USAID FROM THE AMERICAN PEOPLE

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

NAFAKA STAPLES VALUE CHAIN ACTIVITY

ANNUAL PERFORMANCE REPORT *(Oct 1, 2012 – Sep 30, 2013)*

October 10, 2013

This publication was produced for review by the United States Agency for International Development. It was prepared by ACDI/VOCA in compliance with the terms and conditions of Task Order No. AID-623-1-10-00001.

NAFAKA STAPLES VALUE CHAIN ACTIVITY

TASK ORDER NO. AID-623-I-10-00001

ANNUAL PERFORMANCE REPORT *(Oct 1, 2012 – Sep 30, 2013)*

TABLE OF CONTENTS

ACRONYM LIST

BCC	Behavior Change Communication
FY	Fiscal Year
FTF	Feed the Future
GAP	Good Agricultural Practices
ICT	Information and Communication Technology
IR	Intermediate Result
KATI	Kizimbani Agricultural Training Institute
KPL	Kilombero Plantation Ltd.
KVTC	Kilombero Valley Teak Company
M&E	Monitoring and Evaluation
MMT	Mobile Money Transfers
MSMEs	Micro, Small and Medium-Sized Enterprises
MT	Metric Ton
MVIWATA	Mtandao wa Vikundi vya Wakulima Tanzania
NMB	National Microfinance Bank
OCAT	Organizational Capacity Assessment Tool
PMP	Performance Monitoring Plan
PSP	Private Service Provider
QDS	Quality Declared Seed
RUDI	Rural and Urban Development Initiative
SAGCOT	Southern Agriculture Growth Corridor of Tanzania
SILC	Savings and Internal Lending Communities
SMFM	Sell More For More™
TARIPA	Tanzania Rice Partnership
UDP	Urea Deep Placement
USAID	United States Agency for International Development
UWA	Uwawakunda Water User's Association
VBAA	Village-based Agricultural Advisors
YOSEFO	Youth Self-Employment Foundation
ZARI	Zanzibar Agricultural Research Institute

List of Tables

List of Figures

1. Executive Summary

The NAFAKA Staples Value Chain Activity is a five-year task order issued by USAID under the Tanzania Feed the Future (FtF) initiative and administered by ACDI/VOCA. NAFAKA integrates agricultural, gender, environment and nutritional development efforts to improve smallholder farmer productivity and profitability within the rice and maize value chains in Morogoro (Kilombero and Mvomero Districts), Dodoma (Kongwa district) and Manyara (Kiteto District). NAFAKA's goal is to sustainably reduce poverty and food insecurity by increasing incomes for smallholder farmers, including men, women and youth.

This annual performance report for the period October 1, 2012 – September 30, 2013 contains the following sections consistent with the annual reporting format requested by USAID/Tanzania: (1) Executive Summary; (2) Introduction; (3) Implementation Progress; (3) Activities Implemented in Zanzibar (Unguja and Pemba); (4) Key Achievements / Results; (5) Problems/Challenges; (6) Planned Activities; (7) Special Issues; and (8) Cross-Cutting Issues. Annex 1 of this report includes quantitative information on performance against PMP indicators, while Annex 2 includes success stories submitted to the Mission during this reporting period. Financial information for the reporting period is submitted in the quarterly financial report as per requirements detailed in Section F.6(e) of our task order.

Below is a summary of highlights of FY 2013:

Improved Value Chain Productivity

- **Outreach:** NAFAKA has reached 130,126[1] beneficiaries during this reporting period. This figure includes both individuals new to the program, and those continuing from last year.
- **New technology adoption**: More than 17,000 farmers adopted new technologies this year. Close to 110,000 hectares of land are under improved technology or management practices.
- **Increase in yields:** Yields in paddy have increased by 100 percent from the baseline to just under 3,000 kg/hectare—we have reached our fifth year target in year 3, two years ahead of schedule.
- **Alternative crops**: NAFAKA facilitated the introduction of food security crops through intercropping and crop rotation in maize areas hit particularly hard by drought this season, as well as other project areas.
- **Capacity building:** NAFAKA assisted over 361 value chain actors, including: food security private enterprises (agrodealers, private service providers and village based advisors), producer associations, women's and youth groups and farmer groups. Under the USAID Forward initiative, NAFAKA conducted an official capacity assessment (OCAT) and formalized a capacity-building action plan (CBAP) for key local implementing partners RUDI and MVIWATA as a project exit strategy.

[1]This figure includes: farmers who receive season long training and their families (using a 4.8 multiplier which is the average Tanzanian family size per the 2010 census data); and MSMEs who receive services or one off trainings under the project.

- **Maize expansion**: NAFAKA rapidly expanded into the maize-growing areas by scaling up demonstration activities greatly through the village-based agriculture advisor (VBAA) model of farmer-farmer extension services.
- **Service provider development:** NAFAKA developed networks of private sector service providers, including 108 agrodealers, 208 VBAAs and 45 SILC field agents/private sector service providers. During the 4th quarter of FY13, VBAA associations were officially registered as both seed and fertilizer dealers, enabling them to sell inputs at the village level.

Expanding Markets and Trade

- **Marketing associations**: NAFAKA built the capacity of 56 producer associations, of which 27 are new associations, focusing on collective marketing, negotiations and service provision to farmer members.
- **Buyer agreements:** NAFAKA facilitated 26 buyer agreements worth $509,356 for 1,140MT of paddy and maize. This exceeds the annual target by $411,941. An additional 900MT of paddy and maize are currently in association warehouses for sale later in the season.
- **Incremental sales:** Farmer beneficiaries received $5,152,894 in incremental sales.
- **Access to finance:** NAFAKA facilitated $268,336 in rural agricultural loans to 1,499 farmers through NMB Bank, Yosefo, CRDB, PASS, SILC groups and local SACCOS. The project attracted two credit providers to the KPL outgrower scheme; none existed prior to NAFAKA's establishment. Both of the credit providers are now offering these services without further financial assistance from NAFAKA.

Increased Private Investment in Agriculture

- **Private sector leverage:** NAFAKA leveraged $1.4M in private investment
- **Private-public partnerships:** NAFAKA continued to support SAGCOT's flagship initiative in rice through a public-private partnership between NAFAKA and KPL, expanding the outgrower scheme to 4,300 producers who, through the application of new production technologies, have increased average yields from 1.5 to 3.6 tons per hectare the project began.
- **Input supply company relationships:** Over a dozen input supply companies have partnered with NAFAKA to demonstrate their products (seed, fertilizer, agrochemicals) and develop a rural customer base and distribution channels. Direct project investment in inputs has been minimal given the willingness of these companies to contribute their inputs and to use their agronomists to collaborate on the demonstrations.

Increased Resiliency of Vulnerable Smallholders

- **Expanded savings and internal lending communities:** NAFAKA reached 2,737 households through SILC groups, of which 1,824 were new to the program this year.
- **Savings and lending:** 146 SILC groups accumulated a total savings of $73,882, from which they issued $56,658 in loans to members to pay for agricultural inputs, school fees, and other productive activities and household expenses.

- **Food security and nutritious crops:** NAFAKA launched the home garden initiative with SILC group members and introduced food security vegetables to farmers in maize areas hit hard this season by drought.

Activities in Zanzibar

- **Agricultural productivity through GAP training on demonstration plots:** NAFAKA inaugurated activities in Zanzibar in close collaboration with the government of Zanzibar and the Zanzibar Agricultural Research Institute to serve more than 621 producers in both irrigated and rain-fed areas.
- **Institutional capacity building:** Through institutional capacity building grants developed this year to ZARI and KATI institutes, the project will scale up to over 3,000 farmers on both islands in 2013-2014.

2. Introduction

Project Description

NAFAKA aligns with the Feed the Future (FtF) goal to harmonize regional hunger- and poverty-fighting efforts in countries with chronic food insecurity and insufficient production of staple crops. NAFAKA uses a market-driven approach to work with local stakeholders to strengthen the local rice and maize value chains. NAFAKA represents a commitment to Tanzania's country-led Kilimo Kwanza initiative to reinvigorate agricultural growth emerging from the Comprehensive Africa Agriculture Development Programme (CAADP) process.

The NAFAKA team is composed of a consortium of subcontractors that include:

- ACDI/VOCA – providing overall project management, operations and technical leadership
- Rural and Urban Development Initiative (RUDI) and Mtandao Wa Vikundi Vya Wakulima Tanzania (MVIWATA) – local service providers developing farmers' associations in target locations
- Farm Input Promotions-Africa (FIPS) – an East African organization developing sustainable village-based extension services
- International Fertilizer Development Center (IFDC) – providing technical expertise in rice production, irrigation and agrodealer networks
- Danya International – providing technical expertise in behavior change communications
- Kimetrica – supporting the monitoring and evaluation team and IT development
- Catholic Relief Services (CRS) – addressing the needs of the most vulnerable in target regions
- Short-term technical support from MatchMaker Associates, Crown Agents, Associates for International Resources and Development (AIRD), Global Ag Risk and TAI Mobile

Goals and objectives

The goal of NAFAKA is to sustainably reduce poverty and hunger by improving the productivity and competitiveness of value chains that offer jobs and income opportunities for rural households. The goal aligns with the Feed the Future initiative (FtF) overall goal "to sustainably reduce poverty and

hunger." NAFAKA promotes growth by facilitating competitiveness of the smallholder-based rice value chain, and balances these impacts on growth and broader effects to reduce poverty through investments aimed at improving the competitiveness and productivity of the maize value chain.

To sustainably reduce hunger and poverty, NAFAKA:

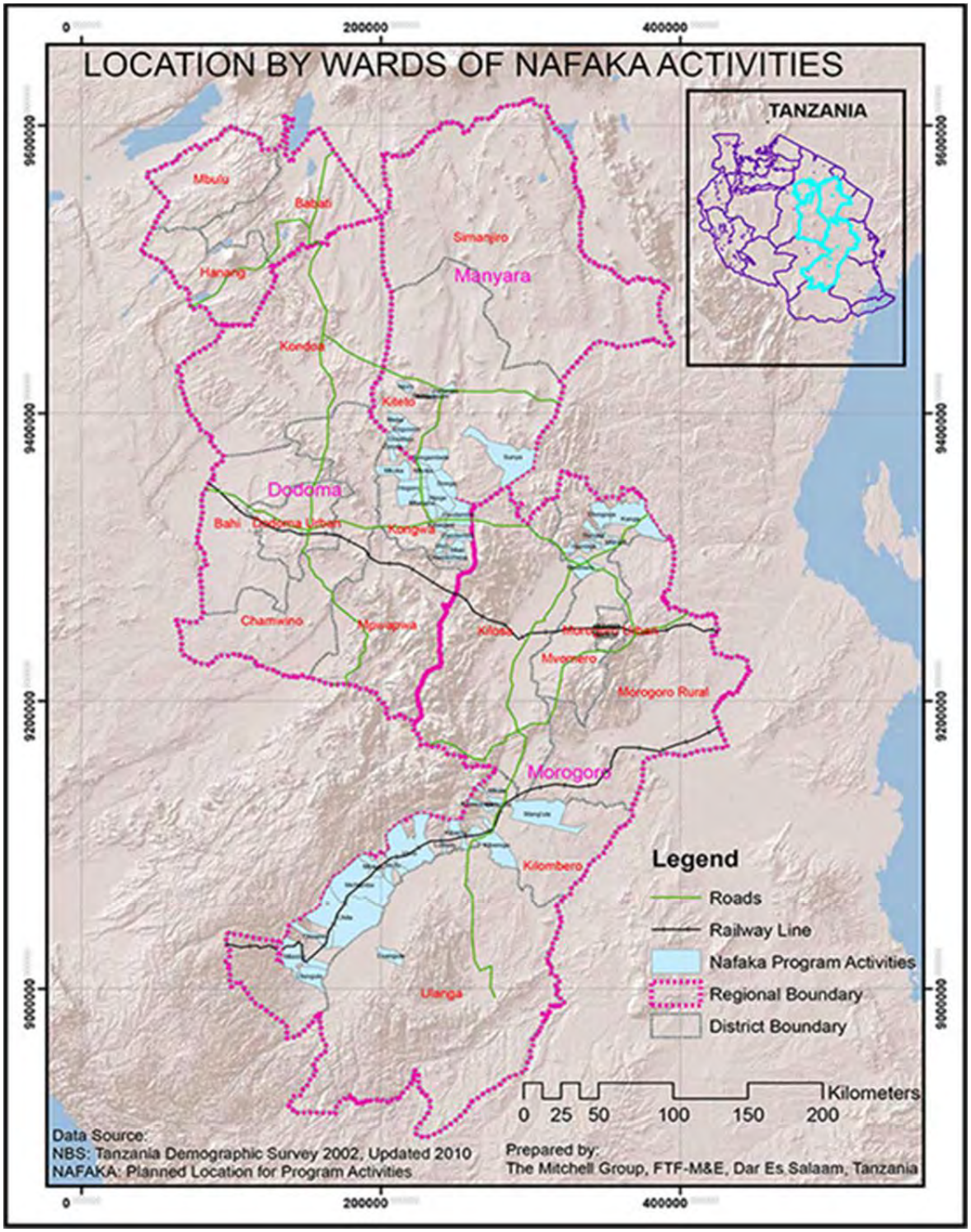
- Improves the competitiveness and productivity of the rice and maize value chains
- Facilitates improved domestic and regional trade in rice and maize
- Expands the depth and breadth of benefits from the growth of the rice and maize subsectors, including increased benefits to women and youth
- Enhances rural household nutrition by promoting women-focused value chain development and improved consumption of a quality diet

Geographic Zones of Influence

NAFAKA is implemented in four districts on the mainland and on Zanzibar. Key areas of intervention and on-the-ground partnerships are described below.

