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

PRODUCTION, FINANCE, AND IMPROVED TECHNOLOGY PLUS (PROFIT+)

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**ANNUAL PERFORMANCE REPORT NO. 1
OCTOBER 1 2012 – SEPTEMBER 30 2013**



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List of Acronyms

AFE	ACTION FOR ENTERPRISE
ASNAPP	AGRIBUSINESS IN SUSTAINABLE NATURAL AFRICAN PLANT PRODUCTS
BEO	BLOCK EXTENSION OFFICERS
CASH	COMMERCIAL AGRIBUSINESS FOR SUSTAINABLE HORTICULTURE
CEO	CAMP EXTENSION OFFICERS
CFU	CONSERVATION FARMING UNIT
COMACO	COMMON MARKETS FOR CONSERVATION
COR	CONTRACT OFFICE'S REPRESENTATIVE
CRS	CATHOLIC RELIEF SERVICES
DACO	DISTRICT AGRICULTURAL COORDINATOR
DFA	DISTRICT FARMERS' ASSOCIATION
DWA	DISTRICT WOMEN'S DEVELOPMENT ASSOCIATION
EMMP	ENVIRONMENTAL MITIGATION AND MONITORING PLAN
EPFC	EASTERN PROVINCE FARMERS' COOPERATIVE
FRA	FOOD RESERVE AGENCY
FSRP	FOOD SECURITY RESEARCH PROJECT III
FTF	FEED THE FUTURE
FTFMS	FEED THE FUTURE MONITORING SYSTEM
FAO	UNITED NATIONS FOOD AND AGRICULTURE ORGANISATION
FY	FISCAL YEAR
ICRISAT	INTERNATIONAL CROPS RESEARCH INSTITUTE FOR THE SEMI-ARID TROPICS
ICT	INFORMATION COMMUNICATION TECHNOLOGY
IEE	INITIAL ENVIRONMENTAL EX
IFAD	INTERNATIONAL FUND FOR AGRICULTURAL DEVELOPMENT
IFDC	INTERNATIONAL FERTILIZER DEVELOPMENT CENTER
IIP	INNOVATION, INVESTMENT AND PARTNERSHIP
IR	INTERMEDIATE RESULT
MFI	MICRO FINANCE INSTITUTION
MGCD	MINISTRY OF GENDER AND CHILD DEVELOPMENT
LOP	LIFE OF PROGRAM
M&E	MONITORING AND EVALUATION
MAL	MINISTRY OF AGRICULTURE & LIVESTOCK
MCC	MILLENNIUM CHALLENGE CORPORATION
MCTI	MINISTRY OF COMMERCE, TRADE & INDUSTRY
MEO	MISSION ENVIRONMENTAL OFFICER
MFI	MICROFINANCE INSTITUTION
MGWD	MINISTRY OF GENDER AND WOMEN IN DEVELOPMENT
MIS	MANAGEMENT INFORMATION SYSTEM
MSE	MICRO AND SMALL ENTERPRISE
MSME	MICRO, SMALL AND MEDIUM ENTERPRISE
MTZL	MOBILE TRANSACTIONS ZAMBIA LIMITED

QDS	QUALITY DECLARED SEED
SATH	SOUTH AFRICAN TRADE HUB
SCCI	SEED CONTROL AND CERTIFICATION INSTITUTE
USG	UNITED STATES GOVERNMENT
VC	VALUE CHAIN
ZAMACE	ZAMBIA AGRICULTURAL COMMODITY EXCHANGE
ZANACO	ZAMBIA NATIONAL COMMERCIAL BANK
ZARI	ZAMBIA AGRICULTURE RESEARCH INSTITUTE
ZNFU	ZAMBIA NATIONAL FARMERS UNION

I. Introduction

ACDI/VOCA is pleased to present its first Annual Performance Report under the PROFIT+ Project in Zambia. The Annual Performance Report describes PROFIT+'s achievements and challenges experienced during the first full fiscal year of this four year initiative. It is submitted in compliance with the terms and conditions of Task Order No. 623-I-TO-10-00001, and describes activities undertaken during the period from October 1, 2012, through September 30, 2013. A performance report submitted October 30th 2012 covered PROFIT+ activities from July 1 2012, when the Task Order was executed, through September 30, 2012.

This Annual Performance Report is intended to complement the PROFIT+ 2nd Annual Work plan, submitted under separate cover and which describes activities to take place during the period October 1, 2013 thru September 30, 2014.

The Project's intermediate results (IRs) are:

1. Increased smallholder productivity
2. Expanded markets and trade
3. Increased private sector investment in agricultural activities.

In addition, the Project is committed to integrating strategies in gender, environmental compliance and HIV/AIDS.

PROFIT+ targets 6 value chains: maize, groundnut, soybean, sunflower, onion and tomato and operates in Eastern Province (Petauke, Katete, Chipata, Lundazi) and Peri-urban Lusaka (Chibombo, Chongwe and Kafue).

By the LOP, the PROFIT+ will achieve a **30 percent increase in productivity and income** in targeted value chains; **benefit 200,000** smallholder farmers, processors and other value chain actors; and **increase the value of agricultural sales by \$125 million**. It will catalyze **\$50 million in new private sector investment** in target value chains and **create 1,000 jobs** in value-added processing. It will target smallholder and vulnerable (i.e., female-headed or HIV/AIDS-affected) households through maize, oilseed, legume and horticulture value chains.

I.1 FY2013 Highlights – At a Glance

Below is a non-exhaustive summary of the Project's major successes and achievements during the first full year of operation:

1. IMPROVED SMALLHOLDER PRODUCTIVITY

- 70 Demo Host Farmers selected and trained in demo management skills
- 280 demonstration plots established (4 demo plots for groundnuts, soybeans, maize and sunflower at each site hosted by the 70 demo host farmers).
- 12 improved technologies were introduced at 70 demonstration sites.
- 1.7 tons of basic groundnut seed sourced and distributed to 20 farmers for multiplication

- 20 Field Days conducted with 3,349 (1,587 female and 1,762 male) smallholder farmers attending by March 2013
- Horticulture demo plot strategy developed and 60 farmer business advisors identified to host 240 (120 tomato and onion seedling, and 120 tomato and onion open field) demonstration plots
- 690 Demo Host Farmers (DHF) identified for the 2013/14 planting season from Petauke, Chipata, Lundazi and Katete districts.
- Horticulture production field assessment was conducted focusing on the use and availability of improved inputs, small scale irrigation, training needs and sustainable delivery of technology to smallholder farmers in the Project's Zone of Influence.
- 596 participants (117 women and 479 men) attended Horticulture Strategy Awareness meetings in Eastern Province aimed at informing communities in the PROFIT+ zones of influence of the goals and objectives of the Project in the horticulture value chain.
- 100 CEOs trained in horticulture seedling production Training of Trainers (TOT) and commenced roll-out trainings to a targeted 12,000 onion and tomato farmers.
- Reviewed the capacity of extension services and embarked on capacity building and enhancement of services through increased collaboration and involvement of MAL CEOs, Block Extension Officers (BEOs), and District Agricultural Committees in Project activities in Lundazi, Petauke, Chipata and Katete.

2. EXPANDED MARKETS AND TRADE

- Crop marketing strategy assessment conducted to facilitate enhanced farmer/trader relationships and increase access to market information for farmers.
- Developed post-harvest aggregation assessment strategy
- Facilitated commodity aggregation and provided market information to producers and traders for soybeans, groundnuts and sunflower.
- Key traders in each value chain were identified and market linkages established for smallholder farmers.
- Production volumes of soybeans, sunflower and groundnuts in Eastern Province were estimated in order to facilitate relationships with larger buyers/aggregators.
- Total incremental sales of \$11,261,625.53 for Maize, sunflower, soybeans and groundnuts were facilitated between producer groups and project partners such as Jungle Beats, CARGILL, Dunavant, EPFC, MUCHA Enterprises and the DWDAs among other traders.
- Established baseline gross margins for smallholder production of Maize, sunflower, soybeans and groundnuts.
- Chipata DWDA, Katete DWDA and Petauke DFA established independent management units for their processing plants with technical assistance from PROFIT+.
- Supported two EPFC staff to become certified in seed inspection in order to increase the availability of certified seed on the market.
- Conducted an assessment of 56 cooperatives in Eastern Province out of which 32 were selected for collaborative activities in Year 1
- Conducted 4 training of trainers (TOTs) workshops for 133 trainers comprised of 30 Demo Host Farmers, 66 Cooperative members, 14 District Farmer's Associations and 28 District Women's Agriculture Development associations, in the mitigation of aflatoxin

contamination through improved post-harvest handling and facilitated subsequent roll-out trainings for 16,487 participants from the four target districts in the Eastern province

- Market linkages for smallholder farmers and cooperatives established with Nutri-Feed, Jungle Beat, Mucha Investment Enterprises, CARGILL, Dunavant and others for groundnuts, soybeans and sunflower value chains

3. INCREASED PRIVATE SECTOR INVESTMENT

- MOU drafted with ADRA for collaboration on market linkage development, community based storage and hermetically sealed storage bags.
- Commenced discussions with WFP, MAL and Dunavant for collaboration to support establishment and rehabilitation of community-based storage facilities.
- Horticulture VC Advisor, Agricultural Finance Specialist, Jungle Beat, ZNFU, Focus Financial Services and Grain Traders' Association attended the NAMPO Expo in South Africa with project support.
- Commenced discussions with MAL in Lundazi to provide Business Development Skills (BDS) capacity building for CEOs, BEOs and the District Agricultural Coordinating Officer.
- Leveraged \$4,962,467.25 value of new private sector investment

IIP FUND

- The Innovation, Investment & Partnership Fund (IIP) grants program was launched in March 2013
- The Annual Program Statement was developed and the initial call for concept notes was announced to enable local entities to access the PROFIT+ IIP Fund; evaluated 32 concept notes from the first two rounds of the APS announcement and requested full applications for 4 selected concept notes with a value of US\$625,254.
- Supported Eastern Province Farmers' Cooperative (EPFC) to buy groundnut seed for multiplication by farmers with an in-kind grant was \$4,300.00 and which was leveraged with \$4,320.00
- Developed and disbursed 70 in-kind micro-gGrants with Demo Host Farmers for Demo signs and farm inputs valued at \$14,287.
- Issued in-kind and fixed obligation grants amounting to US\$265,580.18 for aflatoxin management trainings (16,487 farmers), gender mainstreaming (36,058 farmers), horticulture seedling production training (8,108 farmers)

4. ACCESS TO FINANCE

- Partnerships developed with major private sector stakeholders such as Jungle Beat, Cargill and Dunavant and MOUs have been developed to support the groundnuts and soybeans value chains input-credit schemes and increased access to working capital.
- Partnerships were established with major banks and microfinance establishments, including innovations and interventions to be funded under the USAID Development Credit Authority (DCA), resulting in a US\$1.8m loan given to Junglebeat through ZANACO.
- The Project supported FREPEGA in obtaining loan capital for the establishment of a fresh produce packhouse in Lusaka through DCA funded loan through ZANACO and a grant from the World Bank.

- Database established of leading and market proven BDS service providers who will deliver financial literacy and business mentorship services to producer groups as well as aggregators, trader and processors.

5. GENDER MAINSTREAMING

- Actively included women in open field and horticulture DHFs identification and selection, and other Project activities, which resulted in an overall achievement of 54.6% women's inclusion for the year under review.
- Signed MOU agreements with 4 DWDAs, Mfumbeni and Kachere Development Programs and implemented gender TOTs and roll-out trainings for 36,058 farmers (24,171 women and 11,887 men). The six local partners are working closely with the project to implement of gender mainstreaming activities in the project's zone of influence and ensure that women are engaged at every level of the value chain.
- Reached over 9,000 women through Aflatoxin trainings, farmer field days, and trainings on gender equity at household level in order to promote inclusive value chain development.
- SILC strategy initiated with activities developed for next quarter, which will increase savings for investment in the targeted value chains by female smallholder farmers.
- Developed a strategy document to monitor gender mainstreaming at all levels of the Project activities
- Participated in International Women's Day and the United Nations 16 days of Gender Activism activities in order to build alliances for gender equity and female empowerment in the project.
- Formally introduced the Project to senior and paramount chiefs in Chipata, Lundazi and Petauke, obtaining their support and aligning project some interventions with their community development plans.
- A total number of 337 new women's groups were formed after the roll out of the Gender Group Formation and Leadership trainings with a total membership base of 11, 058 (7,022 women, 4, 036 men).
- 129 (99 women & 30 men) association members were trained as trainers for gender mainstreaming, leadership skills and group formation trainings who will continue to conduct gender mainstreaming and group development activities.

