



# FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative



## VIABLE SWEETPOTATO TECHNOLOGIES IN AFRICA (VISTA-Mozambique)

Year 3, Quarter 2 Progress Report

1 January–31 March 2017



**USAID**  
FROM THE AMERICAN PEOPLE



# VIABLE SWEETPOTATO TECHNOLOGIES IN AFRICA (VISTA)

## Year 3, Quarter 2 Progress Report

1 January–31 March 2017

17 May 2017

---

### **DISCLAIMER**

This report was made possible through support provided by Feed the Future through the U.S. Agency for International Development, under the terms of Contract No. 1235-USAID. The opinions expressed herein are those of the International Potato Center and do not necessarily reflect the views of USAID or the United States Government.

**Contract No:** 1235-USAID

**Principal Authors:** Michael Hermann, Temesgen Bocher, and Filipe Zano

**Project Name:** Feed the Future Mozambique: Viable Sweetpotato Technologies in Africa (VISTA)

**Reporting Period:** 1 January–31 March 2017

**Funding Amount:** US \$12,250,000

**Project Duration:** 7 years (two phases)

**Contact Information:**

International Potato Center–Mozambique

P.O. Box 108

3100 Nampula, Mozambique

Tel: +258 87 9079462

Mob: +258 84 9321289

# CONTENTS

ACRONYMS .....	ii
SUMMARY .....	iii
<b>1. PROJECT OVERVIEW .....</b>	<b>1</b>
<b>2. ACTIVITY PROGRESS AND RESULTS .....</b>	<b>2</b>
2.1 Project start-up and management .....	2
2.1.1 Staff recruitment .....	2
2.1.2 Office setup .....	3
2.1.3 Procurement of project assets .....	3
2.2 Agricultural activities .....	4
2.3 Nutrition activities .....	8
2.4 Marketing activities .....	9
<b>3. CHALLENGES AND MITIGATION STRATEGIES .....</b>	<b>10</b>
3.1 Delayed staff recruitment .....	10
3.2 Rainfall constraints .....	10
3.3 Support from district authorities .....	10
<b>4. SUCCESS STORIES .....</b>	<b>11</b>
<b>5. LESSONS LEARNED .....</b>	<b>12</b>
<b>6. PLANNED ACTIVITIES FOR NEXT QUARTER .....</b>	<b>13</b>
<b>7. FINANCIAL REPORT .....</b>	<b>17</b>

# ACRONYMS

APE	Agente Polivalente Elementar
CBO	Community-based organizations
CIP	International Potato Center
CREI	Centro de Recursos de Educação Inclusiva Josina Machel
DVM	Decentralized vine multiplier
HH	Household(s)
IIAM	Instituto de Investigação Agrária de Moçambique
OFSP	Orange-fleshed sweetpotato
OYE	Opportunities for Youth Employment
SDAE	District Services of Economics Activities
SDSMAS	District Services of Health, Women, and Social Action
USG	United States Government
VAD	Vitamin A deficiency
VISTA	Viable Sweetpotato Technologies in Africa
Y3Q2	Second quarter of third VISTA project year



# SUMMARY

This report summarizes the Year 3, Quarter 2 (henceforth referred to as Y3Q2) technical progress of implementing the Feed the Future Mozambique: Viable Sweetpotato Technologies in Africa (VISTA–Mozambique) project, from 1 January to 31 March 2017. VISTA–Mozambique is a \$12,250,000, 7-year project (1 Oct. 2014–30 Sept. 2021) funded by the United States Agency for International Development. The project is led by the International Potato Center (CIP) and is implemented in collaboration with the following government partners: Mozambican Agrarian Research Institute (IIAM), District Services of Economics Activities (SDAEs), and District Services of Health and Women and Social Action (SDSMAS), as well as by nongovernmental organizations (NGOs), community-based organizations, and education and research institutions in 11 districts of Nampula Province (Monapo, Meconta, Rapale, Murrupula, Moma, Larde, Angoche, Mogovolas, Nampula city, Mecuburi, and Malema) and 5 districts of Zambézia Province (Gilé, Alto Molocue, Gurué, Mocuba, and Nicoadala).

The report describes and discusses achievements against the targets set for Q2. Almost the complete staff for the expansion has been recruited by the end of the quarter, a new office building to house the increased staff has been rehabilitated and is ready for use, and much of the capital equipment has been acquired. The project launch event, originally planned for March 2017, was postponed to May at USAID's request. The report discusses challenges faced during project implementation, including the late hiring of staff for the VISTA expansion phase, and the much-delayed onset of seasonal rains, upon which progress in Y3Q2 heavily relied. However, mitigation strategies adopted to deal with constraints helped to achieve most targets, particularly those concerning OFSP vine production and dissemination, the recruitment of decentralized vine multipliers, the area under OFSP cultivation, and the liaison with new partners who implement VISTA technologies.

Owing to the necessary focus in Y3Q2 on vine production and dissemination targets, and as a consequence of staff constraints during most of the quarter, VISTA did only partially meet the target for nutrition-related professional training activities. Now that VISTA's newly hired nutritionists are on board, however, the project will catch up with nutrition targets in the next quarter. Moreover, as OFSP roots become available in Y3Q2, market interventions will increase in scope. Finally, the report presents two success stories. One is on a new collaboration with a charity sheltering and educating disabled children, which illustrates how VISTA services respond to a concrete demand for nutritious food at the grassroots level. The other success story demonstrates how VISTA technologies mitigate drought constraints to OFSP cropping and can improve the profitability of smallholdings on marginal land. The report concludes with a summary of lessons learned and planned activities in the next quarter.