- Kilombero District: a rice growing region in the south of the Morogoro region
    - Ifakara North, Mlimba and Man'gula: NAFAKA is engaged in association development and increasing productivity in 30 villages, focused on mainly rain-fed production.
    - Kilombero Rice Plantation (KPL) & Kilombero Valley Teak Company (KVTC): NAFAKA is facilitating KPL outgrower schemes in 11 villages. NAFAKA is also working with KVTC employees and some teak outgrowers to develop their own rice operations.
- Mvomero District: a rice and maize growing region in the north of the Morogoro region
    - Irrigated and rain-fed rice areas: NAFAKA is developing associations and increasing productivity with rain-fed rice producers and maize producers in 14 villages.
    - Uwawakuda Water Users Cooperative: NAFAKA is working with irrigated rice farmers from the association to improve yields, cooperative development and water-resource management.
- Kongwa and Kiteto Districts : maize growing regions in Dodoma and Manyera regions
- Zanzibar: NAFAKA is focused on both irrigated and rain-fed rice production on Unguja and Pemba

Figure 1: NAFAKA Activities Map



3. Implementation Progress

This section presents NAFAKA's progress in implementing activities according to the key result areas as per the NAFAKA project document. The key result areas of NAFAKA are:

- Improved value chain productivity
- Expanding markets and trade
- Increased private investment in agriculture
- Increased income for vulnerable smallholders

Cross-cutting issues are addressed under Section 9 of this report. Cross-cutting issues include gender integration, behavior change communication, environment and natural resource management, and monitoring and evaluation.

IR.1: Improved Value Chain Productivity

To increase productivity, NAFAKA sustainably develops the human and institutional capacity of farmers and service providers, and facilitates technology development, dissemination, management and innovation among farmers and service providers.

1.1 Enhanced Human and Institutional Capacity Development for Increased Sustainable Agriculture Sector Productivity

NAFAKA reached 130,126 total beneficiaries during this reporting period. The program facilitated seasonal, as well as select one-off trainings, for 27,167 participants across four districts and Zanzibar, of which 13,131 were male and 14,036 were female.

1.1.1 Building the Capacity of Local Implementing Partners

During the 2012-2013 year, NAFAKA launched a formal institutional capacity-building subcomponent for two main local implementing partners: RUDI and MVIWATA. Two international consultants engaged these two Tanzanian organizations to: 1) catalogue the capacity building each organization had received from NAFAKA; 2) facilitate a participatory organizational capacity assessment tool; and 3) develop a formal capacity building action plan for roll out in 2013-2014. Based on the OCAT scores, RUDI and MVIWATA averaged 72 percent, indicating that they are both expanding organizations, according to the framework below:

- 33 percent and below = little or no organizational capacity
- 34-50 percent = nascent organization
- 51-66 percent = emerging organization
- 67-83 percent = expanding organization
- 84 percent and above = mature organization

The capacity building action plan will provide a roadmap to further strengthen both organizations under the USAID Forward initiative.

1.1.2 Farmer Associations and Group Strengthening

NAFAKA helped establish and build the capacity of 56 farmer associations over the past two years, 27 of them in 2012-13. NAFAKA also strengthened the capacity of two water users' associations. While productivity activities are coordinated through these associations, the main focus of NAFAKA's work is to develop the associations' capacity to become value chain actors—developing upstream and downstream linkages—including buyer agreements, bulk purchasing of inputs, transport, milling, and access to finance. More details can be found under subheading 2.1, below.

NAFAKA also helped establish and strengthen 146 savings and internal lending communities, details of which can be found under subheading 5.1, and two youth groups, which are further described under subheading 9.1.2.

1.1.3 Engaging Agricultural Research and Training Institutes

NAFAKA continued working with the Mkindo Farmer's Training Centre (MFTC) in Mvomero, through partner MVIWATA. NAFAKA's work facilitated the ability of MFTC to offer extension services in addition to their core residential trainings. NAFAKA also developed capacity-building grants for agricultural research and training institutes to strengthen their ability to provide residential and on-farm extension training for farmers in their region. A grant to each Zanzibar Agricultural Research Institute (ZARI) and Kizimbani Agricultural Training Institute (KATI) were finalized for implementation in 2013-14, pending USAID approval. More details on this program can be found under Section 4, Zanzibar Activities. These grants are the first two of five planned similar capacity-building initiatives.

NAFAKA implements its training programs using a phased approach, where each quarter focuses on specific agricultural activities in a given agronomic zone.

Q1: land/soil preparation, seed and input selection, spacing and planting, water management and rainwater harvesting

Q2: weeding, pest control, and fertilizers

Q3: pest management, harvesting and post-harvest management.

Q4: post-harvest handling and collective marketing, off-season production in Mvomero

1.1.4 Training on Good Agricultural Practices (GAP)

NAFAKA uses a combination of training approaches on good agricultural practices for smallholder farmers. These approaches include: on-farm cascade training in modern agronomic practices, residential trainings, farmer exchange visits and farmer field days (which are described under subheading 1.2.2). NAFAKA's agricultural productivity activities, trainings and materials are designed to assimilate the core behaviors in farmers' activities. The key behaviors and practices targeted by the project address the entire crop production cycle including land preparation, use of improved seeds during sowing, fertilizer application, water management, weeding and pest control, harvesting and storage.

Cascade Training—This methodology focuses on developing the capacities of rural village agents, lead and progressive farmers, agrodealers and government extension agents to provide extension services to farmer clients. During the 2012-2013 production season, the majority of NAFAKA trainings were conducted through this tiered or "cascade" manner, in which training of trainers (TOTs) are offered by NAFAKA agronomists in collaboration with agroinput companies and

agrodealer extension agents. Trainings are conducted on a network of over 500 private sector facilitated demonstration plots (see Section 1.2.1 below).

Residential Farmer Training—NAFAKA facilitated residential trainings for farmers engaged in irrigated rice production at Mkindo Farmers Training Centre, focusing on training members of the Mngongola Water User's Association and establishing season-long farmer field schools.

Farmer Exchange Visits—NAFAKA enabled participants to visit each other's farms to learn new farming techniques. The farmer exchange visit program promotes better farming by providing an opportunity for farmers to see and discuss the best techniques with one another in the presence of NAFAKA technical specialists.

Success Story: Village-Based Agricultural Advisor

Neema Urrasa, a village-based advisor in Kiteto struggled with low yields due to inefficient traditional farming practices. After receiving training in good agricultural practices from NAFAKA, she began sharing her expertise with other smallholder farmers. She uses her plot to demonstrate improved drought-tolerant seed varieties with good agricultural practices so that other farmers in her community can learn from her experience and access small commercial seed packs for adoption on their own fields. Neema has increased her maize harvest from ten to fifty 100 kilogram bags on her two-acre plot. To date, Neema has reached 1,500 smallholder farmers, nearly half of whom are women, to increase their productivity by using improved seeds, fertilizers and other good agricultural practices.

"Farmers of all ages consult me for advice when it comes to agriculture. I feel a heightened respect from my community."

Neema Urrasa, VBAA

1.1.5 Developing Extension Service Providers

NAFAKA's key strategy in increasing farmers' access to improved inputs such as seeds, fertilizers and agrochemicals includes strengthening a network of rural-based input dealers (village-based agricultural advisors or VBAAs), select agrodealers, and select entrepreneurial farmers.

Village-Based Agricultural Advisors—NAFAKA continued to strengthen a network of 208 rural agricultural agents. This VBAA network has been trained by NAFAKA on GAP so that they can teach what they learn to program beneficiaries at the village level through demonstration plots and the dissemination of small starter-packs of inputs. Farmers test the inputs from these starter-packs and GAP on their plots. The VBAA network has also been trained on income-generating activities. These trainings provide VBAAs additional avenues for generating income, as an incentive for them to continue supporting smallholder farmers through the farmer-to-farmer extension approach. These include chicken vaccination services, tree nursery establishment, seed and fertilizer selling, land preparation and contract herbicide applications. To date NAFAKA has a VBAA network of 208 farmers: 51 in Mvomero, 44 in Kilombero/Ifakara, 19 in Mlimba, 47 in Kiteto and 47 in Kongwa. Each of these VBAAs reaches between 100- 250 farmers, representing a significant scale-up in beneficiaries served.

During the last quarter of the year, NAFAKA facilitated the formation and registration of three VBAA associations in Kongwa, Kiteto and Mvomero. In September of 2013, these VBAA associations were certified to officially sell seed and fertilizer, paving the way for the VBAAs to become full fee-for-service rural agents linked to agrodealers and input supply companies. This is a key exit strategy for the program.

Agro-dealers—This program was designed to enable smallholder farmers to access affordable farm supplies in remote areas. In addition to selling affordable farm supplies, the 108 agrodealers were trained on providing farmer clients with timely and accurate GAP advice throughout the season. NAFAKA helped five of these agrodealers conduct farmer extension outreach and develop linkages with farmer associations. Agrodealers were also trained in:

- Product knowledge training which included eight input supply company participants: Yara, Syngenta, Monsanto, Seedco, Minjungu, Bytrade, Greenbelt and Kick-Start. The training topics included adult facilitation skills and technical knowledge on proper selection and application of fertilizer, seed and agrochemicals.
- A market information platform for agrodealers (MIPAD): the platform enables agrodealers and market surveyors to share prices for inputs within Tanzania using mobile phones
- Business and financial management

NAFAKA currently has a network of 108 agrodealer service providers, five of whom have received agrodealer grants worth about $4,000. These five agrodealers have conducted trainings to 1,286 beneficiaries on GAP using existing demonstration plots.

Farmers as Service Providers: This year NAFAKA launched an initiative to develop entrepreneurial farmers into service providers, in addition to the VBAA network described above. This is a key sustainable approach that encourages agricultural innovation at the village level. For example, in Kongwa, NAFAKA identified a particular farmer as an early adopter and change agent of ripping, an important land preparation activity. The farmer was able to offer ripping services for a fee to 600 farmers and, with NAFAKA assistance, is developing a buyer/outgrower program with neighboring farmers.

1.1.6 GAP Behavioral Change Communication (BCC) and Material Development

Campaign promoting the use of quality seeds and proper use of fertilizer: NAFAKA developed a multi-channel communication approach designed to increase the use of quality seed and proper use of fertilizer. NAFAKA's BCC communication team recognized the need to use agricultural behavior champions—including farmer association leaders, VBAAs, and extension agents—to promote these desired behaviors and increase their visibility within communities. The final BCC materials distributed in this campaign are shown below:

Figure 2: Behavioral Change Campaign Materials

NAFAKA also engaged a regional agricultural consultant to develop NAFAKA productivity manuals and conduct a TOT. The productivity manuals will be pretested before they are applied throughout the project in the coming season. This sustainability strategy focuses on knowledge management and capacity building of local service providers.

1.2 Enhanced Technology Development, Dissemination, Management and Innovation

NAFAKA implements a number of activities that aim to improve farmers' access to inputs and overall adoption of improved technologies. The key technologies targeted under the strategy include popularizing improved seeds, fertilizers, ripping technology, UDP application, and quality declared seeds (QDS), and the use of a direct paddy seeder (DPS).

1.2.1 Demonstration Plots for Improved Technologies and Management Practices

A total of 594 demonstration plots were established throughout the year, 347 in rice and 247 in maize. Demonstration plots promoted system of rice intensification (SRI) methodologies and conservation farming in maize, as described in the quarterly report for Q2 FY13. These demonstration plots showcase up to 14 technologies and practices, including intercropping with food security crops that include pigeon peas, cowpeas, green grams and soybeans. Demonstration plots were platforms for nine private sector input supply companies to showcase their improved technologies (seeds, fertilizers and agrochemicals). Participating private sector input supply companies included YARA, Tanseed, Seedco, Export Trading Group, Minjingu, Bytrade, Monsanto, Agriseed Technology and Highland Seeds.

1.2.2 Private Sector Engagement at Farmers Field Days (FFDs) to Disseminate Technology

FFDs are among the key platforms that NAFAKA uses for showcasing modern agronomic technologies to farmers. During this year, 67 farmer field days were organized and conducted throughout the season in four districts; Kongwa, Kilombero, Kiteto and Mvomero. FFDs have proven to be an effective training approach as well as a facilitative extension method offering farmers opportunities to learn about innovative farming practices from private sector actors and share on-farm results by comparing demonstration plots with inefficient traditional

Figure 3: Farmer Field Day in Wami Dakawa.

farming practices to those with GAP. The FFDs attracted a total of 3,553 farmers, most of whom are participants in NAFAKA farm trainings through demonstration plots.

During the year, five private companies collaborated with NAFAKA to share information about their products, highlighting the varieties available and appropriate methods of applications. The companies include: Yara (fertilizer), Minjingu (fertilizer), TANSEED (seeds), Seedco (seeds) and Agriseed Technologies Ltd (seeds). NAFAKA agronomists provided the companies with advice on how to disseminate information to, and forge relationship with, rural farmer clients.

1.2.4 Quality Declared Seed (QDS) and Certified Seed

The local availability of good quality seed is integral to increase the yield potential of NAFAKA's farmers' crops. During the year NAFAKA built the capacity of 15 QDS producers and 56 certified seed producers. The latter was facilitated through a public-private partnership with TANSEED to develop an outgrower program to multiply their seed. The Tanzania Official Seed Certification Institute currently inspects these improved seeds and tests QDS and certified seed samples on purity levels and germination ability before their release to the public.

1.2.5 Ripping Technology

Ripping technology was widely promoted by NAFAKA in Kongwa and Kiteto during the year. This farming technology is beneficial to farmers facing low rainfall because it improves water retention of soil, a requirement of good production and a precursor for conservation farming. The technology was applied by maize farmers supported by NAFAKA. Beneficiary data in Kongwa and Kiteto show a high rate of adoption of ripping technology among farmers.

1.2.6 Scalable Technology – Urea Deep Placement (UDP)

NAFAKA has continued to do trials on the use and benefits of urea deep placement (UDP) fertilizer on controlled plots to better inform the government of Tanzania on its benefits and

Success Story: TANSEED Partnership to boost local availability of quality seed

In helping to boost local production of quality declared seed as well as certified seeds, NAFAKA is leveraging a grant worth $250,000 with TANSEED International. TANSEED International is the largest seed company in Tanzania, and the only private firm involved in rice research and development. The goal of this partnership is to help scale out a high-yielding rice variety known as TXD-306. The program identified 56 farmers (25 women, 31 men) in Mvomero and Kilombero to receive intensive training in seed production techniques in conjunction with other technologies including; fertilizers and other agroinputs, improved crop management methods, careful post-harvest handling and storage. The farmers were linked to fertilizer suppliers, and were organized into groups that could jointly purchase inputs at wholesale prices. TANSEED will pay Tsh. 900/kg, compared to the market price of Tsh. 250/kg for rice grain. The new seed varieties will lead to higher and more stable yields, bigger surpluses for sale, and better livelihoods for the smallholder rice farmers targeted by NAFAKA.

