Pigeonpea in Eastern and Southern Africa

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Overview
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Until recently, farmers were unable to fully exploit the potential because local varieties were low-yielding, late-maturing and susceptible to pests and diseases. Small-seeded varieties failed to meet market requirements; market linkages were underdeveloped; and farmers could not access seed of improved varieties.

These factors deprived farmers of the benefits of a sizable export market. India alone imports over 254,000 tons of pigeonpea per year, but Africa supplied less than 5% of this demand. Similar high-value niche markets exist in Europe and the Americas.

Domestic demand for pigeonpea has grown substantially over the last few years, increasing wholesale prices.

The innovation
- ICRISAT and partners developed high yielding, slightly early, cream colored, large seeded and fusarium wilt resistant varieties.
- Availability of improved varieties along with institutional innovations enabled farmers to reduce the cost of product marketing, spurring commercialization of the crop.
- PMGs facilitated community seed production, local distribution and market access, and helped to increase local producer prices by 20–25% in Nairobi and Mombasa after linking producers to wholesalers.
- Most importantly, introduction of medium-duration varieties (ICEAPs 00554 and 00557) provides for two crops a year. This attribute of early maturity allowed spreading of pigeonpea to non-traditional areas in Kenya, Malawi, Mozambique and Tanzania.
- Entering women farmers lead demonstration of pigeonpea technology and proudly call it “our dryland white coffee”, as well as “our beef”, alluding to its high protein content.

The impact
- Recognizing the demand for improved seeds, local agro-dealers (called Agrovets) contract farmers to multiply high quality seeds, supported by local extension systems for training and farmer organization.
- The commercial produce is marketed through producer marketing groups (PMGs). This collective action enables smallholder farmers to sell quality grain at higher prices.
- The commercialization of pigeonpea enables farmers to buy valuable assets ranging from mobile phones to land, houses and livestock.
- Farmers have invested in small ruminants, milking cows and bullocks, helping them diversify and expand their income sources.
- Increased income enables increased school enrollment of children.
- In Babati district – famous for high quality pigeonpea – adoption of improved varieties has reached 60%, and pigeonpea alone contributes more than 50% of the cash incomes of smallholders.
- ICRISAT-developed varieties dominate the fields. ICRISAT efforts have resulted in expansion of area under pigeonpea in the last 10 years from 0.45 m ha to 0.82 m ha in ESA. Pigeonpea consumption has increased as the bean crop has succumbed to pests and the changing weather patterns that the hardy pigeonpea can withstand.
- Maize has traditionally been the main crop, but fails in three out of five years. Families now rely on pigeonpea, and have also realized the potential of fresh vegetable pigeonpea in the domestic market.
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Partners
ICRISAT’s collaboration for breeding with NARES in ESA resulted in release of 21 varieties in – Malawi (6), Kenya (5), Mozambique (5), Tanzania (3) and Uganda (2).

Strategic partnerships between NARS, commercial seed companies, input suppliers and farmer associations improved access to and marketing of seed.

Private seed companies are now investing in production of commercial seed, selling to farmers through agro-dealers.

Policy makers in ESA and donors are fully aware of the importance of pigeonpea as a food and cash crop, and are now funding research.