# 1. PROJECT OVERVIEW

VISTA–Mozambique is a 7-year project (1 Oct. 2014–30 Sept. 2021) being executed by the International Potato Center (CIP), in collaboration with government partners including the Mozambican Agrarian Research Institute (IIAM), the District Services of Economics Activities (SDAEs), and the District Services of Health and Women and Social Action (SDSMAS), as well as by nongovernmental organizations (NGOs), community-based organizations (CBOs), and education and research institutions. Initially conceived for 3 years with activities in 6 districts, VISTA, after completing 2 project years, entered its current 5-year expansion phase in October 2016, in which VISTA has added 10 more districts to its intervention area.

The project is designed to expand the production and utilization of nutritious orange-fleshed sweetpotato (OFSP) in 11 districts of Nampula Province<sup>1</sup> and 5 districts of Zambézia Province.<sup>2</sup> VISTA is embedded within the Feed the Future program in Mozambique and contributes to key Feed the Future objectives in agriculture and nutrition, including increased and equitable growth in the agriculture sector, and improved consumption of vitamin A-rich foods by young children and pregnant and lactating women. VISTA monitors Feed the Future indicators for agricultural production, nutrition, incomes, and gender.

By the end of project Y2, VISTA had already reached 22,500 households (HH). A total of 80,000 HH will be added through the current project expansion, thus bringing the total number of direct beneficiary HH to at least 102,500 in 16 districts in Nampula and Zambezia provinces by 2021. In addition, 375,000 indirect beneficiary HH will access OFSP planting material, knowledge, and skills through farmer-to-farmer diffusion. Thus, project benefits will accrue to almost half a million HH, by both direct project intervention and spill-over effects.

VISTA has the following goals:

**1. Increased production of OFSP** among at least 102,500 direct and 375,000 indirect beneficiary HH through use of productive, locally adapted varieties, quality planting material, and sustainable agricultural practices. This will be achieved through (1) multiplication of planting materials of five improved OFSP varieties; (2) farmer-led varietal demonstrations; (3) marketing and distribution of quality planting materials of preferred varieties; (4) farmer training in sweetpotato agronomy and vine conservation technologies; and (5) operational studies to determine factors affecting production of OFSP among resource-poor HH.

**2. Increased consumption of OFSP by children under 5 years of age and women** in at least 102,500 beneficiary HH vulnerable to malnutrition. This will be achieved through (1) nutrition training of staff from government and nongovernmental organizations (NGOs), with a focus on micronutrient-rich foods; (2) nutrition education in at least 400 communities in target districts; (3) development and promotion of recipes for household-level OFSP utilization as a healthy food for all; and (4) broad education campaigns on nutrient-rich foods, including OFSP, through government health sector.

**3. Increased agricultural incomes** among at least 10,000 HH from sales of OFSP roots, vines, leaves, and processed products in local and urban markets and commercial processing. This will be achieved through (1) training farmers and traders for improved handling, packaging, and transport of fresh roots and leaves; (2)

---

<sup>1</sup> Angoche, Larde, Malema, Meconta, Mecuburi, Mogovolas, Moma, Monapo, Murrupula, Nampula city, Rapale.

<sup>2</sup> Gilé, Alto Molocue, Gurué, Mocuba, and Nicoadala.

facilitation of OFSP market days (two per target districts) to increase visibility of OFSP and other nutritious foods grown locally; (3) production and promotion of OFSP puree for use in school and community demonstrations and educational activities; (4) technical and management support for use of OFSP puree in commercial food processing, specifically in local bakeries; and (5) demand creation and consumer awareness campaigns for healthier diets that include OFSP.

## 2. ACTIVITY PROGRESS AND RESULTS

### 2.1 Project Start-up and Management

#### 2.1.1 Staff recruitment

In Y3Q2, additional staff joined VISTA according to the recruitment plan in the project document. This included the internationally recruited project manager and the senior monitoring and evaluation (M&E) officer, and nationally recruited finance and administrative staff, the M&E assistant, an agronomist, and senior and junior nutritionists. (The report's cover photograph shows the current VISTA staff.)

CIP recruitment guidelines were strictly followed. These involve the advertisement of positions with detailed descriptions of job requirements and responsibilities on CIP's webpage, as well as other international and national job portals. Positions for nationally recruited staff were disseminated in both English and Portuguese. Screening of all applicants versus minimum requirements produced long lists for each position (in some cases, several dozens of candidates), which were further reduced to medium lists of promising candidates. Of these, the most promising 3–4 candidates were invited for an interview. A total of 28 candidates were interviewed for nine positions (of which eight were filled).

Interview panels varied in composition but always included the CIP country director, the VISTA project leader, and additional CIP colleagues with specific technical or human resources qualifications. All interviews consisted of (1) an oral interview, which probed technical knowledge and behavioral qualities and lasted typically 45–60 min, and (2) a written examination of 1–2 hours testing relevant technical skills. Questions for both tests were standardized and scored by the interview panel members. Finally, a report on the interviews for each position describing and comparing the performances of candidates and providing the rationale for the recruitment decision was filed and is available for audit purposes.

With only 4 females amongst a total of 17 employees, women are under-represented in VISTA staff, despite CIP's best efforts to encourage women in job announcements to apply and a conscious effort by interview panels to pay special attention to the applications of promising female candidates. Unfortunately, female applicants made up only a fraction of the total pool of applicants; and, as with male applicants, some women who showed impressive credentials “on paper” disappointed in the interview, particularly in the written examination.