Photo by: Filbert Mzee. Christopher Mnguu, Kilombero district seed inspector, is happy with this field in Mpanga.

suitability for Tanzanian soils, which will pave the way for its registration and wide use in Tanzania. NAFAKA is working on UDP trials in close collaboration with the Kilombero Agricultural Training Institute. Should this new technology be approved for sale, NAFAKA plans to conduct a TOT for VBAAs to use their network to train farmers in this technology, and possibly facilitate the ability of local fertilizers companies to manufacture the product.

1.2.7 Direct Paddy Seeder (DPS)

NAFAKA introduced and conducted demonstrations on direct paddy seeders (DPS). The demonstrations exposed farmers to this simple and affordable technology that can be used to eliminate hours of transplanting and of manual labor by sowing germinated paddy seed directly to the field. The majority of farmers who attended these demonstrations expressed interest in using this new technology. NAFAKA will track the adoption progress of this technology as well as the private company commercializing the product in coming reports.

Figure 4: Demonstrations on the use of DPS, a new technology. *Photo by: Richard Kaiza.*

IR.2. Expanding Markets and Trade

NAFAKA market and trade activities are focused on fostering monetary and relationship transactions up and down the value chain through market information systems, collective marketing strategies, buyer linkages, stakeholder networking events, access to finance and information-sharing platforms.

2.1 Increased Market Efficiency

NAFAKA continues to enhance beneficiaries' market access by raising their capacity to meet the increasingly complex quality and logistic requirements of the market in order to raise rural income.

2.1.1 Strengthening Farmer Marketing Associations

NAFAKA's helps build farmers' associations to promote practices that raise farmers' incomes and overall socioeconomic empowerment through collective marketing and bulk purchasing of inputs.

Formation and registration: NAFAKA facilitated the formation of farmer groups into 27 new associations during this reporting period. A 10-step registration process was followed, which includes developing a constitution, electing leaders and submitting registration forms to the Ministry

of Home Affairs. To date, 30 of the total of 56 NAFAKA associations are registered with the Ministry of Home Affairs, and the remaining are in the final stages of registration.

Sell More For More (SMFM) Training Program: NAFAKA finalized and launched the Sell More For More training curriculum during the second quarter. NAFAKA engaged an internal training specialist to conduct a TOT on the four-module SMFM methodology: leadership, marketing, recordkeeping and operations. The SMFM methodology is intended to equip farmers with skills and knowledge in marketing so that they can meet quality specifications and manage their operations effectively. It includes lessons on negotiations and purchasing of bulk inputs.

Warehouse Management/Crop Banking Trainings: NAFAKA trained associations in crop banking and warehouse management during the year. The NAFAKA team sensitized farmer associations on collecting paddy collectively for warehouse storage during the year. NAFAKA innovation grants facilitated the upgrading of warehouse space for farmers' collective storage (described below in subsection 3.2). This year, associations in Mvomero and Kilombero have stored over 1,000MT of paddy or maize for sale later in the season for higher prices.

Success Story: Association Services –Crop Banking

Farmers in Dahindi village had few options to warehouse their product, leaving them to sell harvest at farmgate at prices of Tsh. 35,000 to 45,000 to local traders. Traders with access to warehouses would then sell later in the season at a price of Tsh. 100,000 per bag to urban markets. NAFAKA-facilitated warehouse/"crop banking" training has enabled farmers to calculate the loss which they incur every year by selling their crops at farmgate prices and the potential benefit of storing their crops in crop bank in order to sell collectively during off season. After developing a business plan, this year, Dihinda Farmers Association rented warehouse space and have already stocked a total of 2,467 (2,100 Maize and 367 paddy) bags in two warehouses. They plan to sell these in December or January at 100,000 kg per bag, which will offset the price of the warehouse rental.

2.1.2 Marketing Strategy and Developing Buyer/Off-Take Models

During the year, NAFAKA engaged consultants to formalize a marketing strategy based on current trends. The key objectives of the market linkage consultancy were:

- Determine the most strategic grain buyers for NAFAKA smallholder associations and groups
- Develop strategic plans for developing NAFAKA relationships with the identified prospective buyers
- Establish the most suitable market linkage activities for NAFAKA's primary beneficiaries—smallholder farmers

The marketing strategy led NAFAKA to focus on potential small- to medium-sized agricultural enterprises sector and start a tripartite working relationship between NAFAKA, Tuboreshe Chakula and Kibaigwa Flour Mills. NAFAKA is in the processes of developing a tripartite MOU. Next year NAFAKA will work to replicate similar models in strategic clusters.

Facilitating Buyer Relationships: NAFAKA held roundtables and set up meetings between potential buyers and leaders of associations. These linkage events resulted in 26 buyer agreements to purchase 1,140MT of commodity, worth $509,356. This included agreements with the National Food Reserve Agency (400MT of maize), the World Food Program (219MT of maize), and KPL (550MT of paddy). Associations in Mvomero are currently negotiating purchase of an additional 300MT of maize and paddy.

2.1.4 Storage and Warehouse Management:

The majority of NAFAKA warehousing and storage activities focus on associations, as discussed in Section 2.11 above. Additional activities include:

Figure 5: Mlimba "A" Farmers Association members enjoying input supply services from Suba- Agro Company. *Photo by: Lameck Kikoka.*

East Africa Grain Council (EAGC) Warehouse Training: NAFAKA sponsored participants to attend an EAGC workshop for warehouse operators. The training covered basic elements of grain warehouse operations, including grain handling, grain intake procedures, dispatching, proper recordkeeping and documentation, stock monitoring and control, and requirements for warehouse certification for the warehouse receipts certification. The training also addressed business development topics including occupational health and safety, and workplace security in line with NAFAKA's environmental and safety compliance policy. Since the EAGC training, NAFAKA staff and association leaders have continued to train farmers on post-harvest handling and management techniques.

Warehouse Assessment: NAFAKA finalized warehouse assessments on the locations, ownership and upgrading requirements of approximately 400 warehouses in the four districts NAFAKA serves. The report has been submitted to USAID and NAFAKA will use it as a roadmap for warehouse upgrading. The Feed the Future (CDM) infrastructure project used the report to determine priority rural road upgrading. In addition, the East African Grain Council has requested the report to inform their planning for trainings and outreach to warehouse owners.

Marketing and Storage Behavior Change Campaign: The second seasonal NAFAKA BCC campaign encouraged farmers to sell collectively and use storage facilities. NAFAKA used multiple channels for the BCC campaign, distributing posters and brochures through district coordinators, association development field officers, junior agronomists and government extension officers. The final BCC materials distributed in this campaign are shown below:

Success Story: Association Services –Bulk Purchase of Inputs

Rice farmers in the Kilombero District had difficulty accessing inputs; inputs were often counterfeit or sold at unaffordable prices. During the year NAFAKA collaborated with input distribution companies and linked four associations—Mlimba A, Michenga, Lumemo and Mwaya—with Suba-Agro to make good quality and fair-priced agricultural inputs locally available. Farmer associations were able to receive and sell inputs of a total of Tsh.377,702,500. Suba-Agro distributes the inputs to the associations on credit and associations pay Suba-Agro after selling their paddy.

Figure 6: Second Behavior Change Campaign, Collective Selling and Storage Facilities

2.1.5 Developing the Tanzania Rice Partnership (TARIPA)

NAFAKA continues to support the TARIPA initiative, which brings together multiple private sector partners and potential investors in SAGCOT. NAFAKA has played an important role transitioning TARIPA from a loosely-organized collaboration of potential SAGCOT investors and NGOs into an active representational body for the rice industry. This change was triggered by the government of Tanzania's decision to import duty-free rice without sufficiently consulting the private sector, as there wasn't a representational body with whom the government could consult on such matters. A group of rice value chain stakeholders convened by the Gatsby Foundation, FAO and NAFAKA decided to transition TARIPA to a more formal rice association.

More than twenty commercial rice actors have expressed interest in a formal rice association. These included three of Tanzania's largest rice farms, smallholder farmers, traders, medium-sized millers, input suppliers, banks, and mechanization/irrigation service providers. As a result, a ten-person task force comprised of local NGOs and private sector organizations was created.

The association is designed to build a common voice for Tanzania's rice sector and strengthen actors' ability to operate in a market-driven system by establishing open private-public dialogue, cross-sector partnerships and access to information on the rice subsector. The association will engage with policy decision-makers on matters that affect the rice value chain and strengthen subsector cohesion and capacity to operate in a commercial environment, including encouraging certification and quality standards/specifications in conjunction with regional partners. These activities will foster a better enabling environment and attract potential investors.

The Gatsby Foundation is working with an East African NGO, Kilimo Trust, to assume the leadership of this association, with NAFAKA providing technical assistance. However, this initiative is not yet funded. Should that funding not be available, NAFAKA will continue to strengthen and build TARIPA.

2.2 Improved Access to Business Development and Affordable Financial and Risk Management Services

2.2.1 Increased Access to Agricultural and Rural Loans

A majority of Tanzania's population lives in rural areas and is highly dependent on agricultural production. The lack of affordable sources of agricultural financing is one the main bottlenecks that hinder improvement in productivity in Tanzania, as adoption of new technologies requires investment. NAFAKA is facilitating a financial subcomponent aimed at linking beneficiary farmers to affordable sources of formal and informal financing (agricultural and rural loans). Nearly1,500 loans were accessed by smallholder farmers as a result of NAFAKA assistance. Details of each loan are explained below:

- NMB and YOSEFO: 612 loans disbursed by NMB and YOSEFO at around $250 per loan, with payment in the form of paddy to KPL
- KVTC-issued loans: 61 farmers at KVTC were issued with staff loans worth about $75 to purchase inputs; fertilizers, pesticides and seeds
- CRDB and PASS: In UWAWAKUDA, 15 farmer loan applications worth $2,600-$3,200 were approved; PASS guaranteed the loans
- SACCOs in Mvomero issued $6,085 in loans to 29 farmer groups
- Savings and internal lending community (SILC) loans: SILC members loaned $56,658 internally for household expenses, school fees, emergencies and input costs to 782 members. More information on SILCs can be found under Component 4

Mobile Money applications: NAFAKA worked with the Connected Farmers Alliance partnership, formed by USAID, TechnoServe and Vodacom, to help farmers in KPL access and secure timely loans and other financial service through the M-Pesa mobile financial service. NAFAKA issued Vodacom SIM cards to KPL farmers receiving loans from NMB and YOSEFO to simplify the transaction process.

Microinsurance: This season NAFAKA worked with the Syngenta Foundation to collect data for weather-based, scalable input insurance for paddy smallholders in KPL. NAFAKA collected weather related data from eight farms selected from the pilot villages to develop an appropriate product for farmers in the region. NAFAKA also conducted a feasibility study for weather-based index insurance. Preliminary results include a recommendation not to proceed with such an activity, since most providers insure against drought when the greater need is for program beneficiaries is flood insurance.

2.2.2 Increased Access to Business Development Services (BDS) for MSMEs

NAFAKA has facilitated BDS for 3,063 MSMEs, including farmers. NAFAKA focused activities on two tiers: 1) facilitate BDS providers to provide services to farmer clients and 2) develop MSMEs through BDS to better serve farmer clients. The project currently buys down the risk of this latter group of service providers as they begin to develop a fee-paying client base. In years 3-5, the project will track the client beneficiaries of these providers. These include:

- 2,167 farmers received training in financial and loan management from financial institutions, which resulted in loans for 1,499 farmers.

- 108 agrodealers and 208 village-based advisors received product management, business development and income generation support to offer new services to potential farmer clients.
- Three VBAA associations were awarded certificates to sell seed and fertilizers.
- 1 new ripper service provider was developed and served 600 farmer clients.
- 2 youth groups were facilitated to offer GAP and herbicide services to farmer clients.

Mobile Money Transfer: NAFAKA is exploring mobile money transfer as a key upgrade for service providers along the value chain. NAFAKA promotes mobile money transfer to encourage more transparent grain markets and increased access to finance for producers. NAFAKA and Tai Mobile Solutions (T) Ltd. conducted an initial feasibility assessment on a mobile money transfer (MMT) business model for input companies, agrodealers, VBAAs, wholesale agents/ mega dealers and other stakeholders. After the initial assessments, Tai Mobile Solutions initiated work with various stakeholders to increase adoption and usage of mobile finance (mobile money, bulk SMS and other related ICT systems that assist in transactions. NAFAKA will capitalize on the new opportunities that mobile finance can bring about in increasing competitiveness and productivity in the rice and maize value chain. Phase two activities will commence in FY2014 and will include MMT feasibility studies, training MMT business model to the various stakeholders and implementation of mobile money into the operations of at least one major agroinput company.

IR.3. Increased private investment in agriculture

3.1 Develop Strategic Partnerships with Lead Private Sector Firms

NAFAKA supports a number of interventions to support the active participation of the private sector in agricultural production. Throughout the year, NAFAKA has started discussions with ETG and Mkenda Rice Supply to develop buyer relationships in the upcoming year. NAFAKA is working with KPL and KVTC to develop outgrower programs to further promote the provision of agricultural inputs and crop marketing within the rice value chain. KPL has invested over $800,000 in its outgrower programs since the project began. NAFAKA helped two finance institutions, NMB and Yosefo, begin loan programs with KPL outgrowers. Both institutions will continue their work in the KPL area without the need for NAFAKA assistance this coming year. Additionally, NAFAKA is entering into a tripartite agreement for buyer offtake with Kibaigwa Flour Mills, Tuboresha Chakula and NAFAKA farmer clients. This agreement will enable farmers who have been trained through NAFAKA-supported associations to access stable markets during the selling season.

3.2 NAFAKA Innovation and Capacity-Building Grants

NAFAKA is managing a grant funds to unleash innovation and private sector investment and to build local capacity. This innovation and investment fund is designed to catalyze co-investment with private sector actors and partners in activities that will promote change (upgrading) in the value chains. This grant mechanism gives NAFAKA the flexibility to invest in opportunities as they arise and to partner with private firms, government agencies, research institutes, NGOs or other local organizations and other donors best placed to address key value chain and systemic constraints. During the year, NAFAKA administered the following grants, with a total of $186,749 in leverage contributions from grantees.

TANSEED Grant: This grant was developed to increase the availability and adoption of improved certified rice seeds varieties. Fifty-six rice seed growers were recruited and contracted to produce

250 MT of certified rice seed. This grantee has worked closely with the government of Tanzania and KATRIN to identify suitable certified rice seed varieties for Kilombero and Mvomero districts. The selected variety for the program is TXD 306 because it is high yield, drought resistant, and has a high tillering ability. This grant has a 30 percent leverage contribution.