6. ENVIRONMENTAL COMPLIANCE

- Pesticide Evaluation Report and Safer Use Action Plan (PERSUAP) was completed and approved by USAID
- The Profit+ Environmental Review & Report (ERR) undertaken and approved by USAID
- Conducted training in USAID environmental procedures for project staff.
- Environmental awareness initiatives implemented for partners/beneficiaries to ensure environmental compliance at community level
- Environmental capacity building provided to partners/beneficiaries during Project training activities conducted during the year.
- Developed an MOU with CropLife for collaboration on best practices for pesticide use and disposal of chemical containers.
- Environmental Compliance mainstreamed in activities with negative determination

7. MONITORING & EVALUATION

- Baseline survey conducted; obtained preliminary gross margin and incremental sales baseline results
- Developed a Monitoring and Evaluation system with well-articulated guidelines and data collection procedures and tools
- Online database completed and operational
- Conducted the beneficiary and stakeholder mapping exercise identifying the Project Zone of Influence, value chain production areas, agro processors and other project stakeholders

8. OPERATIONS AND MANAGEMENT

- 44 project staff hired, including all key personnel
- Major procurements of vehicles and equipment completed
- Project was officially launched in Eastern Province in March 2013
- Participated in the Eastern Province Agriculture Show and National Agricultural and Commercial Show

DASHBOARD: PROJECT PROGRESS AGAINST TARGETS AND SELECTED INDICATORS (Full indicator performance tracking table attached as Annex 1)

No	Indicator Source	Indicator Name	Year 1 Targets	Year 1 Achievements
1	FTF 4.5.2-14	Number of vulnerable households benefiting directly from USG assistance	24,278	31,912
2	FTF 4.5.2-13	Number of rural households benefiting directly from USG interventions (S)	27,000	39,890
3	FtF4.5.2-7	Number of individuals who have received USG supported short-term agricultural sector productivity or food security training	20,000	48,501
4	FtF4.4.5.2-5	Number of farmers and others who have applied new technologies or management practices as a result of USG assistance ¹	5000	13100
5	FtF 4.5.2-11	Number of food security private enterprises (for profit), producers organizations, water users associations, women's groups, trade	80	352

No	Indicator Source	Indicator Name	Year 1 Targets	Year 1 Achievements
		and business associations, and community-based organizations (CBOs) receiving USG assistance		
6	4.5(2)	Number of jobs attributed to FTF implementation	150	110
7	FtF4.5.2-12	Number of public-private partnerships formed as a result of USG assistance	90	87
8	4.5.2(23)	Value of incremental sales (collected at farm-level) attributed to FTF implementation (RIA)	\$6,250,000	\$11,261,625.53
9	4.5.2(38):	Value of new private sector investment in the agriculture sector or food chain leveraged by FTF implementation (RIA)	\$2,500,000	\$4,962,467.25
10	4.5.2(42): (4.5.2-28)	Number of private enterprises (for profit), 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)	25	107
11	4.5.2(2)	Number of hectares under improved technologies or management practices as a result of USG assistance (RIA) (WOG)	5000	5230

I.2 PROFIT+ Project Team and Partners

The successes of Year 1 could not have been achieved without the efforts of the entire PROFIT+ consortium. Each of our subcontractors brings perspective set of skills and expertise, and their diverse experience has helped deliver results across PROFIT+ activities. The PROFIT+ consortium constitutes the following organizations:

- **ACDI/VOCA** is leading program management, value chain analysis and development, market and trade expansion, and financial services activities.
- **IFDC** is offering extensive experience in commercial agro input systems and will play a strong role in Component 1 (smallholder productivity).
- **CRS** is contributing to the gender analysis and implementation of the SILC program which will facilitate the development of savings and internal loans groups for the purpose of integrating them into the economic mainstream of their communities.
- **Danya** developed a strategic communications plan to inform PROFIT+'s use of communication tactics to promote positive behavior change, to promote adoption of new technologies and facilitate learning.
- **Kimetrica** helped conduct a targeted baseline study and implemented the ki-projects™ product which will anchor and strengthen the M&E system.
- **Crown Agents** provided targeted technical support for trade development addressing trade and transport related constraints in the value chains in addition to conducting an assessment of rural warehouses.
- **AIRD** assessed the business and policy enabling environment for the selected value chains.

I.3 Target Group and Operational Areas

PROFIT+ is targeting 200,000 smallholder farmers in four districts of Eastern Province (Chipata, Katete, Lundazi, and Petauke) and three Peri-urban Lusaka districts (Chibombo, Kafue and Chongwe).

In Eastern Province, the Project is focusing on all six value chains (groundnuts, sunflower, soybeans, maize, tomato and onions), while in Peri-urban Lusaka, the focus is primarily tomato and onions only.

The four districts were selected due to the high poverty levels in comparison with other districts in Zambia. The districts are also proximate to markets, transportation, infrastructure and complementary programs, so as to realize immediate impacts, identify solutions to biggest challenges faced by the value chains and make the business case for private sector engagement with the communities.

I.4 PROFIT+ Results Framework

The PROFIT+ has a results-based Monitoring and Evaluation approach is results-based built on the results framework in the table below.

Table 1: PROFIT+ Results Framework

IR_1	Improved Agriculture Productivity	
	IR_1.1	Farmers, processors and other VC actors apply improved technologies and management practices.
	IR_1.2	Improved post-harvest handling process and access to services in the PROFIT+ value chains
	IR 1.3	Farmers, processors and other VC actors have increased access to financial services.
IR_2	Expanded Markets and Trade	
	IR_2.1	Increased access to agricultural markets
	IR_2.2	Enhanced capacity of producer associations and rural agro enterprises.
IR 3	Increased Private Sector Investment in Agricultural Related Activities	
	IR 3.1	Producer associations and rural enterprises receive services from the private sector
	IR 3.2	Enhanced public private partnerships
Cross-cutting	Environmental Compliance, Gender, and HIV/AIDS	

2. Implementation Overview

2.1 PROFIT+ Technical Approaches

In PROFIT+' Year 1 Annual Work Plan, the project identified key approaches to achieve increased productivity, expanded markets and increased private sector investment as follows:

Facilitative Market-Driven Value Chain Approach

The Project conducted intensive analyses of the target value chains, which indicated that the strategic opportunity with maize is to increase productivity so families can meet their consumption needs and free more of their land and resources for more profitable crops. In Eastern Province these crops include groundnuts, soybean, sunflower, tomato and onion where improved yields, production, post-harvest handling and market linkages will respond to growing local and regional demand. In Peri-urban Lusaka, increased horticulture production and new market linkages can help to meet the increasing demand by higher-value daily markets and supermarkets.

PROFIT+ is playing a facilitative role by partnering with local and private sector entities so value chain actors can pursue market opportunities in a sustainable manner. Program implementation in Year 1 centered on assisting value chain actors with their business options and capacity to make informed decisions at all levels of the value chain from farm to end market. The Project supported smallholder farmers, processors, traders and other market participants gain access to information which helped them choose appropriate markets, investment opportunities (for private sector entities) and enabled smallholder farmers and farmer groups take ownership of their commodities through product aggregation.

Pathways out of poverty approach

The Project targeted 'vulnerable but viable' smallholder farmers by helping them transition from subsistence farming to looking at farming as a business. Using 'Push' strategies such as transferring knowledge through demonstration plots and group training, the Project was able to address several upgrades at farm, post-harvest, processing and end markets.

The Project also implemented 'Pull' strategies that focused on processing and income-generating activities, improved post-harvest handling, storage, access to business development services and expanded market linkages.

Through these strategies, smallholder farmers were able to see increase their productivity, aggregate their produce to attract bigger markets, add value to their produce and ultimately increase their income.

Sustainability Approach

The Project built partnerships with local organizations and private sector entities to facilitate sustainable access to markets for smallholder farmers. The launch of the Innovation, Investment and Partnership (IIP) Fund in February 2013 provided the Project with a platform to identify and leverage local expertise and build the capacity of stakeholders who are investing in productive agriculture..

These entry points established PROFIT+' presence in specific project areas, enabling the Project to achieve progress in the short-term and laying the foundation for more sustainable long-term impacts. Below is an overview of activities under each IR and cross-cutting component, including

lessons learnt during Year 1. The overview begins with a summary of the assessments and analysis conducted during the start-up stage of the Project, which shaped and guided subsequent program implementation.

2.2 Value Chain Analysis

The Project's primary activity during the start-up phase was to conduct value chain analyses of all the targeted crops. The studies were based on a market systems approach, looking at the value chain from input supplier to end market as well as the supporting markets that provide technical and financial services, and the enabling environment. These assessments identified and evaluated those opportunities for investment and growth with high potential for MSE involvement to increase the competitiveness of maize, legumes, oilseeds and horticulture subsectors in Zambia.

The main objectives of the value chain analysis were:

1. Identify and map key value chain actors in the target value chains, the functions they serve and the relationships (governance) among them.
2. Identify critical services on which the performance of these value chains depends.
3. Identify opportunities with the greatest potential to transform these value chains and the factors preventing private actors from taking advantage of them (constraints).
4. Benchmark the Zambian target value chains against regional and international competitors to confirm areas where Zambian products can be competitive.
5. Identify which investments in key upgrades will be required to meet the demand of these markets and what constraints prohibit the critical upgrades
6. Share and discuss initial findings with stakeholders
7. Propose strategies to achieve the goals and objectives of PROFIT+

A summary of the key upgrades required for each value chain, is below:

Maize

1. Increasing yields through appropriate use of inputs
2. Access to improved production technologies
3. Reduced use of land to meet food security needs

Soybeans

1. More intensive use of commercial seed and modern agronomic practices
2. Emphasizing use of CPPs (inoculants, weed control)

Groundnuts

1. Introduction of groundnut varieties with better agronomy and varieties for confectionary and peanut butter
2. CPPs for inoculating, weed and fungal control to increase production
3. Use of micro nutrients and gypsum or lime application
4. Improved postharvest handling and utilization
5. Introduction of groundnut lifters, strippers & shellers
6. Aflatoxin control

Sunflower

1. Hybrid sunflowers with good disease/pest resistance
2. Intensifying use of commercial seed and blended fertilizers
3. Stimulating demand and production

Onions

1. Onion drying equipment versus curing the onions in the sun
2. Micro-irrigation technology (treadle pumps and micro-diesel pumps), mini greenhouse technology promoted by ASNAPP
3. Improving marketing strategies

Tomatoes

1. Hybrid tomatoes with good disease/pest resistance
2. Raising seedlings in trays and small crop covers especially in the rainy season to solve problems of nursery management
3. Promote consolidation as a marketing strategy

The analysis culminated in the development of strategies (see annex 1) for each value chain.

2.3 Gender Analysis

The Project's gender approach is to create equitable and sustainable opportunities for women and men along the target value chains. To this end, the Project conducted a gender analysis) to gain an understanding of gender relations, issues and constraints at the household, farm and community levels. Key findings of the analysis include:

- There are a number of social or cultural norms that inhibit women's participation in the economy, but activities by donors and local NGOs have had some success at changing behavior.
- Women-led mixed groups-meaning those with majority female membership and women in leadership positions, but with male members who are able to advocate for groups activities, link members to broader opportunities, and provide physical and material support as needed-appear to be the most successful vehicles for positively impacting women's livelihoods and quality of life.
- Women have limited access to and control over resources such as land, finance, transport, extension, and agricultural inputs and improved technologies.
- There are government, donor and civil society organizations carrying out gender-related activities around a variety of areas including livelihoods, health and nutrition, human rights and advocacy. The government of Zambia has prioritized gender mainstreaming interventions for the social and economic empowerment of women and is willing to play a role in coordinating district level gender activities as well as to share information about existing women-led groups and open up access to its grant fund to PROFIT+ beneficiaries.

Arising out the analysis was the development of gender year-one work plan which laid out an integrated strategy that mainstreams gender equity across all program components.

The work plan focused on:

- Educating beneficiaries on gender concepts around the importance of shared decision-making, assets, income, and workloads between men, women and youths for intergenerational benefits
- Working with new and existing groups in a way that is inclusive and empowering to women, building on the best practices identified during the assessment phase as well as ACDI/VOCA's experience in other countries.
- Addressing constraints through a variety of participatory strategies, and making sure women have equal access to trainings, linkages to value chain stakeholders and other opportunities available to PROFIT+ beneficiaries.
- Collaborating with government, donor and civil society organizations in coordinating district level activities and information sharing about existing women-led groups with whom PROFIT+ can partner with.

2.4 Gender Barrier Analysis

The Project through CRS, conducted a gender barrier analysis aimed at identifying significant gender barrier factors that affect the ability of men and women to effectively participate and benefit from the different value chains; so as to inform potential project interventions that contribute to greater household food security, build better household management of resources, and strengthen women's effective participation and control within the value chain. The objectives of the gender barrier analysis were to:

The analysis highlighted gender inequalities and constraints that could create or exacerbate value chain programs, create inefficiencies in value chain operations, or open opportunities for more gender equitable interactions along the value chain. It gave a deeper understanding of the gender dimensions of poverty and the complex social and traditional cultural relations that exist in communities. It also helps to determine how agricultural inputs and resources, shared roles of women and men's labor time and decision-making at the household level impact the potential for women's involvement in value chain activities.

Mapping of Project's Zone of Influence: Community Mapping Exercise

In order to ensure efficient and effective delivery of program activities, the Project conducted a community mapping exercise and established its Zone of Influence as well as the potential beneficiary listing. The activity involved meetings with Senior Agricultural Officers (SAOs), Crops Officers, Block Extension Officers (BEOs) and Camp Extension Officers (CEOs) and resulted in the Project being able to compile lists of camps, blocks, and beneficiaries as well as information which enabled it to establish the zone of influence for each district.

During the mapping exercise, the following data was analyzed and compiled:

- a. List of potential beneficiaries which will form part of the baseline sample frame.
- b. The list of institutions that are possible collaborators on various value chains
- c. The list of camps and blocks in the PROFIT + Zone of Influence highlighting highest productive areas by selected value chains.

