

Jean Claude Rubyogo

Avoiding the “Airline Syndrome”

Selecting the right seed variety is a fundamental decision, and one of farmers’ biggest risks. With many smallholders now responding more to market demands, the provision of a wide choice of improved and new plant varieties is vital. Older and traditional varieties often cannot adequately meet farmers’ emerging needs or constraints.



Jean Claude Rubyogo is perfectly placed to see these developments at very close range as the Seed Systems Specialist, the International Centre for Tropical Agriculture (CIAT) in Arusha, Tanzania, and Coordinator of the East and Central Africa Bean Research Network (ECABREN), one of the Pan African Bean Research Alliance (PABRA) networks (<http://www.pabra-africa.org/>). He knows the intricate details of market development in the bean sector in sub-Saharan Africa, which was one of the earliest sectors to recognise, more than ten years ago, the importance of market drivers in their plant breeding processes.

In early 2000s, when PABRA members (NARS and CIAT) initiated the approach, the first step was to make a careful market differentiation between the many different types of beans in Central, South and East Africa and, working systematically with breeders and market specialists to establish a “market-led breeding linked to corridor approach”. They selected and tailored varieties to market demand and to the agro-ecologies within or across countries.

The PABRA approach prevents what Rubyogo terms the “Airline Syndrome”. After independence, every African country created its own national airline. Each competed with the others, but most of them failed. Now only a handful remain in business. Breeders and farmers can learn from this example. In a difficult environment of limited resources and rare opportunities, the key to success lies in collective commitment and cooperation rather than competition, and using the underlying fact that crop varieties do not respect national boundaries. Breeders interacted with all the stakeholders in the chain, working to understand their different perspectives and appreciate their different relationships with the market.

To accelerate the use of improved varieties, bean research and development priorities were discussed with value chain stakeholders; research and testing were undertaken and statistical data created. Quality seeds of the preferred varieties were made accessible to farmers, creating a continuous development process pathway from the early identification of preferred varieties through demand stimulation to seed accessibility, extension and post-harvest support services.

There was, and remains, an unprecedented degree of cooperation between breeders and the rest of the value chain in sharing knowledge and using best practices. And many in the

chain, such as the retailers and distributors, were already working in market conditions. *“It was often the breeders who needed to update and review their practices”*. Says Rubyogo, *“This is why we must always start with education, focussing on promoting and developing African breeders with the right skills to develop new varieties for the markets. It is here that the change has to begin, otherwise nothing will happen”*.

It is also why a confident, co-operative and successful plant breeding education approach was so important for the region. *“What we did was to look at different markets and agree that each country (NARS) selected bean type (s) which could be best grown and consumer-preferred in each PABRA member country. Sometimes, particular bean types may be good for several countries. PABRA members selected the leading NARS to carry out breeding for the identified bean types on behalf of other members.*

But there are not nearly enough breeders in many of the countries in the alliance. Worse still, in some countries, such as Burundi, there are no bean breeders at all. Africa needs more and better breeders who understand the nature of the challenge and have the dynamism, innovation and commitment necessary to do the job for the region as a whole.

This year’s news from the project is very encouraging. Rwanda and Ethiopia were singled out in early 2016 as leaders in market-led breeding. This has contributed to increased bean productivity among 30 countries, according to PABRA. It is a sign that stimulates all the educators in the initiative, demonstrates that the “Airline Syndrome” has been avoided, and gives great encouragement to those promoting demand-led plant breeding.