We were unable to fill all positions. Three candidates were interviewed for communication and extension specialist, of which only one was deemed eligible and offered the position; he declined. We therefore will have to re-advertise this position. Owing to the delayed importation of project vehicles (see 2.1.3), we could not yet hire drivers foreseen for VISTA phase 2. The field assistants will be interviewed and hired in Y3Q3, prior to the start of VISTA activities in the districts, in which activities are yet to begin. A plan has been made for the successive hiring of field assistants and their assignment to districts.



### 2.1.2 Office setup

*Nampula Office:* Y3Q2 saw much progress toward the rehabilitation of a building on IIAM-Nampula station to serve as the VISTA office, which has been finalized as this report is being written (April 2017) (see Fig. 1). Costs exceeded the budget because of unexpected repairs, security installations, and other details not anticipated in the project plan. On a total area of ca. 230 m<sup>2</sup>, including eight offices, service rooms, a kitchen, and a meeting room, the building will eventually provide space for 16 staff (now 12). During the rehabilitation, VISTA operated out of a temporarily rented office in Nampula town.

Having the VISTA office on IIAM premises not only enables staff to better control the production of vines and facilitate the irrigation of field plots and the net house, but also provides opportunities for liaison with our partner IIAM, which was the decisive criterion for the choice of location of the VISTA office.

*Alto Molocue Office:* Because of late hirings of additional staff posted in Molocue, VISTA staff continued to be hosted in an office of the SDAE Alto Molocue. Early in the next quarter, with more staff posted in Alto Molocue, VISTA will have to rent an office there.



**Figure 1. VISTA office building before (December 2016) and after rehabilitation (April 2017).**

### 2.1.3 Procurement of project assets

Four additional 4-wheel-drive vehicles have been imported from Japan and finally arrived in February at Nacala port, some 200 km from Nampula. They have been cleared through Mozambican customs and were brought to Nampula; however, they have not been authorized by the government to be used until the import tax exoneration for project vehicles has been processed at the Mozambican Ministry of Finance. This process is pending, and it is entirely uncertain when it will be completed and the vehicles liberated. Estimates based on previous experiences of our sister institute, the International Institute of Tropical Agriculture, range from 5 to 9 months. In this situation VISTA had no choice but to rent vehicles intermittently for field work at considerable cost. We are currently assessing whether paying the import tax to accelerate the release of the vehicles might be more economical than renting in the long term.

To expedite the acquisition of capital items, office furniture and equipment have largely been purchased locally rather than in Maputo, although the scarcity of formal traders in Nampula for computers and other IT items presented challenges. Also, staff returning from international travel brought in equipment bought abroad.

## 2.2 Agricultural Activities

**Achievements under VISTA Objective 1: Increased production of OFSP among at least 102,500 direct and 375,000 indirect beneficiary HH through use of productive, locally adapted varieties, quality planting material, and sustainable agricultural practices.**

Outputs relative to indicator EG: 3-1: Number of households benefiting directly from USG intervention

Table 1 shows the numbers of farmers that were identified and enlisted in Y3Q2 to serve as decentralized vine multipliers (DVMs). Criteria for the selection of DVMs include proximity to areas of higher population density and the availability of—as far as possible—a source of water for irrigation. DVMs should be open to innovation and enjoy the esteem of their community. Ideally, they are also near community health centers, so that VISTA beneficiaries trained in nutrition and health can obtain OFSP vines from a nearby source. It is important to note that the numbers in Table 1 refer to those DVMs who signed up for vine multiplication in Y3Q2 and were added to the existing DVM pool that goes back to the first project year, the numbers of which are given in Table 2.

All DVMs signed agreements with VISTA that briefly explain the goals and operations of the project, define the role of the DVMs, and specify the obligations of both parties. To ensure informed consent in the case of illiterate DVMs, the contract (“Compromisso de Honra”) is read out to them in the presence of the district’s SDAE director or his representative, who countersigns the contract. Each DVM should ideally grow 2000 m<sup>2</sup> of OFSP to be able to supply at least 300 HH with quality planting materials.

As seen in Table 1, with 31 DVMs recruited for the project, VISTA nearly met the target of 35 DVMs set for the quarter. However, it should be noted that VISTA actually exceeded the target when counting all DVMs (39) that received agronomy training, obtained and planted starter vines, and signed an agreement with VISTA. However, owing to drought conditions, 8 DVMs lost their OFSP plots entirely, mostly in Nampula Province. In Zambezia Province, we planned to establish 14 new DVMs; but due to the lack of support from Nicoadala District authorities, VISTA established only 10 DVMs in other districts of the province. However, in terms of the quantity of vines supplied, VISTA exceeded the target for this province because of well-established DVMs planting larger areas.

**Table 1. Number of DVMs added to the existing DVM pool by province (January–March 2017)**

Province	Achieved	Targeted	Achieved (%)
Nampula	21	21	100
Zambezia	10	14	71
<b>Total</b>	<b>31</b>	<b>35</b>	<b>89</b>

Table 2 summarizes the accomplished vine production and dissemination of VISTA in Y3Q2. Notice that the left column indicates the total DVM pool producing vines in the quarter, which includes the DVMs recruited by VISTA prior to Y3Q2.