The lists also include district level information on the cooperatives, women groups, information centers, transporters, aggregators, marketing and processing stakeholders and interest groups as well as information on value chains grown in each agricultural camp.

3. Project Implementation

3.1 IRI – Increased Smallholder Productivity

Improved Productivity Enhancing Technologies

The VC analyses identified critical production technologies and practices that are needed to increase productivity and enable farmers to reach new markets. An effective agricultural extension system, both through the government extension staff and through private stakeholders, is required to increase adoption of these technologies and practices among the Project's beneficiaries. The system needs to include technology testing (demonstrations), to encourage increased farmer participation, to provide an opportunity for learning through farmer-to-farmer collaboration, enable private sector participation, and to create a platform for training of participating farmers.



Enhanced Agricultural Extension Services

The Ministry of Agriculture and Livestock (MAL) has developed a community structure that encourages regular contact between field extension staff and the communities as well as encourages farmer participation in technology transfer and serves as a forum for gathering of information and feedback. At village level, farmers form zonal committees, which represent interests of farmers from different villages. Several zones (usually 8), form a Camp Agricultural Committee (CAC). Several CACs form the Block Agricultural Committee (BAC), several of which, in turn, form the District Agricultural Committee (DAC). This non-governmental structure parallels the MAL structure and covers the entire district.

In Year 1, the Project reviewed the capacity of extension services and embarked on a capacity building program to enhance these services through collaboration and inclusion of MAL officers in its program activities with an aim to:

- Enhance the extension service's capacity to transfer quality and relevant information to DHFs
- Increase farmer participation in technology and information transfer in order to increase adoption;
- Ensure communities and Camp Extension Officer participate in selection of DHFs;
- Explore the use of demo host farmer model for other interventions such as gender, environmental compliance and HIV/AIDS in addition to demonstrating technology
- Encourage farmer to farmer extension and positive competition.

Identification of DHFs and Establishment of Demonstration Plots

One core component of the project's interventions under IR1 was the establishment of demonstration sites. In Year 1 the project established 70 sites with 4 plots each, the primary objective of which was to demonstrate the benefits of applying certified seeds, more intensive fertilizer, and improved agro-chemicals and to serve as a training platform. The demonstration plots compared the traditional practices (as control) to an improved technology and were managed by seventy (70) Demo Host Farmers (DHFs). In addition, a number of the DHFs acted as input providers and extension services providers and had an incentive to demonstrate these goods and services to strengthen their client base. As a result the demo platform also service to increase access to inputs and facilitate market information.

The model is highly interactive and has an inherent feedback mechanism that encourages reporting and provides an opportunity for data collection. The demo sites were managed by seventy (70) Demo Host Farmers (DHFs) who were identified and selected from the local communities with support from MAL staff and local leaders. The minimum requirement for selection of DHFs was that a DHF:

- have a minimum of one *lima* (1/4 Ha) of land
- is willing to participate in the demonstration plot model and,
- is able to support other farmers through management of the demo plots

Table 2: Number of Demo Plots per District

District	Gender		Total Number of Demo Sites/farms	Number of Crop Demo Plots per Site	Total Number of Demo Plots Established
	Male DHFs (51.4%)	Female DHFs (48.6%)			
Chipata	3	7	10	4	280
Katete	9	14	23		
Petauke	13	11	24		
Lundazi	11	2	13		
TOTAL	36	34	70		

By the end of the year, the project had showcased 12 new technologies and practices as follows:

- Soil sampling
- Minimum tillage
- Liming
- Early planting
- Integrated Pest Management (IPM),
- Targeted fertilizer
- Aflatoxin mitigation
- Improved methods of harvesting groundnuts
- Minimal clearing of virgin land
- Crop rotation,
- Agroforestry and
- Use of certified seed



(Above) A CFU staff demonstrating proper usage of lime and basal fertilizer at Mr. Standwell Muyayi's (not in picture) farm. Mr Muyayi is an agro dealer as well as a PROFIT+ DHF applying conservation farming techniques on a one lima plot also hosting maize, groundnuts, sunflowers and soybeans.



Mrs. Eliness Muyayi Banda (above, left in orange garment, explaining demo practices, to PROFIT+ staff) is a female demo host farmer who has planted maize, groundnuts, soybeans and sunflower on a lima (0.25h) plot.

A. Sourcing of certified seed and inputs for the demo plots

During the year, the Project engaged seed companies, government entities and other stakeholders to collaborate in the areas of supply and accessibility of improved, certified seeds for the maize, soybeans and sunflower demo plots.

Greenbelt fertilizers contributed 150 bags (50kg) of maxi-maize, green urea and lima and the Project received private contributions of improved seed from PANNAR Seed, Pioneer, MRI, ZAMSEED and inoculants from Agrifocus Chemicals as illustrated below:

Table 3: Contributions of improved seed

Seed company	Input type	Kgs
Pioneer	Maize	51
Zamseed	Maize	76
	Soybeans	25
MRI	Maize	32
	Soybeans	80
	Herbicides	8.52
		2.4 litres
Pannar	Maize	35.2
	Sunflower	8.8
	Soya	4.8
Agrifocus Chemicals	Inoculants	5

Increased productivity in Katete
 Smallholder farmers participated in a crop harvest weighing exercise to observe the benefits of improved agricultural practices in comparison to traditional practices as showcased on the PROFIT+ demo plots.

The Project carried out the crop weighing exercise with 8 demo host farmers in Katete and the general observation was that the produce/yield from commercial demo plots far outweighed the produce from the traditional demo plots. One example is Sakala of Kawala Agriculture Camp who harvested 75kgs of soybeans from the commercial plot and only 45kgs from the traditional plot.

The demo plots were monitored throughout the season by CEOs and Project staff. Through the sites, the Project held 20 farmer field days with recorded 3,349 participants.

Selection of Open Field DHFs for 2013/2014 Season

By end of Year 1, the Project had successfully identified and selected 690 demo host farmers to manage demonstration plots in Year 2. The exercise was conducted in 23 blocks covering 178 camps and 1,381 zones in Petauke, Katete, Chipata, Lundazi in collaboration with Camp Extension Officers (CEOs) and community leaders.

Procurement of inputs and seeds commenced in September 2013 to enable the DHFs establish the demo plots by mid November 2013. The Project refined data monitoring and collection tools for the demo plots to enhance reporting and tracking of demo activities.

Horticulture Seedling Production Training

Early in Year 1, the Project conducted a horticulture production field assessment for the main purpose of determining onion and tomato production trends, constraints and opportunities in an effort to identify factors limiting production. The assessment focused on introduction of improved inputs such as seeds, foliar and blended vegetable fertilizers, Crop Protection Products (CPPs), small scale irrigation for off season production and identification of training needs to ensure the safe and effective utilization of inputs and pesticides. The assessment enabled the Project to develop strategies to overcome these challenges after the zone of influence identification exercise was undertaken, one of which was the establishment of 240 (120 tomato, 120 onion) demonstration plots in tomato and onion value chains.

Farmer Business Advisor Model

In collaboration with IDE, the Project developed a farmer business advisor model which would facilitate the implementation of the horticulture strategy in Eastern Province and Peri-urban Lusaka. The Project identified 60 FBAs who would each support 5 lead farmers by transferring knowledge on improved seedling production. Each lead farmer would in turn transfer that knowledge to 40 other farmers. Through this model the Project aims to reach 12,000 smallholder horticulture farmers. The roles of the FBAs will be to support the lead farmers and other farmers by:

- Promoting the use of improved seed and fertilizers;
- Providing linkages for the farmers to input supplier;
- Providing linkages for the farmers to the end market;
- Providing linkages for the farmer to Micro Finance Institutions for credit;
- Promoting improved water management and irrigation technologies enabling farmers to achieve highest productivity cost-effectively;

Establishment of Horticulture Demo Plots

The Project collaborated with Hygrotech Zambia (a local horticulture private sector company) to conduct a ToT for 100 BEOs/CEOs from the Ministry of Agriculture and Livestock (MAL) in horticulture seedling production. The 100 MAL staff trained the 60 Farmer Business Advisors (FBAs) as a means of establishing 240 demonstration plots. The FBAs in turn trained 300 Lead Farmers (LFs) who by end of Year 1 had trained 8,108 small holder farmers.

The aim was to introduce commercial seedling production tailored for small holder farmers raise seedlings in a controlled environment which would



(Above): HYGROTECH staff explaining the new concept in seedling production.

cost effectively, and efficiently maximize use of inputs that would ensure quick take-off after transplanting as stress is reduced. The technology also presents an opportunity for the FBAs to provide a service to their community by providing healthy seedling for increased production.

Onion and Tomato Production Training

In collaboration with the CASH Project and with support from private sector companies such as Starke Ayres, Hygrotech, Zambian Fertilizer and Enviro Farm, the Project held a TOT for 40 FBAs (20 Eastern Province, 20 Peri-Urban Lusaka) who were trained in onion and tomato production to enhance their production skills and to engage in production as a business.

The main topics in the training were an overview of the horticulture industry in Zambia, gross margin calculations, production cycle, drying of onion and storage, growing of hybrids versus open pollinated varieties, effective and efficient use of appropriate fertilizers and reading the market.

In Year Two, the 40 trained FBAs will train 200 lead farmers who in turn transferred the technologies and agronomic practices to 8,000 smallholder producers. The other 20 FBAs will be trained by the projects' field facilitator bumping up the number of small holder farmers trained to 12,000.

The model is dependent on FBAs identifying profitable products and services they can offer farmers and in growing their business, they have an incentive to transfer the knowledge gained in these TOTs to their client farmers.

Technology Transfers through Demo Host Farmers

a. Farmer Field Days

The Project identified the Farmer Field Day concept as a tool to transfer knowledge to smallholder farmers at the community level. The field days were organized at the PROFIT+ demo plots hosted by demo host farmers.



(Above): Lundazi Field Day

The Project also collaborated with various stakeholders who provided seed, fertilizers, other inputs and provided technical support for the demo plots, such as Ministry of Agriculture and Livestock (MAL), Jungle Beat, Lundazi Agrodealers District Association (LADA), Chipata District Women's Association (CDWA), ZARI, Petauke District Women's Association (PDWA), Katete District Women's Association (KDWA) and Katete Agrodealers District Association (KADA), to carry out the field days. By year end, 20 field days were held with a total of 3,349 farmers.

b. Farmer Field Schools

During the period under review, the Project introduced Farmer Field Schools (FFS) at some of the most successful demo plots. One of the pilot field schools was held at Nelia Banda's demo plot in Katete which had 9 farmers attending from within the community where the demo is situated.



The field school gave the Project team an opportunity to receive feedback from the DHFs on crop vigor and growth, as well as the difference between the traditional crops and the ones where they had applied commercial treatments such as fertilizer on the maize, sunflower, groundnuts and soybeans.

(Left) DHF Nelia Banda center at her field with some FFS members in Nyanje area – Katete.

Increased Availability of Certified Seed

Quality seed is the foundation for improving productivity. In the case of legumes, although there are several superior varieties, seed availability is an ongoing constraint as commercial companies are reluctant to invest in crops where farmers can retain the seed from season to season without big yield reductions.

During the year under review, PROFIT+ worked to develop a sustainable system for groundnut seed production and marketing based on existing regional investments by ICRISAT and other local partners such as Zambia Agricultural Research Institute (ZARI) and Eastern Province Farmers' Cooperative (EPFC).

a. Purchase of Groundnut Seed 2012/2013 Season

Due to the challenges surrounding availability of basic groundnut seed in Eastern Province for multiplication, in November 2012 the Project negotiated with ZARI to purchase 400kg of seed, which was loaned out for the EPFC to multiply and required them to provide 600kg of seed which the Project will distribute to other farmers during the next season on a revolving model.

The seed that was purchased by the Project was distributed to 20 farmers (8 in Katete and 12 in Chipata).

b. Purchase of Seed 2013/2014 Season

Initially ZARI contracted with seed multipliers in EP to purchase 30 metric tons of groundnut seed to be certified and re-multiplied during the 2013/2014 planting season. This is one of the only sources of certified groundnut seed in Zambia and is enough to plant 695 hectares of groundnut and benefit 60,000 number of shareholders who are predominantly women. The challenge is that ZARI did not have the finances to purchase this crop and if the situation is left unattended, the basic seed will be sold to traders as grain.

6 private sector entities have agreed to partner with PROFIT+ and purchase the seed on a 50/50 basis before it sold as grain by the farmers. In return, the private stakeholders will be responsible for multiplying the seed for planting.

c. Establishment of a Seed Alliance

The Project team travelled to Malawi for a meeting with ICRISAT to learn more about the Malawi Seed Alliance, in an effort to explore the possibilities of establishing a similar seed alliance in Zambia. The principle of the alliance would be to have it operate as a revolving fund which would facilitate the multiplication of groundnut basic seed for sale to companies that would further multiply the seed into certified seed. The Project will continue discussions with ZARI, ICRISAT and its private partners to accomplish a more formal revolving seed fund in Year 2.

d. Training of Agro-dealers

In line with the Projects Year 1 plans to provide proper training and support to agrodealers so that they can then sell certified seed, the Project collaborated with a local non-profit, Nutri-Aid, to conduct training of agrodealers to build their capacity to apply basic business principles and grow their agro dealerships. The trainings provided the agro-dealers with knowledge on legal requirements of an Agro dealer; business types and registration, PACRA forms, agro dealer business environment (SWOT); marketing for an agro dealership business, planning, costing, pricing and profit projections, record keeping; ZEMA licensing and product knowledge.

