



Africa RISING technologies ready to roll out

The IITA-led, multidisciplinary research program, Africa Research in Sustainable Intensification for the Next Generation (Africa RISING), now on its third year, has made significant progress in getting researchers coming from different backgrounds and institutions to work together in a truly integrated way to develop science-based solutions to the challenges faced by smallholder farmers. This has resulted in impressive increases in the productivity of smallholder farmers involved in the research project across its five districts in East and Southern Africa.

This was noted during an annual review meeting of the program's activities in East and Southern Africa held 9–12 September in Arusha, Tanzania, which brought together project researchers and partners. The project is funded by the US Government under the Feed the Future Initiative in East and Southern Africa. It covers Malawi, Tanzania, and Zambia.

Speaking during this event, Jerry Glover, Senior Advisor on Sustainable



A farmer showing his improved tomato during a field trip organized to some of the project sites prior to the review meeting.

Intensification for USAID, noted that this year the research teams were truly integrated unlike at the beginning of the program when the researchers were more

concerned with their specific disciplines. "This has led to the successes the project is having," he said.

This was echoed by Ben Lukuyu, one of the scientists from the International Livestock Research Institute (ILRI) who is heading the research efforts on livestock: "This stepwise effort towards integration has worked. At the beginning, we were looking out for the interests of our respective institutions and research disciplines. But this year was different. Now the disciplines are less evident; we are now working together as a team."

The research project has already identified and verified technologies that can be scaled up and disseminated to farmers to increase their production and productivity. These include new, improved varieties of various crops including cereals and legumes for feed and fodder which are high yielding and suitable to the sites.

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IITA Youth Agripreneurs shine at AGRF 2014

To enhance sustainability in the agricultural sector and to raise youth involvement in agribusiness around sub-Saharan Africa, the Africa Green Revolution Forum (AGRF) hosted young men and women in a 4-day summit from 1 to 4 September at the African Union Headquarters, Addis Ababa, Ethiopia.

AGRF which is an African-led inclusive and competent space for creative learning and solution-driven conversations committed to the transformation of agriculture had as its 2014 theme *Beyond the tipping point: A new vision and strategies for inclusive and sustainable transformation*.

The IITA Youth Agripreneurs (IYA) prominently participated in the summit where issues were deliberated bordering on strategies and investment plans that have the power to lift agriculture towards higher levels of productivity, prosperity, and sustainability.

Many important personalities from across Africa attended the event that was moderated by Michael Sudarkasa, the AGRF 2014 Program Director.

These included the Chairperson of the African Union Commission, Dr Nkosazana Dlamini-Zuma; IITA Director General, Dr Nteranya Sanginga; IITA DDG, Dr Kenton Dashiell; the Nigerian Minister of Agriculture, Dr Akinwunmi Adesina; the Ethiopian Minister of Agriculture, Dr Ato Tefera Deribew; the President of AGRA, Dr Jane Karuku; the Chairperson of AGRA, Strive Masiyiwa; and the President, Eastern Africa Farmers Association, Philip Kiririro.



IYA reps with H.E. Dr Adesina Honourable Minister of Agriculture, Nigeria and DG IITA, Dr Sanginga.

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), Catherine Njuguna (c.njuguna@cgiar.org), or Adaobi Umeokoro (a.umeokoro@cgiar.org).

The Gambian Government endorses the Aflasafe SN01



The Gambia's Honourable Minister of Agriculture Solomon J.E. Owens (second from left) with Dr Ranajit Bandyopadhyay (left) and ECOWAS and Gambian industry representatives.

Aflasafe SN01 has consistently reduced aflatoxin in groundnut by 85–95% and has been adopted in Senegal and many other African countries. Arising from these recorded successes, The Gambia's National Agriculture Research Institute (NARI) and the Gambian Groundnut Corporation (GGC, the largest groundnut exporter) requested IITA to develop a local version of aflasafe for The Gambia. The Economic Community of West African States (ECOWAS) also reinforced this need and offered assistance to obtain political support from the Gambian government.

To start this, Dr Lamine Senghor of Direction de la Protection des Végétaux (DPV) Senegal in 2013, together with staff from GGC, sampled groundnut kernels from all regions of The Gambia. Aflatoxin analysis demonstrated that 40% of the samples in some regions had more than 5 times the permissible limit of aflatoxin, suggesting that aflatoxin is a serious issue in the country. Microbiological analysis of the samples at the laboratory in IITA-Ibadan further revealed that the aflasafe SN01 strains are also widely distributed in The Gambia and considered native in the country.

Groundnut is grown in about 42% of the cultivated land area and accounts for almost 70% of merchandise exports. In addition to being the largest foreign exchange earner, groundnut is also a staple crop consumed daily in various ways. Aflatoxin contamination is a perennial problem in groundnut affecting the health of people and curtailing the full potential of export earnings.

With approval from the National Environment Agency of The Gambia, 2 t of aflasafe SN01, manufactured in IITA-Ibadan, was dispatched to The Gambia in early September 2014. A team of staff from DPV, NARI, GGC, and Extension Services, led by Dr Senghor and facilitated by GGC, began efficacy trials by treating 200 ha of groundnut and maize fields in three regions (Upper River, North Bank, and West Coast) of The Gambia. The GGC will aggregate groundnut from the aflasafe-treated fields and test the potential of exporting aflasafe-

groundnut as high-value edible nuts. Bird-feed groundnut, the grade usually exported from The Gambia, is priced 35% lower than edible nuts. Therefore, the farmers and the economy stand to gain significantly from higher export income if they can meet the standards for the edible grade.

