



**USAID**  
FROM THE AMERICAN PEOPLE

# ZIMBABWE AGRICULTURAL INCOME AND EMPLOYMENT DEVELOPMENT (Zim-AIED) QUARTERLY REPORT #1 – FY2014



## January 2014

This publication was produced for review by the United States Agency for International Development (USAID). It was prepared by Fintrac Inc. under contract EDH-I-08-05-00007-00 with USAID/Zimbabwe.



**Fintrac Inc.**

[www.fintrac.com](http://www.fintrac.com)

[info@fintrac.com](mailto:info@fintrac.com)

**US Virgin Islands**

3077 Kronprindsens Gade 72

St. Thomas, USVI 00802

Tel: (340) 776-7600

Fax: (340) 776-7601

**Washington, DC**

1400 16<sup>th</sup> Street, NW, Suite 400

Washington, DC 20036 USA

Tel: (202) 462-8475

Fax: (202) 462-8478

**Zimbabwe Agricultural Income and Employment Development (Zim-AIED) Program**

5 Premium Close

Mt. Pleasant Business Park

Mt. Pleasant, Harare

Zimbabwe

Tel: +263 4 338964-71

[aied@fintrac.com](mailto:aied@fintrac.com)

[www.zim-AIED.org](http://www.zim-AIED.org)

All photos by Fintrac Inc.

ZIMBABWE AGRICULTURAL INCOME AND  
EMPLOYMENT DEVELOPMENT (Zim-AIED)  
QUARTERLY REPORT #1 – FY2014  
ISSUE #13

**January 2014**

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

# ACRONYMS

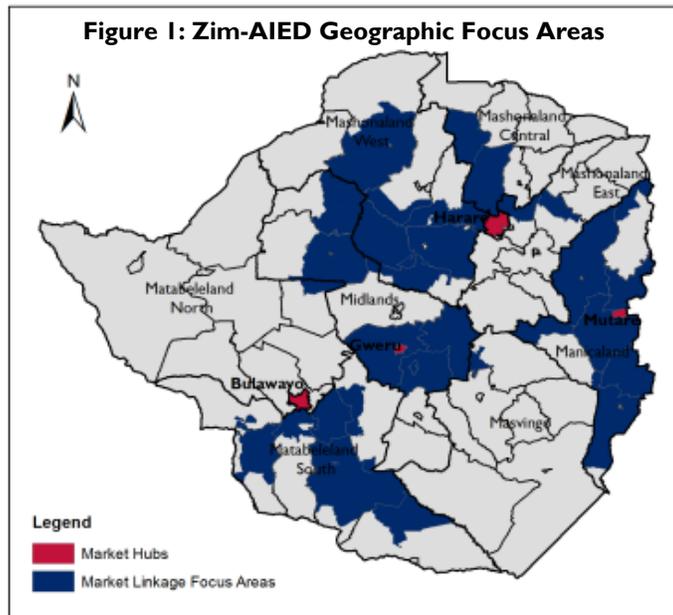
ASP-Z	Agrodealer Strengthening Program in Zimbabwe
BDS	Business Development Services
CABS	Central African Building Society
CBZ	Commercial Bank of Zimbabwe
CESVI	Cooperazione e Sviluppo
CIRIS	Client Impact and Results Information System
CLUSA	Cooperative League of the United States of America
COMESA	Common Market for Eastern and Southern Africa
COSV	Coordination Committee for Voluntary Service
EMMP	Environmental Mitigation and Monitoring Plan
EPA	Environmental Protection Agency
EU	European Union
FTF	Feed the Future
GAPs	Good Agricultural Practice
GMO	Genetically Modified Organism
HACCP	Hazardous Analysis Critical Control Points
HPC	Horticultural Promotion Council
IEE	Initial Environmental Examination
IMC	Irrigation Management Committee
IPM	Integrated Pest Management
IRD	International Relief and Development
MAMID	Ministry of Agriculture, Mechanization and Irrigation Development
MLRP	Mashonaland Livelihoods Restoration Project
MSDS	Material Safety and Data Sheets
MSME	Micro, Small and Medium Enterprise
PERSUAP	Pesticide Evaluation Report and Safe Use Action Plan
PMP	Performance Management Plan
PMSP	Pest Management Strategy Plan
POP	Pesticide Organic Pollutant
PRIZE	Promoting Recovery In Zimbabwe Project
REALIZ	Restoring Economic Agricultural Livelihoods in Zimbabwe Program
REVALUE	Restoring Livelihoods Strengthening Value Chains Program
SAT	Sustainable Agriculture Technology
SUAP	Safe Use Action Plan
TBT	Tjinyunyi Babili Trust
USEPA	United States Environmental Protection Agency
ZAPAD	Zimbabwe Agriculture Production and Agribusiness Development Program
ZESA	Zimbabwe Electricity Supply Authority
ZFAT	Zimbabwe Farmers Alliance Trust
ZFU	Zimbabwe Farmers Union
Zim-AIED	Zimbabwe Agricultural Income and Employment Development
ZINWA	Zimbabwe National Water Authority

# CONTENTS

FOREWORD.....	1
1. EXECUTIVE SUMMARY .....	2
2. PROGRAM OBJECTIVES .....	4
3. ACTIVITIES .....	5
3.1 BENEFICIARIES .....	5
3.2 INCREMENTAL SALES .....	7
3.3 GROSS MARGIN AND NET INCOME.....	8
3.4 FINANCE AND CREDIT.....	8
3.5 BUSINESS DEVELOPMENT .....	13
3.5.1 <i>Technical Assistance and Training</i> .....	14
3.5.2 <i>Investment</i> .....	16
3.5.3 <i>Profitability</i> .....	16
3.5.4 <i>Employment</i> .....	16
3.5.4 <i>Technology Adoption</i> .....	16
3.6 PRODUCTIVITY.....	17
3.6.1 <i>Staple Food Crops</i> .....	18
3.6.2 <i>Paprika and Chilies</i> .....	19
3.6.3 <i>Horticulture: Bananas</i> .....	21
3.6.4 <i>Local Horticulture</i> .....	24
3.6.5 <i>Export Horticulture</i> .....	25
3.6.6 <i>Value Addition</i> .....	26
3.6.7 <i>Livestock</i> .....	27
3.6.8 <i>Irrigation</i> .....	30
4. CLIMATE CHANGE AND ENVIRONMENT .....	32
5. GENDER .....	35
6. LESSONS LEARNED .....	36
7. CHALLENGES .....	37
8. CONCLUSIONS.....	38
9. FINANCIAL & GRANTS SUMMARY.....	40
ANNEX 1: SNAPSHOTS.....	42
ANNEX 2: PERFORMANCE INDICATOR SUMMARY TABLE.....	46
ANNEX 3: DIRECTORY OF BUYERS.....	64
ANNEX 4: DIRECTORY OF INPUT SUPPLIERS.....	68
ANNEX 5: IRRIGATION SCHEMES ASSISTED BY ZIM-AIED Q1 FY2014.....	71
ANNEX 6: NETWORKING, PARTNERS, AND COLLABORATIONS.....	74
ANNEX 7: PFA SUMMARIES .....	77

## FOREWORD

The Zimbabwe Agricultural Income and Employment Development (Zim-AIED) program began in October 2010 and will run through February 2015. Zim-AIED is providing technical assistance to improve household food security and increase incomes and employment of rural households. At inception in 2010, Zim-AIED activities started in all agro-ecological regions and became more focused this fiscal year on specific low-income and food-insecure areas where farmers have the potential to move from subsistence to small-scale commercial agriculture (Figure 1). The program is generating new income streams from employment



created in the wider agricultural sector and contributing to improved food security for all beneficiary households. Beneficiaries are earning new income from both surplus production of food crops grown for home consumption and from production and marketing of high-value crops and livestock.

Commercialization of small-scale farmers is being achieved by:

- Linking producers to local, national, regional, and international buyers.
- Providing access to credit.
- Raising efficiencies in production systems for an improved combination of livestock, cash and food crops.
- Training farmers to adopt good agricultural and business practices.

The program is building demand for a range of crops and products by linking farmers with local, regional, and international buyers and training growers on productivity, quality, continuity, and cost-competitiveness. It also provides specialized technical support for the production of food crops to sustainably increase food availability in areas and communities most vulnerable to food insecurity.

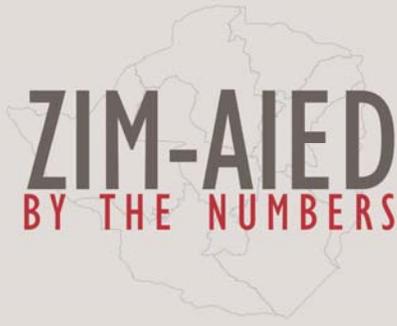
Fintrac, a US-based consulting company, is implementing Zim-AIED in cooperation with four subcontractors and grantees: International Relief and Development (IRD); the Cooperative League of the USA (CLUUSA); Sustainable Agricultural Technology (SAT); and CARE International. Other local nongovernmental organizations and commercial companies work with the program as development partners, in some cases co-funding through a cost-sharing grant facility. This \$5 million facility is used to leverage technical support for farmers through conventional grants, and also to fund purchases of essential inputs and new technologies on a cost-recovery basis. Zim-AIED also includes a \$10 million revolving loan fund – AgriTrade – managed by three local banks that provide matching funds and loans on competitive commercial terms.

In summary, Zim-AIED is a market-driven program that works closely with small-, medium-, and large-scale buyers to raise demand and increase competition for smallholder-grown crops and products. The program directly contributes to food availability and access by concurrently increasing production of food crops and raising incomes of rural households in selected areas.

