

# Learning from Nutritious Sweetpotato for Niassa and Applying Lessons to Inhambane, Mozambique

From July 2017, the project conducted an in-depth assessment to evaluate the impact of the project in Niassa and the lessons to be considered for the future. The Agricultural Director for the government in Niassa included OFSP production in their 2018 program through SDAE extension agents in nine districts and the Provincial capital Lichinga, with minimum support and supervision from CIP.

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Fig. 1 OFSP root yield evaluation in Colonato, Govuro district Inhambane. Credit: B. Rakotoarisoa

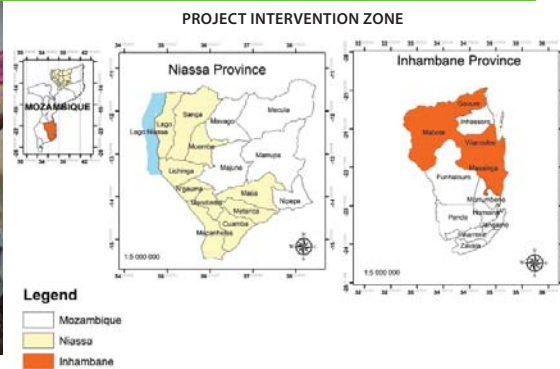


Fig. 2 Project intervention zones



## What is the problem?

**Niassa is the most remote** and sparsely populated of Mozambique's provinces with a population density of just 11-12 persons per km<sup>2</sup> of land. It also has the best growing conditions for sweetpotato in the country. Inhambane is a disaster-prone province that frequently experiences drought and floods and has poorer soils than Niassa. Both provinces initially had low access to biofortified crops such as OFSP and suffered from very high rates of child malnutrition. Levels of stunting among children under five years of age are high—47% in Niassa and 36% in Inhambane. Levels of vitamin A deficiency are also high, and nutritional knowledge among caregivers is low.



## What do we want to achieve?

**We are in our "transition" period**, with the four-year Phase 2 beginning in January 2019. We want to contribute to improved food security, nutrition and rural income opportunities in a sustainable way by strengthening the capacity of local government authorities (LGA) and NGO service providers in Niassa and Inhambane

Provinces to increase adoption of OFSP farming and its appropriate use in the diet. This is done using a participatory "Planning-Implementation-Learning Cycle" approach on OFSP value chain, increasing understanding of OFSP's contribution to food security and dietary diversity of pregnant women and children under five years in the target communities; and increasing the opportunities for improving household income from sales of roots and leaves from improved OFSP varieties (Fig. 1) and OFSP-based products.



## Where and with whom are we working?

**Our work in Niassa began** in November 2012 and in Inhambane in July 2017, always in close collaboration with government extensionists (SDAEs) and the Food and Nutrition Secretariat (SETSAN). We work in eleven districts of Niassa province (Lago, Muembe, Sanga, Lichinga, Chimbunila, Mandimba, Cuamba, Mecanheles, Ngauma, Maua and Metarica) and in four districts of Inhambane province (Govuro, Mabote, Massinga and Vilankulo), covering 36 administrative posts (Fig. 2).



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**Sweetpotato  
is Profit and Health  
Initiative**  
Reaching 10 million  
African households by 2020

### Direct partners

- Instituto de Investigação Agrária de Moçambique (IIAM)
- Serviço Distrital de Actividade Económicas (SDAE)
- Secretariado Técnico de Segurança Alimentar e Nutrição (SETSAN)

### Indirect partners

- Associação Progresso (AP) from January 2017
- Diocese Anglicana de Lichinga (UCA) from January 2017
- União dos Camponeses e Associações de Lichinga (UCA)
- Forum das Organizações Femininas do Niassa (FOFEN)
- Padaria Sanjala
- Smart Development Works (SNV)
- Associação de Iniciativa Para o Desenvolvimento Comunitário (AIPADEC)
- Direcção Provincial de Saúde (DPA)
- Red Crista
- Associação de Jovens e Amigos de Govuro (AJOAGO)
- The Instituto de Professoras in Vilankulo