Progressive Farmer Grants: NAFAKA developed medium-scale farmers so that they can progress and eventually become commercial farmers. The farmers who apply for these grants agree to act as model farmers by implementing and demonstrating good agricultural practices that can be emulated by neighboring smallholder farmers. During the year under review, a total of 56 progressive farmer grantees (21 maize farmers and 35 rice farmers) completed activities in post harvesting and storage of approximately 22,500 kg of maize and 18,000 kg of paddy. They also trained an additional 20 farmers each in modern farming practices.

Agrodealer Grant: These grants foster public partnerships by involving agrodealers in demonstrating inputs to stimulate farmer demand for and use of them with NAFAKA's support. Agrodealer grant recipients agreed to: 1) attend TOTs on GAP and land preparation; 2) conduct field trainings on GAP and land preparation to smallholder farmers; 3) attend refresher training on agrochemicals, seeds and fertilizer use, and conduct production season trainings to farmer associations on seeds, weed control, fertilizer use, insect control and plant diseases; 4) review sessions of the training modules; 5) conduct preharvesting and harvesting trainings; and 6) conduct results workshops. In total, 1,286 farmers were reached through these agrodealer trainings (demonstrations). The total value of the grants is about $4,000 per grantee, with a counterpart contribution of approximately $1,200 per grantee.

Warehouse Upgrading Grants: These grants are designed to contribute to institutional capacity building of associations that work with NAFAKA and to promote collective marketing using the principles of warehouse receipt systems. During the year under review, the project received a total of 15 applications for the grant. The applications were reviewed and forwarded to the mission for its consideration and concurrence, pending approval of an updated grants-under-contracts manual. The total estimated per-grant value is about $6,500 and the total estimated leverage contribution is about $1,400.

3.3 Input Supplier Engagements

This year, input suppliers invested [redacted] in demonstration plots and farm inputs such as small packs of seeds and fertilizer. NAFAKA created a platform, through demonstration plots and TOTs, for input companies to demonstrate their products, with the objective of stimulating demand for these products. To date, over a dozen companies have worked with NAFAKA, notably Yara (fertilizer), Syngeta (agrochemicals), TANSEED (seeds), Bytrade (seeds, agrochemicals), Minjingu (fertilizer), Export Trading (Fertilizer), Seedco (seeds), Agriseed Technologies Ltd. (seeds), Highland Seeds (seeds), , Monsanto (seeds), BASF (agro-chemicals), Dow Agriscience (seeds and agrochemicals), PPTL Tansack (hermetic bags), and Kickstart (small scale irrigation equipment).

3.4 Association Investment

NAFAKA associations invested over [redacted] in upgrading through purchase of bulk inputs, additional land for production, milling equipment and tractors. NAFAKA will continue to work with

associations to develop business plans and facilitate access to finance in order for associations to continue to invest in the agricultural value chains in which they work.

IR.5. Increased Resiliency for Vulnerable Smallholders

5.1 Savings and Internal Lending Communities

Under Component 4 of the NAFAKA task order, Increased Incomes for Vulnerable Smallholders, the main activity is to establish SILCs within NAFAKA intervening villages. Activities during this reporting period were expanded to seven additional villages in Kilombero District and17 additional villages in Kiteto District.

During this reporting period, NAFAKA deployed and trained 31 newly recruited community-based field agents, 14 in Kilombero and 17 in Kiteto District. Cumulatively, since project inception, 45 community-based field agents have been deployed. The primary activity of these field agents is to mobilize and train SILC groups. To date, these agents have organized 2,737 community members (each representing a household) into 146 SILC groups at an average of 15.6 members per group. Field agents formed 154 groups. The cumulative value of savings has increased from $19,869 last year to $73,488. The value of loans has also increased from $17,210 to $56,658, while loan utilization has decreased slightly from 79.7 percent to 77 percent.

In Kilombero district, 11 field agents were certified as private service providers. These new private service providers were trained on nine modules with topics on: individual self-screening; groups, group formation and governance; member responsibilities, management committee and election, SILC constitution, savings, safety/security of the group assets; loan fund policies and social fund policies; finalizing constitutions; written recordkeeping and SILC meeting procedures; and share-out meeting.[2]

Success Story: Vegetable Gardening To Increase Resiliency of Vulnerable Farmers

After seeing the benefits of vegetable gardening during training on sustainable agricultural practices conducted by a private service provider in Kilombero, Esther, a 32-year-old mother of two small children, used land she borrowed from her church to develop an organic vegetable garden. She learned techniques for planting seeds, applying fertilizer and controlling plant disease. She also learned about the health benefits of vegetable consumption. A variety of vegetable seeds were distributed to program participants, including tomatoes, onions, okra and mchicha. Mchicha takes approximately 14 days from planting to harvest to mature, and this short production window enabled Esther to sow twice per month. Her household members consumed the vegetables and sold the surplus to generate income to sustain the enterprise and to cover essential family expenditures. Esther said that, before receiving USAID assistance, she had no knowledge of how to grow vegetables and was not aware of their nutritional importance. She can now proudly pass on to her children the benefits of vegetable gardening as an activity to improve household nutrition and income, extending these benefits to future generations.

"Within two months, I was able to sell mchicha worth Tsh 38,000 (about $24), allowing me to save money for my household and more easily access kerosene, and school expenses for my children "—Esther Athanas

[2] Share out meetings are conducted at the end of the year when SILC group members 'share out' profits.

5.2 Vegetable Gardening for Food Security

Component 4 includes an intervention to help improve nutritional intake and increase incomes for vulnerable households by promoting organic vegetable gardening activities. NAFAKA conducted a TOT on organic vegetable gardening for 38 agents, who then trained vulnerable smallholders in their communities. Members of SILC groups were trained on organic vegetable gardening, showcasing vegetables like tomatoes, onions, okra and mchicha, a nutritious green, leafy vegetable. Additionally, village-based advisors passed out 400 food security small packs of seeds to farmers in Kongwa and Kiteto. Seed included cucumber, okra, eggplant, butternut squash, red onion, watermelon, tomato and sukuma wiki (kale). A total of 643 beneficiaries had access to home gardens this year. GAP training for these crops was provided on 34 demonstration plots.

5.3 Vulnerability Assessment

An assessment was conducted during this reporting period to measure the vulnerability of SILC members and determine whether they are linked to other NAFAKA activities such as informal farmer groups and formal associations. A total of 140 male and female smallholders from 14 villages of Kilombero District were randomly selected and interviewed. Results indicated SILC is reaching vulnerable smallholders, although it may not reach the destitute due to self-selection and the need to save. Results also indicated that 35 percent of the sampled smallholders are members of farmer groups. Results are presented in the table below:

Table 1: Vulnerability Assessment of SILC Members

S/N	Indicator name	Indicator score (total sample size 140)
2.	Gender of participants	64 percent are women.
3.	Household	16 percent are female-headed households.
4.	Affected by flood (living under floods plain)	14 percent were affected by flood last season.
5.	Dependent on family labor	34 percent (average days per individual = 41days)
6.	Access to formal financial services (SACCOs and banks)	Only 4 percent have access to formal financial services and 96 percent do not.
7.	Access to agricultural technologies (extension services)	Only 32 percent of farmers received extension services this season.
8.	Access to inputs (fertilizer)	Only 9 percent purchased fertilizer (average 48.1kg per individual).
9.	Access to inputs (seeds)	Only 33 percent purchased seeds in this season (average 3.8 tins).
10.	Food net buyers (hunger scare score)	98.6 percent indicate no hunger at household level.
11.	Average total progress out of poverty (PPI) score	49 percent

4. Activities Implemented in Zanzibar (Unguja and Pemba)

IR.1. Improved Value Chain Productivity

NAFAKA extended activities into Zanzibar during the second quarter of this implementing year, following requests from the Zanzibar Ministry of Agriculture and Natural Resources. NAFAKA's main objective in Zanzibar is to improve the productivity of rice cultivation to raise the incomes of smallholder farmers, and to support the government of Zanzibar's rice development strategy.

Good Agricultural Practice Trainings: To date, 400 farmers in both irrigated and rain-fed areas have been trained on five core training packages that are simple to understand and that have been proven to increase crop yields and quality. The training included:

- Land preparation, seed, seed preparation and seed selection
- Planting, transplanting, fertilizer application, water management/conservation
- Fertilizer, weed control, insect and disease control, and water management/conservation
- Late season insect and disease management, bird scaring, preharvest preparation
- Harvest, post-harvest handling, land preparation and planting of alternative crops

Farmer Exchange Visits: During the period under review, NAFAKA organized an exchange visit of Zanzibar farmers to Mvomero. The purpose of the visit was to provide an opportunity for the Zanzibar participants to learn and share experience with their counterparts on the mainland. The Zanzibar farmers also visited the UWAWAKUDA NAFAKA model farm, seed production plots and several farmer groups.

Figure 7: Farmers developing innovative mechanisms to use for seed spacing activities. *Photo by Joe Tindwa.*

Farmer Field Days: NAFAKA conducted its first Farmer Field Days (FFD) in Zanzibar. Four demonstration plots were developed and divided into 20 separate plots to demonstrate leveling, bunds, spacing, local varieties developed by ZARI, mainland and traditional varieties, fertilizer usage, and water management on wet and dry areas. A total of 221 farmers were brought in from neighboring areas to attend the field days and receive outreach and sensitization on GAP.

The FFD extension approach has been effective in disseminating knowledge and influencing the adoption of farming technologies among smallholder farmers in Zanzibar. The demonstration plots have encouraged a higher rate of adoption in the rain-fed areas compared to the irrigated areas. The preliminary yield results for the irrigated areas showed a 20 percent

increase, whereas in the rain-fed areas the yield results showed a 300 percent increase. From the demonstration plots, NAFAKA has observed that the farmers in the irrigated area are relatively technically savvy and need limited additional training. Irrigated rice producers are well trained have the conditions to produce acceptable yields and quickly adopt new technologies. Rain fed producers require more intensive training but have the potential to double or triple their yields with the proper training and access to inputs. Doubling of yields in the rain-fed areas could increase total rice production in Zanzibar by 40 percent. NAFAKA is encouraging the government of Zanzibar to support rain-fed agriculture to benefit more smallholder farmers and promote water conservation and sound environmental practices.

5. Key Achievements and Results

Below is a highlight of NAFAKA's key achievements and results compiled from the NAFAKA annual outcome survey and M&E ACCESS database. The NAFAKA annual outcome survery report that outlines final results will be submitted in October 2013.

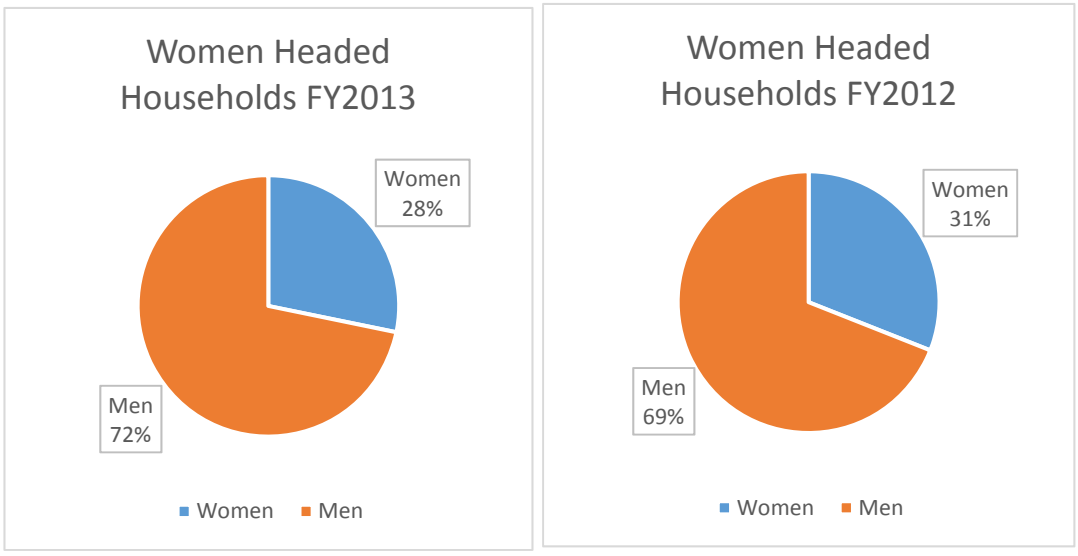
Overview

***Project Beneficiaries, Groups and Associations*:** NAFAKA has reached 130,126 beneficiaries this year, including those new to the project and those continuing from last year. The project is covering 120 villages in eight clusters and training or facilitating services for 28,084 farmer clients or MSMEs. To date, NAFAKA has facilitated the formation of 558 groups and 56 associations comprising a total of 8,237 members.

Gender Integration: Forty-seven percent of farmer clients and MSME employees are women. Additionally, out of the project beneficiary households surveyed, it was found that 28 percent of households were headed by women.

Households were categorized into four gender types (1) Adult Female no Adult Male (FNM), (2) Adult Male no Adult Female (MNF), (3) Male and Female Adults (M&F) and (4) Child No Adult (CAN). Based on the results of NAFAKA's Annual Outcome Survey, the majority (average 87%) of respondents was from the M&F households; (average 10%) of the respondents were from FNM household type; and (average 3%) of the respondents fell in the MNF category.

