Partnerships

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Dr Kyetere roots for partnerships to address agricultural development challenges at World Food Prize

Dr Denis T Kyetere (left) with Dr Kassa Semagn a Maize Molecular Breeder at CIMMYT who also works on the WEMA project at a field trip to visit smallholder farmers in Polokwane, South Africa in February 2012.

Dr Denis Kyetere, the Executive Director AATF, has said that partnerships between public and private sector organisations bring synergy, joint ownership of the problem being addressed, and focus and leverage that are advantageous and critical in tackling problems in developing areas.

Using the Water Efficient Maize for Africa (WEMA) public private partnership as an example, Dr Kyetere said that synergies between public and private sector organisations come about through the integration and cross transfer of public and private sector skills, knowledge and expertise. Speaking at a side event organised by CropLife during the World Food Prize in Des Moine, Iowa USA in October 2012, Dr Kyetere also said there is a sense of ownership that emerges among all partners towards the agricultural problem being addressed. However, he cautioned that partnerships require a very high level of focus in order to address the problem effectively. The CropLife event was organised to discuss how various collaborating public private partnerships (PPPs) are improving nutrition, productivity and sustainability.

The WEMA partnership was formed in 2008 by public and private sector organisations to address the effects of drought by developing drought-tolerant maize in a cost effective way for smallholder farmers in Sub-Saharan Africa. Drought is one of the most important constraint facing African agriculture and severely affects maize, the most important staple food crop in Africa.

"Given AATF's mandate of accessing and delivering innovative technologies to address farmers' most urgent constraints, the Foundation began the search for fitting technologies and engaging various institutions" said Dr Kyetere. Monsanto Company had made enormous progress towards use of molecular breeding and biotechnology to develop various drought tolerant crops like corn and soybean and the International Maize and Wheat Improvement Center (CIMMYT) had a robust conventional breeding programme focused on drought tolerance and had developed maize varieties adapted to the various agro-ecologies in Africa.

"Combining the African-adapted germplasm and the expertise of CIMMYT with the global germplasm, molecular breeding, and biotechnology expertise of Monsanto offered improvements in drought tolerance for African farmers that would not be possible with any technology or organisation alone" Dr Kyetere said.

"Given AATF's specialty in forging and leading such public-private partnerships we recognised the unique opportunity this partnership could bring to provide much-needed yield stability in maize to African smallholder farmers" he added.

"AATF also approached the governments of Uganda, Tanzania, Kenya, Mozambique, Uganda and Malawi and sought their views on such a partnership. Five of these countries were able to commit to the project and WEMA was formed" said Dr Kyetere. In addition to these partners, the WEMA Project also involves farmers' groups, seed trade associations and government officials to help strengthen African capacities in crop breeding and biosafety.

WEMA's key objective is to increase yields by 20-35 percent in ten years over the 2008 commercially available maize varieties under moderate drought. WEMA is in its last year of the first phase which has concentrated on technology development. The project has made some key achievements that include advancing 29 conventional maize hybrids into National Performance Trials in Kenya and Uganda, conducting three rounds of confined field trials in Kenya, Uganda and South Africa and the inclusion of insect protection into the drought-tolerant varieties.

For more information about the WEMA project visit http://wema.aatf-africa.org/ or contact Dr Sylvester Oikeh (s.oikeh@aatf-africa.org) ■

Project updates

New hybrid rice varieties project formed

Smallholder farmers in Africa are set to benefit from improved rice varieties with the formation of a new project known as Hybrid Rice: Breeding by Design. The goal of the Hybrid Rice project is to develop hybrid rice, with significant yield advantage of at least one tonne per hectare over the most competitive rice varieties and reach over 500,000 farmers and create sustainable hybrid rice agro-businesses to support rice farming in east, west and southern Africa.

The Hybrid rice project will develop hybrid rice with significant yield advantage for smallholder farmers in Africa.

The project team consists of AATF who will manage and coordinate the project, and two technology partners, Hybrids East Africa Limited (HEAL) who will provide the rice germplasm and aWhere who will provide the necessary environmental risk assessment weather analysis tools for use in the project. The National Agricultural Research systems of Kenya, Ethiopia, Uganda, Tanzania, Nigeria and Ghana will be involved in field testing of the varieties. The project kicked off with work beginning in Kenya in November 2012.

The first phase of the project will run for five years and will breed rice hybrids for Africa by determining precise relationships between yield, environment and genetics. The project is funded by the Bill & Melinda Gates Foundation.

