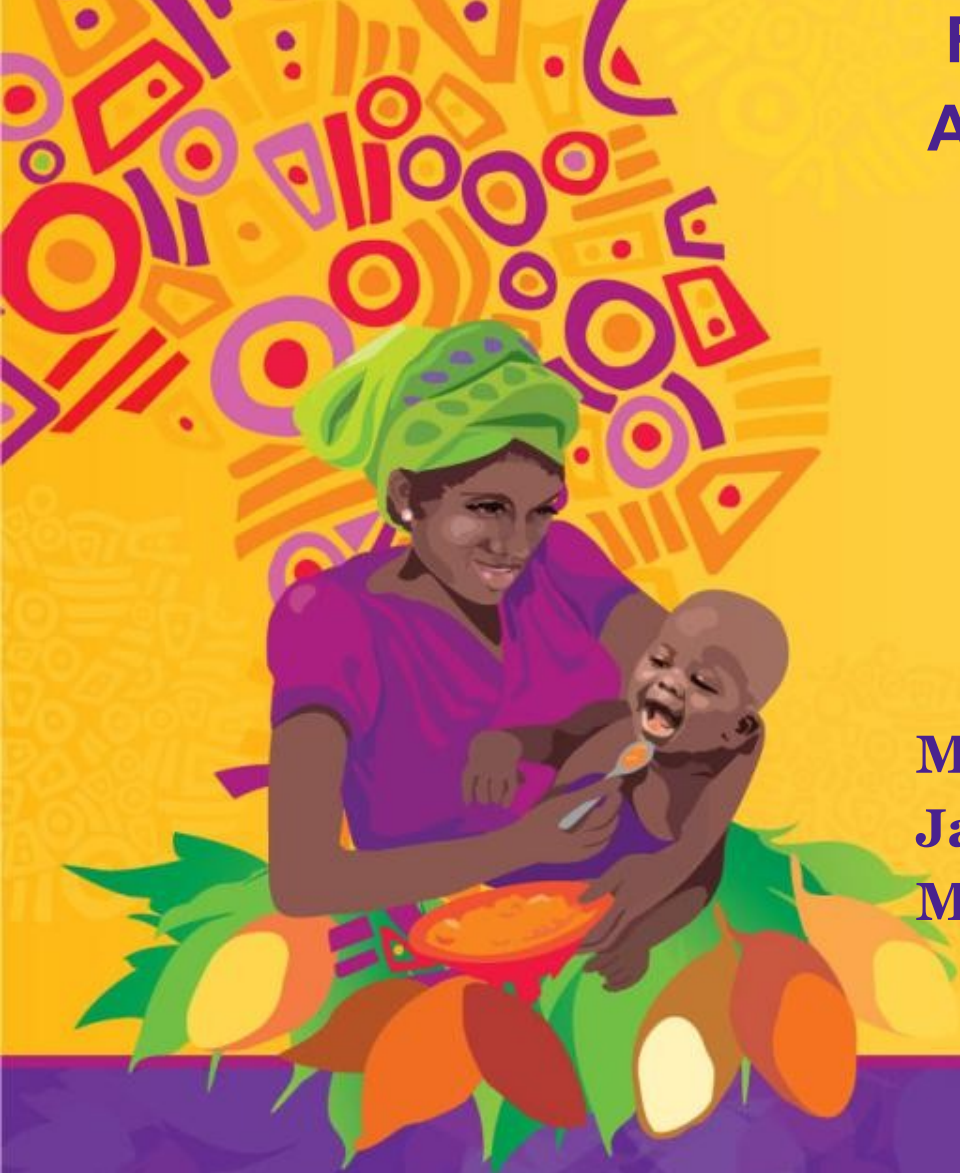


Feedback from the breeders: A contribution to the MLE tool

By

**Godwill Makunde, Maria
Andrade, Jose Ricardo, Abilio
Alvaro, Joana Menomussanga**

**MLE CoP Meeting, 30 – 02
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Mozambique**

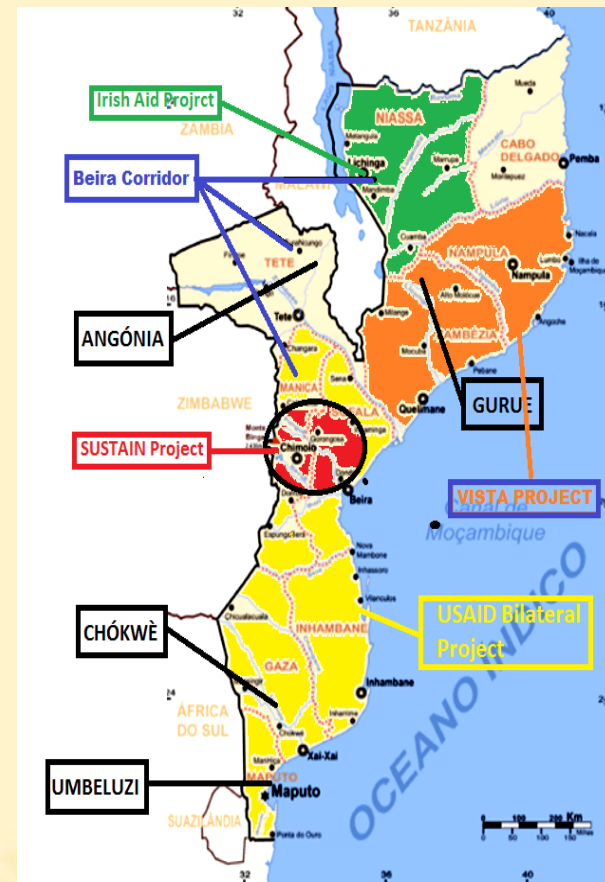


RESILIENT NUTRITIOUS SWEETPOTATO WORK IN MOZAMBIQUE



Projects and Programs

- SASHA Project
- USAID Bilateral Project
- **SUSTAIN Project**
- Irish Aid Project
- **VISTA Project**
- **AGRA project**



Target by project

PROJECT	START	END	TARGET	ACHIEVED
OFDA (2011-2013)	June 2011	September 2013	120 000	150 254
OFDA (2016-2017)	August 2016	July 2017	25 000	3 800
Irish Aid	November 2012	November 2016	20 000	28 044
VISTA	October 2014	July 2021	102 500	21 542
SUSTAIN	April 2014	June 2018	35 000	27 000

Milestone SASHA II



- **1.1.1.** Studies demonstrating that can achieve significant genetic gain (**2% per year in yield**) in 2 years in early generations and 4 years for selected varieties,
- **1.3.1.** At least **150 thousand seeds** with drought tolerance genes disseminated to at least 10 NARS partners in SSA and SWCA,
- **1.3.3.** **Hybrid progeny exhibiting yield jump of 10 to 20%** in hybrids from populations with drought tolerant & enhanced efficiency for drought tolerance breeding,
- **1.3.4.** **Clones with 200%RDA for young children** of pro-Vitamin A, 25% RDA of iron and 35% RDA of zinc under high intakes.

- Sweetpotato breeding protocol (on-station trials & on-farm trials)
- Trait dictionary
- Statistical tools (CloneSelector)
- Two different OFSP populations – 1 at Umbeluzi & 1 at Gurue
- One PFSP population at Gurue
- Trials (observation (OT), preliminary yield (PT), advanced yield (AT), multi-location (MT), on-farm trials)



KEY RESULTS UNDER BREEDING SP

Mozambique

2011 – 15 Orange-fleshed

2016 – 7 (3 purple-fleshed; 2 orange-fleshed dual – food and feed; & 2 orange-fleshed for food)

Genetic gain observed:

In relation to the released varieties:

- Increase by 16% beta-carotene, 6% iron and 18% zinc content between 2011 and 2016