Dr Ranajit Bandyopadhyay visited The Gambia 15–17 September to inform various stakeholders about aflasafe. The visit was facilitated by Mr Ernest Aubece of ECOWAS and Mr Mustapha Colley of GGC. They met Solomon J.E. Owens, the Honorable Minister of Agriculture, and Omar Sey, the Honorable Minister of Health and Child Welfare, who reiterated the importance of groundnut and thanked IITA and partners for introducing aflasafe SN01 in The Gambia. Other high-level government officials who were also enthusiastic about the introduction are Momodou Lamin Ceesay, Deputy Permanent Secretary of Ministry of Trade, Umberto D'Alessandro, Director General of the Medical Research Council, Zainab Jallow, Director General of the Food Quality and Safety Authority of The Gambia, Anthony Carvalho, Managing Director of GGC, and Ansumana Jarju, Director General (Acting) of NARI. The aflasafe work in Senegal and The Gambia is supported by USAID through the United States Department of Agriculture – Foreign Agriculture Service.



Gambian farmers applying aflasafe SN01 on their groundnut field.

Combined with improved farming practices, these varieties have been able to yield in some cases up to five times what the farmers have been getting and the farmers can hardly wait to get their hands on them, reported one of the project implementers.

“We have been promoting maize–pigeon pea intercropping and the use of improved varieties and phosphorus fertilizer. We have seen yield increases between two to three times more across all project sites in Babati, on average,” said Stephen Lymo, from the Selian Agriculture Research Institute, Tanzania, and one of the project’s researchers.

“We have also managed to change the mindset of the farmers on the use of inorganic fertilizers. Before this, they only wanted to use manure. They had no knowledge of using inorganic fertilizers. Now, they are more than willing to combine the two,” he said.

Research on vegetables reported even higher yield gains according to Victor Afari-Sefa from The World Vegetable Centre (AVRDC). “We have experienced tremendous increase in yields in the project and farmers’ demonstration plots—up to even 700% after introducing improved vegetable varieties of tomato, amaranth, and African eggplant and the implementation of improved agronomic practices in growing vegetables including the use of disease-free healthy planting material and inorganic fertilizer combined with manure,” he said.

“We have also introduced poultry–vegetable integration where farmers use poultry droppings as manure for the vegetables and waste from the vegetables to feed the poultry,” he added.

Stakeholder involvement

The Director of Research Development (DRD) under the Ministry of Agriculture, Food Security and Livestock, Dr Myaka, who was also present at the meeting, hailed the project for its sustainable intensification efforts and for its livestock component.

“The added value of this project is the intensification approach and inclusion of a livestock component. It is bringing livestock and crop scientists together. It also has a strong component of stakeholder involvement in its multi-institutional/multidisciplinary and value-chain approaches. It is also involving the community in research—this is an indicator that its impact can be achieved,” he said.

He therefore asked the researchers to come up with concrete recommendations for scaling up the results achieved by the program to other cereal-based areas in the country.

To further strengthen the involvement of stakeholders the project has established four R4D platforms; two in Tanzania and two in Malawi. These platforms bring together the different stakeholders necessary to facilitate the project’s research activities and also the scaling up of the technologies generated. These include policymakers from the agriculture, livestock, and health sectors, NGOs, national agriculture research institutes, extension workers, district administration, the private sector, and farmers.

“Last year, R4D platforms were on paper. But this year, they are in place in all the sites. This is a big step for the project,” said Per Hillbur, a consultant



Dr Myaka at the meeting.

with Africa RISING who is coordinating the formation of the R4D platform in Babati.

Next steps

The project will continue to verify and test the successful technologies and look at factors such as cost–benefit analysis to ensure they are economically beneficial for the farmers. The project will also further strengthen the R4D platforms so that they are active and remain functional beyond the project’s lifespan.

“We have made a lot of progress under Africa RISING in East and Southern Africa. We are seeing very impressive results. In the coming two years, we will focus on consolidating these results, refining the technologies, and developing recommendations to development partners and policymakers on how to improve the productivity of smallholder farmers in cereal-based systems in East and Southern Africa,” said Irmgard Hoeschle-Zeledon, Coordinator of the Africa RISING program.

IARSAF inaugurates new executive committee



IARSAF members in a group photo .

The International Association of Research Scholars and Fellows (IARSAF) inaugurated the new executive committee in July for 2015. In a brief ceremony, the immediate past president, Ms Elizabeth Oketade, gave a report

on the previous year’s activities. This included the training of members on the use of SAS and GIS applications in agricultural research as well as the annual symposium. Dr Kenton Dashiell, DDG Partnerships and Capacity Development,

encouraged the members to work assiduously for the achievement of IITA’s vision. Also speaking, Mr Zoumana Bamba, Head Capacity Development Office, and Mrs Lola Idowu, the Training Coordinator, encouraged members to make good use of the opportunities available for development at IITA. Other members of staff in attendance were Dr Peter Kulakow, Head, Cassava Breeding and Genetics Unit) and Dr Elizabeth Parkes, Cassava Breeder, Harvestplus.

Members of the new executive body were Dorcas Ibitoye (President), Dapo Adediji (Vice President), Atanda Oladejo (General Secretary), Olutayo Kayode (Assistant General Secretary), Temitayo Aremu (Treasurer), Daniel Aiheborhia (Public Relations Officer), and Oluchi Odom (Welfare Officer).