For more information about the Hybrid Rice project contact Dr Jacob Mignouna (h.mignouna@aatf-africa.org) ■

Policy gap identification workshop held by the COMPRO II project

A stakeholder workshop to identify policy gaps and propose interventions in regulatory frameworks for bio-fertilisers, bio-pesticides and chemical agro-inputs was held in Nairobi, Kenya from 19 – 20 November 2012. The meeting under the Commercial Products (COMPRO) II project, also drafted a roadmap for effective policy formulation and implementation.

Participants representing COMPRO project partners and countries at the regulatory policy workshop held in Nairobi in November 2012.

The COMPRO II project was launched in Dar es Salaam in 2011 and its main focus is on policy development for bio-fertilisers and bio-pesticides. The meeting discussed the status of the existing policy frameworks and regulations on bio-fertilisers, bio-pesticides and chemical agro-inputs in the COMPRO II Project target countries of Ethiopia, Kenya, Uganda, Tanzania, Nigeria and Ghana and also shared experiences in the implementation of regulations for the products. The meeting also proposed policy interventions to mitigate challenges affecting the regulatory frameworks for the products in the project target countries.

COMPRO II will build on the achievements of COMPRO-I, where over 100 commercial agricultural products, including microbial inoculants, bio-fertilisers and chemical agents, were evaluated under controlled greenhouse and field conditions in Kenya, Nigeria, and Ethiopia, the original core countries. Selected products were evaluated in farmer-managed trials across agro-ecological conditions of Sub-Saharan Africa (SSA). The objectives of the project is to institutionalise quality assurance mechanisms and dissemination of top quality bio-fertilisers, bio-pesticides and chemical agro-inputs to increase crop yields and improve food security among smallholder farmers in the six SSA countries.

The meeting was organised by AATF one of the partners responsible for the establishment and institutionalisation of quality control and regulatory mechanisms in the project. Other partners in this partnership include the International Institute of Tropical Agriculture (IITA) who is leading the project; Farm Inputs Promotions Africa (FIPS-Africa) and CABI who are charged with communications and outreach; and regulatory bodies, policy makers, research scientists, product proponents, and farmer organisations.

For more information on the COMPRO project contact Dr Francis Nang'ayo (f.nangayo@aatf-africa.org) ■

Banana tissue culture training held

In a bid to build capacity in efficient banana tissue culture processes, a training was held for researchers and scientists working in various banana projects in the eastern Africa region from 26-30 November 2012 in Kigali, Rwanda. The training aimed at preparing participants to deploy the new banana varieties that will be coming out of the Banana Bacterial Wilt-Resistant (BXW) project. The training was a follow-up of two other previous trainings held in Taiwan and Kenya in 2009 and 2010 respectively.

AATF, in collaboration with IITA, Uganda's National Agricultural Research Organisation and Academia Sinica, Taiwan are developing banana varieties with resistance to the banana bacterial wilt disease for use by smallholder farmers in sub-Saharan Africa. The disease threatens the livelihood of millions of farmers in eastern Africa who rely on banana as a staple food and for income generation. Currently, the project is in the product development stage, with some varieties already undergoing confined field trials (CFT) in Uganda.

The project has identified tissue culture as a means of fast multiplication of the product and in ensuring the availability of clean planting material once it is ready for deployment. However, tissue culture production in SSA is very expensive with plantlets costing up to $1 unlike in other countries like Taiwan where the cost is $0.30. This is as a result of the high cost of operational activities along the tissue culture pathway. The techniques demonstrated at the training in Taiwan showed that it is possible to reduce cost of production, increase number of plantlets per cycle and reduce time required for production which would ensure that the varieties reach the farmers in a timely and cost effective manner.

Participants of the Banana tissue culture training workshop held in Rwanda in November 2012 during a lab session.

The training was attended by 24 participants drawn from Kenya, Uganda, Tanzania, Rwanda, Democratic Republic of Congo and Burundi and was officially opened by Dr Theodore Assimwe, the Director of Agriculture, Southern Agriculture Zone and Coordinator of Biotechnology activities, Rwanda Agriculture Board. The training included lab sessions and a visit to Rubona Research Station. The participants also discussed and drafted a plan to guide the commercialisation of tissue culture plantlets from the BXW project.

