



Australian
International Food
Security Research
Centre

Demand led plant variety design for emerging markets in Africa

Agriculture in Africa is at a tipping point. Agriculture is moving from subsistence systems to more market led systems, as small scale producers generate surpluses of products to sell in local, regional and/or international markets. Enabling small scale producers to access the expanding local and regional markets within Africa is one of the critical challenges facing policy makers.

Central to the transformation of agriculture in Africa is identifying market demand and developing products with suitable characteristics to meet market requirements. Such demand can originate from producers, processors, and/or consumers. A more customer focussed and demand led approach to plant varietal design will impinge on public and private sector plant breeding programs. Decisions on determining the preferred traits for which to breed new varieties are paramount for success. The private sector has considerable experience worldwide in developing crop varieties that fit the needs of customers. This experience in plant variety design can add value to public sector breeding programs in emerging economies. As economies mature and markets expand, it can be expected that, in addition to national and international public breeding programs, private companies will become increasingly involved in breeding new high performing varieties (HPVs) to meet customer requirements and market demand in emerging economies.

Several factors contribute towards this low uptake of new plant varieties, including lack of access to seeds, credit and other inputs. One factor that has been little explored is the suitability of new varieties to meet customer demand (from farmers, traders and consumers), and especially reflecting changing demands to meet new market opportunities.



Tissue culture: Photo Credit, ACIAR

The goal of this project is to contribute to the transformation of African agriculture by enabling small scale farmers to better participate in local and regional markets, by increasing the availability and adoption of high performing plant varieties that meet market demands. The project aims to: develop, disseminate and communicate about a set of *new decision support tools* to support plant variety design; and encourage *market-led approaches* that contribute towards setting breeding targets within crop improvement programs, especially in Africa. By learning lessons from the private sector, African national plant breeding programs can explore the suitability of new varieties to meet customer demand, and address changing demands to meet new market opportunities.

This three year project is a new partnership between FSC, the Syngenta Foundation for Sustainable Agriculture (SFSA) and the Crawford Fund. It will be led by

Professor Gabrielle Persley (University of Queensland) and Dr Vivienne Anthony (SFSA). The *proposed partners* in Africa are Biosciences eastern and central Africa (BeCA); the Association for Strengthening Agricultural Research in eastern and central Africa (ASARECA); the West Africa Centre for Crop improvement (WACCI) at the University of Ghana; Conseil ouest et centre africain pour la recherche et le développement agricoles/West and Central African Council for Agricultural Research and Development (CORAF/WECARD); the Forum of Agricultural Research in Africa (FARA); Regional Universities Forum for Capacity Building in Agriculture (RUFORUM); and the Alliance for a Green Revolution in Africa (AGRA). A consultative workshop will be held in Nairobi in May 2014 to initiate the project.