Both the area under OFSP vine multiplication and the number of beneficiary HH that received 8 kg of vines each, vary greatly between districts. This variation is a function of the time DVMs have been working with VISTA and the production skills they have acquired that translate into area productivity. Those expansion districts where VISTA has only recently started to operate (marked in Table 2 with an asterisk) lag behind in terms of the number of active DVMs, OFSP area, and number of beneficiaries. DVM plots in Mogovolas and Nampula city were not yet ready for vine distribution by the end of Y3Q2, but they will be in Y3Q3 (May

2017). Operations in remote<sup>3</sup> districts of Zambezia (e.g., Gilé) have not received the same attention and supervision as those closer to the VISTA office in Alto Molocue, because of lack of VISTA staff.

**Table 2. Total number of DVMs, area under vine multiplication, and number of beneficiary HH that received OFSP vines, by district (Y3Q2, January–March 2017)**

District/Province	DVMs	Area (ha)	Beneficiary HH
Malema*	3	1.1	39
Mogovolas*	2	0.6	0
Rapale	5	1.3	135
Meconta	11	3.0	2,215
Monapo	10	2.9	1,026
Murupula	4	2.6	222
Nampula City*	4	1.0	0
<b>Total Nampula Province<sup>†</sup></b>	<b>39</b>	<b>12.5</b>	<b>3,637</b>
Alto Molocue	12	2.85	2,223
Gurué	11	2.16	1,924
Gile*	3	0.53	0
Mocuba*	3	0.58	200
<b>Total Zambezia Province<sup>‡</sup></b>	<b>29</b>	<b>6.12</b>	<b>4,347</b>
<b>Grand Total</b>	<b>68</b>	<b>18.64</b>	<b>7,984</b>

\*District added to the expansion phase of VISTA.

<sup>†</sup>Project activities will be started in Nampula Province in Y3Q4 in the districts Larde, Moma, Mukuburi, and Angoche.

<sup>‡</sup>In Nicoadala, Zambezia Province, there was no vine multiplication because of lack of collaboration from the district authorities (section 3.3).

It became apparent during VISTA fieldwork that a sizeable proportion of DVMs engaged during VISTA project years are no longer active. The reasons for DVM “drop-out” are currently not well understood. Despite the VISTA subsidy paid to DVMs (38 Meticaís/8 kg of vines), profitability could be an issue. Also, it could be that DVMs exhaust in the first 2–3 years of operation the (finite) “reservoir” of beneficiaries that live within a radius of up to 10 km road distance from the DVM, deemed the maximum travel distance acceptable to beneficiaries redeeming vouchers. Although the continued functioning of DVMs itself is not a concern to the project, especially after they have disseminated the targeted quantities of vines, DVMs’ persistence might well be instrumental in sustaining informal OFSP seed systems. VISTA therefore needs to understand what additional assistance needs to be provided to keep DVMs engaged. In the upcoming DVM exercise in the next quarter, we will query DVMs on the motivation and profitability of OFSP vine production.

In locations where DVMs have sufficient quantities of vines, these are distributed to nearby beneficiaries who pick them up from the DVMs’ fields. In most new VISTA districts, where DVMs’ supplies are still low, dissemination relied on “mass distribution” (Fig. 2), which involves transporting vines from distant DVM fields and delivering to beneficiaries pre-registered by extension agents and community leaders. Community radio messages broadcast daily during the vine harvest season inform about the distribution points where vines can be accessed, and remind beneficiaries about the nutritional benefits of OFSP. Mass distribution facilitated by district extension agents also reaches beneficiaries in districts where DVMs have not yet been established. Beneficiary data are being captured through pre-filled registration forms.

<sup>3</sup> Not necessarily remote in geographic terms, but difficult to reach on unpaved roads.

Tracking the beneficiary data and producing indicator information is a complex task requiring many actors contributing information periodically. So far this has been achieved by conventional registration and documentation methods, which rely on scanning forms, and manually collating data at VISTA headquarters. It has become clear in this quarter that VISTA will have to implement electronic data-capturing technologies developed by CIP. This will enable queries in real time, and help generate status reports about target achievements more easily and with greater accuracy.

As a first step in this direction, several data-capturing modules were developed and tested. The tool developed to collect detailed data on beneficiary HH who received vines were provided to DVMs. VISTA is also testing the use of unique identifiers to track the participation of beneficiaries in both agricultural and nutrition activities.

Outputs relative to indicator EG 3.2-17: Number of farmers and others who have applied improved technologies or management practices as a result of USG assistance

Table 3 compares the targeted and achieved numbers of beneficiary HH with children under 5 years that received quality planting materials. Overall, nearly 8,000 beneficiaries, or 94% of the target, was reached. Zambezia compensated for the under-achievement in Nampula Province. This is mainly due to the fact that most of the districts in Nampula Province are in the VISTA expansion zone where beneficiaries are not familiar with the crop. In addition, the late onset of rainfall delayed the vine supply from the DVMs. By contrast, in Zambezia Province sweetpotato is a traditional crop and has higher area productivity of vines. Also contributing to higher productivity is the technological legacy of previous OFSP projects.

**Table 3. Number of HH with children under 5 years that received OFSP planting materials (January–March 2017)**

<b>Province</b>	<b>Target</b>	<b>Achieved</b>	<b>Target (%)</b>
Nampula	4,977	3,637	73
Zambezia	3,500	4,347	124
<b>Total</b>	<b>8,477</b>	<b>7,984</b>	<b>94</b>





(Photo: Ossufo Jeque)

*Figure 2. Farmers of the New Hope Association in Mugeba, Mocuba District, receive OFSP vines.*

Outputs relative to indicator EG 3.2-18: Number of hectares of land under improved technologies or management practices with USG assistance

As can be seen in Tables 4 and 5, targets of the area under OFSP root production were met or exceeded for fields of both DVMs and beneficiary HH. In Y3Q2, 7 ha of land were planned to be under OFSP vine multiplication on plots managed by DVMs. This target has been reached: 35 new DVMs planted OFSP on 8.1 ha, which is 16% over the target. Given superior vine production and dissemination performance in Zambezia Province versus Nampula Province (as illustrated in the previous tables), it would appear that the lower performance of areas under OFSP in Zambezia present a paradox. However, this is explained by a lower number of established DVMs in the province.