# I. EXECUTIVE SUMMARY

This is the first quarterly report for FY 2014 of the Zimbabwe Agricultural Income and Employment Development (Zim-AIED) program. Zim-AIED is providing training and technical assistance to improve the food security and increase household incomes of 150,000 small-scale farmers throughout Zimbabwe. Significant achievements this quarter include:

- Developed **market linkages** to increase the number of companies purchasing products from smallholders; increased the availability of **working capital** to rural-based agrodealers and smallholders through the AgriTrade facility and recoverable grants activities; **increased production** of maize and other food crops; raised smallholder earnings from cash crops and livestock; and actively supported **new agribusiness investment**.
- **6,364 farmers received training and technical assistance** under the first quarter of FY2014 with the aim to raise productivity, access new markets, obtain credit, and increase incomes and employment opportunities. The cumulative number of beneficiaries who joined Zim-AIED is now at 127, 594 households (153,113 farmers) **with women comprising about 50 percent of the total beneficiaries**.
- **Roughly \$4.41 million of actual sales** have been recorded during the quarter through Commodity Purchase Form Summaries. Sales were done with individuals and commercial partners through formal and informal marketing and credit arrangements with smallholder beneficiaries.
- An average household income from agricultural production is **still maintained at \$1,062** with horticulture and livestock being the highest contributors.
- **8,018 farmers on 4,664 hectares in 35 irrigation schemes** enhanced their ability to function as commercial agribusiness hubs, thanks to strengthened linkages facilitated by Zim-AIED with input suppliers, marketing organizations, and microfinance institutions.
- **38 loans valued at \$77,589 were disbursed** by AgriTrade partner banks. There were 17 new borrowers (including 12 smallholder farmers) this quarter who received loans through the AgriTrade facility. In addition, 216 Zim-AIED smallholder farmers received loans worth \$64,706 from Virl Microfinance for paprika production.
- **A total of 1,216 FTEs under job creation continue to be sustained.**
- Successfully implemented a **gender mainstreaming policy** whereby men, women, young people, and disadvantaged groups were given special consideration in the planning of all program interventions. As a result, 50 percent of all beneficiaries since inception have been women.



2011-2013

TOTAL NUMBER OF RURAL HOUSEHOLDS BENEFITTING

**127,594**

**TRAINING**

IN THE FIRST QUARTER OF FY 2014, ZIM-AIED TRAINED **2,958** MEN AND **3,406** WOMEN IN GOOD AGRICULTURAL PRACTICES AND BASIC BUSINESS SKILLS

**SALES**

TOTAL SALES FROM PRODUCTION **\$4.41 MILLION**

\$600,000

\$957,000

\$2.11 MILLION

BANANAS



MAIZE



LIVESTOCK



2,387 TONS

117,700 TONS

5,402 HEAD

**VOLUME**

TOTAL VOLUME OF PRODUCTION **180,344 TONS**

AVERAGE INCOME

**\$1,062 / HOUSEHOLD**

**AGRICULTURAL LENDING**

**38** LOANS DISBURSED, INJECTING **\$78,000** INTO THE AGRICULTURAL ECONOMY



FIGURES FOR Q1 FY 2014: OCTOBER 1 - DECEMBER 31, 2013

## 2. PROGRAM OBJECTIVES

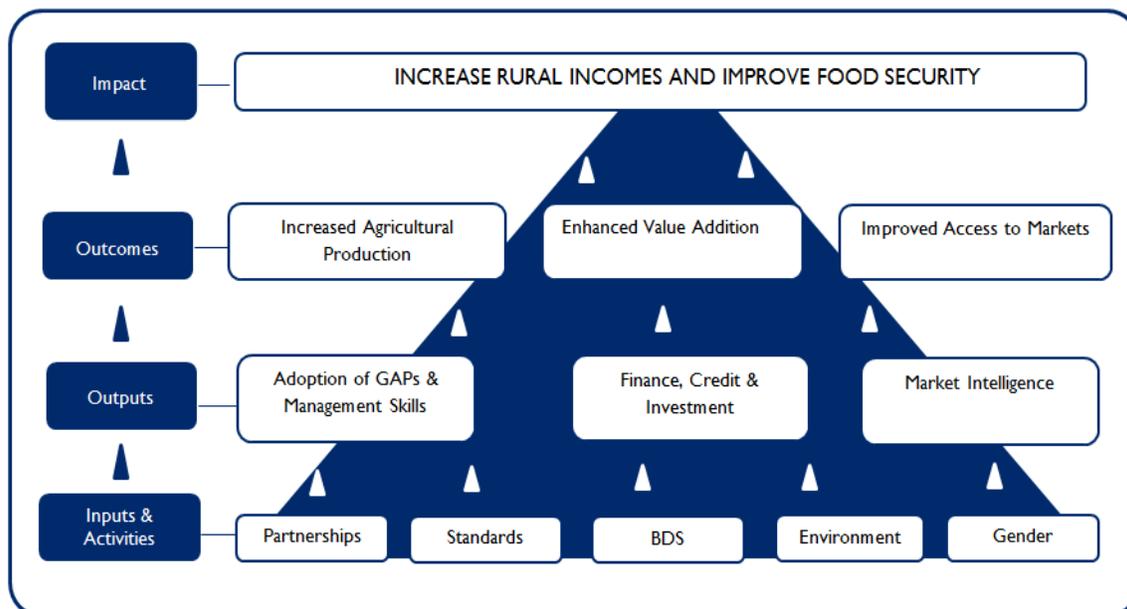
The primary objective of the Zim-AIED program is to improve food security for 150,000 Zimbabwean small-scale farmers (125,000 households) located in communal and old resettlement areas by increasing household incomes from agriculture and increasing food production among vulnerable but commercially viable farmers. This goal is being reached through the achievement of three intermediate results:

1. *Expanded Market Access*: measured through change in volume and value of sales of targeted commodities and integration of farmers into outgrower and contract farming schemes for selected cash crops.
2. *Increased Agricultural Production*: measured through changes in total production and productivity; changes in product mix to include high-value crops; and changes in area under production at the household and national level. The emphasis is on commercially viable production of both food and cash crops.
3. *Enhanced Value Addition*: measured through change in farm sales of semi-processed products and crops for processing, new employment generation in value-added products, and investment in processing facilities.

The focus of Zim-AIED is on profitable livestock, food, and cash crop production; new sales and income generation; and employment creation. It targets low income households in rural areas. Interventions are aimed at improving the livelihoods of “vulnerable-but-viable” farmers through sustainable commercial initiatives. Already, many rural families in partnership with Zim-AIED are moving from subsistence to commercial farming and increasing their asset base through investment in high-value crops and livestock.

Figure 2 shows the results framework for Zim-AIED implementation. The program focuses on expanding market access, increasing the availability of credit and finance across the value chain, raising production, and adding value to crops. To maximize outreach and ensure sustainability, these interventions are carried out via partnerships with commercial companies with additional support from NGOs, particularly in vulnerable areas.

**Figure 2: Zim-AIED Results Framework Summary**



The program's technical team is developing commercial partnerships to create a national network of agribusinesses that can strengthen access to markets at fair prices; provide working capital and finance at realistic rates; supply inputs efficiently; and provide extension and training to growers as an embedded cost. The partnerships focus on establishing service provision at market rates. This quarter Zim-AIED continued to focus on:

- **Market linkages** – increasing the number of buyers purchasing products from smallholder farmers through formal and informal arrangements.
- **Finance and credit to traders** – increasing the availability and disbursement of working capital to rural-based agribusiness investors and to agritraders buying products from and supplying inputs to smallholders at the village level.
- **Increasing direct credit to farmers** – through commercial loans, advances from buyers, and recoverable grants.
- **Staple food crops** – increasing local and national production of maize, beans, groundnuts, and root crops at competitive prices.
- **Cash crops** – raising smallholder earnings through surplus production of food crops and commercial production of high-value crops, particularly banana, vegetables, and paprika.
- **Rural entrepreneurs** – actively supporting a new generation of small- and medium-sized agribusinesses that will invest in rural areas across Zimbabwe.
- **Commercializing targeted irrigation schemes** – through rehabilitation, crop selection and scheduling (calendarization) for higher returns and year-round production, increased access to credit, business planning, and introduction of new buyers.

## 3. ACTIVITIES

Program activities across all focus areas included credit for livestock traders, crop-specific irrigation, and marketing assistance. The sections below describe Zim-AIED activities in six categories of results measured against 14 Feed the Future, 10 custom, and five gender-specific indicators.

- **Beneficiaries:** number, gender balance, geographical spread, and types of support received.
- **Sales:** amount of new money in the pockets of Zim-AIED beneficiaries, measured by sales of all agricultural products.
- **Gross margin and net income:** profitability and net earnings from agricultural activities.
- **Finance and Credit:** AgriTrade revolving fund and micro-credit support for rural traders and farmers.
- **Business Development:** recordkeeping, crop budgets, marketing and contract production.
- **Productivity:** increased production and net returns from crop and livestock products.

### 3.1 BENEFICIARIES

#### *FTF 4.5.2-13 Number of rural households benefiting from USG Assistance*

During Q1 FY 2014 Zim-AIED reached 4,771 households spread across its geographic focus areas. Each household attended trainings focused on agronomy, livestock, and business skills. They also received one-on-one technical assistances through regular field visits by program staff and gained access to profitable input and output markets and financing through AgriTrade, Zim-AIED's credit facility. Forty-eight percent of the beneficiaries reached this quarter were female.

**Table 3.1.1: Geographical location of Zim-AIED beneficiaries FY 2011 to FY 2014, Q1**

Province	FY 2011 - FY 2013			FY 2014, Q1			Cumulative to Date		
	M	F	Total	M	F	Total	M	F	Total
Manicaland	12,890	13,250	26,140	268	331	599	13,158	13,581	26,739
Mashonaland Central	9,777	8,232	18,009	431	377	808	10,208	8,609	18,817
Mashonaland East	11,381	11,718	23,099	551	485	1,036	11,932	12,203	24,135
Mashonaland West	10,775	8,795	19,570	332	285	617	11,107	9,080	20,187
Masvingo	5,204	8,875	14,079	178	193	371	5,382	9,068	14,450
Matabeleland*	3,063	4,143	7,206	426	403	829	3,489	4,546	8,035
Midlands	8,159	6,561	14,720	279	232	511	8,438	6,793	15,231
<b>Total</b>	<b>61,249</b>	<b>61,574</b>	<b>122,823</b>	<b>2,465</b>	<b>2,306</b>	<b>4,771</b>	<b>63,714</b>	<b>63,880</b>	<b>127,594</b>

\*Includes Matabeleland North and South Source: CIRIS

**Table 3.1.2: Number of individuals participating in Zim -AIED activities**

Activity	FY2011	FY2012	FY2013	Q1, FY2014			Cumulative to date		
				M	F	Total	M	F	Total
Training and technical assistance	11,896	58,055	54,851	2,958	3,406	6,364	52,628	61,897	114,525
Traders receiving loans	305	408	321	2	3	5	550	489	1,039
Farmers receiving loans (AgriTrade)	-	-	90	7	5	12	56	46	102
Farmers receiving loans (other)	-	-	11	110	106	216	114	113	227
Farmers linked to markets	-	11,194	18,529	1,253	515	1,768	19,637	10,715	30,352
Contracts issued to farmers	-	10,350	6,228	1,812	1,323	3,135	10,019	9,694	19,713

In the reporting quarter, 6,364 farmers received training and technical assistance from Zim-AIED field agronomists and its partners. A total of 1,768 farmers were linked to either input or output markets. Additionally 3,135 farmers signed contracts with various commercial partners working with Zim-AIED in the agriculture value chain. Direct lending to smallholder farmers by financial institutions more than doubled from 101 recorded in FY 2013 to 228 farmers recorded this quarter. The increase is attributed to Virl, a microfinance institution that disbursed \$64,706 to 216 Zim-AIED beneficiaries growing paprika on several irrigation schemes in Manicaland.