- Means for DM shifted from 23.4 to 27.8 to 31% between 2000, 2011 and 2016

Seed dissemination:

True botanical seed were shared with **19 NARS** in Southern-, East and Central- & West Africa and South East Asia



Number of released varieties in Mozambique (= 22); 2011 to 2016

Variety	Year	Generation	Flesh colour	Breeding method
Alisha	2016	G3	orange	ABS
Ivone	2016	G3	orange	ABS
Lawrence	2016	G3	orange	ABS
Victoria	2016	G3	orange	ABS
Bie	2016	G3	Purple	ABS
Bitá	2016	G3	Purple	ABS
Caelan	2016	G3	Purple	ABS
Esther	2011	G2	orange	ABS
Sumaia	2011	G2	orange	ABS
Delvia	2011	G2	orange	ABS
Gloria	2011	G2	orange	TBS
Amelia	2011	G2	orange	ABS
Tio Joe	2011	G2	orange	ABS
Namanga	2011	G2	orange	ABS
Erica	2011	G2	orange	ABS
Bela	2011	G2	orange	ABS
Melinda	2011	G2	orange	ABS
Ininda	2011	G2	orange	ABS
Lourdes	2011	G2	orange	ABS
Jane	2011	G2	orange	ABS
Cecilia	2011	G2	orange	ABS
Irene	2011	G2	orange	ABS

Breeding Trials– Currently Trials in the field



- Crossing blocks (134 parents at Umbeluzi and Gurue (OFSP); 51 parents for PFSP at Gurue)
- Seedling nurseries (8 280 seedlings at Gurue and Maputo)
- PTs, ATs, MTs (Umbeluzi and Gurue)
- Drought tolerance trial, vine survival trials, heterosis, sprouting trials
- Genetic gains
- Yield stability among released varieties
- Quality laboratory: samples from OTs



Indicators

- Agro-ecological zone
- **Number of varieties**
- Names of varieties
- Marketability (root shape and sizes)
- Primary- & secondary flesh colour
- Number of generations/cuttings
- Source of planting material
- Taste
- Number of uses of the variety (juice, bread, root & leaf consumption etc.)
- Major use

Indicators

Drought tolerance:
Frequent exposure to drought causes decline in yield, increase in weevil infestation (negative effects on quality) and shortages of planting material

- **Capture rainfall data during growing season**
- **Weevil resistance**

Survival of planting material – vine survival (related to drought)

- underground storability
- Sprouting ability
- Vine vigor
- Number of times piece-meal harvesting is done per variety
- Dates of planting and date of 1st harvest

Thank you