**Table 4. Area under OFSP root production by DVM with VISTA technology support (January–March 2017)**

Province	Actual (ha)	Target (ha)	Achieved (%)
Nampula	6.3	4.2	150
Zambezia	1.8	2.8	63
<b>Total</b>	<b>8.1</b>	<b>7.0</b>	<b>116</b>

**Table 5. Area planted to OFSP by HH with children under 5 years (January–March 2017)**

Province	Actual (ha)	Target (ha)	Achieved (%)
Nampula	42.7	51.2	83
Zambezia	45.2	35.8	126
<b>Total</b>	<b>87.9</b>	<b>87</b>	<b>101</b>



Outputs relative to indicator EG.3.2-20: Number of for-profit private enterprises, producer organizations, water users associations, women's groups, trade and business associations and community-based organizations (CBOs) that applied improved organization-level technologies or management practices with USG assistance

With a target of 10 organizations in the reporting period for implementing OFSP technologies, VISTA effectively reached out to a total of 19 organizations that applied OFSP technologies aided by VISTA's vine deliveries and/or training. However, these 19 organizations vary considerably in size and scope of collaborative activities, with World Vision, SNV (a Dutch NGO), and IIAM accounting for the bulk of vines distributed—a proxy variable for the level of activities (Table 6).

**Table 6. Partners who have received planting materials for further multiplication (January–March 2017)**

<b>Name of Partner</b>	<b>Quantity of OFSP Vines Supplied (kg)</b>
SNV	700
CREI	40
World Vision	5,000
SDAE	100
IIAM	250
Church	70
Schools (6)	890
Hospitals (2)	80
Private entities (5)	300
<b>Totals: 19 partners</b>	<b>7,490</b>

In some of the collaborations established, as in the case of SNV and CREI, it was not VISTA who reached out to these organizations. Rather, it was SNV and the Centro de Recursos de Educação Inclusiva Josina Machel (CREI) which established contact and proposed joint action. This illustrates nicely that VISTA is increasingly known for its mission and is in demand for its services and know-how.

For example, SNV proposed a collaboration within the framework of OYE (Opportunities for Youth Employment), a SNV-implemented project that seeks to increase youth employment and income through the skills and capacity development of rural disadvantaged youth and the linking of these youth to market opportunities for employment and enterprise development. Operating in six VISTA districts,<sup>4</sup> OYE has identified 132 young women and men aged 18–30 who are out-of-school and unemployed, to be trained in OFSP production, processing, and marketing technologies. While SNV focuses on capacity building in entrepreneurship and general “life skills” and establish linkages to potential markets and employers, VISTA will provide OFSP vines and provide OFSP production and processing technology.

## 2.3 Nutrition Activities

Outputs relative to indicator HL.9-4 Number of individuals receiving nutrition-related professional training (RAA) through USG-supported programs

As seen in Table 7, against the Y3Q2 target of training 84 health professionals in nutrition, VISTA reached 64% (54 persons). This training focused on the importance of the dietary diversity of mothers and children,

<sup>4</sup> Malema, Meconta, Monapo e Rapale (Nampula Province) and Gurué e Alto Molocué (Zambezia).

and of feeding practices in the “first 1,000 days” of a child’s life. In Zambezia Province, a training event directed to an exclusively female audience of promoters took place in Gurué town. In Nampula Province, three training events were conducted: one in Malema town to health professionals coming from Murrupula and Malema districts (15 females, 2 males); the second training was conducted in Meconta town (9 females, 18 males). Trained health professionals will go on training *Agentes Polivalente Elementar* (APEs) and other promoters, who in turn will build awareness of the importance of good nutritional practices in beneficiary HH.

**Table 7. Number of nutrition training events and number of participants by gender (January–March 2017)**

Province	No. of Trainings	Male (%)	Female (%)	Total
Nampula	2	20 (45%)	24 (55%)	44
Zambezia	1	0 (0%)	10 (100%)	10
<b>Total</b>	<b>3</b>	<b>20 (37%)</b>	<b>34 (63%)</b>	<b>54</b>

## 2.4 Marketing Activities

Outputs relative to indicator EG.3.2-19: Value of smallholder incremental sales generated with USG assistance (thousands of USD)

VISTA seeks to create a business model from OFSP sales and support small enterprise development. Income can be produced from four categories of sweetpotato products: (1) the vines that serve for propagation and are produced by the DVMs; (2) the roots resulting from DVM fields cultivated primarily for income from vines, as well as roots from plots of beneficiaries that exceed their consumption needs; (3) OFSP tops and leaves that are a popular leaf vegetable in Mozambique; and (4) processed products derived from OFSP roots. In Y3Q2 we can report moderate sales from vines; roots will become available later in the season. Table 8 shows that in Y3Q2 in Zambezia Province and Nampula Province, DVMs generated income from vine sales of US \$255 and \$605, respectively, resulting in a total sales value of \$860.

