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## African farmers set to benefit from developments in India's seed sector

Sub-Saharan Africa's budding seed industry holds abundant business opportunities for private and public breeders based in Africa and globally. Nations in the global south, such as India, have a unique range of critical comparative advantages that promise to deliver effective solutions to enhance the performance of sub-Saharan Africa's seed industry. Coupled to its socio-economic development story, significant technological advances in India's seed industry and its experience in applying innovative approaches to sustainably enhance agricultural productivity demonstrates strong potential for further cooperation in the development of sub-Saharan Africa's seed industry through investment, technology transfer as well as sharing expertise and knowledge.

Speaking at a workshop on Enhancing Seed Exports from India organised by the National Seed Association

of India, Edgar Wavomba, from the African Agricultural Technology Foundation (AATF), said "innovation in varietal development, effective quality management systems and experience in servicing the developmental needs of emerging as well as base of the pyramid markets represent some of the greatest advantages Indian seed companies hold". Camille Renou from the Syngenta Foundation for Sustainable Agriculture (SFSA) emphasised the importance of understanding local and regional markets, value chains and seed regulations for successful market entry and development.

Contributions by Indian seed companies towards advancing Seeds2B Project initiatives were presented for discussion at the workshop. The Project's initiatives are aimed at building the capacities of small and medium sized seed enterprises in Senegal, Mali, Malawi



Camille Renou (seated left) looks on as Edgar Wavomba of AATF addresses participants at the workshop.

and Zimbabwe by facilitating access to viable products that meet market needs for improved smallholder productivity.

Edgar and Camille held discussions with a range of seed companies interested in collaborating with the Seeds2B partnership to test and market seed based products identified to be appropriate for Africa's emerging markets.

The workshop, held on 20 July 2015 in New Delhi, attracted 101 participants drawn from the Asia-Pacific seed industry, public sector, not-for-profit organisations and foreign embassies. Besides export enhancement potentials, deliberations at the workshop also covered export

opportunities and issues, dynamics of the seed market and government regulations.

Addressing the participants, the Agriculture Minister Shri Radha Mohan Singh lauded efforts by the Indian seed industry and encouraged it to continue along the path of innovation. "The need of the hour is consolidation of Indian seed industry to meet domestic demands and also emerge as a strong player in the global seed market. I am confident that in future India would become the food basket of the world. Our government is formulating farmer centric policies to ensure maximum benefit is transferred to the farmers," said the Agriculture Minister.

On his part, the President of the National Seed Association of India (NSAI), Shri M Prabhakar Rao, expressed his satisfaction with the seed industry in India for consolidating its local and international presence. "We are now ready to venture strongly overseas for export of seeds from India. Developing countries can join hands to share the interdisciplinary research skills and create new knowledge, work towards creation of a knowledge bank about the market needs and ease the drawbacks of doing business. I strongly believe that enhancing seed exports would not only benefit India but also its trade partners and communities at large. The goal is to ensure a hunger-free world. The objective is to make nations food sufficient," said Rao.

## Project Updates

### Pan-African soybean variety evaluation trials initiated

Soybean is regarded as a smallholder-friendly crop as it displays reasonable tolerance to both biotic and abiotic stresses. The crop is ideal for crop rotation as it is able to fix atmospheric nitrogen, which increases soil fertility during growth. Soybean thus presents a valuable tool for agricultural diversification, soil improvement and risk mitigation for smallholder farmers in Sub-Saharan Africa.

The consumption of soybean is soaring in most Sub-Saharan Africa countries, driven by a strong industrial demand in the areas of animal feed and vegetable oil production. However, in many regions of Sub-Saharan Africa, average soybean yields are below 1 tonne/ha, whereas yields of at least 2.5 tonnes/ha are regarded as feasible. Apart from low levels of agronomic know-how at smallholder farmer level, one of the main reasons for such low productivity is the lack of smallholder access to quality seed of high performing soybean varieties that perform well under tropical conditions.



*Esnart Nyirenda, a legume breeder at Malawi's Department of Agricultural Research Services, walks members of the Seeds2B Operations Committee through the Project's soybean variety evaluation trial site in Kasinthula, Malawi on 25 September 2015.*

Given this context, the Seeds2B partnership is working alongside the Soybean Innovation Lab in an initiative aimed at introducing new improved tropically-adapted soybean varieties in Africa. As part of the initiative, soybean evaluation trials will be implemented through Seeds2B's demand-led approach. This will facilitate the establishment of a supply of quality seed of better performing soybean varieties to smallholder farmers thus enhancing

functional value-chains for locally produced soybean.