Table 3.1.3 shows the program's quarterly achievement against set targets. The program was 27 percent above target in number of households reached.

**Table 3.1.3: Rural households assisted by Zim-AIED to date**

Number of rural households							
FY 2014, Q1				Cumulative To Date			
Target	Achieved	Variance	% Variance	Target	Achieved	Variance	% Variance
3,750	4,771	1,021	27	92,788	127,594	34,806	38

Source: CIRIS

### 3.2 INCREMENTAL SALES

#### FTF 4.5.2-23 Value of incremental sales attributed to FTF implementation

Sales recorded from Zim-AIED beneficiaries for the first quarter amounted to \$4,410,711. This is 42 percent above \$3,099,177 recorded in the same period in FY 2013. This is attributed to expansion by the program into new geographic areas and increases in crop yields. These sales reflect both formal and informal commercial buyers working with Zim-AIED beneficiary farmers. Livestock, banana, and maize increased by 28 percent, 277 percent, and 264 percent, respectively in 2014. Banana sales increased in 2014 as a result of increased yields, with the average price remaining at \$0.25 per kilogram whereas maize dropped from \$0.43 to \$0.33 per kilogram.

On the contrary, sugar bean, butternut, and table potato sales dropped in the same period by 56 percent, 78 percent, and 65 percent, respectively. Not all sales were recorded on the agribusiness hubs because of the late time lag of submitting sales record.

**Table 3.2.1: Sales Reported by Zim-AIED beneficiaries**

Product	Q1 FY 2013		Q1 FY 2014	
	Volume of sales (kg)	Value of sales	Volume of sales (kg)	Value of sales
Banana	624,300	\$159,490	2,387,447	\$600,830
Maize	612,037	\$263,176	2,896,636	\$957,211
Paprika	197,000	\$254,130	984	\$1,072
Sugar beans	164,036	\$213,247	74,745	\$93,936
Fine beans	4,250	\$2,970	36,800	\$25,920
Cabbages	44,484	\$8,634	15,200	\$1,580
Cowpeas	-	-	29	\$36
Groundnuts	19,218	\$11,932	1,006	\$1,457
Butternuts	26,980	\$14,838	10,800	\$3,240
Peppers	995	\$719	5,230	\$3,661
Table potatoes	50,032	\$54,333	22,841	\$18,764
Soybean	12,530	\$6,819	231,537	\$125,086
Sweet potato	300	\$120	2,005	\$876
Tomatoes	31,308	\$25,449	54,800	\$21,920
Livestock	1,451,370	\$1,785,185	1,513,394	\$2,286,154
Other Crops		\$298,135		\$268,968
<b>Total sales</b>		<b>\$3,099,177</b>		<b>\$4,410,711</b>

*Source: Zim-AIED*

For tomatoes, total sales of \$21,920 were recorded this quarter. This is a 14 percent drop from sales of \$25,449 recorded during the same period last year. The decrease was caused by a drop in tomato prices from \$0.81 per kilogram last year to the current \$0.40 per kilogram, even though the volume sold was 75 percent higher. The program has continued to identify more buyers and linking them with smallholder farmers. This has brought competition and more income for smallholder producers.

### 3.3 GROSS MARGIN AND NET INCOME

#### *FTF 4.5.4 Gross margin in dollars per hectare for three selected products*

Gross margin takes into account five data points: area under production, volume of production, cost of production, quantity of sales, and value of sales. Some of these points depend on a number of factors, ranging from rainfall patterns to the availability of inputs and markets. Gross margins for whole farm enterprises contribute to net household income. Table 3.3.1 provides estimated gross margins for the reporting period derived from maize, banana, and paprika growers who received various forms of technical assistance through Zim-AIED and its partners. Actual gross margin data will be available from the sample survey at the end of the fiscal year.

**Table 3.3.1: Estimated gross margins for maize, banana, and paprika for Q1 FY 2014**

Product	Area (ha)	Yield (tons/ha)	Price/ton	Value of Production	Cost of Production	GM %	Net Income	GM/ha	Target
Maize	70,462	1.67	\$330	\$38,831,608	\$20,081,670	48	\$18,749,938	\$266	\$250
Banana	1,872	15.88	\$250	\$7,431,840	\$1,795,248	76	\$5,636,592	\$3,011	\$3,500
Paprika	458	1.40	\$1,235	\$791,882	\$251,900	68	\$539,982	\$1,179	\$1,125

*Source: Zim-AIED*

For all three crops, yields and gross margins per hectare are expected to exceed what was achieved in the last season. This is based on the current favorable climatic and economic conditions in the program's focus areas, which have so far received optimal rainfall and farmers received inputs from various sources on time. Gross margins for maize are expected to be 25 percent above last year's achievements of \$213 per hectare and 6 percent above the target. This will come from a 5 percent increase in price and a 3 percent drop in production cost per hectare from \$313 per ton and \$293 per hectare recorded last year. It is anticipated that the program's beneficiaries will apply the right amounts of fertilizers and use herbicides and pesticides to lower production cost. The increase in price is embedded in Zim-AIED's approach to engage more agrodealers to buy products from its beneficiaries, therefore paying the highest price to procure the produce.

Similarly, for paprika, the gross margin is anticipated to increase by 54 percent from \$767 per hectare last season, and 5 percent above the annual target. This can be attributed to a 31 percent yield increase from last season. The increase in productivity is based on the current rainfall pattern in the paprika growing areas. Furthermore, this season farmers will outsource their inputs, lowering production costs by 5 percent.

The gross margin for bananas has so far increased by 64 percent from \$1,834 per hectare recorded last season. This comes from a 50 percent hike in yield and a 14 percent drop in the cost of production. The increase in yield is attributed to good agricultural practices on old plantations and the second and subsequent harvests of tissue-cultured bananas produce bigger and heavier bunches of bananas. The cost of production has dropped (and will continue to drop) as anticipated before it flattens out after farmers have paid up the establishment costs. Thus gross margin for banana is projected to increase even further.

### 3.4 FINANCE AND CREDIT

Zim-AIED provides funds and technical assistance for a revolving credit facility, AgriTrade. This intervention contributes towards Zim-AIED's achievements against the four Feed the Future indicators listed below.

- *FTF 4.5.2-11 No. of ...private enterprises (for profit)... receiving USG assistance.*
- *FTF 4.5.2-29 Value of agricultural and rural loans*
- *FTF 4.5.2-38 Value of new private sector investment in the agriculture sector....*
- *FTF 4.5.2-43 No. of firms engaged in agriculture ...operating more profitably...*

During the quarter, AgriTrade facility partner banks added 38 loans valued at \$77,582 to reach \$14.02 million in cumulative disbursements from 1,537 loans. The quarter registered a 63 percent drop in the number of loans and a 96 percent decline in the value of loans compared to the previous quarter results of 103 loans valued at \$1.794 million. The subdued lending activities witnessed under CABS and MicroKing were attributed to the shift in focus by Zim-AIED toward direct lending to smallholder farmers, a new focus area for the two financiers and partly as a result of the amendments to the AgriTrade Loan Facility Agreements (ALFA) for both partner banks in September 2013.

**Table 3.4.1: AgriTrade Loan Portfolio as at 31 December 2013**

	CABS		TRUST		MK		Active Portfolio 31 December 2013	
	#	\$	#	\$	#	\$	#	\$
New Loans Disbursed	0	\$0	0	\$0	38	\$77,582	38	\$77,852
Portfolio Commitments	10	\$2,153,572	28	\$613,819	386	\$1,302,023	415	\$4,076,208

All 38 loans worth \$77,852 were disbursed under MicroKing while no new loans were generated under CABS and Trust Bank this quarter. The active portfolio decreased from \$4.568 million to \$4.076 million by 31 Dec 2013 as a result of net decreases under all three banks.

**Table 3.4.2: AgriTrade Portfolio: Cumulative Figures**

	CABS	TRUST	MK	Cumulative Disbursements
Amount of Loans Disbursed	\$3,634,500	\$3,854,142	\$6,527,835	\$14,016,477
Number of Loans Disbursed	20	85	1,432	1,537
Average Loan Size	\$181,725	\$45,343	\$4,559	\$9,119
USAID/Zim-AIED Loan Capital	\$300,000	\$771,516	\$829,500	\$1,901,016
Number of times USAID Funds Leveraged	12.12	4.99	7.87	7.37

USAID/Zim-AIED loan capital advanced to AgriTrade partners closed the quarter at \$1.901 million after CABS repaid its second instalment for \$100,000 on 31 Dec 2013. MicroKing delayed the payment of its second instalment for \$150,000 to Zim-AIED pending the funds transfer by AfrAsia Bank Limited, to which it is a subsidiary. Trust Bank failed to remit funds collected from AgriTrade borrower repayments into Zim-AIED's account, a breach to the prevailing contract where all loan repayments were to be immediately transferred into Zim-AIED's account.

#### **Trust Bank**

Trust Bank's position remained unchanged by the start of FY2014 after failing to meet the \$25 million capital requirement due on 31 December 2012. The Reserve Bank of Zimbabwe finally cancelled Trust Bank's banking license in December 2013 over allegations of abuse of depositors' funds and violation of the Banking Act. As of 31 December 2013, the USAID capital owed by Trust bank amounted to \$771,516 and of this amount, \$613,819 represented the AgriTrade active portfolio, being the actual unpaid amount of loans with Trust Bank AgriTrade borrowers. The balance of \$157, 697 represented funds that were repaid by AgriTrade borrowers to Trust Bank but were not remitted to Zim-AIED.

Zim-AIED has engaged Kantor and Immerman legal practitioners in Zimbabwe to pursue the recovery of the outstanding USAID funds. Zim-AIED had projected a total of \$645,000 as an estimated amount to be written off under Trust Bank by 31 December 2014. The estimated write-off amount was based purely on an analysis and formula generated internally. Zim-AIED will therefore need to collect at least \$126,516 from the total amount outstanding of \$771,516. To collect \$126,516 or more, Zim-AIED has adopted the following strategies:

- Applying for legal approval to instigate loan collections from existing AgriTrade loans. Zim-AIED's AgriTrade team will engage AgriTrade borrowers whose loans were categorized as performing

and direct them to make their loan payments through Zim-AIED's proposed debt collectors. Out of the \$613,819 active loan amount, a total of \$341,000 is in performing loans.