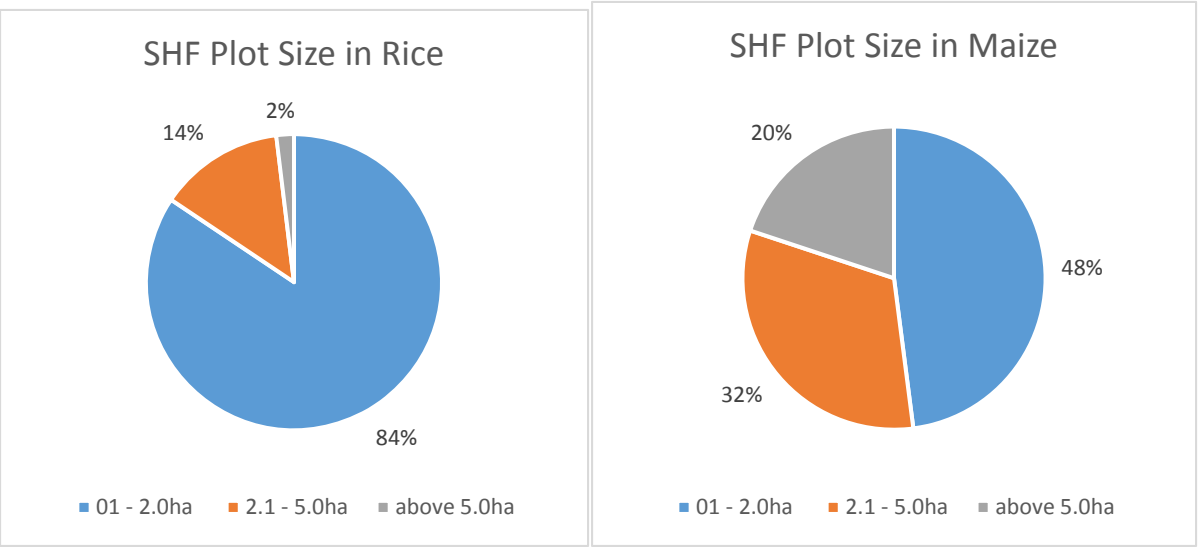
Figure 8: Women Headed Households for FY 2013 and FY 2012



Smallholder Participation and Vulnerability: According to NAFAKA's annual outcome survey, 68 percent of NAFAKA farmer clients own land between 0.1 and 2.0 ha, followed by 24 percent who own between 2.1 and 5 ha, with 8 percent of the respondents owning above 5 ha. Based on the findings of the survey, we can establish two main categories of smallholder farmers that we are reaching:

- Subsistence smallholder farmers: Smallholders who practice subsistence farming (farming that provides for the farm family's needs with little surplus for marketing). These smallholders own and cultivate plots ranging from 0.2 to 2.0 ha (on average). Most, if not all, smallholders in this group are vulnerable to economic and climatic shocks and meet vulnerability criteria set by NAFAKA. Since most are risk averse, adoption/application of technologies would take a little longer compared to other groups.
- Medium-scale smallholder farmers: Smallholders with total landholdings of 2.1 to 5 ha. There is no significant difference between these farmers and subsistence farmers except that these medium-scale smallholders are able to access more land and have relatively more resources that allow them to farm more hectares of land compared to those in the first category.

Figure 9: Smallholders Plot Size by Crop



Agricultural land is mainly used for small scale farming by land holders who cultivate the land under mainly under customary tenure. For maize and rice in areas where NAFAKA is operating, there is no Large scale farming under granted right of occupancy. This is only practiced in sugar plantations in Kilombero.

Improved Value Chain Productivity

New Technology Adoption: More than 17,000 farmers have adopted new technologies or management practices, and over 109,920 ha of land are under improved technology or management practices as a result of NAFAKA interventions. The breakdown of adoption rates per district is presented below:

Table 2: Adoption Rates per District

District[3]	Percent of Farmers Using New Technologies & Management Practices
Kilombero (rice)	71 percent
Mvomero (rice)	95 percent
Ulanga (rice)	100 percent
Overall (rice)	77 percent
Kiteto (maize)	27 percent
Kongwa (maize)	35 percent
Mvomero (maize)	92 percent
Overall (maize)	38 percent

[3] Data for Zanzibar is pending.

Production, Yields and Gross Margin: The high level of technology/practice adoption in rice areas has resulted in a significant increase in yields: Yields increased by 100 percent from the baseline to 2,999 kg/hectare, reaching our fifth year target in year 3, two years ahead of schedule.

Per Feed the Future guidelines, NAFAKA calculates yields and gross margins using the following data points:

- Hectares Planted (HP)
- Total Production in MT (TP)
- Value of Sales in USD4 (VS)
- Quantity of Sales in USD (QS)
- Purchased Input Costs (IC)

Gross Margin is calculated by = ((TP*VS/QS)-IC)/HP. Yield is calculated by Total Production in Kilograms divided by Hectares = TP*1000/HP.

Rice Value Chain: The high level of technology/practice adoption in rice areas has resulted in a significant increase in yields --increasing by 100% from the baseline to 2999 kg/hectare **-- reaching our fifth year target in year 3, two years ahead of schedule.** This is in contract to average national rice yields, which is estimated at 1800 kg/hectare[5]. However, prices per MT in august 2013 were lower on average than in December 2013, when we last conducted an outcome survey, at $347 per MT, versus $432 per MT in December of 2012. This is due to two main factors:

1) The AOS from August 2013 recorded at harvest sales from June-July 2013, when prices are lowest due to a glut of produce in the market. An updated market survey will be conducted in January and should reflect an increase in quantity in sales and average price per metric ton. This is when farmers who have stored their produce sell during the off-season. NAFAKA specifically trains farmers, as members of associations, to save paddy in warehouses to sell off-season.
2) Paddy and Rice prices dropped dramatically after the Government of Tanzania allowed imports of 30K MT of duty-free rice just as stocks were being readied to hit the market. The private sector was not consulted prior to the decision on import. The SERA Project reports that seasonal prices historically peak during March-April, and the notice to import caused them to peak in January followed by a sharp decline following the government's notice of intention to import. This duty-free importation resulted in an overnight 25% drop in prices, and many producers were forced to sell below the cost of production. KPL reports that the Kilombero paddy price dropped 53% since the 2011-2012 harvest. SERA reported that "The government's decision to allow imports at zero-duty disrupted the rice market and caused rice prices to fall sharply."

[4] For 2013, we used a 1594 TSH to USD exchange rate, which represents an average of the past 6 months based on www.oanda.com.

5 International Rice Research Institute, April 23, 2013

Table 3: Rice Yield Data per District

District	Yield (Kgs/ha)
Kilombero (rice)	2,810
Mvomero (rice)	3,642
Ulanga (rice)	1,781
Average (rice)	**2999**

The comparison between last year's AOS (December 2012) and this year's AOS (August 2013) is provided below.

Table 4: Rice Gross Margins and Data Points for 2012 - 2013[6]

Gross Margins and Yields	Survey Dec. 2012	Survey August 2013
	RICE[7]	
Gross margin per unit of land,	**543**	**545**
Yield (kg/hectare)	**2370**	**2999**
Hectares planted	7,461	26,041
Total Production (MT)	17,681	78,107.00
Value of Sales (USD)	$ 3,654,687.00	$ 5,931,022.00
Quantity of Sales (MT)	8,435	17096.00
Purchased input costs (USD)	$ 3,608,827.00	$ 12,911,895.00
Price per MT	$ 433.28	$ 346.92

Maize Value Chain:

Drought hit the Kongwa region hard this year, resulting in a significant decrease in yields due to complete crop failure in a number of villages. Yield data, in the table to the right, shows that yields in Kiteto are almost double that of Kongwa this year. Low maize yields and thus lower supply, however, resulted in a higher price per MT than the year previous, at $288 per MT, versus $233 from December of 2013. A follow-up market survey to be conducted in January of 2014 will capture additional sales from those who stored their crop, at likely a higher price per MT.

[6] Data for 2012 and 2013, rice and maize, is extrapolated per total NAFAKA farmer clients per commodity in the given year. For rice this is 5,415 for 2012, and 17,891 for 2013. For maize, this is 87 for 2012, and 9,156 for 2013.

[7] Data for 2012 and 2013, rice and maize, is extrapolated per total NAFAKA farmer clients per commodity in the given year.

Table 5: Maize Yield Data per District

District	Yield (Kgs/ha)
Kiteto (maize)	947
Kongwa (maize)	392
Mvomero (maize)	736
Average (maize)	**704**

Table 6: Maize Gross Margins and Data Points for 2012 - 2013

Gross Margins and Yields	Survey Dec. 2012	Survey August 2013
MAIZE		
Gross margin per unit of land,	**106**	**103**
Yield (kg/hectare)	**978**	**704**
Hectares planted	279	35,307
Total Production (MT)	273	24,857
Value of Sales (USD)	41,664	2,780,049
Quantity of Sales (MT)	179	9,645
Purchased input costs (USD)	33,946	3,539,231
Price Per MT (USD)	$ 232.76	$288.24

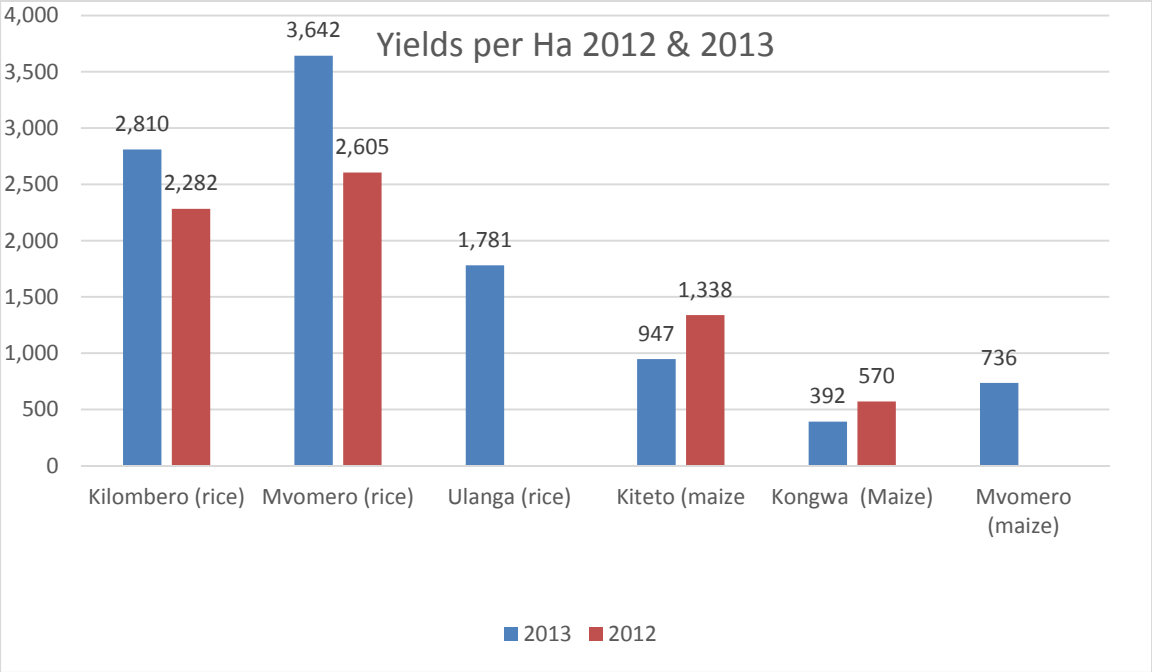
Mitigation Measures for Maize:

Upon realization that rains were significantly delayed or limited in our maize growing regions, NAFAKA staff acted quickly and introduced vegetable and food security crops that could still germinate when the brief and low rainfall did occur. Furthermore, because the drought halted most agricultural field activities, NAFAKA staff focused on preparing farmers for the coming season, informing them about water management and production techniques that can help during low rains. NAFAKA encouraged small holder farmers to plant short – duration maize varieties, apply water management techniques that include ridding, mulching and adopt a new technology called ripping, which allows the retention of water moisture during land preparation activities.

Yields per District

NAFAKA saw variances of yields per district, as indicated below. Nafaka will be providing further analysis in the Annual Outcome Survey Results report regarding rainfall patterns, socio-economic conditions, and other externalities to provide further context to these variances.

Figure 10: Rice and Maize Yields per District in 2012 and 2013



Capacity Building: NAFAKA built the capacity of 56 associations; including two water-user associations on Feed the Future supported irrigation schemes, and 49 farmer groups in Kongwa and 5 groups in KVTC.

Under the USAID Forward initiative, NAFAKA administered an Organizational Capacity Assessment Tool (OCAT) and formalized a Capacity Building Action Plan (CBAP) for key local implementing partners RUDI and MVIWATA as a critical project exit strategy. These organizations received an average assessment of 72 percent, placing them in the low expanding category of organizational development.[8]

Service Provider Development: NAFAKA developed private sector service providers, including 108 agrodealers, 208 VBAAs, 45 SILC field agents (11 of whom have now been certified as Private Service Providers), 2 youth groups as agricultural service providers and 1 ripping/tractor service provider. During the fourth quarter of FY13, VBAA associations were officially registered as both seed and fertilizer dealers, enabling them to legally sell inputs at the village level.

BCC Campaigns: As a result of excellent cooperation with radio stations on BCC radio campaigns (discussed below in Section 9.2.1), NAFAKA was granted free airtime for seven slots of one-hour

[8] Based on the OCAT scores, RUDI and MVIWATA averaged 72 percent, indicating that they are both low expanding organizations, according to the following framework: 33 percent and below = little or no organizational capacity; 4–50 percent = nascent organization; 51–66 percent = emerging organization; 67–83 percent = expanding organization and 84 percent and above = mature organization. The capacity-building action plan will provide a roadmap for further strengthening both organizations under USAID Forward initiative.

live interactive radio talk shows. The programs were granted by the radio stations because they believed the NAFAKA content was relevant and popular with their audiences. In addition, the two radio stations awarded a Certification of Participation in recognition of NAFAKA's contribution to fighting hunger in Tanzania.

Expanding Markets and Trade

Marketing Associations: NAFAKA built the capacity of 56 producer associations, of which 27 are new associations, focusing on collective marketing, and negotiation and service provision to farmer members.

Buyer Agreements: NAFAKA facilitated 26 buyer agreements worth [redacted] for 1,140 MT of paddy and maize. An additional 900 MT of paddy and maize are currently in association warehouses for sale later in the season.

Incremental Sales: Farmer beneficiaries received $5,152,894 in incremental sales.

Access to Finance: NAFAKA facilitated [redacted] in rural agricultural loans to 1,499 farmers through NMB Bank, Yosefo, CRDB, PASS, SILC Groups and local SACCOS. The project attracted two credit providers to the KPL outgrower scheme when none existed prior to NAFAKA's establishment. Both credit providers are now offering these services without further financial assistance from NAFAKA.

Increased Private Investment in Agriculture

Private Sector Leverage: NAFAKA leveraged $1.4 million in private investment.

Private Public Partnerships: NAFAKA will continue to support SAGCOT's flagship initiative in rice through the public-private partnership between NAFAKA and KPL, expanding the outgrower scheme to 4,300 producers who, through application of new production technologies, have increased yields on average from 1.5 to 3.6 MT per hectare since project inception.

Input Supply Company Relationships: NAFAKA worked with over a dozen input supply companies, who are partnering with the project to demonstrate their products and develop a rural customer base and distribution channel. Direct project investment in inputs has been minimal, given the willingness of these companies to contribute their inputs and to use their agronomists to participate with us on the demos.

Increased Resiliency of Vulnerable Smallholders

Expanded Savings and Internal Lending Communities: NAFALA reached 2,737 households through SILC groups, of which 1,824 were new to the program this year.