For more information on the BXW project visit http://banana.aatf-africa.org/ or contact Dr Gospel Omanya (g.omanya@aatf-africa.org) ■

WEMA holds second regional stakeholder and seed companies meeting

The second WEMA regional stakeholder meeting was held from 10 - 13 September, 2012 in Nairobi. The meeting's theme was 'seed deployment in Africa' and its objective was to share information with stakeholders on the deployment of the WEMA conventional and transgenic drought-tolerant and insect protected maize varieties as the project moves into phase 2 (2013 – 2018) in 2013. Phase 2 will focus on deployment of the two products. Phase 1 of the project whose main focus was the product development of the varieties will end in February 2013.

The meeting participants who also pledged their support for the project visited the Kenya Agricultural Research Institute (KARI) field trial site that hosts the WEMA-CIMMYT and WEMA-Kenya conventional and transgenic trials.

The meeting that is held every two years brought together over 40 key stakeholders from the five WEMA countries (Kenya, Mozambique, South Africa, Tanzania and Uganda) who included members of parliament, policy makers, WEMA champions, seed company and association representatives, farmer groups and media. The first meeting was held in Johannesburg, South Africa in 2010.

Some of the seed company representatives who attended the WEMA deployment and seed companies meeting at the Kiboko, Kenya field trial site in September 2012.

The meeting was held alongside the WEMA deployment and seed companies workshop whose objective was to share vital information and engage the participants on the WEMA conventional products that are expected to be released in 2013. During the meeting, participants were given among others information on the WEMA product concept, seed company engagement process, product deployment timelines and the product licensing strategy. The 31 participants who attended the meeting also had opportunity to evaluate promising WEMA conventional hybrids at Kiboko during a field visit.

For more information about the WEMA project visit http://wema.aatf-africa.org/ or contact Dr Sylvester Oikeh (s.oikeh@aatf-africa.org) ■

Maruca-Resistant Cowpea project holds stakeholder sensitisation and media workshops

The *Maruca*-resistant Cowpea Project partners organised a one-day stakeholder sensitisation workshop in November 2012 to update them on the progress that the Project has made in the development of the *Maruca*-resistant cowpea varieties.

Stakeholders at the Maruca-resistant Cowpea project sensitisation workshop held in Zaria, Nigeria in November 2012.

The progress update covered the prospects for the release and commercialisation of the cowpea varieties, the *Bt* cowpea project experience and the role of the institutional biosafety committee in regulating agricultural biotechnology. The workshop was held at the Institute of Agricultural Research in Zaria, Nigeria and was attended by over 200 participants including academicians, scientists, students, farmers, policy makers and the media.

The project also held a one-day media workshop on biotechnology in Abuja, Nigeria in December 2012 to strengthen journalists' understanding of biotechnology and science reporting. During the workshop the journalists had the opportunity to interact with scientists working on the project. The journalists requested for a monthly or quarterly café to update them on developments being made in science and biotechnology fields.

For more information about the Cowpea project visit http://cowpea.aatf-africa.org/ or contact Dr Prince Addae (p.addae@aatf-africa.org) ■

News

Rockefeller Foundation and PepsiCo make grants to AATF

The Rockefeller Foundation has given a US$ 500,000 grant to AATF as part of its centenary anniversary celebrations in 2012. The announcement of the grant was made by Dr Gary Toenniessen, the Foundation's Managing Director at the 2012 World Food Prize meeting in Des Moine, Iowa in October 2012. The Rockefeller Foundation supported an extensive two-year consultative process involving various stakeholders in the year 2000 that put together a framework for AATF's operation and its role in technology transfer. The Foundation is also among the partners that provided financial support for the design and start-up of AATF activities.

AATF has also received a US$ 50,000 from PepsiCo, a world premier consumer products company focused on convenient foods and beverages. The two grants will be used for AATF general support ■

Ghana approves confined field trials for cowpea and rice projects

The National Biosafety Committee of Ghana has approved the permit applications made by the *Maruca*-resistant Cowpea and the Nitrogen-Use Efficient, Water-Use Efficient and Salt-Tolerant Rice (NEWEST) projects to conduct confined field trials (CFT) for the two projects in the country.

The CFTs for the cowpea and rice projects will be conducted by the Savannah Agricultural Research Institute in Tamale and the Crop Research Institute in Kumasi respectively in partnership with AATF. CFT site development in the two centres is at an advanced stage in preparation for the planting of the two trials in 2013. The permits run for three years each ■

The Ghana rice CFT site planted with maize to deplete nitrogen in readiness for trials in 2013.

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