A total of 123 agro dealers were trained (74 males and 49 females). Lundazi had the highest number of female agro dealers in attendance while Petauke had the highest number of male agro dealers. Details are in the table below:

Table 5: Number of agro-dealers trained

No.	District	Agro dealers		Total
		Females	Males	
1	Lundazi	19	14	33
2	Chipata	11	19	30
3	Katete	10	15	25
4	Petauke	09	26	35
	Totals	49	74	123

YEAR 1 ACHIEVEMENTS UNDER IR1

By end of Year 1, the Project recorded the following achievements under IR1:

1. Increased awareness of proper business management skills among the agro-dealers as evidenced by increased statutory adherence by 99 out of 124 agro-dealers trained.
2. Noticeable increased use of certified and improved seed and CPPs in the PROFIT+ zone of influence by smallholder farmers.

3.2 IR2: Expanded Markets and Trade

During the year under review PROFIT+' main strategies and activities to facilitate expanded markets and trade for smallholder farmers were focused on facilitating commodity marketing during the 2013 crop marketing season, empowering producers to become better negotiators for prices, linking producers to traders who may be interested in their commodities, empowering the traders by providing them with information related to potentially available and marketable quantities of each of four value chains namely, soybean, groundnuts, sunflower and horticulture, and locations where these commodities were bulked for marketing purposes.

Common among all the value chains were challenges faced by farmers in aggregation/bulking of commodities and limited access to market information.

To address these challenges, the Project identified three entry points/strategies to facilitate upgrades in these value chains as follows:

- Establishing accurate estimation of crop production by value chain (soybeans, groundnuts and sunflower) in designated geographical areas;
- Identification and understanding of aggregating practices and factors that influence them; and,
- Identification of traders, and tracking market prices per value chain
- Development of key partnerships with buyers

Estimation of Crop Production Figures and Gross Margins

Working in collaboration with the CACs, the Project conducted an exercise to estimate production volumes and establish average prices for soybeans, sunflower and groundnuts in each of the four Project districts in EP. The Team organized meetings with BEOs in each district to obtain accurate production information as well as to determine the potential aggregation/bulking centers in each agricultural camp.

Table 6: The following figures were compiled by the end of the exercise:

DISTRICT	CROP		
	Sunflower (Mt)	Soybeans (Mt)	Groundnuts (Mt)
Chipata	2,202	1,156.3	7,347.1
Lundazi	3,594	8,179.8	9,022.4
Katete	988.5	418.8	2,668.4
Petauke	4,264	126.8	5,089.7
TOTALS	11,048.5	9,881.7	24,127.6

The production figures were shared with traders, buyers and other stakeholders to make them aware of available commodity and enable them make informed decisions on where to purchase the commodity from.

Gross margin calculations

The Project held meetings with 333 farmers who were also CAC leaders (63 women and 270 men) to inform them on the need to calculate gross margins and break even prices for sunflower, groundnuts and soybeans, before selling their crops.

The CACs were tasked to educate their members on the importance producing quality commodities through sorting and grading. The CACs were tasked with monitoring product quality at purchasing time through various aggregation centers.

Table 7: The following gross margins were established for the three crops.

Crop/Value Chain	Gross Margin KG (ZMW)
Sunflower	1.15
Groundnuts	2.22
Soybeans	2.15

Equipping farmers with this information helped them understand the costs of producing a particular value chain and therefore to determine break-even prices for their commodities. Understanding the GM also empowered producers to negotiate profitable prices and make more informed decisions about how to invest scarce household resources.

By reporting time, **7,044** farmers were reached who received market information.

Aggregation

The Project identified that one of the key constraints to access to markets is that buyers do not know the quantities of commodities available from individual producers, cooperatives and farmer groups.

PROFIT+ conducted a rapid assessment of aggregation practices in EP which revealed that farmers were willing to aggregate for purposes of marketing commodities provided that the date for marketing is publicized and potential traders are identified before aggregation.



Building on the information provided to both farmers and buyers on gross margins and production figures respectively, the Project was able to facilitate the establishment of 7 aggregation centers in Lundazi, 3 in Chipata and 7 in Katete. The establishment of these aggregation centers in the communities enabled farmers to reduce on transactional costs up to ZMW10 per bag, incurred during transportation of commodity from their farms to traders.

Market Linkages

Using existing structures of the CAC, District Women Associations (DWA) and cooperatives, the Project facilitated the timely and accurate communication of potential linkages to traders and their respective buying prices. The Project used radio announcements to encourage traders to come and meet producers through CACs, DWAs or through the cooperatives. Bringing traders to speak to the producer groups enabled them to agree on the prices for each of the commodity types, set a marketing day as well as payment modalities, facilitating greater aggregation and sales.

In addition, the Project facilitated market linkages for field crops to various traders and buyers who included ZDENAKIE, Jungle Beat, Cargill, and Dunavant.

The market linkages resulted in the following

Crop	Quantity Sold	Value ZMW	Value US\$
Sunflower	477,239kg	530,675	102,052.14
Groundnut	636,079kg	1,917,730	368,791.54
Soybean	1,097,535kg	3,206,355	616,602.22
Totals		ZMW 5,654,760	US\$ 1,087,446

A total of 3,201 farmers (43% women) participated in the exercise in Year 1 for the three value chains.

Horticulture Marketing Strategy

The Project's main objective for the onion and tomato VCs is to extend the production window and improve post-harvest handling of the two crops to take advantage of seasonal price differentials of sales, expand formalized and direct sales to 'modern' and regional markets via improved processing/storage facilities which would increase premiums on quality/standards and reliable volumes of supply.

The Project conducted a rapid market assessment at Kasumbalesa Border Post and Soweto Market, to analyze the market with the view of making recommendations on how best the end market can be accessed for onion, tomato and groundnuts and benefit the value chain actors in these value chains. Emphasis would be placed on increasing incomes at the small producer level, increasing gender participation in the end markets of the tomato and onion value chains and establishing means of improving supply and efficiency of tomato and onion at the end market.

The major findings of the rapid market assessment are as follows:

- Fairly balanced participation of men and women in the horticulture value chains. This could be attributed to the low working capital required in the VC.
- No local onions traded at the border at the time of the assessment. The local onion is seasonal beginning October to February and is being sourced from Eastern Province Mugabe area at the time of the assessment the onions found on the market were imported from South Africa and Tanzania..
- Soweto Market, Mumbwa and Mkushi are the major suppliers of tomato at the border post.

- Lack of horticulture storage and cold chain facilities at the border post presents itself as a source of storage losses especially during the rainy season. The storage facilities available are not conducive for storing commodities for a long period. Highly perishable produce such as tomato in most cases are sold far less than their premium price when the market is flooded because of lack of cold chain storage facilities.
- There is insufficient and inconsistent market information that would link the traders/aggregators and brokers to the farmers for a better premium price. The MIS services are not effectively coordinated in terms of analyzed information reaching the target audience.

Arising out these findings, the Project developed strategies around increased productivity (as reported under IR1) and commenced the establishment of market linkages for smallholder farmers with supermarket franchises such as Pick N Pay as well as exploring facilitating of linkages for smallholder farmers with large off-takers such as Rivonia Farms who are into large scale onion and tomato processing. An MOU with Rivonia Farms is in process.

Enhancing the Capacity of Rural Enterprises and Cooperatives

Cooperative Assessment

The Project embarked on a cooperative assessment exercise which culminated in the identification of 32 progressive and established cooperatives, which PROFIT+ will collaborate with, in the Project's zone of influence.

The criteria for selection of the 32 cooperatives were:

- Cooperatives that are involved in the thematic areas that PROFIT+ is working in;
- The membership size;
- Gender balance in the cooperative membership and management;
- Innovativeness of the activities that the cooperatives are involved in; and,
- Proximity to the Project's zone of influence

The Project identified the immediate challenges being faced by these cooperatives and formulated a strategy to address those challenges with innovative initiatives. MOUs were established with all the 32 cooperatives which focus on the following activities

- Increasing the governance and business skills of the cooperatives
- Facilitation of market linkages between cooperative members and the traders
- Training in quality, standards and grades of commodities

Promoting Rural Enterprises through Local Partnership

Project Team continued to establish links with enterprises that are involved in processing of sunflower and groundnuts. During the year, the project provided support to the following organizations to build their capacity and encourage increased processing of sunflower, soybeans and groundnuts:



Right: Bottle of cooking oil processed by Katete DWDA

1. Katete and Chipata DWDAs

PROFIT+ supported the Katete and Chipata DWDAs which run sunflower oil processing enterprises to establish a separate management unit for their processing enterprise. From this intervention, Katete DWDA employed a field facilitator, two operators and a business manager, while Chipata DWDA employed two operators and a field officer. All the enterprises have opened also proceeded to open separate bank accounts for their business.

2. Petauke DFA

The Project also supported the Petauke DFA which started processing cooking oil and peanut butter. The DFA has employed an independent management team and have a separate account but like the other enterprises, they did not have a clear business strategy. The Project recommended the engagement of a consultant to help them develop viable business strategies.

PROFIT+ is also facilitating linkages to markets for these enterprises, for the groundnut cake which is a by-product of oil extraction.

3. Eastern Province Farmers' Cooperative (EPFC)

The project supported EPFC by partially funding the training of 50 buying agents in effective commodity purchasing principles and procedures. Additionally, the project supported the cooperative through provision of a motor bike to be used in their field monitoring and marketing activities.

The Project also supported EPFC by funding the seed inspection training for two EPFC staff. The training culminated into the two staff members being certified as seed inspectors by the Seed Control and Certification Institute.

Aflatoxin Management and Post-harvest Handling of Groundnuts

Increased production, productivity and quality of the groundnut is important to enable smallholder farmers take advantage of the increased domestic demand for aflatoxin-free medium grade groundnuts for the processing industry and confectionary grade nuts demanded by export markets.

The market demand for groundnuts from EP was very low due to high levels of aflatoxin contamination. To counter this negative market impact, the Project conducted a TOT for 139 partner trainers from the 4 DWAs and DFAs in Lundazi, Chipata, Katete and Petauke, Mfumbeni, 30 DHFs and 32 cooperatives aimed at providing them knowledge and skills to utilize new technologies and management practices that would help them reduce post-harvest losses and aflatoxin contamination in groundnuts.



The 139 trainers rolled-out the trainings to 16,487 smallholder farmers (9,802 females and 6,810 males) in Eastern Province. During the training farmers indicated that they were not aware of aflatoxin and its dangers to human health. Stages of aflatoxin contamination which include harvesting, drying, shelling and storage for groundnuts were discussed during the training.

Left: Women from Lundazi DWDA inspecting groundnuts infected by aflatoxin during training

YEAR 1 ACHIEVEMENTS UNDER IR2

- a. Aflatoxin levels of groundnuts from EP reduced from 12 parts per billion (ppb) to acceptable levels of between 1 – 4ppb as reported by EPFC whose groundnuts were tested by a buyer prior to exporting to South Africa.
- b. One of the Project’s partners (EPFC), was able to export quality groundnuts to South Africa because they met export standards.
- c. Aggregation efforts enabled smallholder farmers like Beatrice Nyirenda of Anderson Village (32km from Chipata) to increase their household incomes due to sales achieved with good profit margins and reduced transactional costs such as transport. Beatrice took part in the aggregation activity at Chisomo Multipurpose Cooperative in Chipata.
- d. Creation of jobs by partners e.g Jungle Beat employed two new agents in Lundazi and Chiparamba area to buy commodity on their behalf, Chipata DWDA created three jobs, Katete

3.3 IR3: Increased Private Sector Investment in Agricultural Related Activities

PROFIT+’s goal is to contribute towards increasing competitiveness of smallholder Zambian farmers, associations and firms to achieve trade-based rural economic growth and poverty reduction. PROFIT+ will catalyze \$50 million in private sector investment in agricultural activities in its target districts, by the end of the project.

To this end, the Project has developed strategies of collaborating with private sector entities and stakeholders to increase investment in smallholder farming at all levels of the value chains. The Project held numerous meetings and discussions with stakeholders to explore collaborative agreements in the areas of:

- Provision and distribution of inputs to farmers;
- Multiplication of basic seed, seed certification and training of seed inspectors;
- Quality control of inputs and products, increasing production, training in production technologies (including conservation agriculture) and extension delivery through demonstration plots;
- Provision of advisory services in trade;
- Market development through processing and market information and linkages;
- Aggregation and provision of market opportunities and warehousing facilities; and,
- Organizational strengthening.

In Year 1 the Project established memoranda of understanding (MOUs) with 45 entities which included 36 cooperatives, 6 women’s groups, 1 partner NGO and 2 private sector companies. The MOUs are aimed at establishing collaborative agreements with value chain stakeholders that are committed to the same goals and objectives as those of the PROFIT+ project, and that are prepared to, or are already investing in building the smallholder supply base in the four districts of Eastern Province and selected Peri-urban areas of Lusaka where the PROFIT+ project is being implemented. Summary of specific activities under each MOU are in Annex 2.