Food Security and Nutritious Crops: NAFAKA launched the home garden initiative with SILC group members. Introduced food security vegetables to farmers in maize areas hit hard this season by drought.

Activities in Zanzibar

Agricultural Productivity through GAP Training on Demonstration Plots: In close collaboration with the government of Zanzibar and the Zanzibar Agricultural Research Institute, NAFAKA inaugurated activities to serve more than 621 producers in both irrigated and rain-fed areas.

Institutional Capacity Building: Through institutional capacity-building grants to ZARI and Kizambizi Agricultural Training Institute developed this year, the project will scale up to over 3,000 farmers on both islands in 2013-2014.

6. Problems and Challenges

- **Rain Delays in Kilombero and Mvomero:** There was a bumper rice harvest this year despite the fact that the rains, which were expected to begin in January and February, were late. However, when the rains finally arrived in March, they were so heavy that rice fields were damaged and roads became impassable, causing serious interruptions to farm operations. In Kilombero, floods washed away some NAFAKA rice demonstration and adoption plots, resulting in disruption in the demo plot learning activities for specific sites. Two of the TANSEED grant candidates could not proceed because their fields were flooded, which destroyed the crop that was required for inspection and approval for proceeding with grant activities.
- **Drought in Kiteto/Kongwa:** During the first quarter of this year, the maize-growing areas of Kongwa and Kiteto experienced poor rain fall and severe drought. The impact of the drought was intensified by farmers' dependency on rain-fed agriculture and their limited capacity to adopt soil moisture conservation methods. Because the drought halted most agricultural field activities, NAFAKA staff focused on preparing farmers for the coming season, informing them about water management and production techniques that can help during periods of low rainfall. NAFAKA encouraged smallholder farmers to plant short-duration maize varieties, apply water management techniques and adopt new technologies. As a food security measure, NAFAKA introduced alternative crops in these areas. For farmers in many project areas, drought led to complete crop failure. Progressive farmer grantees (who receive inputs and fertilizers) in some villages reported production yields far below normal. As a result of these drought conditions, outcome indicators such as yields and gross margins for maize in Kongwa and Kiteto are lower than the previous year.
- **Import of Duty-Free Rice:** The government allowed the importation of 30,000 MT of duty-free rice from South and Southeast Asia. The normal East African common tariff for rice is 75 percent. As a result of this move the price of rice dropped rather dramatically and the farmers who had stored stocks in the warehouses were negatively affected. In Mvomero, for example, prices were around Tshs 1,500,000 per MT before the imports arrived; they fell to

approximately Tshs 600,000 per MT after imports. Prices paid to KPL outgrowers supported by NAFAKA were also negatively affected.

- **Delayed Grant Implementation:** The second wave of NAFAKA warehouse upgrading grants for associations was delayed, and, as of the writing of this report, they have not been approved. This means the new associations that have aggregated paddy this year could not use the standard warehouse equipment. They have partially compensated by using other local methods at their disposal.
- **Pests/Outbreak:** Outbreak of pests (army worm) in Kiteto District affected maize demonstration plots, resulting in poor performance that resulted in low yields. Due to the magnitude of the affected areas, NAFAKA consulted the Ministry of Agriculture to address the issue.
- **Infrastructure:** Poor transportation and irrigation infrastructure affected agricultural production and marketing.

7. Planned Activities

The NAFAKA third annual work plan for project year 2013-2014 was prepared and submitted to USAID on September 30, 2013, for review and comment. This comprehensive work plan was designed with our PMP indicators and targets as a starting point, with specific activities flowing from them.

8. Special Issues

USAID Mission Visits to NAFAKA Project Sites

During this reporting period, NAFAKA hosted various high-level visits from the USAID Mission.

USAID UWAWAKUDA Visit

This visit was hosted by NAFAKA, the Feed the Future infrastructure and rural roads activity, and the UWAWAKUDA Water Users Cooperative in Dakawa. The team visited the pump house to observe operations as well as NAFAKA's farmer activities in water management.

iWASH Project – MSABI

iWASH is USAID's water and natural resource management project. The NAFAKA team and the USAID delegates were hosted by iWASH on a tour of their project sites within Ifakara. This was an introduction to identify areas of collaboration between the two projects. Most interesting was a secondary school where they have a water and sanitation project, have constructed toilets for the school and are administering a Hygiene Club. The school has a large paddy field where NAFAKA plans to establish a demo plot to train the students in GAP. To finalize the visit, courtesy calls were made to the District Commissioner and the District Executive Director offices. One of the key topics for discussion was the need for NAFAKA to more closely engage government extension workers in project activities.

USAID M&E Visit

USAID Monitoring and Evaluation Specialist Alphonce Kyariga visited NAFAKA activities in Kongwa and Mvomero. This visit was arranged to review FTF program implementation progress with a particular focus on ensuring that results are being captured. In his second visit he was joined by Meg Brown, a USAID consultant from Washington, DC, with the same focus on results.

Figure 11: Nane Nane Trade Fair

USAID COR Visit

NAFAKA COR Elizabeth Maeda and USAID Contracting Officer Agnes Ng'anga also visited Kongwa, Mvomero, to observe the progress of NAFAKA's implementation.

Collaboration with other FTF Partners

Nane Nane Trade Fair

The Nane Nane trade fair is an annual national event celebrated to recognize farmers' contribution to the Tanzanian economy. This event provides an opportunity for farmers and other stakeholders to exchange knowledge and best practices and to network for business purposes. FTF implementing partners NAFAKA, Tanzania Agriculture Productivity Program (TAPP), Mwanzo Bora Nutrition Program, Innovative Agricultural Research Initiative (iAGRI), Tuboreshe Chakula (TUBOCHA) and the infrastructure and rural roads activity joined forces to administer a booth at the event. Demonstration plots were also developed showcasing maize and rice (NAFAKA) and fruits and vegetable (TAPP), promoting project-recommended technologies and good agricultural practices. NAFAKA highlighted GAP on land preparation, planting with correct spacing, weeding and pest control.

NAFAKA—TUBOCHA—KIBAIGWA FLOUR MILLS Tripartite Model

NAFAKA teamed up with TUBOCHA and Kibaigwa Flour Mills to collaborate on activities that would enhance the value chain. A tripartite model is being considered for an MOU between the three, to develop joint activities for the next year.

NAFAKA—MWANZO BORA

Mwanzo Bora facilitated a workshop to review orientation guides for community health workers. Participants at the workshop included government officials and representatives from other implementing partners, including NAFAKA. The main objective of the workshop was to review the Orientation Health Worker and Extension Worker guide drafts. The Mwanzo Bora initiative has a close relationship with NAFAKA because Mwanzo Bora places emphasis on good nutrition while NAFAKA emphasizes the quality and availability of staple crops (paddy and maize) as well as high-nutrition crops used for intercropping purposes. Integrating nutritional messages and training in good agriculture practices is a key component of the Feed the Future initiative.

Collaboration with other Partners

NAFAKA will continue its collaboration with input suppliers, private sector partners and research institutes, as highlighted throughout the report. Below are collaborating activities that took place during the reporting period:

Coalition for the Advancement for Women in Agriculture in Tanzania (CAWAT)

The NAFAKA Regional Gender Advisor and the NAFAKA Gender Specialist attended the launch of the Coalition for the Advancement for Women in Agriculture in Tanzania (CAWAT), USAID-funded Innovations in Gender Equality (IGE) to Promote Household Food Security project, administered by Land O'Lakes. The NAFAKA Gender Advisor presented as part of a panel on Women Smallholder Farmers and Economic Empowerment-Best Practices and Challenges. Results of the CAWAT baseline survey were discussed and highlighted recommendations included gender /rights awareness and sensitization.

SYNGENTA

Syngenta have had a successful input program around the KPL area under Triachem, where they have set up input distribution points. This model will be replicated in other clusters that already have farmers mobilized into associations. NAFAKA is in discussion with Syngenta to perform joint activities that will enable farmers to gain access to quality affordable inputs. NAFAKA-supported associations are helping Syngenta to establish a client base from which to build its business model as well as generate self-employment opportunities at the village level, with farmers diversifying into seed production as well as certified agrochemical distributorship.

Africa RISING East and Southern Africa (ESA)

NAFAKA and the USAID-funded Africa RISING East and Southern Africa (ESA) have signed an MOU for a research initiative on smallholder farmers and their farming systems in NAFAKA target areas, which partly encompass Africa RISING research sites. The purpose of this relationship is to collaborate on the application and expansion of proven sustainable rice intensification technologies

NAFAKA Collaborations with the Government of Zanzibar

The Ministry of Agriculture of the government of Zanzibar has been an excellent partner with NAFAKA in rapidly initiating rice productivity activities in a short period of time during this reporting period. Its representatives have worked closely with us to develop our demonstrations and conduct training for 400 farmers in four associations, two in irrigated areas and two in rain-fed. NAFAKA also facilitated training and sensitization at FFDs for an additional 221 farmers. This collaboration will continue in the next work plan period as we plan to expand our activities to a minimum of 3,000 producers on the islands, including expansion to Pemba. In addition, grant agreements have been developed with the Zanzibar Agricultural Research Institute (ZARI) and Kizimbani Agricultural Training Institute (KATI) for training and demonstration activities in the coming year. These grant agreements are currently being considered for approval by USAID.

9. Cross-Cutting Issues

9.1 Gender Integration

In order to ensure that men, women and youth have equal opportunities to participate in the rice and maize value chain, our gender activities are fully integrated into all NAFAKA activities. Among the 27,447 farmers and other value chain actors supported by NAFAKA to date, 47 percent are women. Of the 48 progressive farmers approved for grants during the reporting period, 23 were women.

Under the direction of the Gender Integration Specialist and the Gender Assistant, gender equity was included in sensitization of all new villages and associations targeted for interventions under NAFAKA. The team supervised the exercise of selecting lead farmers and VBAAs to ensure gender equity was fully considered and understood. The approach ensured that there was gender balance among the lead farmers and VBAAs.

9.1.1 Gender Integration Workshops/ Training

Throughout the year, NAFAKA facilitated three internal gender workshops for NAFAKA technical and field staff and one external workshop that provided two days of training on gender integration with Tuboreshe Chakula staff. The aim was to increase staff knowledge and awareness of gender relations and challenges that affect the achievement of project results as well as how to integrate gender into project activities and work plans.

In addition, the gender team and the vulnerable groups team facilitated gender training for SILC field agents on human rights. The training aimed to help participants: understand that all humans (men and women) are equal and deserve equal opportunities; recognize the long-term impact of violating human rights; understand the vocabulary used in discussing gender and gender problems; gain knowledge and skills that can be used to address gender issues/concern. A total of 761 SILC and non-SILC members across NAFAKA were trained in gender and human rights, including 527 women.

9.1.2 Youth Empowerment

NAFAKA's Youth Development Strategy began its implementation this year, mobilizing youth to be trained in product knowledge and safe use and handling of pesticides. The training aimed to enhance their capacity as a group enterprise to provide GAP and related herbicide/pesticide spraying services to smallholder farmers within their communities and earn income.

9.1.3 Gender Learning Agenda

The project has carried out basic gender sensitization for both women and men in the maize and rice target communities. Although this has already positively impacted the way women and men interact, and we are planning to engage in similar activities in our new villages in year 3, women face sociocultural constraints that prevent them from benefiting to the same extent as men from project support and from engaging fully in value chain activities. Without addressing some of these challenges, the project will not achieve its gender-equity targets. During the remainder of the project, NAFAKA will look closely at the following two critical issues in the learning agenda: rights awareness and women's leadership in the household and communities.

There is still a need to raise awareness through specific trainings on the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), the Village Land Act of 1999, the Marriage Act of 1971, the Law of Inheritance, and the Sexual Offenses Special Provision Act of 1998. NAFAKA has developed a strategy to address these issues and to track the effectiveness, outcome and sustainability of interventions. The gender learning agenda will facilitate discussion and learning; drive the collection of evidence and findings; improve project management and implementation; and validate approaches and tools that can be shared with the broader FTF community and external stakeholders. The project will also facilitate the training of men and women from the target villages to be peer educators and to promote rights awareness.

9.2 Behavior Change Communication

NAFAKA uses BCC materials to initiative behavior change and adoption of a few key practices or technologies that allow farmers to realize an increase in yields or incomes or both. The NAFAKA BCC team developed a series of communications materials targeting behaviors and practices promoting GAP. Initially prototypes were developed based on the communication strategy, and then pretesting activities were done through focus group discussions in the communities, before USAID approval. BCC campaigns this year covered GAP and marketing/storage (described above under1.1.6 of Implementation Progress).

9.2.1 Broadcast of Radio Messaging

NAFAKA developed radio spots to promote targeted behaviors in the campaigns described above. The BCC team followed the same methodology as it did for the brochures and posters. NAFAKA monitored the broadcast of radio messages targeting using improved seed and fertilizer, collective marketing and the use of storage facilities. Four community radio stations participated in these campaigns: Radio Pambazuka, Radio Mwangaza, Abood Radio and Ulanga FM. Each station broadcasted a total of 1,344 spots from throughout the year, during both prime time and regular hours. As noted above in results, NAFAKA was granted free airtime for seven slots of one-hour live interactive radio talk shows.

9.2.2 Assessment of BCC Effectiveness and Lessons Learned for BCC Programming

This assessment focused on the two BCC interventions: the print materials and radio spots of the first BCC campaign focusing on using quality seeds and proper use of fertilizer. It is not possible to fully measure the impact of BCC in the scope of this assessment. However, evidence of behavior change among small-scale farmers around the increased use of certified seeds and appropriate use of fertilizers and herbicides was documented across the six project clusters. Assessment findings were presented in the third quarterly report of FY2013 and as a separate deliverable to USAID. During the focus group discussions, it became clear that some behaviors are being adopted by farmers due to BCC interventions. NAFAKA beneficiaries confirmed the adoption of the following behaviors: use of improved seeds (e.g. Saro 306), fertilizers and herbicides, and the adoption of line planting instead of broadcasting.

9.3 Environmental Compliance and Natural Resource Management

9.3.1 Environmental Compliance

NAFAKA's activities are guided by our Safer Use Action Plan (SUAP), which was approved by USAID as part of our PERSUAP submission. All inputs and agrochemicals promoted by NAFAKA, whether they are contributed by input supply companies or purchased for demonstration with project funds, are approved in our PERSUAP. We also ensure that these inputs are promoted in a manner compliant with the SUAP and our Environmental Mitigation Monitoring Plan (EMMP), which was approved by USAID.