**Table 8. Sales value of sweetpotato vines by districts (January–March 2017)**

Districts	Sales Value (in Meticaís)	Sales Value (in USD)
Meconta	9,800	151
Monapo	11,500	177
Nampula City	3,000	46
Malema	8,000	123
Mogovolas	2,500	38
Rapale	2,000	31
Murupula	2,500	38
<b>Total sales value Nampula</b>	<b>39,300</b>	<b>605</b>
Alto Molocue	4,500	69
Mocuba	6,300	97
Gile	5,800	89
<b>Total sales value Zambezia</b>	<b>16,600</b>	<b>255</b>
<b>Total</b>	<b>55,900</b>	<b>860</b>

## 3. CHALLENGES AND MITIGATION STRATEGIES

### 3.1 Delayed Staff Recruitment

The new project manager and senior M&E officer started their contracts in early January 2017 (interviews had taken place in Y2Q1). After an induction period in the CIP country office in Maputo, they proceeded to Nampula and took up business in the temporary city office. Joined and guided by the CIP country director, they began immediately inviting and interviewing candidates for the positions advertised for the expansion phase of VISTA. All interviews were finalized by the end of January. Writing recruitment reports, CIP internal clearance procedures, and contract negotiations took a few additional weeks. Since candidates had typically indicated they needed to give notice of one month, most staff came on board after mid-March, which is toward the end of Y3Q2. Thus, VISTA activities in Y3Q2 were achieved by the field and administrative staff hired during the first VISTA phase; but these limited staff resources constrained the ability of VISTA to expand its activities into remote districts not covered by the first project phase.

### 3.2 Rainfall Constraints

VISTA activities were severely affected by delayed rains, most likely a local manifestation of global climate change, as weather anomalies have been observed with increasing frequency in recent years in both intervention provinces. Although rainfall normally starts in Nampula in mid-December, sufficient precipitation for planting multiplication plots became available only at the beginning of March—a delay of more than 2 months! In Zambezia Province, rains normally expected by mid-October started to occur 1 month later. These rainfall characteristics essentially explain the advanced status of VISTA vine multiplication and distribution activities in Zambezia province as compared with Nampula Province (see section 2.1). In Mozambican subsistence agriculture, where irrigation has no tradition and is still not widely practiced, rainfall is the most limiting production factor and drives the agricultural calendar.

VISTA sought to mitigate the vagaries of irregular rainfall, by motivating and supporting DVMs to open shallow water holes, where groundwater occurs near the surface, often as close as 2 m. Also, those DVMs who have ponds or water streams near their holdings were prioritized for the delivery of vines from VISTA's central vine multiplication fields and net tunnels in Nampula. This explains the uneven distribution of vine production in some districts versus others that are endowed with lesser water resources.

The lesson from this year's extreme weather events is that the project will have to implement cost-effective irrigation facilities on fields in strategic locations in the project's intervention area. Although not eliminating our dependency on rainfall, this will improve the ability of VISTA to bulk-up vines well before the onset of rains, and have them ready to be distributed as soon as soil moisture is favorable for planting. Four sites have been identified for installing irrigation facilities: Nampula, Monapo, Meconta, and Alto Molocue.

### 3.3 Support from District Authorities

VISTA continues to proactively promote the understanding of the benefits of the project amongst district authorities by convening awareness-building events. VISTA also participates in district-convened events to ensure ownership of the project by local authorities. The project has received very encouraging support from all district authorities, except in Nicoadala District, Zambézia Province. Despite several efforts in Y3Q2 to

acquaint district authorities with VISTA, the project has not been able to obtain support from Nicoadala's SDAE. A letter by the VISTA manager directed to the district administrator, and three visits by VISTA delegations to engage district authorities, was not fruitful. The matter has now been presented to the CIP country director for resolution. Obviously, we would welcome USAID's guidance on this matter.

## 4. SUCCESS STORIES

*VISTA planting material and training benefits handicapped children.* In January 2017, VISTA was approached by CREI, a charity based in Nampula city, administrative post Anchilo, which shelters physically and mentally disabled children and provides them with food, clothing, and education. CREI had become aware of VISTA through last season's radio spots, and proposed to establish a small plot of OFSP as part of their livelihood strategy, which is to grow much of their own food with emphasis on diversity and nutritional value. The initially provided 40 kg of OFSP vines were just enough to plant a plot of 500 m<sup>2</sup>; however, a brief subsequent VISTA training on OFSP vine multiplication and crop production, success with the cultivation, and the enthusiasm of the director and the agronomist of CREI helped grow the area under OFSP to about 2000 m<sup>2</sup> by the end of March. The experience with CREI suggests that VISTA needs to assess the potential to engage with other charities, orphanages, and similar institutions. It also shows that communication and extension efforts, which VISTA can still much improve, pay dividends in terms of demand creation for OFSP well beyond the primary intervention zone of the project.

*VISTA technology can be a game-changer for resource-poor farmers.* Mr. Alfredo Sulemane in Nacavala (an administrative post of Meconta District) was recruited as a DVM in 2015, and the capacity building and OFSP vines he received from VISTA have dramatically changed his ability to generate income from the sale of OFSP vines. Based in a particularly dry area, where farming is dependent on rainfall, he would grow sweetpotatoes when everyone else did. Since his collaboration with VISTA started, he has adopted two CIP-VISTA technologies that allow him to advance the bulking up of vines prior to the onset of rains, and use these vines for further multiplication. One technology is the Triple S method,<sup>5</sup> which involves the storage of OFSP roots under thick layers of cool and dry sand for several months during the dry season. Prior to the expected onset of the rains, Alfredo plants these roots, and using water he hand-carries from a nearby stream for irrigation, he can produce on very small plots as many as 1,500 vines from 40 roots. That way he avoids the expenses of buying starter vines. Another technique he has picked up from VISTA is the use of net tunnel (small net house), not larger than 8 m<sup>2</sup>, in which he grows OFSP vines off-season under protection and optimal water supply. Such net tunnels produce per unit area many times the number of vines available from the open field. From an initial 0.2 ha in 2015, Alfredo has grown the area under OFSP to 1 ha, sourcing starter vines from his own Triple S and net tunnel. On a recent visit, he expressed his gratitude for the support and training from VISTA. In the reporting period, he was the first DVM in Meconta District to distribute vines to 564 beneficiary families.

