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Legal, ethical and socio-economic considerations key to successful public-private partnerships

Mistrust among private and public sector stakeholders about each other's motives and capabilities in carrying out humanitarian projects is a major hurdle to successful partnerships between the two sectors.

This is according to a feedback report made by AATF at the just concluded Forum for Agricultural Research in Africa (FARA) 5th African Agriculture Week and General Assembly held in Burkina Faso. The report followed a side-event organised by AATF at the FARA meeting in recognition of the importance of public-private partnerships (PPPs) in Sub-Saharan Africa's agricultural development and the inherent intricacies in managing such partnerships.

The report called for private and public players to build bridges through approaches that can enhance trust around ethical, social, cultural and commercialisation performance. One way of encouraging enduring linkages would be through recognition of each other's contributions and collaboration in project development and deployment.

The report outlined challenges facing agricultural PPPs in Sub-Saharan Africa, and made recommendations on how the capabilities of both sectors can be exploited to respond to challenges facing agriculture on the continent.

One of the challenges discussed was the capacity limitations that SSA countries have in dealing with the increasing requirements for intellectual property on agricultural research, stewardship of innovative technologies and management of other biosafety issues.

While some countries may have legal and policy frameworks to conduct trials and deliver proprietary technologies, most lack supportive infrastructures for their implementation.

Emerging strict liability and redress policies and the inadequately developed legal and institutional frameworks for biotechnol-

ogy are a disincentive to introducing novel technologies.

With risk assessment covering a very broad definition including environment, biological diversity, health, socio-economic conditions and ethical values, it is expensive and risky for private players to introduce novel technologies where a profitable market does not exist.

Though liability and redress provisions are necessary for the responsible development and deployment of safe and environmentally friendly products, policies should aim at regulating and not preventing access to technologies by African farmers.

The report also called for investments in training of human resource and building facilities to handle innovative technologies.

Stewardship was noted as being central to successful transfer of innovative technologies as it ensures efficient development and sustainable use of products by farmers. The report recommended adoption of a value chain approach for product development, testing, dissemination and commercialisation.

Capacity in biotechnology communication was noted as key to addressing the controversies around the technology due to misinformation.

Public acceptance of new agricultural technologies is predicated upon knowledge and trust. The knowledge can be gained through communication of scientific arguments capable of shaping not only public attitudes but also policy decisions. It was recommended that countries should institute proactive advocacy programmes to educate the public and decision makers.

Ephraim Mukisira, Director of the Kenya Agricultural Research Institute (KARI), chaired the side-event, whose objective was to examine the elements that threaten public-private collaboration across the agricultural development sector in Africa.



Participants to the FARA meeting during one of the sessions.

Organisations that presented at the AATF side event included the African Biosafety Network of Expertise (ABNE) who discussed efforts towards strengthening biosafety capacity in Africa and the McLaughlin Rotman Center for Global Health who recommended trust-building models for PPPs in agro-biotechnology development.

The need for Africa to access new and better agricultural technologies and the importance of successful adoption by farmers of these technologies has been given paramount importance by African governments.

Partnerships therefore between the private sector, which has proven capacity to bring technologies to farmers in the form of seeds and other agricultural inputs, and public sector, which has the capacity for agricultural research and local expertise and knowledge, are central to attaining the agricultural goals of food sufficiency and improved livelihoods for Africa.

While these partnerships have the potential to respond to wide-ranging global challenges by combining resources and expertise, experience has shown success depends on meticulous handling of subtle and potentially fragile legal, confidentiality, ethical and social-cultural elements.

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Uganda authorises confined field trials of transgenic maize and banana as Kenya gives nod to maize trials



Leena Tripathi, biotechnologist with IITA and project principal investigator of the BBW-resistant banana project, inspecting transgenic banana.

Uganda's National Biosafety Committee gave approval for Water Efficient Maize for Africa (WEMA) project to conduct confined field trials (CFTs) of water efficient maize in July following application by the Ugandan National Agricultural Research Organization (NARO). The Kenya National Biosafety Committee in mid August gave approval for the Kenya

Agricultural Research Institute (KARI) to conduct CFTs for the same maize. Uganda also approved the application filed by NARO and the International Institute of Tropical Agriculture (IITA) to carry out CFTs of bananas resistant to banana bacterial wilt disease (BBW) which is also referred to as the banana *Xanthomonas* wilt (BXW).

The approvals for the CFTs mark an essential step for technology assessment and development. These approvals mean that scientists can extend their research to real field conditions to test the effectiveness of the genes and evaluate the performance of the plants.

The trials will also be useful in breeding biotech traits into local varieties and to enable selection of the best lines and eventual scaling-up of production material, prior to regulatory approval for deployment.

The CFTs will also be useful in generating safety data needed for subsequent risk assessment and approval.

So far laboratory results confirm that the plants have the desired traits. The con-

finned field trials are required to confirm that the plants perform according to the required standards in order to proceed to deployment.

'NARO and its partners in the project will ensure compliance with the terms and conditions described in the approval permit given to us,' said Godfrey Asea, the WEMA Project country lead for Uganda. He welcomed the approval by the NBC as an indication of confidence by the government in the competence and capacity of its scientists.