YEAR 1 ACHIEVEMENTS UNDER IR3

In Notable partnerships include:

World Food Programme (WFP)

The Project will collaborate with WFP in the Aflasafe distribution and testing pilot. Other activities will be the joint development of a warehouse based MIS, identification of excess production areas for warehouse construction and grain grading and management interventions. The Project is also working on jointly identifying cooperatives and MSMEs to participate in the WFP Purchase for Process (PFP) commodity buying activities. Profit+ will support the recruitment of farmers or farmer organizations as suppliers of commodity for WFP, negotiate terms of acceptance of the WFP warehouse receipt system by banks and coordinate with WFP on deployment and testing of its mobile Market Information System (MkIS).

Adventist Development and Relief Agency (ADRA):

PROFIT+ and ADRA developed a dried horticulture processing scheme and conducted a financial analysis of the same in September 2013. A draft sub contract is being worked on which will form the basis of cost and expertise shared responsibilities for drip based production and solar drying units in Kafue and Katete. ADRA has also been contracted to conduct part of the WFP Purchase for Progress (P4P) commodity procurement and is working with the Project to identify areas of excess production to establish warehousing infrastructure and processing plants.

Afgri Corporation (Afgri):

Afgri is an agriculture service company that mainly deals in agriculture equipment, commodity trading and agri-input finance. It is the largest commodity buyer in Eastern Province and the largest distributor of John Deere products in Zambia. PROFIT+ will work with Afgri to expand its equipment credit program by helping to identify interested and capable farmers and facilitating the grant application process. Katete has been identified as a trial district in which about 300Ha (spread over several farmers) is will be used for an all season demonstration of mechanized ridging/ripping, fertilizer application, spraying and haulage.

JungleBeat:

JungleBeat is a peanut trading and processing company that sources the bulk of its trading and processing stock from small scale producers in the Easter Province. Through the Project facilitated DCA fund resident at ZANACO, PROFIT+ was able to assist JungleBeat access a \$1.8 million USD trade loan for commodity sourcing. They proceeded to purchase US\$3.5m worth of groundnut seed from the Project facilitated aggregation centers.

Export Trading Group (ETG):

The Project is working with ETG to distribute Aflasafe for the commercial pilot test this farming season. ETG has also expressed interest in investing in a local Aflasafe manufacturing plant in Zambia. The total investment in plant set up is expected to be in the region of USD 500k per annum.

Cargill 2000:

Cargill is looking to expand and diversify its out grower strategy to include maize and soybeans. While the Project continues to work on an independent commodity sourcing strategy, it is in the process of working out modalities for an in-kind technical assistance grant that would strengthen Cargill's capacity to deliver extension services for maize and soybeans production within its out grower network. This is expected to lead to 50,000 farmers being taught new technologies that can be financed through a Cargill input credit scheme. These farmers will also have the added benefit of have a guaranteed market for their commodity.

Chipata District Farmers Association and ZANACO Credit input scheme

Using the DHF model, the Project aims to leverage on the Chipata DFA and ZANACO credit input scheme to enable access to credit input and crop insurance for about 3,000 farmers.

Crop Serve

Cropserv invested into the DHF model by providing agro-chemical demo packs for both field crop and horticulture crops for the 2013/2014 season. This will enable DHFs to demonstrate improved technology at minimal adoption costs.

ZAMSEED

ZAMSEED invested in the DHF model by providing 200 demo packs for the 690 open field crop demo plots in Eastern Province for the 2013/2014 season. The demo packs comprise improved seed varieties for groundnut, soybeans, maize and sunflower, including required fertilizers for each variety. This will enable the DHFs to show case improved production through the use of improved seed varieties and inputs.

Hygrotech

The Project partnered with Hygrotech to provide training to MAL staff on community seedling production. The Company invested US\$6,720 into the trainings and offered on-going technical support to FBAs once the seedling production demo plots are established in Peri-urban and Eastern Province.

3.4 Innovation and Investment Fund (IIP) – Grants Program

During the year under review, PROFIT+ launched the Innovation, Investment and Partnership Fund (IIP Fund). The investment fund provides a risk-sharing platform for the introduction of innovative concepts and investments in the agricultural sector. The aim of the grants program is to enable PROFIT+ catalyze US\$50m in increased investment in agriculture-related activities. To complement and incentivize this investment, PROFIT+ is leveraging these grant funds through a flexible mechanism that reduces risk, fosters innovations, leverages resources, builds local capacity and provides a means to address constraints in target value chains.

While the IIP Fund is designed as an investment fund, the objective of the grant-fund activities and business opportunity must contribute to the achievement of the project's objectives. PROFIT+ will vary the process for different applicant groups and service providers based on their implementation and management capacity.

The Project utilized a competitive and transparent process to select local implementing partners as follows:

Annual Program Statement (APS)

The Project developed an Annual Program Statement (APS) whose purpose is to solicit proposals from prospective grantees for implementing activities under the PROFIT+ project, focused on promoting growth of the six selected commodities: groundnuts, soybeans, sunflower, horticulture (tomatoes and onions) and maize. The Project expects proposed projects to address a range of issues, including but not limited to improving access to finance and other services (storage, extension, improved inputs, mechanization, and new technologies) for smallholder farmers and value chain participants, and the strengthening of current, and provisioning of new, markets and marketing opportunities

Call for Concept Notes

Using public media and online advertisements, the Project published the APS and called for private sector entities to submit concept notes which proposed innovative concepts/activities for possible funding under the IIP fund.

Two calls for concept notes were published with a total of 58 concept notes received. By end of the year, 6 of the concept notes were approved to submit full applications for grant funding.

RAPID RESPONSE GRANTS

The Project also disbursed the following rapid response grants to facilitate the rollout of training activities through local partners.

- a. Eastern Province Farmers' Cooperative (EPFC) to buy groundnut seed for multiplication by farmers. The value of the in-kind grant was \$4,300.00 and was leveraged with \$4,320.00
- b. Developed and disbursed 70 in-kind micro-gGrants with Demo Host Farmers for Demo signs and farm inputs valued at \$14,287.
- c. Developed and disbursed 30 in kind micro grants for Demo Host Farmers to be trained in Aflatoxin Management valued at \$6,059.
- d. Provided Fixed Obligation Grants (FOGs) to 33 Cooperatives, 4 district women associations and 5 Farmer associations for Aflatoxin Management trainings valued at \$81,375. A total of 16,487 smallholder farmers were reached through these grants.
- e. Developed 7 FOGs with Hygrotech to conduct district trainings of Camp Extension Officers (CEOs) in Horticulture valued @ \$59,267. By reporting time, the CEOs had reached 8,108 farmers out of a targeted 12,000.
- f. 4 FOGs to support Gender Mainstreaming trainings with Chipata, Lundazi, Katete and Petauke District Women Development Associations, Mfumbeni and Kachere where signed. The total value of the grants is \$105,519.00 and a total of 36,058 smallholder farmers out of a targeted 36,000 were reached during the roll-out trainings by the 6 organisations, by end of reporting year
- g. Developed 40 micro Grants for the Horticultural Training for Chipata, Lundazi, Katete, Petauke and Lusaka FBAs valued at \$13,360.18. 40 FBAs attended the trainings.

ACHIEVEMENTS

1. The facilitation of a \$1.8 million USD facility to JungleBeat, a groundnut trading and processing company which translated into groundnut purchases from smallholder farmers valued at approximately USD3.5m (or 3,500Mt of commodity).
2. The seedling production training conducted in collaboration with Hygrotech resulted in over 8,000 smallholder farmers acquiring knowledge on new and improved production technologies for onions and tomatoes.
3. The IIP fund played an important role enabling PROFIT+ to reach out to smallholder farmers with new technologies, skills, farming inputs and equipment due to private sector investment and involvement through various grants valued at US\$202,792.18.

3.5 Cross-cutting: Gender Integration

PROFIT+ is committed to creating equitable and sustainable opportunities for women and men along the target value chains. Based on the gender and barrier analyses conducted in Year 1, PROFIT+ engaged with community leaders and members to share its gender strategy and to promote the economic benefits of including women in all value chain activities. The Project worked with chiefs and other traditional figures to ensure that women maintain access and rights to land, building off of national and regional advocacy campaigns.

Building on the findings from the two analyses and the Zambia FTF Gender Assessment for the USAID/Zambia Mission carried out in January 2011, PROFIT+ attached great importance to gender relations, issues and constraints at the household, farm and community levels. The Project initiated a gender approach aimed at creating equitable and sustainable opportunities for women and men along the target value chains as using the following strategies:

- a) Promoting the inclusion of women in the targeted value chains to ensure gender equality, women's empowerment and environmental compliance through capacity development and support to women's groups to increase participation of women at all levels of the value chain.
- b) Facilitating the introduction of productivity enhancing technologies and best agricultural practices to improve smallholder productivity at the local level in a gender sensitive manner through the deployment of women as demo host farmers.
- c) Expanding the seed multiplication and commercial production programs.
- d) Organizational strengthening and capacity building interventions for 6 women's development organizations with combined membership bases of 22,300 people; and ensuring that there is 50% involvement of women in training activities, and as lead farmers and agents in good agricultural practices, business skills, quality control and basic value addition.
- e) Promoting value addition for target value chains in a gender sensitive manner.



Above: Alice Zulu, Demo Host Farmer - Petauke

- f) Facilitating improved access to market information for women's groups.
- g) Facilitating improved access to finance for women-owned agro-enterprises by promoting finance products catered for women farmers.

Women's Empowerment in Agriculture Strategy

The Project established a strategy document to monitor gender mainstreaming using the Women's Empowerment in Agriculture Index (WEAI) tool. The document incorporates participatory gender mainstreaming tools that will be tailored to the respective local context in line with the PROFIT+ gender mainstreaming work-plan that was developed during the Project start-up period. The target for women empowerment in the Feed the Future project is 20% and the focus domains of empowerment are decision making, access to productive assets and equitable workloads. During the life of the Project will ensure that activities contribute to each of these components.

The Project successfully conducted the following activities:

Gender Sensitization of PROFIT+ Staff

A gender mainstreaming and sensitization workshop was held for PROFIT+ staff with the following objectives:

- To create gender awareness among PROFIT+ staff and participants.
- To introduce PROFIT+ staff and participants to gender and development tools for analysis in the projects.
- Introduction to gender equality indicators in the PMP



After the staff workshop, PROFIT+ conducted a field practical training at Feni where some of the gender analytical tools introduced to staff in theory, were applied practically.

The Feni practical training (left) attracted fifteen participants (7 women & 8 men) out of which six were married couples.

The participants were members of a Savings and Lending group under Chipata District Women Development Association and learnt on how to mainstream gender and gender equity both at household and community level.

Women's Involvement in PROFIT+ Activities

The guiding strategy for the Project during Year 1 was to ensure that women are included at identification, recruitment and training for all the partners that PROFIT+ is working with. The team ensured gender integration and equality in program implementation at all levels. There is also an

ongoing gender analysis, identification of entry points and good practices as part of ensuring gender responsive value chain development.

In line with the above, the gender team worked with the Chipata and Katete DWDAs that have oil expellers to process cooking oil from groundnuts and sunflower, to determine the quantities of inputs needed to fully utilize this equipment. A production plan is being finalized so that all nodes of the groundnuts and sunflower value chains can have full active participation of women.

Other interventions and activities were as follows:

a. Female Demo Host Farmers & Agro dealers

The Project undertook a deliberate strategy to empower the women demo host farmers and agro dealers who are implementing activities for PROFIT+ in the districts by deploying them as trainers, speakers and motivators for Project interventions and innovations at community level. In Year 1, the Project recruited 34 female demo host farmers (7 Chipata, 14 Katete, 11 Petauke and 2 in Lundazi), out of the total 70. The women demo farmers and agro dealers were also supported through providing technical advice and materials to host Farmer Field Schools for the smallholder farmers in the communities near them. As a result there has been increased women's uptake of improved technologies for production and productivity of the targeted value chains.

b. Memoranda of Understanding with Women's Groups

The Project signed MOUs with Lundazi DWDA, Chipata DWDA, Katete DWDA, Petauke DWDA, and Mfumbeni Development Association (MDA). The 5 partners will focus on issues of gender mainstreaming and women's empowerment in PROFIT+ activities. The total membership of these groups is approximately 22,300. The Project is also developing MOUs with five other gender-focused NGOs, namely Kachere Development Program, WASAA, Katuba Women Association and Mtengo Women Association and Shorthorn Farmers' Women Association. These institutions have large numbers of women members and are involved in agricultural income-generating activities in the PROFIT+ value chains. PROFIT+ will leverage the existing institutions in order to increase women's participation in the program.

As a result of the involvement of these NGOs up to 50% more women have been included in the PROFIT+ activities.

c. Gender Training of Trainers (TOTs) and Roll-outs

Working through the 6 local partners, the Project implemented group development and gender mainstreaming TOT workshops, as well as roll-out activities for Lundazi, Chipata, Katete and Petauke Districts. The TOT trained 129 trainers (99 women and 30 men) from the 6 organisations, who rolled out the training to 36,580 (24,171 women and 11,887 men) small holder farmers in their respective communities. The main objectives of the training were to enable participants:

1. Describe and apply the components of governance in the community groups
2. Discuss and practice group formation and leadership dynamics in community group situation and or activities

The 6 partners also received project support to form a total of 120 new groups in the PROFIT+ zone of influence. Each organization will form 20 new groups with at least 25 women and men in P+ zone of influence. This will help increase organizational membership base as a result of project assistance. By the end of the year, 337 new groups were formed as a result of the trainings.

d. Courtesy Calls on Their Royal Highnesses (Chiefs) in Eastern Province

The Project met with Senior Chief Nzamane, Chief Madzimawe and Paramount Chief Mpezeni of Chipata, Chieftainess Nyanje of Petauke and Chieftainess Mwasemphangwe of Lundazi district to officially introduce the PROFIT+ Project, seek their buy-in and establish areas of collaborations in some of the economic development activities and plans of the chiefdoms. Their Royal Highnesses were very grateful for the gesture and pledged strong support for the activities of the project and opportunities for collaboration.

