Improvement Network. Additionally, through the regional Sorghum and Millet New technologies are being scaled out

Future Partnership

New technologies are being scaled out through the regional Sorghum and Millet Improvement Network. Additionally, most importantly, these are direct contributions to many of the poorest farm households in the country. A main advantage of the new varieties is earlier maturity, but farmers also select them for their taste, grain size and color.

Impacts

An impact study conducted in 2003 revealed:

- New varieties of sorghum have contributed between US$8.8 (based on local grain market values) and $15.8 million (based on savings of food imports) in additional grain to the country.
- New varieties of pearl millet offer an additional production of grain valued at around US$1.5 million.
- Most importantly, these are direct contributions to many of the poorest farm households in the country. A main advantage of the new varieties is earlier maturity, but farmers also select them for their taste, grain size and color.

ICRISAT would like to expand programs to promote Tanzania’s commercial trade of pigeonpea, chickpea and groundnut. In this context we recognize the need for new sorts of partnerships linking research and development interests across a wider range of partners including government, NGOs and industry. ICRISAT’s achievements in Tanzania are a result of the support given by the Tanzanian and Indian Governments – a true reflection of South-South Cooperation, which is particularly important to Tanzanian farmers in the country’s extensive semi-arid areas.

Sorghum, pearl millet, groundnuts, pigeonpeas and chickpeas are well known to farmers in that crescent of land stretching from Lake Victoria in the west down through central Tanzania to the southern border of Mozambique. Rural households in these areas are food deficit in most years. Households are more concerned with obtaining immediate food and income than about resource conservation. This leads to over-utilization and degradation of the environment. ICRISAT provides international leadership in the development of these dryland crops and assistance with commercialization efforts to ensure that smallholder farmers achieve household food security and an income for their work.

History

ICRISAT’s association with Tanzania started in 1977 with the posting of a sorghum breeder to Ilongo. Over the nearly three decades of ICRISAT’s involvement, collaboration has spread from the cereals to include groundnuts, chickpeas and pigeonpeas. Having the right varieties is only part of the story. Important research continues in the area of soil and water management to improve productivity, and in commercialization to ensure the competitiveness of Tanzania smallholders in an increasingly globalized world.

ICRISAT and Partners Achievements in Tanzania

The most tangible achievement has been the development and release of three sorghum varieties (Tegemeo, Pato and Macia); two pearl millet varieties (Shibe and Okoa); three groundnut varieties (Johari, Nyota and Pendo); and three pigeonpea varieties (Komboa, Mali and ICEAP 00068). But this is just the beginning of the story. Getting seed into the hands of farmers and providing the raw materials for industry has involved not only building the capacity of NARS researchers, but also establishing a dialogue with development partners and private-sector players to achieve impact. Given below are highlights of ICRISAT’s activities in Tanzania over the last 25 years.

Achievements in Tanzania

- Three sorghum varieties (Tegemeo, Pato and Macia)
- Two pearl millet varieties (Shibe and Okoa)
- Three groundnut varieties (Johari, Nyota and Pendo)
- Three pigeonpea varieties (Komboa, Mali and ICEAP 00068)

The Tanzanian High Commissioner to India, Ms Eva Nzaro, on an appreciation visit to ICRISAT-Patancheru on 19 June 2004, talks to ICRISAT Deputy DG Dr Dyno Keatinge, Dr CLL Gowda and Dr Rex Navarro.
1. National Sorghum Forum
ICRISAT has been working with the milling, brewing and animal feed industries in Tanzania to help organize a national Sorghum Forum develop sorghum as a commercial crop. Recent work has assessed the inclusion of sorghum in the Strategic Grain Reserve.

2. Market Information
Together with the Ministry of Cooperatives and Marketing, ICRISAT has assessed the competitive position and the potential for expanding industrial utilization of sorghum and pearl millet in the national economy. Complementary assessments have identified opportunities for reducing marketing costs through semi-formal contracting with small-scale farmers, and through the implementation of improved grading and cleaning systems.

3. Industry Collaboration
ICRISAT worked with Darbrew, a brewing company, to help the company shift from producing opaque beer with 100% maize to a sorghum-based beer. This market has expanded rapidly in the Dar es Salaam area. The program encouraged the brewery to establish new plants in Mwanza and Mbeya. ICRISAT worked with Power Foods to expand purchases of sorghum grain directly from small-scale farmers in the Dodoma region for milling into meal. ICRISAT also worked with this miller to test market sorghum meal on urban markets and to reduce its processing costs through the adoption of improved grain cleaning technologies. Results show that sorghum meal can be sold competitively with maize meal.

4. School Feeding
ICRISAT worked with the World Food Programme and local educational authorities to introduce sorghum into school feeding programs in the central (Dodoma) regions of the country. This replaces part of the imported maize being used in these programs with grains obtainable from local farmers. The schools are pleased with the alternative.

5. Seed Production
ICRISAT worked with the Ministry of Agriculture, Diocese of Central Tanzania and the Christian Council of Tanzania on alternative seed delivery models. More than 100 primary schools in Dodoma and Singida regions were supported to produce sorghum and pearl millet seed for sale to surrounding communities. The Japanese Food Aid Counterpart Fund is currently (2003-2006) supporting a joint ICRISAT/DRD project in scaling out the primary school seed model in Lindi, Nachingwea, Mwara and Masasi districts in the Southern Zone. The project is targeting dissemination of improved groundnuts and sesame varieties integrated with proven crop and pest management technologies, and linking to product markets. The primary schools, as seed network models, earn cash, provide basic agricultural skills to future farmers and facilitate dissemination of improved agricultural technology.

6. Pigeonpeas for Prosperity
Tanzania is the second largest exporter of pigeonpeas in Africa. The high-quality grain is sought in high-value markets. TechnoServe - a not for profit organization - has facilitated market linkages between Tanzanian traders and European buyers that has resulted in premium prices being paid for grain sought after by health food shops. ICRISAT has worked with researchers from the Selian and Ilonga Agricultural Research Institutes to ensure that improved varieties have the necessary market traits. To support large-scale adoption requires considerable investment in maintaining source seed and marketing this to farmers in innovative ways.

7. Chickpea Changes
Tanzanian smallholder farmers have grown chickpea for many years. Scientific advances by ICRISAT and her network of partners led to the development of kabuli varieties adapted to tropical conditions. A set of these varieties - that have performed well in India - were assembled and tested in Tanzania, starting a revolution in 2003. Farmers empowered by Catholic Relief Services working in collaboration with ICRISAT and NARS were linked to markets that paid double the price for kabuli types over conventional desi varieties. The results were electrifying and the crop is seeing a dramatic rise in production.

8. Capacity Building
In the past 20 years
• ICRISAT has facilitated degree training to 15 Tanzanians (BSc, Masters and PhD levels)
• Joint projects provided the NARS with vehicles, motorcycles, tractors and farm implements, plot threshers, and cold room units to enable better performance
• More than 100 Tanzanians have undergone in-service training at ICRISAT