Leena Tripathi, biotechnologist with IITA and project principal investigator of the BBW-resistant banana, termed the approval 'a significant step in the fight against the deadly banana disease'. She said trials carried out in the greenhouse have confirmed that the technology will help manage the disease but warned that there is still a long way to go before the transgenic bananas can be availed to farmers. ■

For more information contact Francis Nang'ayo (f.nangayo@aatf-africa.org)

WEMA undergoing mid-term review

The mid-term review of the Water Efficient Maize for Africa (WEMA) Project started on 10 August 2010 with a meeting of the project team leaders and reviewers in South Africa.

The review, which is nearing completion, covered activities in Kenya, Uganda, Tanzania, Mozambique and South Africa, the five countries participating in the project. It also reviewed activities by technology donors, CIMMYT and Monsanto, and project coordinator, AATF. Emphasis was on the project objectives and specifically the project mission and vision, quality and relevance, project management efficiency and accomplishments.

The review is being carried out by Greg Edmeades and James Okeno on behalf of the project donors, Bill and Melinda Gates Foundation and the Howard Buffet Foundation; and it will be finalised by end of September 2010. Preliminary indications are that the project is on target.

For more information contact Sylvester Oikeh (s.oikeh@aatf-africa.org)



WEMA review team members, James Okeno (left) and Greg Edmeades (standing centre), visited AATF on 26 August for discussions with AATF staff.

Training of entomologists and technicians at IITA Ibadan



Maruca rearing facility at the International Institute of Tropical Agriculture.

A two-week training tour and workshop on the rearing of *Maruca vitrata* was recently held at IITA, Ibadan, for entomologists and technicians from Nigeria, Ghana and Burkina Faso who are involved in the AATF-coordinated project to develop *Maruca*-Resistant Cowpea.

The aim was to familiarise participants with the state of the art insect rearing facilities at IITA and to enable the participating countries set up functional *Maruca* rearing facilities for a continuous supply of *Maruca* larvae critical for evaluation of effectiveness of the plants during confined field trials (CFT).

The training also aimed at ensuring fairly standardised *Maruca* infestation pressure in the CFTs of the three countries.

The training involved laboratory ethics and standards; insect rearing infrastructure; harvesting of *Maruca* eggs and larvae; artificial diet preparation; diet infestation with eggs or larvae; handling of eggs, larvae pupae; and sexing of adult oviposition. ■

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Maruca-Resistant Cowpea Project plants second CFT in Nigeria

The *Maruca*-Resistant Cowpea Project planted its second confined field trial (CFT) in July 2010 in adherence with prescribed agronomic practices. The plants are now at vegetative state.



Mrs Aderanti of the International Institute of Tropical Agriculture (IITA) infesting Bt cowpea with Maruca at the trial site at the Institute for Agricultural Research (IAR), Zaria

Robert Paarlberg visits AATF



Robert Paarlberg (third left) recently visited AATF to appraise himself on the current regulatory policy environment for GM crops in Africa based on emerging experiences from WEMA partner countries.

Danforth and AATF discuss possible collaboration on product development

A team from the Office of International Programs, Donald Danforth Plant Science Center, visited AATF during August to flesh out a possible collaboration that will guide joint activities on development and deployment of biotechnology products between the two organisations. This was the third meeting between the institutions in their bid to define how the collaboration will be arranged to ensure the aims of enhancing capacities and effectiveness between the two organisations is realised. The key aspects considered included product development, field testing, regulatory science, communication and stewardship of biotechnology products.

The new collaboration agreement will build on the current AATF and Danforth memorandum of understanding. With expertise in various aspects that are key to product development and deployment, the two organisations agreed that such collaboration would complement each others' efforts and will ensure efficiencies in operations.

The Danforth team was led by Paul Anderson and included Jeff Stein and Hector Quemada. Jacob Mignouna led the AATF team that included Francis Nang'ayo, Gospel Omanya, George Marechera and Nancy Muchiri.

ABNE and AATF hold consultative meeting



The ABNE team comprising Diran Makinde (centre), Betty Kiplagat (second left) and Moussa Savadogo (right) when they visited AATF in August for discussions on areas of possible collaboration.

The newly launched AU-NEPAD African Biosafety Network of Expertise (ABNE) visited AATF in August for discussions on areas of possible collaboration. The meeting was a follow-up to one held between the two organisations in Burkina Faso in July. The Network is a continent-wide science-based biosafety resource for empowering African regulators with a focus on providing biosafety services to members of national biosafety committees, internal biosafety committees and plant quarantine agencies.

Diran Makinde, the Network Director led the ABNE team that included Betty Kiplagat and Moussa Savadogo. Diran said that the ultimate goal of the Network is to build functional biosafety systems in Africa.

'ABNE services are linked to priority needs of regulators and the Network aims to help country regulators become better spokespersons on biotechnology and biosafety issues,' said Prof Makinde.

Speaking for AATF, Dr Mignouna, the Director of Technical Operations, said that ABNE's mandate complements that of AATF that seeks to access and deliver innovative technologies for use by smallholder farmers in Sub-Saharan Africa. He said the success of AATF's work depends on the policy and regulatory environments that was ABNE's operational base.

'AATF and ABNE have a lot to complement each other and our working together will ensure value addition to our work and to our roles in Sub-Saharan Africa,' said Dr Mignouna. ■

Staff Appointment



Amos Kimebur joined AATF as Accounting Officer on 26 July 2010. Prior to joining AATF he worked at Mobile World (K) Ltd, ILRI, Uchumi Supermarkets Ltd and Sapon Insurance Brokers. His work is to manage the day-to-day financial functions, the budget cycle, project accounts administration and reporting, and to ensure efficient operation of internal controls and resource management.