The African Agricultural Technology Foundation and the Syngenta Foundation for Sustainable Agriculture have initiated the evaluation of a range of promising soybean varieties in Malawi and Kenya. Discussions are under way to expand these trials to other soybean producing countries in Africa.

## Tunnel nursery established to support variety evaluation trials and smallholder fruit production

The Seeds2B Project has successfully established a tunnel nursery at Bvumbwe Agricultural Research Station in Thyolo District, Malawi. This marks an important milestone in the Project's quest to provide quality tomato seedlings to support research on horticultural crops at the station as well as enhance production of vegetable products by small-scale farmers in Thyolo and beyond.

Due to an enabling climate, farmers in Malawi are able to grow a variety of horticultural crops, including vegetables, all year round. In areas such as Dedza, Ntcheu, Thyolo and Mulanje, vegetables such as tomatoes are greatly valued for their nutritional value as well as the income they can generate for farmers.

However, vegetable production is constrained by a range of factors, key being low farmer capacity to produce healthy seedlings, resulting in poor returns following purchase of seed. Substantial increases in horticultural



*Charles Malidadi, Commodity Team Leader-Vegetables, lays out planting trays in preparation for sowing tomato seeds in the tunnel nursery at Bvumbwe Agricultural Research Station in Malawi.*

production would contribute toward improving national and household food security, raising farmer incomes, increasing foreign exchange earnings from horticultural exports and realising savings from import substitution.

According to Charles Malidadi, Bvumbwe Agricultural Research Station's Commodity Team Leader responsible for vegetable research, the nursery is expected to overcome the challenge of low germination, non-uniformity in seedling heights,

and infestation of pests and diseases in nursery beds. Malidadi expressed the view that the partnership between AATF and the Department of Agricultural Research Services of Malawi's Ministry of Agriculture has not only advanced research capacity at Bvumbwe Agricultural Research Station but also enhanced the station's visibility and profile by further cementing linkages with a range of key local stakeholders involved in the production, marketing and processing of horticultural products.

## Pictorial



*Abed Mathagu of AATF organising the participants into session groups at a workshop aimed at aligning the Seeds2B Project's technology evaluation and product commercialisation pathway to Zimbabwe's seed sector regulations held on 22 September 2015 in Harare, Zimbabwe.*

## Pictorial



*From Left: George Marechera (AATF Business Development Manager), Ringson J. Chitsoko (Permanent Secretary in the Ministry of Agriculture, Zimbabwe), Dumisani Kutwayo (Director, Crops Research Division at Department of Research and Specialist Services) and Gospel Omanyia (AATF Projects Management and Deployment Senior Manager) pose for a photo following a meeting aimed at strengthening collaboration between AATF and the Ministry in support of seed sector development projects undertaken in the country by the Foundation in Harare, Zimbabwe on 21 September 2015.*



*Farmers, scientists and representatives from local and international seed enterprises evaluate watermelon fruits during the Seeds2B Africa Open Day held in Senegal on 21-23 October 2015. Twenty local and international seed companies gained from business to business meetings as well as visits to Seeds2B variety evaluation sites, agro-dealers and local produce outlets.*

### Calendar of Events/Upcoming Events

- 5 February 2016 – Seeds2B and Soybean Innovation Lab Soybean field day in Thika, Kenya
- 10-11 February 2016 – India-Africa Agribusiness Forum in New Delhi, India.
- 29 February-3 March 2016 – Africa Seed Trader's Association Congress in Nairobi, Kenya.
- 24 March 2016 – Agricultural Research Trust Client Open Day in Harare, Zambia.

### Further Reading

- **NSAI Organised Workshop On Enhancing Seed Exports from India** - [http://nsai.co.in/editor/fmanager/userfiles/Newsletter/Seed\\_News\\_July\\_2015.pdf](http://nsai.co.in/editor/fmanager/userfiles/Newsletter/Seed_News_July_2015.pdf)
- **Pan-African Soybean Variety Evaluation Trialing Underway** - <http://soybeaninnovationlab.illinois.edu/sites/soybeaninnovationlab.illinois.edu/files/Soybean%20Innovation%20Lab%20Newsletter%20-%20November%202015.pdf>