Participation in Local, Regional and International Activities

a. International Women’s Day (IWD)

The Project attended preparatory meetings for the International Women’s Day celebrations in both Chipata and Lusaka and participated in the activities of IWD at Mboza Women Development Association and the Chipata Provincial event. The theme of the celebration was “The Gender Agenda, Gaining Momentum” which was done to build a critical mass on inclusive value chains development.

USAID Feed the Future (FtF) Implementing Partners Gender Workshop

The team attended the USAID Zambia FtF Economic Growth implementing partners’ gender workshop. The objectives were:

- To raise awareness and familiarize ourselves with information about gender differences in Eastern Province; and,
- To share what gender lessons the Project has already learned and begun to implement in our Programs.

a. Gender Action Learning System (GALS) – Nigeria

The Project was represented at this forum which was implemented by the Farmers Development Union (FADU) and focused on microfinance in cocoa value chains and the Nigerian Agricultural Traders Association (NANTS) work in rice value chains. It was sponsored by Oxfam Novib’s Women Empowerment, Mainstreaming and Networking (WEMAN) program. The workshop dealt on sharing lessons on how the GALS tools are quickly contributing to gender justice in communities and improving profitability of the targeted value chains through increasing gender equality. The Project will consider adopting the gender mainstreaming strategies that were discussed at the conference in the PROFIT+ year two gender annual work plan.

b. The Gender Global Learning and Evidence Exchange (Gender GLEE) Conference

The GLEE conference was held in Washington DC and brought together 155 participants (117 females and 38 males) from USAID Missions, implementing partners, experts, researchers, and other practitioners to share best practices, lessons learnt, and current evidence and challenges in integrating gender into FtF programs.

PROFIT+ participated by way of a joint presentation with the USAID Zambia Mission and Mawa project. The PROFIT+ representative gave a brief presentation on the Project's best practices and facilitated a co-lab as a resource person on capacity building.

YEAR 1 ACHIEVEMENTS UNDER GENDER

1. The 129 (99 women & 30 men) representatives from partner organizations who were trained in gender mainstreaming, leadership skills and group formation will continue to conduct gender mainstreaming and group development activities for small holder farmers to enhance effectiveness and inclusive development of the project
2. A total number of 337 new groups were formed by the 6 partner groups in the operational areas covered by Petauke DWDA, Chipata DWDA, Katete DWDA, Kachere Development Programme and Mfumbeni Development Association. The total membership in these groups is 11, 058 (F- 7,022; M- 4, 036). These new group members will be engaged through their associations in project activities and receive enhanced extension services as well as participate in activities such as aggregation/bulking and trainings.
3. Arising out of the courtesy calls on chiefs, Mfumbeni Development Trust (MDA) which is a traditional structure facilitated an Aflatoxin management and post harvesting handling training for over 750 community members in their chiefdom. The Trust is also conducting sensitization of people on how certain cultural practices have a negative impact on women's equity and empowerment and is promoting women's increased control over productive resources such as land.
4. Their Royal Highnesses were present during the official Launch of the project on March 21, 2013 and a number of village headpersons in the Project's zone of influence have attended community sensitization workshops in gender, Aflatoxin management and group leadership. This has encouraged community members to participate in activities.

3.6 Cross-cutting: Access to Finance

PROFIT+ is working on both supply and demand sides of the finance sector to increase the competitiveness of target value chains. The Project is aiming to increase the capacity of smallholders and other value chain actors to develop sustainable linkages among themselves (e.g., for inputs on credit), with financial institutions and other private sector entities. The Project is facilitating increased investment in agriculture by MFIs, commercial banks and private sector companies in the development of appropriate financial products and services.

While the Project has initiated conversations with MFIs and commercial banks, the Access to Finance strategy depends on identifying buyers who are willing to enter into an agreement with farmers at the time when credit is needed. Financial Service Providers have indicated that they will

be willing to explore input-credit schemes but are hesitant to engage smallholders as clients without them.

During the year under review, the Project had various interactions and collaborative meetings with MFIs, commercial banks and private sector entities to explore interventions increase the availability of working capital and input-credit schemes for producer groups for the purchase of inputs, seasonal short-term facilities to enable the development of private trade in input supply and commodity marketing, and investment in storage and processing for smallholders and cooperatives.

Table 8: below outlines the interactions and follow-on actions for the Project

Partner	Deal Profile	Expected Outcome	PROFIT+ Role	Deal Value	Status	Significant Milestones
Cargill	Technical assistance for Cargill Extension officers in maize and soybeans to support outgrower scheme	TOT for 250 Cargill extension officers translating into 50,000 farmers being trained and accessing credit inputs	Facilitate crop production TA to Cargill extension officers	1. Project cost estimated at USD50k 2. input scheme estimated at USD 7m	1. Farmers have been identified. 2. Inputs have already been delivered to distribution points. 3. Currently identifying a consultant	1. Contracting consultant 2. Signing grants agreement with Cargill
DUNAVANT (now NWK)	Credit input finance for out-grower farmers growing maize and soy (???)	NWK able to release inputs finance by third party FSP; repayment through bank	Facilitate financing for selected farmers	NWK has not determined the scale of the pilot scheme	On-going discussions	Confirmation from NWK on the specific role it will play and scale
ADRA	Establishment of tomato and onion drying centers – who pays? What is the deal? What is Adra doing what is P+ doing?	Drying capacity for initially up to 300kg of fresh commodity per week	Horticulture production TA, grants and access to finance support	Total of \$550k USD; \$510k is ADRA's investment; \$40k is PROFIT+ for 4 sites	1. Contract terms being drafted and MoU awaiting approval by ADRA before sign off 2. Distribution of equipment in progress	1. MOU signed 2. Site identification completed and farmer recruitment
WFP	Strengthening contract farming supply base; and piloting warehouse receipt system and; and. mobile MktMarket. Information System	1. Expanded market for SHFs and higher gross margins 2. Increased impetus to aggregate using warehouse mechanism 3. Improved price info. through mobile data	1. PROFIT+ to help recruit producers to supply WFP 2. Negotiate banks' terms of acceptance of warehouse receipts 3. Coordinate on mobile Mkt Info. Sys.	TBD	1. DHFs and 35 cooperatives will be inspected and approached by WFP with PROFIT+ within 1 st quarter Yr2 2. 1st joint system review of mobile market information system was done.	1. Delivery of SMFM to producer groups and release of buying quantities and indicative commodity buying price by WFP

Partner	Deal Profile	Expected Outcome	PROFIT+ Role	Deal Value	Status	Significant Milestones
Chipata District Farmers Association & ZANACO	Credit input scheme	Access to credit input for about 3000 farmers in Chipata with crop insurance bundled into the product	Brokering the deal and committing to technical backstopping through DHF model.	\$650,000 USD	WIP	Contract between DFA and ZANACO
Crop Serve	Agro-chemical Demo pack distribution for both field crop and horticulture crops	DHF able to demonstrate improved technology at minimal cost of adoption	PROFIT+ identifying which farmers will benefit from this intervention	80 demo packs	Chemical pack to be delivered once project determines quantities required for both field and horticulture crops	Delivery of demo packs to Project offices
ZAMSEE D	Demo pack distribution consisting of seed and chemicals	DHF able to demonstrate improved tech. at minimal cost of adoption	PROFIT+ identifying farmers for this intervention	200 demo packs	Concluded	NA
Afgri	Tractor lease-to-purchase scheme	Adoption of mechanized crop production and opportunity for increased income for farmers.	Organizing farmer groups to demonstrate and facilitating sales for Afgri	USD 70,000 worth of mechanized service traded	Only tractor operator is outstanding	Delivery of demo truck into Katete

ACHIEVEMENTS UNDER ACCESS TO FINANCE

Impacts of partnerships established in Year 1 will mostly be recorded in Year 2. In Year 1 the project supported a trade finance loan application by JungleBeat - a groundnut trading and processing company, to the value of USD1.8m. Jungle beat was able to access these funds through the Development Credit Authority fund established by the local USAID mission with ZANACO. The total value of commodity traded as a result was USD3.5m with approximately 7,000 farmers in Eastern Province.

3.7 Cross-cutting: Environmental Compliance

Environmental Stewardship Mainstreamed

Pursuant to USAID's Regulation 216 which ensures that the environmental consequences of activities are appropriately mitigated and monitored according to the provisions of the approved Environmental Mitigation and Monitoring Plan (EMMP), the program began facilitating the preparation of site-specific environmental mitigation and monitoring plans (EMMP) that are based on the project-level EMMP (see annex 3).

PROFIT+ has mainstreamed environmental stewardship through the promotion of improved agricultural technologies for smallholder farmers. In addition, other value chain actors such as processors who are in partnership with PROFIT+ are now being encouraged to enact mitigation measures against potential adverse associated with their operations. The preparation and utilization of localized EMMPs fosters environmental stewardship through shared responsibility by everyone who is connected to the activity such as DHFs, FBAs or processors and other stakeholders around such sites. This is being done to further enhance the responsible use and protection of the natural environment through conservation and sustainable practices. It is envisaged that this responsibility for environmental quality will be shared by all those whose actions affect the environment.

In this regard, all activities whose follow-on implementations have a negative determination now include an environmental management component as a way of enhancing environmental sustainability in the subsequent activities.

During the period under review, environmental stewardship was fostered through a wide range of initiatives, including:

- Promoting aspects of conservation agriculture such as minimal disturbance of the soil through either ripping or digging basins, which works to lessen the potential for soil erosion;
- Promoting Integrated Pest Management (IPM) practices including triple rinsing and puncturing empty pesticide containers;
- Requiring farmers to come up with their own site-specific environmental mitigation and monitoring plan so that potential negative impacts associated with their farming activities are identified and appropriate mitigation measure are put in place;
- Requiring farmers not to go beyond the minimum distances between the water sources and gardening activities to lessen sedimentation and water pollution from run off;
- Utilizing components of precision agriculture technologies such as spot fertilizer application thus reducing the potential for runoff into ground and surface waters;
- Discouraging farmers not to open up new farms but to enhance productivity on existing farms;
- Mitigating and adapting to the effects of climate change through trainings that encourage smallholder farmers to apply minimal tillage; early planting; use of improved certified seeds;
- Encouraging processors to come up with EMMPs that minimize pollution and put in waste management procedures.

In Year 1, the Project ensured that stakeholders, such as DHFs, FBAs, and processors, shouldered the main responsibility for monitoring the effectiveness of the mitigation measures and appropriate management practices contained in their EMMPs. Such plans are providing a framework for setting and obtaining consensus for a community-based environmental mitigation and monitoring mechanism.

Notable achievements for the Project were:

a. The Profit+ Environmental Review & Report (ERR) Completed and Approved by USAID

An Initial Environment Examination (IEE) was undertaken during Project start-up and approved so as to ensure that potential negative impacts associated with PROFIT+ activities were identified and appropriate mitigation and monitoring measures are put in place. The Environmental Review & Report (ERR) arising out of the IEE provided important information that is being used to mitigate risks associated with the aspirations and program implementation strategies and analysis for recommendation on whether or not significant adverse impacts are likely from the project activities.

It also set recommendations on mitigation and monitoring for potential adverse impacts thus identified. The approval of the IEE and ERR enabled the project to implement its activities in accordance with the provisions for mitigation and monitoring contained in the Environmental Mitigation and Monitoring Plan (EMMP).

b. Pesticide Evaluation Report and Safer Use Action Plan (PERSUAP)

Due to the risk concerns presented by pesticides, USAID's environmental regulations require that all programs that include assistance for the promotion, procurement (directly or through financial instruments) or use of pesticides must assess risks associated with this assistance following the Pesticide Procedures described in 22 CFR (Regulation) 216.3. PROFITPLUS contracted a consultant to lead the assignment of coming up with a PERSUAP for the program.

The 2013 USAID/Zambia Umbrella Pesticide Evaluation Report (PER) and Safer Use Action Plan (SUAP) or PERSUAP, has been approved by USAID. However, the delay in the approval of this evaluation report has adversely affected the implementation of the horticulture value chain activities which depend on crop protection products to enhance production and productivity. The Safer Use Action Plan (SUAP) which is a compliance tracker mechanism for the PER has been prepared and submitted. The PERSUAP was accomplished with support from MAL, Crop Life Zambia, Zambia Agriculture Research Institute, CASH, ZNFU, CFU, AgriFocus Ltd, Hygrotech, VIP Trading Center, SPLASH and ZEMA.

c. Internal Staff Training on USAID Environmental Procedures

The Project conducted a two day in-house staff training in USAID Environmental Procedures which was aimed at raising and enhancing staff awareness of the USAID environmental compliance requirements and procedures in PROFIT+, as well as build capacity to enable staff to facilitate the preparation of community environmental mitigation and monitoring plans (EMMPS). In addition, the training was aimed at enabling staff to appreciate climate smart agriculture.

d. Environmental Capacity Building to Partners and Beneficiaries

Through direct trainings from MAL staff and field days, 1,190 small holder farmers were trained on improved agricultural technologies and management practices that are environmentally sustainable. Other partners such as 123 agro dealers were equally trained on safer practices in pesticide use during the NUTRIAID-facilitated trainings.