- Make formal claims through the Reserve Bank of Zimbabwe on the balance of \$430,000 that includes non-performing loans amounting to \$225,000, which are the most difficult to collect, and \$157,697 in funds diverted to other uses other than the repayment of USAID capital.

About \$10.6 million is owed to the bank's top five depositors including the National Social Services Authority (NSSA). Payment to creditors is most likely to be prioritized by creditor position and by value of deposit.

### **CABS**

The total USAID/Zim-AIED loan capital advanced to CABS under the AgriTrade facility amounted to \$500,000. The amendments to the ALFA between Fintrac and CABS in September 2013 specified that CABS starts making loan repayments to Fintrac on a quarterly basis in five equal instalments of \$100,000 beginning 30 Sept 2013. As of 31 Dec 2013, CABS had made two instalments of \$100,000. The loan repayments resulted in the bank's AgriTrade portfolio closing the quarter with a 7:1 matching of its funds. Following the failure by CABS to secure the request for additional USAID funds for \$500,000 to restore the 1:1 matching ratio in October 2013, the bank subsequently suspended new business development under the AgriTrade product.

CABS cited the low profit margins it would earn if it uses free market money for lending under the AgriTrade loan terms without the inclusion of USAID matching funds. This resulted in no new loans being created by the bank in the quarter. Although disbursements under the AgriTrade product have been relaxed, CABS is continuing with disbursements to fully paid up AgriTrade borrowers under its regular internal portfolios. Zim-AIED continues to refer any new applicants that are making enquiries on the AgriTrade product under CABS and it is up to CABS to finance the agribusinesses under AgriTrade or its internal products as long as the AgriTrade loan portfolio remains at or above the 1:1 matching ratio.

### **MicroKing**

Disbursements under MicroKing decreased significantly to 38 loans worth \$77,000 in the quarter as compared to 97 loans valued at \$417,950 in the fourth quarter of FY 2013. Following the amendment of the ALFA in September 2013, MicroKing made its first instalment for \$250,000 on 4 Oct 2013. This resulted in a 1:1 matching under the AgriTrade portfolio. The failure by MicroKing to access additional USAID funds in the quarter resulted in the suspension of new business development under the AgriTrade portfolio. MicroKing cited the low profit margins it would earn for loans extended under the AgriTrade product loan terms without USAID matching funds. However, the ALFA stipulated that MicroKing would continue the financing of repeat borrowers up to three repeat loans under the AgriTrade product by maintaining a 1:1 matching ratio. Repeat loans in the quarter were however minimum and of low amounts due to internal liquidity challenges coupled with policy constraints following the acquisition of Kingdom Bank by AfrAsia Bank Limited.

AfrAsia now owns a controlling stake of 65.38 percent in the local group and 100 percent in MicroKing. The bank is currently in the process of raising \$20 million in new capital through a rights issue and a private placement. The bank conducted its annual general meeting in December and the rights issue was closed on that date with payments and share reallocations now underway. The private placement is ongoing and announcements to the public will be made before the end of January 2014. Zim-AIED is confident that the bank will be able to meet the \$20 million new capital injection by the second quarter of FY 2014.

### **Direct Lending to Farmers**

Zim-AIED engaged two new non-AgriTrade facility partner financial institutions, namely Virl Microfinance and Agribank to enable the financing of farm production loans in addition to Untu Capital. The non-AgriTrade facility partners are using their own capital without the inclusion of USAID funds in direct lending to farmers working with Zim-AIED. Zim-AIED's shift to focus on direct lending to smallholder farmers at the beginning of FY 2104 initiates the financing of farm production loans through a number of financial intermediaries and, ultimately, rural financing beyond

February 2015. Viri Microfinance is a relatively new institution that is 88 percent owned and managed by women with more than 55 years of corporate banking and MFI lending experience outside agriculture while Agribank is one of Zimbabwe's oldest banks owned entirely by the government. Viri Microfinance was the only non-AgriTrade facility partner that disbursed farm production loans this quarter by targeting paprika and banana production, while Untu Capital and Agribank targeted the financing of horticultural and staple crops for planting mainly in the second quarter of FY 2014.

**Table 3.4.3: Viri Microfinance Farm Production Loans**

Area (Irrigated, semi-irrigated & dryland)	Crop financed	Beneficiaries	Total disbursements
Nyamaropa and Nyakomba	Paprika	44	\$13,200
Tombo	Paprika	42	\$13,440
Nedziwa	Paprika	42	\$13,860
Chiendambuya	Paprika	14	\$4,340
Musikavanhu and Chibuwe	Paprika	26	\$5,100
Honde Valley	Bananas	48	\$14,766
<b>Total</b>		<b>216</b>	<b>\$64,706</b>

Viri Microfinance charges a monthly interest of 4 percent and a once-off establishment fee of 5 percent. Viri reduced its monthly interest from 6 percent as risk was minimized as a result of Zim-AIED's monitoring and loan collection interventions. The loan tenure ranged between six and nine months depending on the repayment structures per area. The farmers are paying monthly interest while the principal loan amount is due in the last month of the loan tenure.

To facilitate disbursement of the inputs, Viri has been using input suppliers near the irrigation schemes, some of which are AgriTrade borrowers. The inputs provided included fertilizer (basal and top dressing) and chemicals while the farmers established the paprika seedlings using their own funds. To market the crops, paprika farmers were introduced to buyers Zero One Africa, Highveld, S Paprika, and Pure Seasons, and are also free to sell to other buyers in the market. Zim-AIED's processed products team will share the farmers' names with major buyers in the market to minimize loan defaulting as recoveries will be done through the buying companies. Banana farmers will sell their produce to FAVCO and FAVCO will facilitate farmer loan repayment through a stop order to Viri. This arrangement previously existed between the farmers and FAVCO in FY 2013.

MicroKing refinanced smallholder farmers at Chitora 2 irrigation scheme in Mutoko, Mashonaland East through the AgriTrade facility. A total of 17 farmers received inputs loans totaling \$8,500 and each farmer was given inputs valued at \$500. The loans will be repaid on a quarterly basis. The inputs extended were for the production of various horticultural crops including leafy vegetables, carrots, fine beans, butternuts, and peas. Of the 17 loans, five were to second time borrowers who were the first borrowers to fully repay their loans before the due date of 31 December 2013. The remaining 12 went to first time borrowers under AgriTrade; however these farmers were previous beneficiaries of ILO loans in 2012.

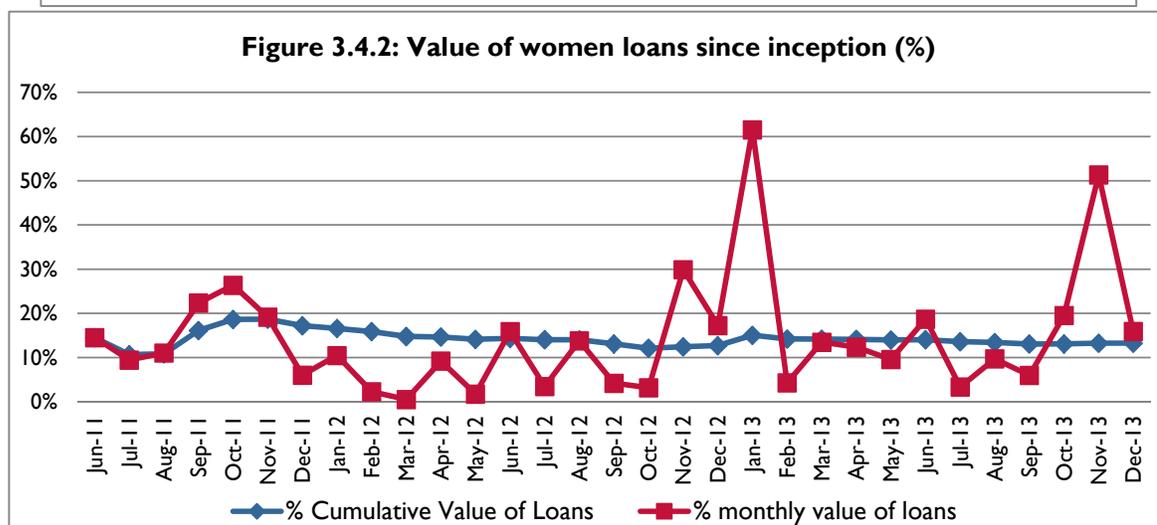
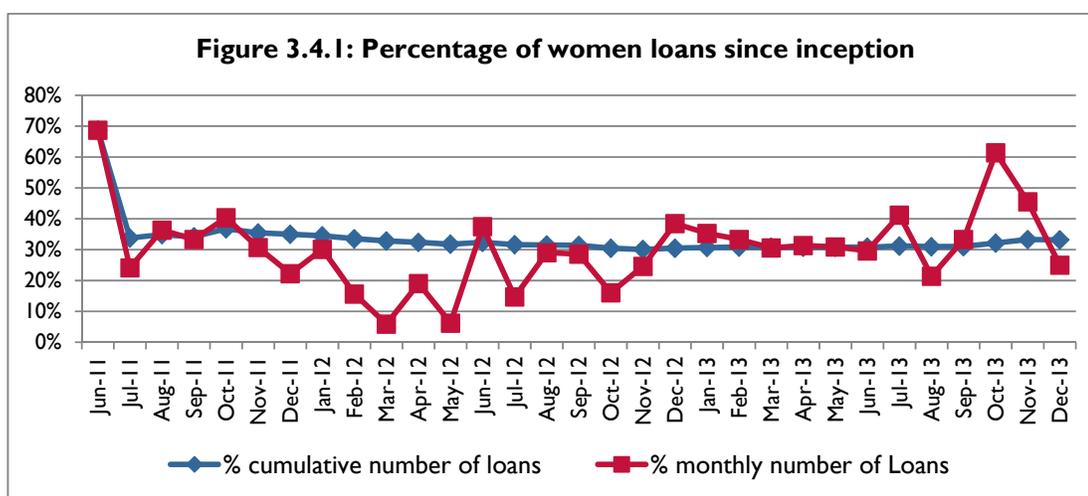
Assessment of irrigation schemes for financing in the second quarter of FY2014 was conducted in the first quarter on 17 schemes targeting horticultural crops, sugar beans, bananas, and green mealies (Table 3.4.4). Viri, Untu, and Agribank will use their own capital to finance the targeted crops while MicroKing will refinance sugar beans production at Musikavanhu using AgriTrade loans. Sugar bean producing farmers in Chibuwe will be refinanced from MicroKing's own capital. CABS is targeting the takeover of working capital and capital investment loans that were extended under the Zim-AIED Matanuska partnership fund agreement to Mutema and Chibuwe banana farmers. CABS will use its own funding for existing loans and will also extend new loans to fully paid up borrowers, as well as to new borrowers for banana production under the two schemes.