---

<sup>5</sup> Storage in sand, then sprouting.

## 5. LESSONS LEARNED

- Because of global climate change, extreme weather events in the VISTA intervention areas may well become the rule rather than remain the exception. VISTA will have to implement irrigation facilities in identified strategic project locations to reduce the project's dependency on rainfall, and have starter vines ready to go for bulking-up well before the onset of rains.
- VISTA needs to assess the potential to engage with charities, orphanages, and similar institutions. The experience with CREI shows that communication and extension efforts, which VISTA can still much improve, help create demand for OFSP well beyond the primary intervention zone of the project.



## 6. PLANNED ACTIVITIES FOR NEXT QUARTER

Indicator/Issue	Activity	Location	Target
<i>Objective 1: Increased production of OFSP among at least 102,500 direct and 375,000 indirect beneficiary HH through use of productive, locally adapted varieties, quality planting material, and sustainable agricultural practices</i>			
EG.3-1: Number of households benefiting directly from USG intervention	Identifying, registering, and disseminating vine to direct beneficiary farmers	Monapo, Mecconta, Mogovolas, Nampula City, Rapale, Murrupula, Malema, Gilé, Molocue, Gurué, Mocuba, and Nicoadala	7,000
EG.3.2-1: Number of individuals who have received USG supported short term agricultural sector productivity or food security training	Short-term training for beneficiary farmers on OFSP production by DVMs, field coordinators, and CIP agronomist	Monapo, Mecconta, Mogovolas, Nampula City, Rapale, Murrupula, Malema, Gilé, Molocue, Gurué, Mocuba, and Nicoadala	7,000
EG.3.2-17: Number of farmers and others who have applied improved technologies or practices with USG assistance	DVMs implementing improved agricultural practices (Triple S and net tunnel)	Monapo, Mecconta, Mogovolas, Nampula City, Rapale, Murrupula, Malema, Gilé, Molocue, Gurué, Mocuba, and Nicoadala	35
	Beneficiary farmers planting OFSP distributed by DVMs and CIP supported vine multipliers	Monapo, Mecconta, Mogovolas, Nampula City, Rapale, Murrupula, Malema, Gilé, Molocue, Gurué, Mocuba, and Nicoadala	7,000
EG.3.2-18: Number of hectares of land under improved technologies or management practices with USG assistance	Sweetpotato area measurements on DVM plots	Monapo, Mecconta, Mogovolas, Nampula City, Rapale, Murrupula, Malema, Gilé, Molocue, Gurué, Mocuba, and Nicoadala	68
EG.3.2-17: Number of farmers and others who have applied improved technologies or practices with USG assistance	Farmer-led varietal demonstrations ("Mother and Baby Trial" methodology)	Monapo, Malema, and Gurué	300
<i>Objective 2: Increased consumption of OFSP by children under five years of age and women in at least 102,500 beneficiary HH vulnerable to vitamin A deficiency and other forms of malnutrition</i>			
HL.9-4: Number of individuals receiving nutrition-related professional training through USG-supported programs	Training nurses selected from 33 health centers	Monapo, Mecconta, Mogovolas, Nampula City, Rapale, Murrupula, Malema, Gilé, Molocue, Gurué, Mocuba, and Nicoadala	66
	Training APEs on the six modules of the nutrition component	Monapo, Mecconta, Mogovolas, Nampula City, Rapale, Murrupula, Malema, Gilé, Molocue, Gurué, Mocuba, and Nicoadala	66
	Training of ACEs by APEs	Monapo, Mecconta, Mogovolas, Nampula City, Rapale, Murrupula, Malema, Gilé, Molocue, Gurué, Mocuba, and Nicoadala	910
	Training of households by ACEs	Monapo, Mecconta, Mogovolas, Nampula	15,390