NAFAKA's environmental compliance team visited Kongwa, Dakawa and Kilombero to discuss various issues with our beneficiaries, including methods of clearing plots ecologically. The team also assessed farmers on their knowledge of the environmental impacts of inputs such as fertilizers, seed, pesticides and irrigation technology. It was observed that there is little or no awareness of the impact of agricultural practices and inputs on the environment. Furthermore, farmers in these areas do not use personal protective equipment. The biggest concerns to farmers were the irregular and diminishing rainfall this season and the lack of access to good quality seed. The visit allowed the team to obtain information on the impacts that agriculture is having on the soil.

To address the concerns observed, a training workshop on the EMMP development and implementation was conducted in Morogoro for all technical project staff. The objective of the training was to improve the overall understanding of environmental compliance issues with a particular focus on NAFAKA activities. Thirty-seven continuing and new lead farmers were also trained on the safe application of pesticides. The training sessions involved practical demonstrations on field plots. The topics covered included:

- The use and application of agricultural inputs (seeds, fertilizer and pesticides)
- Agricultural practices, including preparation of demo plots
- Safe application and storage of agricultural inputs (fertilizer, treated seeds and pesticides) including the use of personal protective instruments
- Integrated pest management and disease control
- Practical demonstrations on the preparation of demo plots and nurseries

9.3.2 Natural Resource Management

Agricultural conservation activities included agroforestry through VBAAs who have established tree nurseries with a total of 15,000 seedlings. Additional activities include GAP trainings around soil fertility management and on farm water management, ripping technology as a part of conservation farming and low cost solutions such as ridge-tilling for water retention were also promoted.

10. Monitoring and Evaluation

In the past 12 months the NAFAKA M&E team focused its activities on improving the entire NAFAKA M&E system while fully integrating into project implementation. The second half of the

year was focused primarily on instituting recommendations from the first data quality audit, conducted by TMG under Feed the Future's M&E Support Project. The following provides an overview of key activities and milestones in M&E.

10.1 Operationalizing the M&E Database

NAFAKA fully operationalized the ACCESS M&E database, completing the transition from the planned Ki-project database. Collaborating closely with ACDI/VOCA regional M&E expertise, the team ensured that the database was structured to accommodate all project performance indicators and data. The database is now fully operational with over 27,000 beneficiaries registered.

10.2 Internal Capacity Building and Team Strengthening

The year included a number of team building, expansion and internal capacity-building trainings:

- The M&E Manager and M&E Specialist received training in Nairobi under the auspices of the Regional M&E Manager in October 2012.
- The M&E Manager attending the annual ACDI/VOCA M&E Community of Practice training and meeting in Istanbul, Turkey.
- The Regional M&E Manager trained the Database Manager over a series of visits to Tanzania in 2013.
- The Regional M&E Manager and senior M&E team conducted training for junior staff and technical staff on the results framework, collection methodology, data-collection tools and survey implementation.
- TMG facilitated training on the use of GPS devises.
- The Regional BCC M&E Officer conducted trainings on survey and focus group administration.

Additionally, two new M&E assistants were hired to extend the NAFAKA M&E team to Ifakara and Kongwa.

10.3 Data Quality Audit and Changes that were Implemented Based on Recommendations

TMG/USAID conducted a data quality assessment on selected NAFAKA indicators. The data quality assessment (DQA) team visited Kilombero and Mvomero Districts, where they interviewed farmers and project staff. A detailed report of the findings and recommendations on how to improve data collection and reporting processes was submitted to NAFAKA management for corrective actions.

In the final quarter of the year, the NAFAKA M&E team focused on reviewing the entire M&E system and processes, taking into account the recommendations made by TMG/USAID after the DQA. The NAFAKA team took specific actions to address issues that emerged from the DQA exercise, including: reviewing the project PMP along with the results framework and the indicators

using external facilitators; redefining the entire data management cycle by developing standards of practice and guidelines for data verification and validation; reviewing the procedures for managing databases and M&E structures; and identifying new M&E positions.

10.4 Quarterly Review Meetings

The M&E team conducted three quarterly meetings to review progress of project activities. The workshop served to share implementation challenges faced by project staff and develop strategies for addressing them.

10.5 Coordination with BCC

The M&E team collaborated closely with the BCC team to conduct a BCC outcome/impact survey in May 2013. The survey was intended to gauge the impact of NAFAKA's BCC campaigns since the start of the project and to solicit farmers' views on whether or not the campaigns and approaches used played a role in changing targeted behaviors. A follow-up survey was conducted at the end of September 2013, and the report is currently being developed.

10. ANNEXES

ANNEX 1: Performance Against PMP Indicators [9]

SR/NO	FtF/NAFAKA	Performance Indicators and Disaggregation Levels	2011-2012 Actuals	2012-2013 Targets	2012-2013 Actuals	2013-2014 Target	2014-2015 Target	LOP Target	Abbreviated Indicator Definition
IR_1: Improved Agricultural productivity									
1	FTF-4.5-4	Gross margin per unit of land of Rice and Maize (RiA) (OUTCOME)	Rice: 543	Rice: 645	Rice: 545	Rice: 595	Rice: 647	**326** (increase from Baseline)	The gross margin is the difference between the total value of production of the agricultural product (Maize and Rice) and the cost of producing that item, divided by the total number of units in production (hectares of crops). Gross margin per hectare, is a measure of net income for that farm activity.
			Maize: 106	Maize: 158	Maize: 103	Maize: 112	Maize: 123	**17** (increase from 2011-12 results)	
2	USAID/Tanzania	Yields: KG/Ha for rice and maize cultivated (OUTCOME)	Rice: 2370	Rice: 2600	Rice: 2999	Rice: 3,150	Rice: 3,300	**110%** (increase from baseline)	Yield is measured as kilograms per hectare of harvested land of rice and maize. Production data on maize and rice relate to crops harvested for dry grain only.
			Maize: 976	Maize: 1200	Maize: 704	Maize: 739	Maize: 774	**10%** (increase from 2012-13 results)	
IR_1.1: Enhanced Human and Institutional Capacity Development for Increased Sustainable Agriculture Sector Productivity									
3	FTF-4.5.1-27	CBLD-5 Score, in percent, of combined key areas of organization capacity amongst USG direct local implementing partners (S) (OUTCOME)	NA	26%	7197%	67%	75%	75%	The score represent the capacity of local organizations, RUDI and MVIWATA, measured across seven key capacity areas using the participatory Organizational Capacity Assessment (OCA) tool. The key capacity areas include: 1) Governance, 2) Administration, 3) Human Resources Management 4) Financial Management, 5) Organizational Management, 6) Program Management, 7) Project Performance Management.
5	FTF-4.5.2-5	Number of farmers and others who have applied new technologies or management practices as a result of USG assistance (RiA) (WOG)	3,500	16,510	17,284	27,310	35,200	**85,520** (cumulative of new and continuing yearly, with actuals for 2011-12)	This indicator measures the total number of farmers, individual processors (not firms), rural entrepreneurs, managers and traders, natural resource managers, etc. that applied new technologies anywhere within the food and fiber system as a result of USG assistance. This includes innovations in efficiency, value-addition, post-harvest management, sustainable land management and water management, managerial practices, input supply delivery.
4	FTF-4.5.2-7	Number of individuals who have received USG supported short-term agricultural sector productivity or food security training (RiA) (WOG) (OUTPUT)	4,656	20,000	27,167	34,137	44,000	**108,793** (cumulative of new and continuing yearly, with actuals for 2011-12, 2012-13)	The number of individuals to whom significant knowledge or skills have been imparted through interactions that are intentional, structured, and purposed for imparting knowledge or skills should be counted. This includes farmers, and other primary sector producers who receive training in a variety of best practices in productivity, post-harvest management, linking to markets, etc. It also includes rural entrepreneurs, processors, managers and traders receiving training in application of new technologies, business management, linking to markets, etc., and training to extension specialists, researchers, and others who are engaged in the food, feed and fiber system and natural resources and water management. Farmers that receive training via input supplies, agro-business, processers or through NAFAKA supported training of trainers (ToT) rather than directly with farmers themselves are considered direct beneficiaries.
6	FTF-4.5.2-28	Number of private enterprises, producers organizations, water users associations, women's groups, trade and business associations and community-based organizations (CBOs) that applied new technologies or management practices as a result of USG assistance (RiA) (WOG)	31	60	307	475	628	**1,355** (cumulative of new and continuing yearly, with actuals for 2011-12, 2012-13)	Total number of private enterprises (processors, input dealers, storage and transport companies) producer associations, cooperatives, water users associations, women's groups, trade and business associations and community-based organizations (CBOs), including those focused on natural resource management, that applied new technologies or management practices in areas including management (financial, planning, human resources), member services, procurement, technical innovations (processing, storage), quality control, marketing, etc. as a result of USG assistance in this reporting year.
7	FTF-4.5.2-11	Number of food security private enterprises (for profit), producers organizations, water users associations, women's groups, trade and business associations, and community-based organizations (CBOs) receiving USG assistance	32	37	372	559	739	**1552** (cumulative of new and continuing yearly, with actuals for 2011-12, 2012-13)	Total number of private enterprises, producers' associations, cooperatives, producers organizations, fishing associations, water users associations, women's groups, trade and business associations and community-based organizations, including those focused on natural resource management, that received USG assistance related to food security during the reporting year. Organizations assisted should only include those organizations for which implementing partners have made a targeted effort to build their capacity or enhance their organizational functions.

[9] Please note that * indicates that a new indicator has been added and # indicates that an indicator has been removed.

SR/NO	RtF/NAFAKA	Performance Indicators and Disaggregation Levels				2013-2014 Target	2014-2015 Target	LOP Target	Abbreviated Indicator Definition
IR_1.2 Enhanced Technology Development, Dissemination, Management and Innovation									
8	FTF-4.5.2-13	**Number of rural households benefiting directly from USG interventions (S). (OUTPUT)**	**4,386**	**26,716**	**27,230**	**38,711 (new and continuing)**	**53,500 (new and continuing)**	**72,514 (cumulative new with actuals from 2011-12, 2012-13)**	A household is a beneficiary if it contains at least one individual who is a beneficiary. An individual is a beneficiary if s/he is engaged with a project activity or s/he comes into direct contact with the set of interventions (goods or services) provided by the project. Individuals merely contacted or involved in an activity through brief attendance (non-recurring participation) does not count as a beneficiary. This indicator include vulnerable households. See indicator number 11 (Number of beneficiaries reached(both direct and indirect) for a comprehensive definition of a beneficiary.
9	NAFAKA	**Number of beneficiaries reached (OUTPUT)**	**4,656**	**20,000**	**130,126**	**Total: 204,823** (new and continuing)	**Total: 264,000** (new and continuing)	**Total: 363,347** (cumulative new with actuals for 2011-12, 2012-13)	Beneficiaries are those individuals within the target area that receive direct benefits (i.e., goods or services) from the program (including where applicable, families receiving food rations). For NAFAKA, beneficiaries will include those individuals that receive training, participate in demo plots, those benefiting from grants/loans, farmers receiving small packs of technologies, farmer trained by Lead/progressive farmers, farmers trained by VBAAs, SILC members. Farmers (and other primary producers) that work directly with input suppliers, agro-businesses, processors or through training of trainers (TOT) will still be direct beneficiaries. Because NAFAKA interventions work with farming families, we include a 4.8 multiplier to account for family members, which is based upon the 2010 Census data. This multiplier will be further revised to reflect household size per district, upon release of the Unified Baseline Survey.
10	FTF-4.5.2-2	**Number of hectares under improved technologies or management practices as a result of USG assistance (RiA) (WOG) (OUTCOME)**	**4,961**	**34,500**	**109,920**	**142,896**	**185,765**	**443,542**	This indicator measures the new and continuing area (in hectares) of land under new technology during the current reporting year. Any technology that was first adopted in a previous reporting year and continues to be applied should be marked as "Continuing" Technologies to be counted here are agriculture-related technologies and innovations including those that address climate change adaptation and mitigation (e.g. carbon sequestration, clean energy, and energy efficiency as related to agriculture). If a hectare is under more than one improved technology type (e.g. improved seed (crop genetics) and IPM (pest management), count the hectare under each technology type (i.e. double-count). If a beneficiary cultivates a plot of land more than once in the reporting year, the area should be counted each time it is cultivated with one or more improved technologies during the reporting year. If a lead farmer cultivates a plot used for training, e.g. a demonstration plot used for Farmer Field Days or Farmer Field School, the area of the demonstration plot will be counted under this indicator, and the farmer counted under 4.5.2-5 number of farmers and others who have applied improved technologies.
#	FTF 4.5.2-39	**Number of technologies or management practices in one of the following phases of development: Phase I/ II/ III as a result of USG assistance (S) (OUTPUT)**	--	--	NA	--	--	--	Technologies to be counted here are agriculture-related technologies and innovations including those that address climate change adaptation and mitigation (including carbon sequestration, clean energy, and energy efficiency as related to agriculture), and may relate to any of the products at any point on the supply chain.