**Table 3.4.4: Financial institutions and proposed irrigation schemes for smallholder inputs loans**

Province	Virl	Untu Capital	AgriBank	MicroKing	CABS
Manicaland	Taona			Musikavanhu	Mutema
				Chibuwe	Chibuwe
Mashonaland	Chipo				
	Nyaitenga				
Midlands	Hama-Mavhaire	Insukamini			
	Exchange	Ngondoma			
Matabeleland	Silalabuwa	Tuli-Lushongwe	Moza		
		Tuli-Makwe	Tschongokwe		
			Lukosi		
<b>Total</b>	<b>6</b>	<b>4</b>	<b>3</b>	<b>2</b>	<b>2</b>

**Gender**

Out of the 38 loans disbursed under MicroKing, nine (23.6 percent) were to women valued at \$11,750. However, for loans disbursed under Virl, 48.6 percent (105) were to women, accounting for 48.55 percent (\$31,415) of the portfolio value. Group lending (where at least one third of the group is female) is attracting a number of women through Virl. More women are receiving farm production loans because the size of the loans extended are small and do not require collateral in the form of immovable property. However, given the small loan sizes, the change in the value of loans is not as dramatic.



**Portfolio at Risk (PAR)**

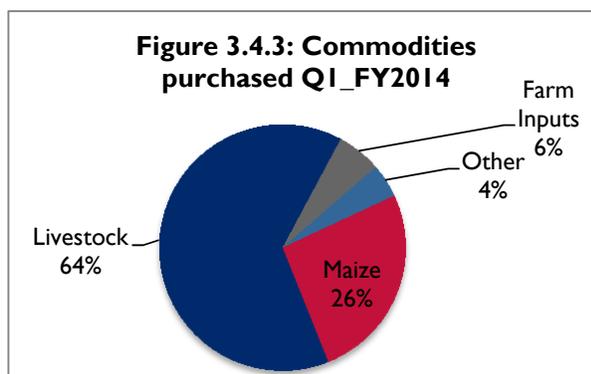
The AgriTrade Portfolio at Risk (PAR) for the quarter increased to 17 percent from 13.7 percent. The 3.3 percent increase is attributed to the continued net decrease in the active portfolio while fewer loans of low dollar value were created. Loans that were past due between 31 to 180 days contributed 3.8 percent, while non-performing loans increased to 13.2 percent from the September 2013 figure of 7.7 percent. The 5.5 percent increase was largely due to the migration of Rize Enterprise (\$172,000) under CABS to becoming non-performing.

**Table 3.4.5: Portfolio at Risk**

	CABS	TRUST	MK	December 31, 2013
Loans Past Due > 30 Days to 180 Days	\$0	\$48,034	\$105,550	\$153,584
Number of Loans Past Due	0	6	33	39
PAR	0.0%	7.8%	7.4%	3.8%
Non-performing Loans (\$)	\$172,512	\$224,071	\$131,750	\$528,333
Non-performing Loans (#)	1	14	62	77
PAR	8.9%	36.5%	9.2%	13.2%

**Commodities Purchased**

The quarter resulted in the addition of \$3.55 million worth of recorded purchases to exceed \$27 million in cumulative recorded purchases since program inception. Livestock purchases dominated the quarter (64 percent) followed by maize purchases accounting for 26 percent as a result of increased sales in the maize marketing season. The remaining 10 percent was constituted by farm inputs (6 percent) and other crops (4 percent).



**3.5 BUSINESS DEVELOPMENT**

Business development services are a cross-cutting activity that contributes directly to all Zim-AIED results. The core task is to assist program beneficiaries in identifying permanent opportunities for making more money. During the quarter, activities focused specifically on the following:

- **Developing the organizational capacity of farmer groups** – increasing the capacity of farmer groups to participate in productive value chains by providing training and support to leaders in key managerial duties such as budgeting, work planning, simple financial management, and democratic group decision making.
- **Contract farming** – fostering good business ethics and improving trust between buyers and growers by facilitating contract design and negotiations.
- **Business skills** – improving planning and decision making by imparting basic business skills such as enterprise budgeting, break-even analysis, and recordkeeping.
- **Collective marketing** – reducing transaction costs by linking farmer groups to input and output markets.
- **Farmer-led extension systems** – training lead farmers to establish a permanent knowledge and skill base within the community to promote the adoption of GAPs.

Farmer groups received technical support in governance, administration, and collective access to both input and output markets. Training focused on group management and leadership skills, enterprise budgeting, contract management, credit control, recordkeeping, risk management, and marketing principles to equip farmer groups with basic business skills.

To ensure all targeted farmers adopt good business and agricultural practices regardless of the size of their operation, all activities took place in cooperation with private sector partners or nongovernmental organizations linked to for-profit companies (Annexes 6-7). Some of these partners are sub-grantees or subcontractors while others are buyers and lenders who work in cooperation with Zim-AIED using their own funding. To ensure sustainability after conclusion of the Zim-AIED program, Agritex field staffs are engaged in all the training activities as co-facilitators.

In addition to the crucial role of business training, commercialization requires a range of other specific business-related interventions that are monitored through six FTF indicators summarized below.

### 3.5.1 Technical Assistance and Training

#### *FTF 4.5.2-11 Number of food security ...organizations... receiving USG assistance*

During the quarter under review, 982 organizations – mainly AgriTrade borrowers, producer associations, and irrigation management committees (IMC) – received training and technical assistance from Zim-AIED and its partners. A total of 68 IMC members from Tschongokwe (Matabeleland North), Mutema (Manicaland), and Exchange (Midlands) irrigation schemes received training and technical assistance in conflict resolution, performance review, work planning, group duties, management of group infrastructure, recordkeeping, and marketing. Zim-AIED facilitated a meeting between 144 farmers at Silalabuwa irrigation scheme and Zimbabwe National Water Authority (ZINWA) in order to negotiate a payment plan for offsetting utility bills accumulated over the last five years. The outcome of the meeting was an accepted payment plan that would prevent cut-offs and guarantees a consistent supply of irrigation water to the farmers. Skills transfers such as this are meant to build the capacity and self-reliance of producer organizations.

To promote a farmer-led extension system that builds permanent knowledge and skills within communities, a total of 33 lead farmers from Exchange irrigation scheme (Midlands) were contracted to host demonstration plots that serve as key focal points for training to other farmers on the scheme. Lead farmers receiving intensive training and technical assistance are expected to cascade this knowledge down to peers organized into small groups of not more than 10 farmers. Such a low extension agent to farmer ratio ensures effective communication. Lead farmers also learned various aspects of contract farming to ensure adherence to contractual obligations and prepare them for future formal arrangements with buyers or microfinance institutions.

Effective leadership is important in group cohesion. To strengthen the second phase of implementation, a total of 72 group leaders from banana producer organizations in Honde Valley were trained in leadership skills. The training focused on sensitizing leaders on the benefits of separation of duties and balance of authority. Separating duties lessens workload on committee members, especially during peak labor periods, while balanced authority reduces chances for abuse, which is common when power is concentrated in one portfolio. To improve their overall efficiency, producer organizations have to continuously review their performance. To this end, the groups, through their leaders, practiced a self-evaluation tool that can objectively track group performance on various aspects including governance, production, and marketing.

Farmer groups under FAVCO and Matanuska continued to receive training on credit and contract management to ensure they maintain effective, long-term relationships with their commercial partners. In Mutoko, groups producing for export markets were trained on contract management to prepare them for their contractual obligations and ensure sustainable relationships with their buyers.

In Nkayi, livestock beneficiaries from the management committee of the Dakamela breeding center received technical assistance on work planning, resource mobilization, and activity monitoring.

*FTF 4.5.2-37 Number of MSMEs receiving business development services*

During the period under review, integrated training and technical assistance was provided in agronomy, irrigation management, natural resource management, gender mainstreaming, marketing, postharvest handling, recordkeeping, budgeting, and contract management. A total of 4,777 MSMEs, of which five were AgriTrade borrowers, received BDS training from Zim-AIED and its implementing partners. Table 3.5.1 shows the breakdown of beneficiaries who received trainings in various business skills during the quarter. In all sessions, gender and environmental issues were mainstreamed and are not reported separately.

**Table 3.5.1 Business development services Q1 FY 2014**

Subject	FY2013		
	Male	Female	Total
Contract Management	817	44	861
Credit Management	501	18	519
Enterprise Budgeting	360	29	389
Farmer Group Organization & Management	1,395	64	1,459
Record Keeping	828	158	986
Collective /Group Marketing	50	39	89

An example of a typical business intervention was the organization of three input suppliers' days held at the regional level (Harare, Bulawayo, Gweru). These provided opportunities for local agricultural companies (supplying products such as fertilizer, pesticides, spray and irrigation equipment, and vegetable seeds) to interact with the farmers and market products that are PERSUAP compliant. In addition, the days provided opportunities for linking producer organizations as well as local agrodealers with input suppliers. For example in Matabeleland South, National Tested Seeds, a seed and agrochemical supplier set up a mobile shop at Makwe irrigation scheme while Agricura, an agrochemical supplier started to assess possibility of supporting an agrodealer at Silalabuwa irrigation scheme. In addition, the two leading seed houses in the country, SeedCo and Pioneer, set up demonstration plots to showcase their maize varieties at the irrigation schemes in Moza, Tuli-Lushongwe, Makwe, Silalabuwa, Tschongokwe and Lukosi. In Midlands, the Zimbabwe Fertilizer Company started to supply vegetable seeds and pesticides to farmers in Insukamini irrigation scheme and Madigane wetlands.

Integrating an understanding of good agricultural practices as good business practices can be seen through Zim-AIED's promotion of proper sucker management in banana production. During field visits, Zim-AIED staff identified poor sucker management as a 'yield bleeder' across the 13 banana producer organizations contracted by FAVCO. Farmers were retaining excessive suckers instead of adhering to the recommended 2 follower sucker principle. An unwanted sucker 30 centimeters in size can cause an 18 percent reduction in final bunch weight. If two unwanted suckers per station grow to a height of 30 centimeters, this translates to a loss of 14,284 kilograms out of a potential 39,000 kilograms during the first year of production. After understanding the cost of not adhering to practices taught by Zim-AIED, farmers have started to remove all excess suckers. With proper management, banana bunches become bigger and healthier, going from an average of 8 kilograms to 25 kilograms, further driving up their market value.