Indicator/Issue	Activity	Location	Target
		City, Rapale, Murrupula, Malema, Gilé, Molocue, Gurué, Mocuba, and Nicoadala	
HL.9-1: Number of children under five (0–59 months) reached by nutrition-specific interventions through USG supported programs	Promote key evidence and messages (MIYCN, cooking demonstration, dietary diversification and WASH) at community level on collaboration by APEs and ACS	Monapo, Meconta, Mogovolas, Nampula City, Rapale, Murrupula, Malema, Gilé, Molocue, Gurué, Mocuba, and Nicoadala	18,060
HL.9-2: Number of children under two (0–23 months) reached with community-level nutrition interventions through USG-supported programs	Promote key evidence and messages (MIYCN, cooking demonstration, dietary diversification and WASH) at community level on collaboration by APEs and ACS	Monapo, Meconta, Mogovolas, Nampula City, Rapale, Murrupula, Malema, Gilé, Molocue, Gurué, Mocuba, and Nicoadala	4,800
<i>Objective 3: Increased agricultural incomes among at least 10,000 HH from sales of OFSP roots in local and urban markets, including fresh root and leaf markets, institutional markets, and commercial processing</i>			
EG.3.2-20: Number of for-profit private enterprises, producer organizations, water user associations, women's groups, trade and business associations and community-based organizations (CBOs) that applied improved organization-level technologies or management practices with USG assistance	Identifying for profit-private enterprises and CBOs, train them on OFSP production techniques and supply quality planting material	Gurue, Alte Molocue, Mocuba, Monapo, Meconta, Rapale and Murrupula	15
	Train groups and other processors to add OFSP into their processed products and ensure that the product development cycle ensures that commercially viable products are developed	Gurue, Alte Molocue, Mocuba, Monapo, Meconta, Rapale, and Murrupula	
EG.3-6: Farmer's gross margin per hectare, per animal per cage obtained with USG assistance	Conducting market study	Gurue, Alte Molocue, Mocuba, Monapo, Meconta, Rapale, and Murrupula	\$460/ha
	Farmer training in harvesting and bulking strategies and techniques and postharvest handling	Gurue, Molocue, Mocuba, Monapo, Meconta, Rapale, and Murrupula	\$132,251
	Facilitation of supply chains for OFSP processing by private sector food processors	Gurue, Alte Molocue, Mocuba, Monapo, Meconta, Rapale, and Murrupula	
	Support to marketing of OFSP planting materials by commercial multipliers and DVMs	Gurue, Molocue, Mocuba, Monapo, Meconta, Rapale, and Murrupula	

Annex 1. List of the Feed the Future indicators for VISTA project

Indicator	VISTA 2014 (Oct. 2014– Sept. 2017)	VISTA Expansion (Oct. 2014– Sept. 2017)	2017	2018	2019	2020	2021	Total (2014–2021)
EG.3.2-17: No. of farmers and others who have applied improved technologies or management practices as a result of USG assistance	135,000	240,000	36,120	60,000	72,000	55,200	16,680	375,000
Male		96,000	14,448	24,000	28,800	22,080	6,672	150,00
Female		144,000	21,672	36,000	43,200	33,120	10,008	225,00
EG.3.2-18: Number of hectares of land under improved technologies or management practices with USG assistance	5,175	9,800	1,472	2,358	3,226	2,206	538	14,975
Male		980	147	236	323	221	54	1,498
Female		2,940	442	707	968	662	161	4,493
Joint		5,782	869	1,391	1,903	1,302	317	8,835
Association		98	15	24	32	22	5	150
EG.3.2-19: Value of smallholder incremental sales generated with USG assistance (thousands of USD)	284	665	84	101	126	164	190	949
EG.3-6: Farmer's gross margin per hectare, per animal, per cage obtained with USG assistance	400 baseline with 15% annual increase	805 baseline with 15% annual increase	460	529	608	700	805	805
Male		217	124	143	164	189	217	217
Female		129	74	85	97	112	129	129
Joint		459	262	302	347	399	459	459
EG.3.2-20: Number of for-profit private enterprises, producer organizations, water user associations, women's groups, trade and business associations and community-based organizations (CBOs) that applied improved organization-level technologies or management practices with USG assistance	114	80	15	15	20	15	15	194
EG.3.2-1: Number of individuals who have received USG-supported short-term agricultural sector productivity or food security training	25,000	100,000	12,118	15,000	20,000	25,000	27,882	125,000

Indicator	VISTA 2014 (Oct. 2014– Sept. 2017)	VISTA Expansion (Oct. 2014– Sept. 2017)	2017	2018	2019	2020	2021	Total (2014–2021)
Male		40,000	4,847	6,000	8,000	10,000	11,153	50,000
Female		60,000	7,271	9,000	12,000	15,000	16,729	75,000
EG.3-1: Number of households benefiting directly from USG assistance under Feed the Future	22,500	80,000	12,040	17,600	304,00	17,600	2,360	102,500
Rural		76,000	11,438	16,720	28,880	16,720	2,242	97,375
Urban		4,000	602	880	1,520	880	118	5,125
HL.9-4 Number of individuals receiving nutrition-related professional training (RAA) through USG-supported programs	330	400	84	88	92	96	40	2,330
Male		320	67	70	74	77	32	1,864
Female		80	17	18	18.4	19.2	8	466
HL.9-1: Number of children under 5 (0–59 months) reached by USG-supported nutrition programs	49,950	150,000	18,060	30,000	30,000	37,500	34,440	199,950
Male		60,000	7,224	12,000	12,000	15,000	13,776	79,980
Female		90,000	10,836	18,000	18,000	22,500	20,664	119,970
HL.9-2 Number of children under 2 (0–23 months) reached with community-level nutrition interventions through USG-supported programs	9,000	32,000	4,800	6,400	6,400	8,000	6,440	41,000
Male		12,800	1,920	2,560	2,560	3,200	2,560	16,400
Female		19,200	2,880	3,840	3,840	4,800	3,840	24,600
GNDR-2: Percentage of female participants in USG-assisted programs designed to increase access to productive economic resources (assets, credit, income or employment)	80	70	72.5	75	77.5	80	85	85
GNDR-4: Percentage of target population reporting increased agreement with the concept that males and females should have equal access to social, economic, and political opportunities	70	70	72.5	75	77.5	80	85	70

## 7. FINANCIAL REPORT

A detailed financial report (most recent pipeline report) will be sent as a separate file.



**U.S. Agency for International Development**

**1300 Pennsylvania Avenue, NW**

**Washington, DC 20523**

**Tel: (202) 712-0000**

**Fax: (202) 216-3524**

**[WWW.FEEDTHEFUTURE.GOV](http://WWW.FEEDTHEFUTURE.GOV)**