

# Mitigating disaster and fighting Vitamin A deficiency with new drought-tolerant, orange-fleshed sweetpotato

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## ✦ What is the problem?

A severe drought in Southern and Central Mozambique in 2009/2010 resulted in the loss of 32 percent of planted area in all crops with an estimated 92,000 households affected. Those areas hit by floods and droughts were located in the provinces of Maputo, Gaza, Inhambane, Sofala and Manica.

At the request of the Ministry of Agriculture, the International Potato Center (CIP) developed a response strategy for disseminating new varieties of orange-fleshed sweetpotatoes (OFSP) to affected areas with the involvement of Provincial and District Agricultural personnel. This challenge provides a unique opportunity to help families recover from disaster and simultaneously improve their vitamin A intake.

Fortunately, 15 new OFSP drought-tolerant varieties, released in February 2011, were available as result of a five-year CIP/IIAM accelerated breeding program. Building upon pilot experience funded by USAID-Mozambique, using a voucher-based distribution approach linked to decentralized vine multipliers (DVMs), these varieties are being distributed as part of disaster mitigation and nutrition improvement strategy. This project is responding to strong demand from government leaders to coordinate this effort with support from the extension system and address a recognized need in disaster affected districts. Moreover, Mozambican farmers, in particular to those with young children, will reap the benefits from the investment made in breeding, seed systems, and developing model delivery systems.

## ✦ What do we want to achieve?

The vision over the next five years is to have at least 50 percent of rural Mozambique households cultivating more drought-tolerant, pro-vitamin A rich sweetpotatoes. We hope to see households exposed to key important messages concerning the nutritional value of OFSP and aware of where additional planting material can be obtained in future seasons within their district.

By the end of 2013, the objective is to assist 600,000 individuals (120,000 households) in 60



■ Mother receives voucher for vines from extension agent in Marracuene district (credit: L. Moises)

districts in the affected provinces (Maputo, Gaza, Inhambane, Sofala and Manica) recover from extensive crop loss due to floods and droughts, and address Vitamin A deficiency through the distribution of new drought-tolerant, OFSP varieties using an approach to create a sustainable access to seed to farmers at community level. Vulnerable groups are specifically targeted (elderly, HIV affected, child and women headed) in consultation with community leaders, with the goal of having at least 75% of households with children under 5 years of age.

## ✦ What have we achieved so far?

- We have completed one year of implementation. During that time:
- Primary fields with quality planting material were established in collaboration with the national research system (IIAM), farmers and NGO's
  - Two major trainings of district level public and non-governmental (NGO) extension agents were held in October 2011 and July 2012, with 240 people from partner institutions trained
  - Secondary fields established by district agriculture personnel and NGOs
  - Five commercial farmers involved in secondary multiplication of OFSP
  - More than 200 DVMs trained and established at the community level





■ Vine recipient in Boane (Maputo Province) carrying her 8 kgs home (credit: E. Munda)

- Distribution of OFSP planting material benefited 55,000 households in year one (approximately 275,000 individuals) with involvement of Provincial Directorates of Agriculture, extension agents, NGO's and CBO's in more than 30 districts
- Key important messages concerning nutritional value and information on where to obtain planting material disseminated through radio, newspaper, field days and major training events
- Promotion material (T-shirts, calendars, postcards, ties, etc) designed and distributed among extension agents, district administrators, district, provincial and central partners institutions
- Involvement of NGO's, school children, military personnel, prison institutions and faith based organizations in the production, dissemination and consumption of OFSP as well as promotion campaigns

#### ✿ What have we learned so far?

- Sweetpotato is a good food security crop, especially during the dry season (2011-2012) when demand for planting material was very high for planting in valley bottoms.
- 6-8 kg of vines was sufficient to provide planting material for each household.
- Each household received only 2 visibly different varieties during massive distribution to avoid mixing during transportation.

- DVM's worked well in areas with access to water and high population density.
- Research-managed and primary sites are important to continually supply the seed system with good quality planting material.
- Involvement of commercial farmer's and DVMs is critical for sustainable seed systems.
- Collaboration with government institutions, NGOs, CBOs and community is key for sustainability of project activities.



■ Quality OFSP vines at a commercial field in the highlands of Manica district (credit: Z. Menete)

#### Partners include:

- MINAG (Ministry of Agriculture)
- IIAM (National Institute of Agrarian Research)
- DNEA (National Directorate of Agricultural Extension)
- DNSA (National Directorate of Agrarian Services)
- DPAs (Provincial Directorates for Agriculture)
- SPERs (Provincial Rural Extension Services)
- SPAs (Provincial Agricultural Services)
- UEM (Eduardo Mondlane University)
- IAB (Agrarian Institute of Boane)
- IAC (Agrarian Institute of Chimoio)
- ISPM (Superior Polytechnic Institute of Manica)
- IPEME (Institute for the Promotion of Small and Medium Enterprises)
- MINED (Ministry of Education)
- NGO's and CBO's (World Vision, Caritas, Lutheran World Federation, Childfund, ATAP, APOs, Magariro, Anda, Cubatsirana, Shingirirai, LUPA, HOPE-ADPP, CESVI, PMA, Associação Kurera Wana, Centro Aberto de Jesus, ESMABAMA, ADRA, FDC, Uapeg, etc.)

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