To ensure a commercial approach to banana production, a total of 299 farmers drawn from the 13 banana producer organizations received training on recordkeeping. With up-to-date and relevant records, farmers are able to assess the performance of their banana enterprises. Farmers were especially encouraged to keep a daily cash record. At the household level, Zim-AIED encouraged each participant to buy an exercise book that will be used to track farmers' records. To increase adoption of recordkeeping, it was agreed that other household members must be incorporated into the practice to ensure all business transactions are captured. To this end, a high number of youth participated in all the training sessions – an indication that the households are treating farming as a family business.

Because training alone without market linkages is not profitable, the focus this quarter was to establish firm relationships between farmers and input suppliers. An example is in Guruve where Windmill was directly linked with 143 farmers from four wards. The Guruve model was later replicated in Midlands, where farmers at Exchange and Ngondoma irrigation schemes were linked with Sable Chemicals and National Tested Seeds, respectively. In Chipinge district, farmers from Musikavanhu irrigation scheme were linked to Farm and City Center, a local retailer of agricultural inputs. In Nkayi district, farmers at Fanisoni irrigation scheme were assisted to resuscitate their pumping unit by linking them to a service provider, CN Enterprises. They secured a deal where CN Enterprise agreed to supply a secondhand pump valued at \$ 2,800 upon receipt of a down payment of \$1,800 by the farmers. Zim-AIED's commercial approach, whereby farmers are responsible for maintaining their infrastructure, as opposed to relying on irregular donor assistance was well received by both the farmers at Fanisoni and the government officials in Nkayi district.

Zim-AIED collaborated with Virl Microfinance to train 216 farmers in credit management with emphasis on group co-guarantees as a potential security option for receiving commercial loans.

### 3.5.2 Investment

#### *FTF 4.5.2-38 Value of new private sector investment... leveraged by FTF implementation*

Implementing partners' new investments reported for the quarter totaled \$38,317. Better Agriculture invested \$500 in communication equipment; Matanuska invested \$21,659 for a pack shed, laptops, and road repairs; Inala invested a total of \$15,427 in livestock, borehole repairs, and fencing material; O'Enem Meats invested \$731 in butchery equipment.

### 3.5.3 Profitability

#### *FTF 4.5.2-43 Number of firms ...now operating more profitably because of USG assistance*

Through AgriTrade and business development interventions, Zim-AIED continued to focus on ways of making more money for more participants. A total of five AgriTrade borrowers, in particular those in livestock trading, have continued to increase profitability as indicated by the high rates of loan turnover.

Business development interventions focus on ways of making more money available to participants along the Zim-AIED intervention value chains. By continuing to advise banana farmers in Honde Valley and Chipinge on group formation, organization, and management, the transaction costs of collecting bananas have remained low enabling FAVCO and Matanuska to increase the price paid to farmers to \$0.32 - \$0.34 per kilogram.

### 3.5.4 Employment

#### *FTF 4.5-2 Number of jobs attributed to FTF implementation*

During the quarter the Zim-AIED program, working through its partners, maintained 1,215 FTEs and created an additional 2 FTEs.

### 3.5.4 Technology Adoption

#### *FTF 4.5.2-42 Number of ...organizations... that applied new technologies or management practices*

At least 982 organizations adopted new management practices during the year. This includes the majority of AgriTrade borrowers with loans under \$10,000 who are now keeping better management and accounting records to ensure conformance to the terms of their loans. In addition, 13 banana producer organizations in Honde Valley have adopted the use of the group self-evaluation tool to objectively track group performance.

### 3.6 PRODUCTIVITY

The 2013/14 rainy season started generally late in most areas (mid-November to mid-December). This resulted in late plantings up to mid-December 2013. However, by the third quarter of December, establishment of the bulk of all summer crops took place, although gap filling or replanting was required in some areas due to inadequate moisture.

Productivity interventions in crop agronomy, irrigation, livestock management, and postharvest processing were carried out intensively by the Zim-AIED technical team and extension workers employed by partner organizations. The continuation of subgrants with Matanuska, FAVCO, Better Agriculture, O'Enem Meats, and Inala Enterprises provided additional technical and marketing resources to food and cash crop growers and livestock farmers across the country. Zim-AIED approved and signed a two-year subcontract with Sustainable Agriculture Technology (SAT). The modification increases the number of lead farmers per each of the 36 agribusiness hubs to 15, which will help to strengthen the commercial services provided to at least 25,000 smallholders this year.

The main target crops for 2014, in addition to livestock, are maize, sugar bean, banana, paprika and high-value horticultural crops for the domestic market. Secondary crops include groundnut, cowpea, chilies, sweet potatoes, and export horticultural crops. The livestock team targeted beef and dairy production and integrated their activities more closely with other Zim-AIED activities around irrigation schemes in Matabeleland, Midlands and Manicaland this quarter.

Productivity increases are monitored by three FTF indicators, summarized below and detailed in the specific activity interventions, sections 3.6.1 to 3.6.8.

#### *FTF 4.5.2-7 Agricultural sector training*

During the quarter, 6,364 beneficiaries received short-term, specialized training and technical assistance in crop production, integrated pest management, and postharvest technologies. Training focused on good agricultural practices customized for specific crops and livestock conditions.

The staples team carried out trainings, mainly through SAT, for dryland farmers growing maize, groundnuts, soy beans, cow peas, and sugar beans. Trainings on maize, vegetables, and sugar beans took place on irrigation schemes in Midlands (Exchange, Ngondoma, Hama Mavaire, Madigane wetlands), Matabeleland, and Manicaland (Chibuwe, Mutema).

The livestock team focused their trainings on livestock fodder planning, production and conservation, veldt reinforcement, livestock marketing, and good animal husbandry practices such as castration, vaccination, dehorning, supplementary feeding, drought mitigation strategies, and recordkeeping.

The irrigation team continued to provide technical assistance and practical hands-on solutions to smallholder farmers to ensure expeditious and timely repairs of critical infrastructure, and prevent crop losses through improved operations management.

The business development team provided technical assistance in governance, administration, and coordinated access to both input and output markets for existing and new farmer groups. Training focused on group management and leadership skills, enterprise budgeting, contract management, credit control, recordkeeping, risk management, and marketing principles to equip farmer groups with basic business skills.

#### *FTF 4.5.2-2 Area under improved technologies*

An estimated 10,000 hectares of productive land applied new technologies or improved management practices this quarter. Field observations indicate increased areas under maize, soy bean, and groundnuts were established using improved practices in land preparation, water management, nursery management, planting, germination, and weed control. A sample survey conducted next quarter will validate this figure.

#### *FTF 4.5.2-5 Farmers who have applied new technologies*

Many farmers have adopted improved soil management systems, better pest and weed management techniques, improved varieties, and changes to optimal planting rates. The sample survey mentioned above will determine the accurate number of beneficiaries.

### 3.6.1 Staple Food Crops

Staple crops targeted for planting this season were maize, sugar beans, soy bean, cowpeas, groundnuts, and sweet potatoes. Cowpea was planted in Gutu, Masvingo to take advantage of this rainfed crop's high potential profitability in regions III and IV. A total of 36 agribusiness hubs were supported by Zim-AIED through SAT in Mashonaland Central, Mashonaland West, Mashonaland East, Midlands, and Masvingo provinces under the terms of the subcontract modification, which increases the number of lead farmers per hubs to 15 with each receiving full inputs on credit to establish 0.5 hectares of any one of the staple crops.



*Photo by Fintrac Inc.*

Female lead farmer, Florence Mariro, proudly shows off her healthy maize field in Goromonzi, Mashonaland East.

Access to an adequate supply of inputs is a crucial limiting factor to the production of staple crops such as maize. However, due to the program's positive experiences from the 2013 season, the agribusiness hub model has helped attract more private sector interest and collaboration in 2014. Input suppliers, such as fertilizer companies like Omnia, Profert, Windmill, and Nico Orgo, have contributed to the demo plots through the supply of free inputs for the main demos. Seed suppliers, such as Pioneer Seed Company, have also provided seed to all 340 maize lead farmers on a 270-day interest-free credit facility.

Within the 36 hubs established under the SAT subcontract, a total of 542 lead farmer demo plots were planted as follows:

- 340 maize demos (Murewa, Goromonzi, Guruve, Hurungwe, Mazowe, Gokwe North and South)
- 73 groundnut demos (Murewa, Gokwe North and South)
- 60 soy bean demos (Goromonzi, Guruve and Hurungwe)
- 49 cowpea demos (Gutu)
- 20 sweet potatoes demos (Gutu and Murewa)

Each of the 542 lead farmers received inputs on credit and tasked with training an additional five farmers (minimum) in their area.

The current status of the maize crop is generally satisfactory, especially for the lead farmers who received inputs. Lead farmers are expected to achieve at least four tons of maize per hectare, as long as rains continue to be favorable. This can be compared to an expected yield of less than one ton per hectare for non-Zim-AIED farmers, i.e. those not receiving technical assistance and training.

The agribusiness approach has also attracted ETG (IETC) to contract with 327 smallholder farmers around the Zim-AIED hubs in Goromonzi, Guruve, and Hurungwe to produce soy beans. Sixty of these contracted farmers are Zim-AIED lead farmers. Zim-AIED field extension officers are providing technical assistance and training to these growers and ETG.

In Manicaland (Honde Valley), 2,500 banana growers were encouraged and trained to grow maize using the income generated from bananas. A total of five demo plots were established at Zindi, Mandeya, Mutarazi and Saruwaka. The farmers were trained on good agricultural practices such as fertilizer application, weed control using PERSUAP compliant herbicides, and optimal plant population (See Annex I).

On the Chibuwe irrigation scheme, 20 demonstration trials trained farmers in maize weed control with herbicides. In total, 633 three farmers planted maize on the scheme during the quarter.

In Midlands and Matabeleland provinces, Zim-AIED technicians provided technical assistance and training to 437 farmers (270 females and 152 males) for green mealies, tomato, groundnut, and sweet potato. Green mealies have been a key crop on irrigation schemes in Midlands. During the quarter, a total of 237 hectares of green mealies was grown at Insukamini, Madigane, Exchange, and Ngondoma irrigation schemes.

Through Zim-AIED interventions, green mealies farmers achieved yields ranging from 5.1 to 7.2 tons per hectare. By selling at \$3 per dozen, gross incomes of \$750 were attained by some farmers on just 0.1-hectare plots. Farmers also used the small cobs not sold to the fresh market as grain.