SR/NO	RtF/NAFAKA	Performance Indicators and Disaggregation Levels				2013-2014 Target	2014-2015 Target	LOP Target	Abbreviated Indicator Definition
IR_2: Expanded Market and Trade (Corresponds to NAFAKA Component 2 Activities)									
11	FTF 4.5.2-23	Value of incremental sales (collected at farm-level) attributed to FTF implementation (RiA) (OUTCOME)	$3,696,351	$35,943,789	$5,152,894	$ 10,690,394.00	$ 14,846,745.00	$ 30,690,033.00	This indicator collects both volume (in metric tons) and value (in US dollars) of purchases from smallholders of targeted commodities for its calculation. This includes all sales by the smallholder farmer of the targeted commodity(ies), not just farm-gate sales. The value of incremental sales indicates the value (in USD) of the total amount of targeted agricultural products sold by small-holder farm households relative to a base year and is calculated as the total value of sales of a product during the reporting year minus the total value of sales in the base year.
12	NAFAKA	Value of buyer agreements (informal or formal) (OUTCOME)	$ 84,750	$ 97,425	$ 509,356	$ 585,760	$ 673,624	$ 1,853,489.88	Number and Value of informal or formal agreements between farmers/producer organizations and value chain actors. The operational definition of the indicator should guide that non-financial agreements should also be counted.
		Number of buyer agreements (informal or formal) (OUTCOME)	11	20	26	30	34	101	
13	NAFAKA	MT of Paddy, Rice or Maize Sold by Producer Associations (OUTCOME)	300	450	1,140.60	1,311.69	1,508.44	4,260.73	All produce sold by associations or members of the associations or groups through bulking or any other form of contracts. The sale may involve formal or informal arrangement of which must be captured by associations themselves or NAFAKA staff
IR_2.1: Improved Market Efficiency									
#	FTF 4.5-10	Total increase in installed storage capacity (m3) (S) (OUTPUT)* (proposing to change to a NAFAKA custom indicator)	NA	NA	NA	--	--	--	This indicator measures total increase during the reporting year in functioning (refurbished and new) cubic meters of storage capacity that have been installed through USG programming and leverage. Installed storage capacity is an aggregate amount that encompasses on-farm and off-farm storage, dry goods and cold chain storage. Both newly installed and refurbished storage should be counted here.
14*	NAFAKA	Number of service transactions performed by associations.	NA	NA	NA	9,150	18,000	33,000	Services includes any value chain service an association performs that increases market efficiency. These include aggregation, bulk purchase of inputs, securing rural finance, collecting and disseminating market information, providing or securing mechanization or other farm level upgrading services for their members, processing/milling, weighing and grading.
IR_2.2 Improved Access to Business Development and Affordable Financial and Risk Management Services									
15	FTF-4.5.2-29	Value of Agricultural and Rural Loans (RiA) (WOG) (OUTPUT)	$ 49,783.00	$ 395,000.00	$ 268,335.89	$ 419,000.00	$ 635,086.00	$ 1,300,000.00	This indicator sum loans made (i.e. disbursed) during the reporting year to producers (farmers, fishers, etc.), input suppliers, transporters, processors, and loans to other MSMEs in rural areas that are in a targeted agricultural value chain, as a result of USG assistance. The indicator counts loans disbursed to the recipient, not loans merely made (e.g. in process, but not yet available to the recipient). The loans can be made by any size financial institution from micro-credit through national commercial bank, and includes any type of micro-finance institution, such as an NGO.
16	FTF 4.5.2-30	Number of MSMEs, including farmers, receiving USG assistance to access loans (S) (OUTPUT)	1,143	1,500	1,499	2,058	4,494	9,924	Total number of micro (1-5) small (6-50) and medium (51-100) (parenthesis = number of employees) enterprises (MSMEs). To be counted an MSME must have received USG assistance which resulted in a loan from any financial institution, formal or informal, including MFIs, commercial banks, or informal lenders, as well as from in-kind lenders of equipment (e.g. tractor, plow) or other agricultural inputs (e.g., fertilizer or seeds), or transport, with repayment in cash or in kind. USG assistance may include partial loan guarantee programs or any support facilitating the receipt of a loan.
17	FTF 4.5.2-37	Number of MSMEs, including farmers, receiving business development services from USG assisted sources (S) (OUTPUT)	NA	10,500	3,063	15,000	18,000	52,800	Total number of micro (1-5) small (6-50) and medium (51-100) enterprises (parenthesis = number of employees) receiving services from FTF-supported enterprise development providers. Services may include, among other things, business planning, procurement, technical support in production techniques, quality control and marketing, micro-enterprise loans, market linkages, input access, etc. . Clients may be involved in agricultural production, agro-processing, community forestry, fisheries, input suppliers, or other small businesses receiving USG assistance.

SR/NO	RtF/NAFAKA	Performance Indicators and Disaggregation Levels				2013-2014 Target	2014-2015 Target	LOP Target	Abbreviated Indicator Definition
IR_3: Increased Investment in Agricultural or Nutrition Related Activities (Corresponds to NAFAKA Component 5 Activities)									
#	FTF-4.5.2-12	Number of public-private partnerships formed as a result of FTF assistance (S) (OUTPUT)	8	12	19	22	25	28	Number of public-private partnerships in agriculture formed during the reporting year due to FTF intervention. Private partnerships can by long or short in duration. Partnerships with multiple partners should only be counted once. A public-private alliance (partnership) is considered formed when there is a clear agreement, usually written, to work together to achieve a common objective. There must be either a cash or in-kind significant contribution to the effort by both the public and the private entity. USAID must be one of the public partners. USAID is almost always represented in the partnership by its implementing partner. For-profit enterprises and NGOs are considered private. A public entity can be national or sub-national government as well as a donor-funded implementing partner. It could include state enterprises which are non-profit. A private entity can be a private company, a community group, or a state-owned enterprise which seeks to make a profit (even if unsuccessfully).
18	FTF-4.5.2-38	Value of new private sector investment in the agriculture sector or food chain leveraged by FTF implementation (RiA) (OUTCOME)	$ 500,000.00	$ 800,000.00	$ 1,450,199.00	$ 1,595,218.90	$ 1,754,740.79	$ 5,300,158.69	Investment is defined as any use of private sector resources intended to increase future production output or income, to improve the sustainable use of agriculture-related natural resources (soil, water, etc.), to improve water or land management, etc. The food chain includes both upstream and downstream investments. Upstream investments include any type of agricultural capital used in the agricultural production process such as animals for traction, storage bins, and machinery. Downstream investments could include capital investments in equipment, etc. to do post-harvest transformation/processing of agricultural products as well as the transport of agricultural products to markets. Private sector includes any privately-led agricultural activity managed by a for-profit formal company.
IR_5: Increased Resilience of Vulnerable Communities and Households (Corresponds to NAFAKA Component 4 Activities)									
19	FTF-4.5.2-14	Number of vulnerable households benefiting directly from USG assistance (S) (OUTPUT)	913	4,360	2,628	5,541	7,126	16,317	Note: Revising definition of "vulnerable" per release of the Unified Baseline Survey results and the development of wealth categories for our beneficiary count.
20	NAFAKA	Value of Savings accumulated by SILC groups under NAFAKA (OUTCOME)	$ 19,534.00	$ 40,000.00	$ 73,882.00	$ 144,527.00	$ 226,253.00	$ 464,196.00	Through the SILC methodology, community members will self-select into groups of 15 to 25 people. SILC focus on vulnerable population. Through the SILC members will receive intensive capacity building program to strengthen their skills in group and financial management through internal savings and lending.
21	NAFAKA	Number of beneficiaries with home gardens or alternate crops as a proxy for access to nutritious foods and income (OUTCOME)	913	4,360	643	14,700	21,377	36,290	Beneficiaries refer to target individuals who have received assistance. Typically this will refer to all members of the household and not just those household members directly involved in home or community gardens. A garden is distinct from a traditional farm field crops which generally emphasize food staples such grains, and/or non-food commercial crops such as coffee or cotton. A garden generally focuses more on mixed cropping with emphasis on vegetables and fruits but may include grains, roots, tubers and other traditional staple crops as well. A garden may be used for home consumption or commercial sale or a mix of the two. Home gardens refer to those managed by a household. A community garden is typically a common community gardening area with either individual plots or communal plots where participating individuals receive a portion of the production.

Annex 2: Success Stories Submitted to USAID Mission during the Quarter

USAID FROM THE AMERICAN PEOPLE

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

SUCCESS STORY

Community savings and lending groups mean self-reliance for vulnerable households in Tanzania

Improving lives through social support networks

Photo: Ngitoria Lemonduli

Through participation in Savings and Internal Lending Communities, Christina was better able to educate her children and start her own business.

Vulnerable women and men who cannot qualify for commercial loans are increasing savings and accessing small loans through membership in SILC groups.

Telling Our Story
U.S. Agency for International Development
Washington, DC 20523-1000
http://stories.usaid.gov

Christina's parents divorced several years ago, forcing her to drop out of school. She lived with her father, who was unable to provide the family with basic needs of food, education or healthcare. Living under such difficult conditions, Christina knew she needed to find a better alternative to survive. Seeking employment was challenging, as her lack of education left few options other than casual labor that trapped her into low paying jobs. "My salary was too low to support my father, my younger brother or myself," Cristina said.

She subsequently married, but life with her husband was difficult. She endured a physically-demanding job in a stone quarry, but the income was barely enough to support her family.

Christina despaired. It was during this period that a friend in her village told her about Savings and Internal Lending Communities (SILC), a USAID - sponsored program that provides vulnerable households, primarily women, with income generating opportunities through access to self-managed savings-led financial services.

A SILC group consists of approximately 25 members, each of whom is required to make small weekly individual contributions to a common fund. Group members can borrow from the pooled savings at an interest rate far lower than that of local money lenders. As the members continually utilize and repay the money lent, the fund earns interest and grows, allowing the members to access subsequent loans. Feed the Future Tanzania currently supports more than 50 of these village groups comprising 1,000 individuals that have accumulated savings of $20,000 and lent $17,200 to their members.

Christina was able to mobilize her neighbors and form a group, and together they attended training on group mobilization, business management, savings and lending procedures, record keeping, and gender inclusion. She used the money from her job at the stone quarry as her savings contribution. Soon after, she received a small loan of $100 which she used to start a food selling business. The new business is growing so that she is able to repay the money and remain with a small surplus. "My children are now attending school regularly", says Christina. "I can now afford to give them a good education." Christina was able to access an additional amount from her SILC group's social fund, involving a special interest-free loan. The social fund is set up to manage unpredictable expenses such as emergencies and funeral expenses. Christina used the money to cover transportation costs and medical expenses when visiting her sick father. "My father was happy to see me after many years and has fully recovered, thanks to USAID's support of my SILC group," she commented.

Christina's life has improved as her income has increased. She is now better able to support her 5 children, one of whom is adopted. She now advises and encourages other women in her village to work hard and join SILC groups so that they can learn to be empowered and self-reliant like her.

USAID FROM THE AMERICAN PEOPLE

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

SUCCESS STORY

Improving livelihoods through vegetable gardening in Tanzania

Enhancing household nutrition and income

Photo: Eliwina Mjachakwe

Esther Athanasi, the sole provider for her two small children, watering her vegetable garden in Mwaya Village, Tanzania, after being trained in gardening and nutritional practices by Feed the Future.

Vegetable gardening is a sustainable agricultural practice that can assist vulnerable women and men by increasing their earning potential as well as nutritional levels for their households.

Esther is a 32 year old mother of two small children. She separated from her husband several years ago and moved back with her parents, assuming full responsibility for supporting her children. Esther had no home or land of her own, leaving her feeling frightened and powerless with no visible means for providing for her family.

Selected to participate in a USAID Feed the Future activity targeting vulnerable households, Esther started vegetable gardening after being trained in sustainable agricultural practices under this program. Although Esther had no land of her own, her local church assisted her with a small plot on which to develop her vegetable garden. The group members were trained in techniques for planting seeds, applying fertilizer, controlling plant disease and the nutritional value of vegetable consumption.

In addition to the training, a variety of vegetable seeds were distributed to program participants that included tomatoes, onions, okra and mchicha, a nutritious green, leafy vegetable. Mchicha takes approximately 14 days from planting to harvest, and this short production window enables Esther to sow twice per month. The vegetables are then consumed by her household members and the surplus sold to generate income to sustain the enterprise and to cover essential family expenditures. She said that "w*ithin two months, I was able to sell mchicha worth 38,000 Tanzanian Shillings (about US$24), allowing me to save money for my household and more easily access kerosene, school expenses for my children and even join saving and lending programs within my community.*" She went on to say that, before receiving this USAID assistance, she had no knowledge of how to grow vegetables or their nutritional importance. She said she can now proudly pass on to her children the benefits of vegetable gardening as an activity to improve household nutrition and income, extending these benefits to future generations.

Feed the Future's vegetable gardening and nutrition interventions are helping hundreds of the most vulnerable households in even the remotest rural areas to increase earning potential and improve nutritional intake.

Telling Our Story
U.S. Agency for International Development
Washington, DC 20523-1000
http://stories.usaid.gov

USAID
FROM THE AMERICAN PEOPLE

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

SUCCESS STORY

1. Improving productivity through entrepreneurship at the village level in Tanzania

Increasing access to inputs and good agricultural practices.

Photo: Natharine Ugulumo

USAID is developing entrepreneurship among smallholder farmers through linkages with agricultural input supply companies to promote greater availability and use of modern farm inputs for increased productivity and yields.

"I am now very popular because of the nature of my work. Farmers of all ages consult me for advice when it comes to agriculture. I feel a heightened respect from my community."

Telling Our Story
U.S. Agency for International Development
Washington, DC 20523-1000
http://stories.usaid.gov

Despite the improving range and quality of agricultural extension services in Tanzania, access to farm inputs and quality of information available to smallholder farmers remains unreliable. Farmers require access to high quality agricultural inputs, such as seed, fertilizer and farm equipment, as well as to training and technical assistance services on the use of these inputs through a vigorous extension service. Unfortunately most of Tanzania's subsistence farmers, among the country's poorest people, have little or no access to either inputs or extension services.

To address these constraints, the USAID Feed the Future initiative supports a "village-based agriculture advisor (VBAA)" program that trains farmers as self-employed extension workers with "starter-pack" inputs provided by input supply companies. This VBAA program employs a village-based approach that promotes entrepreneurship among motivated farmers while extending the reach of private sector input supply companies into the rural areas. The companies provide the "starter packs" of inputs which are distributed by the VBAAs who are trained by Feed the Future with technical support from these companies to offer advice and guidance in their application. Farmers who experience the benefits of these inputs then become customers of the VBAAs, who purchase the inputs from the companies for sale to their new customers.

Neema Urrasa, a 48 year old mother of six, was selected by her community to become a VBAA in a maize-growing area of northern Tanzania. Neema, previously a subsistence farmer, struggled with low yields due to inefficient traditional farming practices. With training in good agricultural practices from Feed the Future, today she is sharing her expertise with other smallholder farmers in her community as well as creating demand for inputs as a representative of local input supply companies.

Neema has increased her maize harvest from ten to fifty 100 kilogram bags on her two acre plot. She uses her plot to demonstrate improved drought-tolerant seed varieties with good agricultural practices so that other farmers in her community can learn from her experience and purchase the small commercial seed packs for adoption on their own fields.

To date, Neema has reached 1,500 smallholder farmers, nearly half of whom are women, to increase their productivity by using improved seeds, fertilizers and other good agricultural practices. She says "I am now very popular because of the nature of my work. Farmers of all ages consult me for advice when it comes to agriculture. I feel a heightened respect from my community."

Through this initiative, Feed the Future is building entrepreneurship by extending the outreach of input supply companies through smallholder village-based advisers to promote increased productivity and food security.