In addition three oil processing facilities consisting of two DWDAs and one DFA were visited and discussions were held with them on what mitigation measures they could put in place to improve their operations.

e. Partnership with CropLife

In its efforts to enhance safer use of pesticides, the Project entered into a partnership (MOU) with CropLife, which is an association representing the plant science industry, including the majority of responsible manufacturers & suppliers of crop protection products. The main activity under the MOU is leverage on CropLife's innovative ZEMA-certified training-of-trainers approach in the responsible use of pesticides which is expected to result in improved pest control and yield benefits for small-scale farmers.

ACHIEVEMENTS UNDER ENVIRONMENT

By the observance of the mitigation measures contained in the Project-level EMMP and building capacity for beneficiaries in coming up with site specific EMMPs, the program is enhancing the sustainability outlook of the activities that are being promoted.

In this way the program has encouraged the integration of environmental stewardship into the agricultural practices of the program and at the same time raising the levels of responsible stewardship of common resources through the formation and/or strengthening of diverse groupings.

3.8 Cross-Cutting: Training

The Project embarked on a vigorous training agenda during Year 1 aimed at capacity building for smallholder farmers to support adoption of improved technologies and practices and to build the capacity of extension networks, agribusinesses, producer organizations and local partners.

The Project established a number of partnerships and collaborations during the year under review to support its training agenda. This was necessitated in order to deliver various trainings, improved management practices and technologies to target project beneficiaries (smallholder farmers).

The partnerships and collaborations developed with cooperatives and women's groups helped the Project achieve results due to the fact that:

- Many beneficiaries were reached through them as they have large following of farmers
- The partners assisted in training their members and other farmers in improved technologies and management practices
- They helped in implementing improved technologies and management practices the project is promoting
- They helped in demo plot establishment and management
- They helped in providing proof of project impact on beneficiaries through data collection, testimonies and stories of change.

In addition, through the Ministry of Agriculture and Livestock, the Project was able to leverage the already existing extension service infrastructure run by MAL. The Project also took advantage of

existing human resource for successful implementation of project activities to ensure sustainability of project activities.

Specific partnerships formed included:

- 4 District Women Associations (Lundazi, Chipata, Katete and Petauke)
- Mfumbeni Development Association (MDA)
- Kachele Development Program (KDP)
- 4 District Farmers Associations (Lundazi, Chipata, Katete and Petauke)
- 36 Cooperatives
- The Ministry of Agriculture and Livestock (MAL)
- Hygrotech
- Nutri-Aid
- Starke Narke Zambia
- Agribusiness Forum
- ZARI/Msekera
- Conservation Farming Unit

The trainings conducted during the year, aimed at equipping value chain actors with new skills and technologies in production, post-harvest handling, environmental compliance, gender mainstreaming and business skills.

Table 10: Outline of all the trainings conducted by year end and numbers reached:

Training Description	Purpose/Objective	Area	Partner/Consultant	Male	Female	Total
Demo Plot Management (November 2012)	Train DHFs in demo plot establishment, layout, planting and record keeping	Lundazi, Chipata, Katete, PEtauke	CHC, Zamseed, Pannar, Afri-Chemicals, Pioneer	36	34	70
Farmer Field Days (December 2012 to June 2013)	Transfer improved technologies and practices to smallholder farmers	Lundazi, Chipata, Katete, Petauke	Demo Host Farmers	583	573	1,120
Aflatoxin Management and Post-Harvest Handling (March – May 2013)	Training of smallholder farmers in technologies and practices to reduce post-harvest losses due to aflatoxin contamination	Lundazi, Chipata, Katete, Petauke	Cooperatives, DWDAs, ZARI, Agribusiness Forum	6,810	9,402	16,487
Environmental Compliance	Educate PROFIT+ staff on USAID’s environmental procedures, environmental development and the Project’s EMMP	Chipata		8	4	12
Horticulture Seedling Production Training of Trainers (TOT) (June 2013)	Train MAL staff on new community seedling production technology to roll-out to 12,000 farmers in EP and Peri-urban Lusaka	Lundazi, Chipata, Katete, Petauke and Peri-urban Lusaka	Hygrotech, MAL	73	27	100

Training Description	Purpose/Objective	Area	Partner/ Consultant	Male	Female	Total
Horticulture Seedling Production Technology Roll-out Trainings (June to September 2013)	Transfer new horticulture community seedling production technology to 12,000 farmers in EP and Peri-urban Lusaka	Lundazi, Chipata, Katete, Petauke and Peri-urban Lusaka	MAL	6,641	1,467	8,108
Training of Agro-dealers (June 2013)	Capacity building in agro dealership and basic business principles; legal requirements of an Agro dealer; business types and registration, PACRA forms; agro dealer business environment (SWOT); marketing for an Agro dealership business; planning, costing, pricing and profit projections; record keeping; ZEMA licensing and product knowledge	Lundazi, Chipata, Katete, Petauke	Nutri-AID	74	49	123
Gender Trainings (TOT and Roll-out) (August – September 2013)	Training of DWDAs, women's associations and smallholder farmers in gender mainstreaming, group formation and leadership	Lundazi, Chipata, Katete, Petauke	DWDAs, Mfumbeni, Kachere Development	11,887	24,171	36,058
Training of FBAs in onion and tomato production (September 2013)	FBAs trained in new skills for onion and tomato production, constraints, areas of focus in production, cultivars available, onion growing as a business, gross margin of hybrid varieties versus open pollinated, production cycle, drying and storage techniques.	Peri-Urban	Hygrotech, Starke Ayres Zambia	28	12	40

Note: By end of the reporting period, the gender and horticulture roll-outs were still being conducted in the districts. Full numbers reached from these activities will be reported in the 1st quarterly report in Year Two.

ACHIEVEMENTS UNDER TRAINING

1. During demo plot monitoring feedback, farmers were able to see the difference between their usual way of farming and the new way of farming that the Project introduced to them through the use of improved farming technologies. Most farmers informed the Project that they were motivated to try the new technologies in the next planting season.
2. Arising out of the farmer field days, there was noticeable increased use of certified and improved seed in P+ zone of influence. Mary Sakala in Kawalala Camp in Katete, recorded an increase in yield from the commercial treatment (75kg of soy) as compared to traditional treatment (45 kg of soy).
3. Feedback after the aflatoxin management trainings showed that some farmers applied the technologies or management practices during harvesting and drying of groundnuts. Other families agreed not to consume aflatoxin contaminated groundnuts.
4. The training of agro-dealers has increased awareness on proper business management skills amongst the ADs as evidenced by increased statutory (legal) adherence. 98 ADs out of the 123 trained have registered with PACRA and have obtained seed sellers' licenses from SCCI.

5. A total of 337 new groups have been formed after the gender group formation training. 337 groups have brought 11, 058 new members (7, 022 females and 4, 036 males) to the DWDAAs.

3.9 Cross-cutting: Monitoring and Evaluation

During Year 1, the Project invested in developing a monitoring and evaluation system with a focus on designing the tools and guidelines that integrate PROFIT+ M&E approaches into Project interventions. The development of the system was guided by various Feed the Future monitoring and evaluation system documents such as the indicator hand book which helped the project develop a results framework, the indicator tracking table, indicator reference table and the performance monitoring and evaluation plan.

In addition various data collection tools were developed and applied in the field. The Project also successfully conducted surveys that informed decision making. The baseline survey, completed in April through June, provides indicator baseline values not collected under the USAID FEEDBACK survey and has continued to inform decision making in the implementation of various interventions. The project also conducted a beneficiary and Community Mapping exercise, barrier and behavior change surveys.

The Project, in collaboration and consultation with USAID Zambia, developed and customized its Ki-metrics online database which is aligned with the Feed the Future monitoring and Evaluation system and DevRESULTs, an information management system which will be launched by USAID local Mission.

Major activities undertaken and achievement under M&E were:

Baseline survey

In the year under review, PROFIT+ completed a baseline survey that collected data on the Project's custom indicators including gross margin and incremental sales at the request of USAID. Prior to the survey, the project mapped the Project's Zone of Influence and verified the blocks, camps and villages which formed the sampling frame of survey. The major findings of the baseline survey are below:

1. The majority of the beneficiaries in the PROFIT+ Zone of Influence rely predominantly on rain-fed agriculture, which contributes to of the population's high vulnerability to food insecurity. The survey indicated an average of 10.9 months of adequate food provision per year.
2. An examination of inputs, storage, yields, sales, gross margin and the institutional framework, it is clear that the target group would benefit from increased support, which could result in improved smallholders' productivity, competitiveness in the market and ultimately household income and food security.
3. Low productivity and lack of surplus is the major reason why some smallholder farmers consume the majority of their production and are often unable to market any surplus. In 2012, 54 percent of

maize producers sold their produce. Fewer than 60 percent of households producing sunflower and/or groundnuts sold their produce.

4. Lack of quality inputs and limited mechanization emerged as a major trend among sampled farmers
5. Farmers indicated that the main reason they do not use agricultural inputs and improved seeds is that they are too expensive, but in the case of sunflower and soy beans seed the lack of skill among the farmers is also limiting factor.

Only 46 percent of farmers currently receive market price information via a radio program, with secondary sources being farmers/neighbors and extension agents. Less than half of the households interviewed reported having access to any source of credit, whether informal, semi-formal or formal

Community and Stakeholder Mapping

The Project in consultation with MAL extension officers established the Zone of Influence and identified different types of stakeholders who share the same aspirations as PROFIT +. Resulting from this exercise, the Project managed to collaborate with the cooperatives, lead farmers, processors and other players who are helping in delivering on project objectives. The community mapping has continued to inform programming in the following areas:

- Siting of the demonstration plots
- Identification and verification of demo host farmers
- Identification and verification of processors
- Identification and verification of geographical areas which have high productivity potential hence linking to the production and marketing of the selected value chains
- Identification and selection of the community based commodity aggregation

Monitoring and Evaluation System

Monitoring Tools

To ensure that the activities remained relevant and addressed the theory of change, in the period under review the Project developed tools that help measure activities being implemented by various project sectors. Debriefs were conducted at various forums on the application of various tools which are designed to streamline project results and interventions at various levels of program implementation. In addition data collection tools were developed to capture data at various activity implementation stages which have a direct linkage with the reporting formats. Project tools that have been developed and are being applied include:

- The Performance Monitoring Plan
- Beneficiary Registry (Training and Events Form)
- The partner Registry
- The Gross margin Form
- The Partner performance form
- The aggregation marketing form
- The Results Monitoring form
- The Results frame work which has been domesticated to project level
- Operational indicators and Data collection tools
- Indicator reference table which has domesticated the indicators
- Data quality operational manual
- Draft M&E Plan

Database

The project developed an Information Management System (Ki metrics database) which has been customized to address the output and outcome indicators aimed at reporting progress against targets. The tools included in the database are compatible with the project monitoring tools. The database has been designed and aligned with the Feed the Future Monitoring system and the microenterprise results reporting and the DevRESULT's Information system.

In the year under review, USAID conducted an orientation for the Project's M&E team on the DevRESULT's Information system which has a capacity to capture the Performance Monitoring Plan, the Results framework and generate reports and track progress. In addition the system captures GIS/GPS coordinates, customizes reports like the portfolio report, shows geographical scope of individual indicators, finance data, success stories and provides updates on all the correspondences based on the review and systems updates. The system can further provide historical performance of all the indicators, updates on Zone of Influence and data disaggregates. To improve their efficiency both the Dev. Results and the Kimetrica data can be operated offline.

3.10 Behavior Change Communication

The Project commenced its Behavior Change Communication (BCC) activities with the Behavior Analysis which looked at 6 individual and 2 group level behaviors. Based on the findings of this analysis, PROFIT+ developed an initial communications strategy outlining how PROFIT+ will use communication tactics to increase positive behavior change, adopt technology, facilitate learning and increase overall program outcomes.

The BCC plan chose to focus on three main behaviors and outlines the key messages, audiences, channels and tactics to be used. These behaviors are:

1. Smallholder farmers use certified seeds.
2. Smallholder farmers increase savings and apply for loans (cash or in kind) from financial institutions.
3. Women hold leadership positions in mixed farmers' groups.

These three behaviors were selected not only because they meet key objectives of the PROFIT+ program, but because they best fit the criteria required for BCC. These criteria include that the behavior lends itself to relevant and appropriate communication tactics using various channels. The BCC for that behavior will be measurable for purposes of implementation monitoring and impact evaluation. A number of identified behaviors, although programmatically important, were not selected because determinants for uptake included issues such as access, infrastructure or major policy issues which cannot be addressed through messaging.

All BCC activities will be directly based on the findings of the formative research and closely monitored and evaluated based on a BCC M&E plan to ensure documentation of all best practices and success stories.