### 3.6.2 Paprika and Chilies

Zim-AIED trained 592 smallholder farmers in business skills, accessing input loans, farmer group organization, seedling and nursery management, and crop-livestock integration in preparation for the start of the paprika growing season. The Partnership Fund Agreement (PFA) on paprika with Zero One Africa ended in November 2013. An important lesson learned from two years of the PFA is that contract farming arrangements where input financing for paprika production is provided by a single buyer is risky business because farmers side-sell paprika to non-contracting buyers. To minimize side marketing in paprika, Zim-AIED adopted an industry approach that seeks to strengthen the paprika industry through collaborating with all paprika buyers and actively engaging private microfinance institutions to support farmers' access to seasonal inputs. Zim-AIED facilitated a round table meeting of all buyers, the first such meeting in 16 years, to discuss the development and universal adoption of common paprika quality standards for the industry. As a follow up to this, Zim-AIED will hold a grades and standards workshop for all buyers and lead farmers in February 2014 to facilitate the development of a universal paprika standard for the industry.

Initiatives to increase paprika production centered on making credit accessible to smallholder farmers to purchase production inputs. Zim-AIED facilitated the introduction of direct lending to smallholder paprika farmers with or without contracting, a move toward sustainable funding for paprika production after the conclusion of Zim-AIED in February 2015. Zim-AIED used production data to identify highly productive farmers with the potential to achieve good yields, strong gross margins, and repay loans as the main selection criteria for farmers to access paprika production loans. A total of 168 paprika farmers qualified for and accessed credit for inputs (fertilizers and chemicals) from Viril Microfinance, with each farmer receiving enough to cover 0.2 hectares of paprika. The tenure of the input loans is six to eight months at 4 percent interest per month. This pilot will make credit accessible to farmers with no previous banking history. If successful, this would be scaled up in 2014/15 with interest rates likely to decline.

The program also trained farmers to produce good quality, disease-free paprika seedlings. Zim-AIED established 21 paprika demo plots in Manicaland and Mashonaland West and trained farmers on transplanting methods, good fertilizer application, and correct spacing for optimal plant population.

In both Manicaland and Mashonaland West, the rainy season started late and the majority of farmers transplanted paprika in December 2013, each farmer covering 0.2 to 0.5 hectares. By the end of December, 1,488 smallholder farmers in the two provinces had adopted good planting patterns and fertilizer application and planted an estimated 458 hectares of paprika. Farmers who accessed credit for inputs, received adequate rainfall, and adopted good agricultural practices are expected to attain minimum yields of 1.5 tons per hectare. Smallholder farmers are expected to produce more than 630 tons of the national total production of 735 tons.

With no dominant buyer contracting farmers, Zim-AIED facilitated farmer-buyer interaction meetings at three major paprika hubs (Hurungwe, Headlands, Nyanga) to link paprika farmers and five paprika buyers. A total of 299 farmers attended the meetings.

Zim-AIED partner Better Agriculture contracted 417 farmers in Nyanga and Honde Valley (Manicaland province) to grow 92 hectares of Tabasco chilies. Of these, 232 farmers at Nyakomba irrigation scheme in Nyanga district transplanted the crop in October. In Honde Valley and Tombo, 125 farmers and 60 farmers, respectively, are producing the crop under rain-fed conditions and completed transplanting in December. Each farmer planted 0.2 hectares and Zim-AIED continues to provide technical assistance to the farmers. Farmers' expected yields are 5 tons per hectare under irrigated conditions and 3 tons per hectare under dryland conditions. At harvest, farmers will receive \$0.50 per kilogram for wet chilies resulting in an expected gross margin of \$750 to \$1,650 per hectare. All the Tabasco chili is destined for export to the McIlhenny Company, the producers and owners of the Tabasco sauce brand. Better Agriculture exports the Tabasco chili mash to McIlhenny through their agent Chili Pepper Company in South Africa.

An additional 243 farmers were contracted by Better Agriculture to plant 44 hectares of African Bird's Eye (ABE) chilies in southern Manicaland and Masvingo. Better Agriculture will export all chilies to Nando's South Africa for the manufacture of Nando's sauces. Better Agriculture has an off-take agreement to supply 80 tons of dried ABE chilies to Nando's in 2014.

Zim-AIED trained farmers in contract management and good agricultural practices in ABE chili production. Each of the farmers had planted between 0.2 hectare and one hectare by end of December. Target yields at harvest are estimated at between three to four tons per hectare. The farmers anticipate gross incomes of \$1,690 to \$2,520 per hectare at \$0.83 per kilogram for the wet product (Table 3.6.2.2).

The program established eight Tabasco chili demonstration plots and six ABE demo plots in Manicaland and Masvingo for training farmers on correct fertilizer application, correct spacing and integrated pest and disease management.

**Table 3.6.2.1: Projected paprika production for 2013/2014 season**

Province	District	Input Supported Farmers				Unsupported Farmers				Total Farmers			
		# of Farmers	Area (ha)	Yield/ha (t)	Total (t)	# of Farmers	Area (ha)	Yield/ha (t)	Total (t)	# of Farmers	Area (ha)	Ave yield/ha (t)	Total (t)
Mashonaland West	Hurungwe	16	7	1.5	10.5	184	58	1.00	58	200	65	1.05	68
	Zvimba*	-	-	-	-	1	30	1.5	45	1	30	1.5	45
	Charara Farm*	-	-	-	-	1	20	3.00	60	1	20	3.00	60
Manicaland	Makoni/Headlands	14	12	1.5	18	100	30	1	30	114	42	1.05	44.1
	Nyanga(Zim-AIED)	86	34.4	1.5	51.6	60	12	1	12	146	46.4	1.37	63.6
	Nyanga (ADF)	932	279	1.5	418.5	-	-	-	-	932	279	1.8	418.5
	Chipinge	26	5.8	1.5	8.7	15	3	1	3	41	8.8	1.32	11.7
	Chimanimani	42	13	1.5	19.5	4	0.4	1	0.4	46	13.4	1.48	19.9
Mashonaland East	Marondera					9	4	1	4	9	4	1	4
<b>Total</b>		<b>1116</b>	<b>351.2</b>	<b>1.8</b>		<b>79</b>	<b>15.4</b>	<b>1</b>	<b>15.4</b>	<b>1488</b>	<b>508.6</b>	<b>1.4</b>	<b>735</b>

\* Not small - scale farmer Source: Zim-AIED

**Table 3.6.2.2: Projected Tabasco chili and ABE chili production for 2014**

Crop	Province	District	No. of farmers	Area under production (ha)	Yield (t/ha)	Total production (tons)	Revenue	Cost of production	Gross margin/ha
Tabasco Chili	Manicaland	Nyanga	232	48	5.0	240	120,000	40,800	1,650
		Honde Valley	125	32	3.0	96	48,000	24,000	750
		Tombo	60	12	3.0	36	18,000	9,000	750
<b>Total</b>			<b>417</b>	<b>92</b>		<b>372</b>	<b>186,000</b>		
ABE Chili	Manicaland	Mutare South	32	8	3.0	24	19,920	6,400	1,690
	Masvingo	Chiredzi	104	17	4.0	68	56,440	13,600	2,520
		Zaka	107	19	4.0	76	63,080	15,200	2,520
<b>Total</b>			<b>243</b>	<b>44</b>		<b>168</b>	<b>139,440</b>		

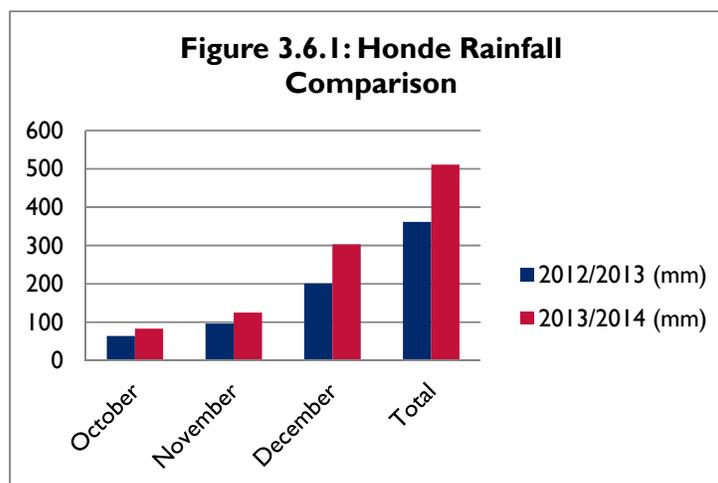
### Cherry Peppers

Zim-AIED partnered with Better Agriculture to promote the production of 10 hectares of cherry peppers by smallholder farmers at Chiduku-Tikwiri irrigation scheme in Makoni district (Manicaland). Better Agriculture will sell the cherry peppers to African Processors, a local horticultural company that will in turn export the cherry peppers to South Africa and Europe. Better Agriculture contracted 100 smallholder farmers at the scheme, providing seedlings as well as fertilizers and chemicals for production, who each planted 0.1 hectares. If well managed, cherry pepper has a yield potential of 40 ton per hectare. Since farmers are growing the crop for the first time, minimum yields would be at least 12 tons per hectare. Farmers will receive \$0.40 per kilogram for the peppers and gross margins of at least \$3,077 per hectare.

### 3.6.3 Horticulture: Bananas

#### Honde Valley

Banana sales to Zim-AIED partner FAVCO more than tripled this quarter compared to the same period in FY2013. The increase is due to the maturing of the contracted tissue-cultured crop, which started in May 2013 and reached its peak between October and December 2013. Winter rainfall received from July to September 2013 helped cushion farmers against irrigation water shortages and also improved the yields from the dryland crop. Monthly rainfall received during the quarter was consistently better compared to the same period last year. Quarterly total was 511 millimeters compared to last season's 361.5 millimeters.



Quarterly total was 511 millimeters compared to last season's 361.5 millimeters.

The cumulative average yield from the tissue-cultured crop increased from 36 tons per hectare to 40 tons per hectare against a target of 30 tons per hectare. Table 3.6.3.1 summarizes the quantities and values of bananas purchased by FAVCO during the quarter compared to the same period in FY 2013.

**Table 3.6.3.1: Banana Purchases by FAVCO in Honde Valley**

Year	October		November		December		Total	
	Qty (t)	Value (\$)	Qty (t)	Value (\$)	Qty (t)	Value (\$)	Qty (t)	Value (\$)
2012	79.8	23,940	11.3	3,390	63.2	18,960	154.3	46,290
2013	147.5	45,723	246.6	76,434	121.1	37,555	515.2	159,712
% increase	185%	191%	2182%	2255%	192%	198%	334%	345%

Banana sales quantities to FAVCO increased by 334 percent, from 154 tons in the first quarter of the 2012/2013 to 515 tons in the same quarter of the 2013/2014 season. A similar improvement was observed in banana sales values, which increased by almost 3.5 times from \$46,290 to \$159,712. Cumulative tissue-cultured banana deliveries since May are now at 480 tons, 70 percent of the expected quantity.

