partners from the six participating countries including objective leaders, country representatives, and representatives from regulatory agencies. Also at the meeting, was Dr Vasey Mwaja, the new Program Officer in charge of the project from the Bill & Melinda Gates Foundation. Dr Mwaja expressed his appreciation for the commitment shown by the project team. He further urged the team to ensure that by the end of the meeting they would have developed a clear action plan which would steer the project over the next 3 years.



Farmer in a cowpea field.

During the meeting, PhD students supported by the project presented their proposals for feedback from the SAC members. The SAC members also committed to be actively involved in supervising the PhD students as well as providing scientific advice and support to the team.

On the last day of the meeting, the participants visited KNUST facilities after which they were graciously hosted to a dinner by the Vice Chancellor of KNUST, Professor William Otoo Ellis.

During the meeting the team shares the lessons learned and came up with clear strategies to steer the project forward including the necessary adjustment to selected milestones.

In his concluding remarks, Dr Mwaja noted that progress made by the project was evident and the key to this was the active involvement of partners from regulatory agencies. "Always ask yourselves how you will have contributed to the success of this initiative which is making a difference in the lives of the smallholder farmers", he concluded.

COMPRO-II, funded by the Bill & Melinda Gates Foundation, is being implemented in six countries: Ethiopia, Ghana, Kenya, Nigeria, Tanzania, and Uganda.