**Fig. 3** Participants during co-design workshop in Maputo. Credit: B. Rakotoarisoa



**Fig. 4** OFSP root taste evaluation in Sota, Massinga district Inhambane. Credit: B. Rakotoarisoa

## How are we making it happen?

**CIP capitalized on the lessons** learned and implemented a process with SDAEs and other collaborative partners to scale up OFSP in Niassa and Inhambane from July 2017. The implementation strategy includes:

- Selection of committed communities for the intervention after an awareness campaign;
- In-depth analysis of OFSP benefits and constraints presented and discussed by stakeholders (Fig. 3);
- Facilitating Integration of evidence and lessons into government plans and NGO programs;
- Evaluation of OFSP varieties in a participatory way through on-farm trials (Fig. 4);
- Capacity building of SDAE technicians and Decentralized Vine Multipliers (DVMs);
- Baseline surveys for the new districts of Inhambane.

## What have we achieved so far?

**In Niassa province**, changes in behavior were observed in households' participation. Key results from the 2017 assessment among 231 households in 7 districts are:

- 98% of households produced OFSP in 2017 up from 12% in 2013.
- The average plot size reserved for OFSP increased from about 300m<sup>2</sup> in 2013 to 1,104m<sup>2</sup> in 2017.
- Delvia, Gloria, and Irene were the most planted OFSP varieties, by 39%, 23% and 21% of households, respectively.
- The average yield, based on crop cuts, increased from 6 t/ha in 2013 to 13.2t/ha in 2017.
- The average quantity of roots produced per household annually increased from 365 kg in 2013 to 1,267 kg in 2017.
- Households producing sweetpotato for sale increased from 21.4% of all households in 2013 to 68% in 2017.
- Households got an average return increasing from US\$ 65 in 2016 to US\$ 119<sup>1</sup> in 2017 with 30% of women and 27% for both men and women receiving income from OFSP.
- Households producing OFSP only for consumption decreased from 78.6% in 2013 to 32% in 2017.
- Comparing the 2016 endline results with the in-depth 2017 study, for children 6-23 months old, the percent having *low*

US\$ 1 = 60 MZN

Individual Dietary Diversity Scores (IDDS) decreased from 21% to 17% and the percent with a high IDDS increased from 9% to 19%. The percent of women having a *low* Woman's Dietary Diversity Score (WDDS) decreased from 21% to 2.3% and the high WDDS improved from 26% to 74%.

### For Inhambane province:

- Alisha, Delvia and Gloria were the OFSP varieties most selected from 20 sweetpotato varieties evaluated based on yields, leaf taste and root taste tests in three districts.
- 13 tons of OFSP vines were distributed to 5,385 households (59% women) from January 2018, covering 41 intervention communities in four districts.
- 29 DVMs are operational, with one net tunnel installed in Govuro.
- Baseline Data collection was done among 107 households, 53 households in Vilankulo and 54 in Massinga.

### For Niassa and Inhambane provinces:

- Lowland use for OFSP vine conservation increased in both provinces.
- In 2017/2018, 228 SDAE technicians, DVMs, association group and community health workers (67 women) took part in participatory planning and different value chains capacity building sessions in both provinces.
- The project participated to four notable events in Lichinga, Massinga and Govuro districts in 2018. DVMs displayed and sold OFSP roots and vine.
- Two workshops were held in November 2017 to co-design a proposal with the government and other stakeholders for large-scale implementation in Niassa and Inhambane.

## What's next?

**Capacity building** for sustainability will continue where partners are encouraged and supported to implement their own workplan from the trainings with limited supervision. However, with the drier conditions in Inhambane, greater use of irrigation and the Triple S method for conserving roots as the basis for planting material will be required. Awareness of nutritional value and market activities will be enhanced during the implementation. The government is encouraged to integrate OFSP into government planning during the 2017-18 agriculture season. The project will support the integrated agriculture-nutrition-marketing program (2019-22) under Phase 2.