In addition the team carried out a review of media, health and other BCC Campaigns conducted in Zambia with a view to identify any other relevant projects and materials available through development partners and the Government of Zambia. The Project also thoroughly reviewed the

PROFIT+ value chain analyses, Year 1 work plan, project PMP and other project documents for information on the planned project activities, indicators, targets and value chain strategies to identify where communications could be most effective

3.11 Other Communication Activities

Project Launch

The PROFIT+ Project was officially launched at a ceremony officiated by the Honorable Provincial Minister for Eastern Province, Mr Malozo Sichone and the Acting USAID Mission Director, Dr. Ryan Washburn. The launch was hosted jointly with CASH Project, another USAID-funded project, and was held at the CASH demonstration site in the Luangeni area of Feni in Chipata district.

Among the notable guests were Chief Mpenzeni, Eastern province Paramount Chief, the Provincial Agricultural Coordinating Officers for Eastern and Lusaka province, District Agricultural Coordinating Officers from Eastern Province, the USAID PROFIT+ COR (Mr Mlotha Damaseke), Economic

Growth Team Leader (Dr Anna Toness), Communications Officer (Mr Chris Mahoney) and other VIPs from the CASH and PROFIT+ projects, partners and stakeholders.

The project also invited one DHF from each district who were available at the PROFIT+ exhibition booth to discuss their experiences hosting the Project's demo plots. One of the female DHFs was given a chance to explain to the guest of honor and the Acting Mission Director the project's goals, objectives and activities and how she has benefited from PROFIT+'s interventions so far. She talked about the new technologies she has acquired as a DHF which were being practiced on the demo plot she was hosting. She encouraged other farmers to work with the project so that they can increase their yields and vowed to use new technologies on her field this coming farming season.

The launch was followed by a site-visit by the Acting USAID Mission Director, the EG Team Leader, COR and Communications Officer to observe a PROFIT+ aflatoxin roll-out training in the Kapaya community in Chipata, which was followed by an inspection of the PROFIT+ Kalichero Demonstration Plot, hosted by Mr. Ngwenya in Chipata.



(Above) PROFIT+ COP greeting Paramount Chief Mpenzeni



(Above) DHF Alice Zulu in the P+ booth standing in front of a poster depicting her groundnut demo plot

Eastern Province Provincial Agricultural Show

The Project participated in the 37th Eastern Provincial Agriculture and Commercial Show which was held in the second half of June. The show was held under the theme “*Business in a Changing Environment.*” A number of donor projects and local non-profit organizations participated, including the CASH Project, EPFC, CFU, and seed companies like Zamseed, Pioneer, MRI and SEEDCO. There were also individual cooperatives from different districts and MAL district representation.



PROFIT+ was awarded the 1st prize in the unclassified category for best display.

Zambia National Agricultural and Commercial Show



The Project participated in the 3-day National Agricultural show under the umbrella of Ministry of Agriculture - an annual event designed to allow agricultural oriented business and other industries to showcase their businesses and activities based on a specific theme each year. The theme for 2013 was “*Business in a Changing Environment*” The Project sensitized show-goers on the Project’s goal, objectives and activities. A total of 460 people passed through the PROFIT+ exhibition booth.

Left: PROFIT+ COP explaining the Project’s value chains to show-goers

The Project distributed 10 copies of the APS to organizations and entities who expressed interest in submitting concept notes to access the IIP Fund.

The Ministry of Agriculture won the first prize for best exhibit and interpretation of the show’s theme. PROFIT+ is proud to have contributed to that achievement.

Communications Products Approved by USAID

1. 13 pop-up banners depicting PROFIT+ IRs and cross-cutting interventions
2. 1 Project flag
3. 1 DVD showcasing PROFIT+ demo host farmers
4. Business cards

3.12 Project Management and Staffing

The Project hired all but 5 of its local staff for both offices, including all key personnel (COP, DCOP, Finance Manager and M&E advisors). The full staff numbers by end of Year 1 was 44 (38 ACDI/VOCA, 4 IFDC, 1 CRS and 1 DANYA). By end of Year 1 candidates had been selected for 4 of out of the 5 vacant positions with start dates in October and November 2013.

During the year under review, the following management and staffing activities were completed:

Grants Management

ACDI/VOCA's Senior Director of Grants & Contracts/Program Awards & Compliance conducted grants management trainings for all Project staff in Lusaka and Chipata.

Procurement Training

The Senior Director of Grants & Contracts/Program Awards & Compliance also conducted procurement training for the operations and finance team. The new ACDI/VOCA procurement process aims to increase organizational strength, encourage improved competitiveness and enhance individual staff empowerment. The procurement training covered:

- a. Roles and responsibilities for Project staff in the procurement process
- b. Different steps in the procurement process
- c. USAID and ACDI/VOCA regulations which govern procurements
- d. USAID Allowable and disallowable procurements

Internal Structures

Senior Management Team

The Project established a senior management team comprising the COP, DCOP, Director of Operations and Finance Manager which would provide operational and strategic guidance and oversight on the Project.

Program Management Team

A PMT was also established comprising the SMT members and all technical program section heads. The aim of the PMT is to provide program management and monitoring of activity implementation to ensure program delivery is managed in an efficient and effective manner. The PMT is also a forum for Program. The PMT meets every fortnight.

3.13 Local USAID Field Visits

1. USAID COR Visit of Demo Host Farmers and Agro Dealers

The USAID COR, Mr Mlotha Damaseke (accompanied by PROFIT+'s Chief of Party) undertook a technical field visit to Lundazi, Katete and Chipata to get an indepth idea of the Project's activities. During the visit, the team visited some Demo Host Farmers, the Lundazi District Coordinator (DACO), the EPFC, ZARI, the Chipata District Farmers' Association, a female agro-dealer in Katete and some individual smallholder farmers who are cultivating some of the VC crops, in the two districts.



Demo Host Farmer

The entourage visited a Mr. Mabvuto Nkhoma who also explained different treatments on the demo plot. Mr. Nkhoma also explained why he is practicing conservation farming, whose benefits include increased food security due to good harvest from a small piece of land and having some produce for sale to raise household income.

(Left) The COR (middle) and PROFIT+ Chief of Party (on the right) paying attention to Mr. Nkhoma's explanation

Agro-Dealer

The team also visited a Mr. David Banda at Lumezi stores. Mr. Banda is an agro dealer and a demo host farmer just like Mr. Muyayi. He had just finished land preparation by ripping and was waiting for the rains to start planting. Mr Muyayi's store supplies herbicides, farm implements, animal drugs and soybeans seed.



(Right) USAID and PROFIT+ staff stepping into Mr. Banda's shop to have a look at the products on sale

2. Site Visit by the Acting USAID Mission Director (Project Launch, DHF and Training)

The Acting USAID Mission Director Dr Ryan Washburn, accompanied by the EG Team Leader, Anna Tonnes, COR Mlotha Damaseke and Communications Officer (late Christopher Mahoney) attended the PROFIT+ Official Launch in Luangeni Area, and also observed a PROFIT+ aflatoxin roll-out training in the Kapaya community in Chipata, which was followed by an inspection of the PROFIT+ Kalichero Demonstration Plot, hosted by Mr. Ngwenya in Chipata.



(Left) Aflatoxin roll-out training attended by PROFIT+ Chief of Party, Richard Hurelbrink, and USAID Deputy Mission Director, Ryan Washburn. 32 females and 3 males attended the training was. The training was conducted by Chipata DWA.

3. COR Field Trip to Three Cooperative Groups within Chipata District

The Project's COR Mr Mlotha Damaseke conducted to interact with project beneficiaries and understand how the project is supporting them in product marketing. The COR, accompanied by the Projects DCOP and other technical staff visited the following cooperatives:

- a. Chisomo Cooperative
- b. Chiparamba Camp Agricultural Committee (CAC) (comprising a combination of representatives from Chikondi Agriculture Club, Kalima Cooperative, COMACO sales representative, Kefa Co-operative and Agriculture Women Club).
- c. Chimpinga Cooperative

General Observations from Field Trip

- a) The general feeling of the USAID representative was that quite good work has been done since project inception and that he felt the project was currently on course after the field observations.
- b) There was a lot of enthusiasm among farmers and PROFIT+ was highly looked up to by the farmers in the visited areas for continued and enhanced collaboration.
- c) Some of the MAL officers that received training in gross margin and breakeven price calculations have not replicated the trainings to their designated farmers.
- d) Farmers still have difficulties in coming up with a profitable selling price for the produce.
- e) Farmers selling Makulu Red groundnut variety need to be linked to traders interested in the variety.

Recommendations

- a) There is need to diversify groundnut buyers to facilitate wider choice, better pricing and quicker selling of commodities.
- b) Increase awareness on determination of pricing of commodities based on gross margin calculations.
- c) General business management trainings are required given that farmers have increased income due to prompt payment.

- d) The project should continue collaboration with other USAID funded projects.

3.14 Lessons learned and Recommendations

During implementation of the Year 1 work plan, the Project learned a lot about the challenges, successes and constraints in the value chains. The Project will document the lessons learnt as part of its learning agenda for both process improvement and success documentation.

Notable lessons learnt in each sector were as follows:

Increased Smallholder Productivity

- The Project established 280 of the targeted 833 demo plots due to insufficient time before the planting season commenced; 690 demo sites were identified in Year 1 for the Year 2 planting season.

Recommendations:

- For Year Two, the identification of farmers began in July 2013 to ensure that the farmers selected were trained by October 2013.
- Soil testing also should be done by October 2013 and inputs received and distributed to farmers by beginning of November.

Expanded Markets and Trade

The Project observed that whether or not the Project had an agreement in form of a MoU, most of the private companies were not revealing all the information on the purchases and the database of the farmers they are working with. This was attributed to the fact that they feared that the information might be relayed to their competitors. This prevented the Project from being able to collect full data on volumes of sales in the districts.

Recommendations

- The Project continues to build trust with these private partners and sign Non-Disclosure Agreements to ensure confidentiality of information is maintained by both parties. For those partners who receive grant funding through the IIP Fund, M&E requirements will be included.

Increase Private Sector Investment in Agricultural Activities

- a. The unpredictable stance by GRZ on maize exports made it difficult to convince private sector traders to invest in purchasing activities and also made price discovery very difficult for smallholder farmers. Maize is usually the lead commodity for the major buyers and the lack of confidence in policy direction meant that investments in other value chains were not as strong.
- b. The failure by the state to enact the Agriculture Commodity Credit Act (which underpins the existence of ZAMACE) meant that a lot of potential investment in warehouse facilities and infrastructure was put off. The pursuant value addition and processing enterprises that would have followed have since halted (e.g. Silos companies from South Africa, feed mills and logistics solutions).

1. The quality of the concept notes received in the second half of Year 1 was poor in many cases and resulted in only 6 grantees out of 58 being selected to submit full applications.

2. Recommendations

- 1) The Project should also advertise its APS among commodity traders and encourage their investment in new value chains outside of their established maize trade (eg, WFP, ADRA, ETG, FarmFeed and Every Child Fed project)
- 2) The project anticipates applications from partners interested in warehousing and aggregation platforms. In some cases "private" commodity exchange and warehouse receipt mechanisms are being developed for trade purposes within the country or linked to organizations like WFP who have a waiver on export permits for maize. The results from the aggregation study may also provide critical information about relatively low cost and high potential warehouse site locations that companies like ZDENAKIE may invest in especially if the Project can provide a reliable MIS to compliment aggregation efforts
- 3) The project continues to work on refining its APS and providing additional guidance to applicants to improve concept note submissions. It is also routinely looking at new ways to share information on the APS to ensure that a diverse and inclusive range of eligible grantees know about the fund. The project will also do this by identifying areas in which private sector players are addressing, or have the potential to address, key challenges in PROFIT+ VCs .

Gender

- a. The Team found that although the DWDAs have the management structures and ability to identify and recruit more beneficiaries in the PROFIT+ target value chains, there is need to provide most of them with capacity building in aspects of governance, business development and entrepreneurship.

To address the challenges the Project will hold routine gender sensitization and capacity building activities for couples and members of the DWDAs in selected communities.

Recommendations

To address this, the Project will do the following:

- Increase or facilitate identification, recruitment and training of more women's groups that can be engaged in the PROFIT+ value chain activities. The other partners that are male dominated shall be encouraged to recruit more women and the MOUs with the four DWDAs and MDA have included group mobilization and development so that women's membership is increased.

Environmental Compliance

1. Knowledge of risks associated with unsafe use practices of pesticides do not immediately lead farmers in discarding their risky behavior. This was evident with the farmers who admitted having received some form of training or another in safer use of pesticides but were found not practicing what they know.

2. Knowledge levels on the use of the EMMP as an environmental management tools are quite low among MAL extension staff.

Recommendations

- The Project will intensify its community awareness activities on environmental compliance through trainings, field days and sensitization activities for smallholder farmers at all levels of the value chains.
- The Project will also ensure that all DHFs are trained on environmental management techniques and protective clothing as a mitigation factor for safe use of pesticides and other chemicals.

Monitoring and Evaluation

1. The participation of partners and sector team members in data collection and verification has helped increase the quality and completeness of the data
2. Data verification exercise performed by the Monitoring and Evaluation unit has raised awareness among project staff in using standard data collection forms, pay attention to completeness and validity of the data
3. Introduction of the data submission and completion certificate has harmonized and improved the quality of the data being reported
4. Cascade trainings helped the Project reach out to more beneficiaries and also got the implementing partners involved in monitoring the implementation of the project activities and data collection

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