The farm-gate price paid by FAVCO was competitive at \$0.32 per kilogram but effectively farmers achieved \$0.31 after deduction of a 3 percent moisture loss. In addition, all the bananas purchased by FAVCO met their highest quality standards as there was no downgrading of bananas based on quality. Competitors were also very active in the quarter and were paying farm-gate prices ranging between \$0.25 and \$0.34 per kilogram. Sunspun, one of Zimbabwe's biggest banana wholesalers, was paying \$0.33 per kilogram cash on the spot in order to access good quality product.

FAVCO has been recovering loans from contracted farmers through their stop order system and recoveries are now at \$48,785, which constitutes 56.3 percent of the original loan of \$86,636 for the initial group of contracted farmers. The outstanding figure of \$37,851 is largely with farmers whose crop was delayed by an excessively cool winter season in 2012. Of the 230 farmers who benefited from the first contracts, 36 percent and 16 percent have reduced their outstanding loan values to figures below \$50 and \$100, respectively. The main focus is now on the 48 percent whose loans are still above \$100.

Initial loan values for the farmers ranged from \$97 to \$1,303 and the average beneficiary received a loan value of \$386. The total loan for the new groups is now at \$72,977, spread among 376 farmers, giving an average loan value of \$194. Repayment to date is at \$4,465 (6 percent) and this money was received through direct cash payments from farmers.

In its continued efforts to improve yields on old plantations, Zim-AIED partnered with Virl Microfinance, who disbursed a total of \$14,766 to 48 Honde Valley banana farmers to buy 17.7 tons of fertilizer for 28 hectares of older plantations. These farmers are expected to increase their yields from 12 tons per hectare to a target figure of 20 tons per hectare. The farmers made an upfront payment of \$3,692 (25 percent) to cover the interest component and are required to pay back the principal over six months. Even with an annual interest rate of 48 percent, the increased yields will easily cover the loans and provide farmers with additional disposable income.

A good number of banana farmers would like to diversify into livestock production, but there is a shortage of grazing area. To this end, Zim-AIED has introduced fodder species on three livestock demos situated in three agricultural hubs at Zindi, Mutarazi, and Saruwaka.

### **Mutema and Chibuwe**

Mutema's performance appears low because of blocks harvesting less than 50 percent of the crop. However, for blocks that have harvested more than 70 percent, yield levels are projected to be in excess of 70 tons per hectare.

Mutema continued to produce better quality and higher yields than Chibuwe owing to its semi-automated micro-jet irrigation system compared to the relatively inefficient flood system at Chibuwe. Despite this, yields in Chibuwe/Musikavanhu are still very high at an average of 47 tons per hectare. Herbicide use has been fully adopted in banana production at Mutema and Chibuwe irrigation schemes.

**Table 3.6.3.2 Banana Production Summary Mutema/Chibuwe**

Parameter	Musikavanhu A5	Chibuwe C1	Chibuwe C2	Mutema	Combined Summary
Area under Harvest (ha)	9.6	10	10	38	66.7
Bunch weight (kg)	22	17	19	27	21
Yield (t/ha)	53.55	41.4	45.8	66.2	51.7
Bunches harvested to date	20,304	15,265	10,315	77,845	123,729
Target bunches in Section	23,501	24,480	24,480	93,024	165,485
% Bunches Harvested	86%	62%	42%	84%	69%
Accumulated harvest to date (t)	444	258	193	2,106	3 001
Accumulated packed weight (t)	381	219	164	1,823	2,587
Sales Value to date (\$)	111,030	54,291	43,691	529,393	738,405
Average price \$/kg	0.29	0.25	0.27	0.29	0.27
Harvesting progress towards target %	93%	52%	39%	92%	69%
Quality-Packout %	86%	85%	85%	87%	86%

A total of 66.67 hectares are now being harvested. A total of 33.6 hectares is still immature with harvesting set to commence from March 2014 onwards. Gross sales over the quarter amounted to 544 tons of bananas worth \$138,024, giving an average price of \$0.253 per kilogram with Mutema contributing 277 tons and Chibuwe/Musikavanhu contributing 267 tons.

The immature crop is of good quality at both Mutema and Chibuwe and is expected to attain an average of 25 kilograms net weight per bunch, which should translate to yields of around 50 to 60 tons per hectare. The first ratoon crop is now being harvested at Mutema with a further increase in bunch weights and yield. Bunch weights are ranging between 30 and 45 kilograms, an increase of 50 percent over that achieved in the first harvest.

During the quarter, the Chibuwe pack shed was commissioned to begin handling and processing bananas. The total investment by Matanuska of the completed pack shed was \$45,010.

Table 3.6.3.3 summarizes the loan repayments to date by farmers at Mutema and Chibuwe. In general farmer debt increased this quarter as harvesting in most blocks slowed down while farmers continued to incur maintenance costs such as fertilization, electricity, and water bills. As such, the rate of loan repayment declined at Mutema blocks 1, 2, 3 and Musikavanhu A5. Repayment rates are expected to increase next quarter as the second crop comes into harvest.

Mutema block 4, which commenced its first harvest during the quarter, has a marginally increased repayment rate. Chibuwe C2 and Musikavanhu blocks got into the quarter during their peak harvesting and have higher rates of repayments. Repayment rate for Chibuwe C1 is lagging behind because the initial harvest was poor because of water distribution challenges.

**Table 3.6.3.3 Summary of Loan Repayments by Mutema and Chibuwe banana farmers as at 31 December 2013**

Scheme	Block	Area (ha)	No. of farmers	Total Debt	Repayment	Balance	% recovery
Mutema	1	8	32	\$117,287	\$85,972	\$31,315	73%
	2	12	48	\$175,360	\$108,827	\$66,533	62%
	3	12	48	\$167,648	\$96,505	\$71,143	58%
	4	4.5	18	\$59,141	\$25,696	\$33,445	43%
	A5	3.75	15	\$41,674		\$41,674	
	B5	8.25	33	\$72,583		\$72,583	
	A6	11	44	\$96,739		\$96,739	
<b>Total</b>		<b>59.5</b>	<b>238</b>	<b>\$730,432</b>	<b>\$317,000</b>	<b>\$413,432</b>	<b>43%</b>

Scheme	Block	Area (ha)	No. of farmers	Total Debt	Repayment	Balance	% recovery
Chibuwe	C1	11.4	57	\$83,227	\$30,258	\$52,969	36%
Chibuwe	C2	9.87	47	\$71,527	\$421,012	\$50,515	29%
Chibuwe	D	10.6	54	\$ 50,101		\$50,101	
Musikavanhu	A5	8.9	45	\$79,174	\$58,367	\$20,807	74%
<b>Total</b>		<b>40.77</b>	<b>203</b>	<b>\$284,029</b>	<b>\$109,637</b>	<b>\$174,392</b>	<b>39</b>
<b>Grand Total</b>		<b>100.27</b>	<b>441</b>	<b>\$1,014,461</b>	<b>\$426,637</b>	<b>\$587,824</b>	<b>42%</b>

It is important to note that Musikavanhu A5 and Chibuwe are surface irrigated schemes and their farmers have a higher repayment rate despite lower yields because of lower loan sizes.

### Rusitu Valley

The five tissue culture demonstration plots established in December 2012 commenced flowering and fruiting in the quarter. Farmer groups have been learning the best practices of plantation management and adopting more GAPs for implementation on their plantations. Several farmers are now using herbicides, having been convinced of their value by Zim-AIED, with more following suit as the technology catches on. The climate makes this area ideal for herbicides as weeds are almost impossible to control by hand during the long rainy season.

### Matabeleland

Ten farmers at Lukosi Irrigation scheme in Matabeleland North received a total of 320 tissue-cultured plants from Honde Valley. The farmers learned the correct method of pegging and digging holes, planting and fertilizing, as well as constructing basins to control the flood irrigation system. A number of plants were lost due to excessive heat in November, but the replacement plants are growing well.

Initial skepticism from the farmers about the wisdom of planting bananas in the area has been dispelled by the high level of growth exhibited by the plants when grown and fertilized correctly. In addition, the local price of bananas is in excess of \$2 per kilogram. Farmers have realized that the returns from growing bananas in the area will be very high and the IMC has requested Zim-AIED set up an additional demonstration plot within the scheme.

#### 3.6.4 Local Horticulture

Widespread commercialization of horticulture at levels that can benefit many smallholder farmers can only be achieved if a reliable supply of water is available. Therefore, all irrigation schemes and wetland areas are a critical component to the success and long-term sustainability of Zim AIED's targeted horticultural interventions. The bulk of the plantings on the irrigation schemes in Midlands and Matabeleland provinces consisted of green mealies (211 hectares) and sugar beans (142 hectares) with a smaller area (40 hectares) being planted to a selection of vegetables including tomatoes, leafy vegetables, butternut, onion, garlic, cabbages, and chilies. Green mealies are an ideal smallholder crop as input costs are low, minimal management is required, and returns are high when produced early in the season. Total sales of green mealies from Zim-AIED-assisted sites in Midlands and Matabeleland provinces during the quarter are estimated to be in excess of \$1,000,000; even the bulk of the \$957,211 in recorded maize sales during the quarter was green mealies. In addition, the resultant maize stover was used as maintenance feed for livestock in the surrounding areas where there was no grazing due to the late rains.

In Murewa district, vegetable plantings were restricted by inadequate water supplies as most underground sources dried up toward the end of September 2013. Plantings were deferred to January 2014 due to delays in the onset of the rains. In Mutoko district, there were few plantings on the irrigation schemes as farmers traditionally focus their attention on dryland production from mid-November to early February. Farmers will commence land preparation for vegetable plantings during the second quarter when the bulk of the work has been completed in the dryland sections and labor is readily available.

A total of 78 demonstration plots were established in the various project sites to showcase GAPs in cabbage, rape, butternut and green mealie production. New technologies introduced included improved seed varieties, seed treatments, use of herbicides, and appropriate fertilizer applications based on soil analysis.

Opportunities remain buoyant in the local horticulture market despite pressure from South African imports and the ongoing liquidity crunch. Large volumes of commodity products such as covo, onions, tomatoes, butternut, potatoes, carrots, and cabbages were traded through the informal markets that have become the primary entry point for imported fruit and vegetables. Many retailers and restaurants are now sourcing their upmarket fresh vegetables direct from these markets as they are unable to compete on price due to high tariffs and cold storage restrictions placed on imports through the formal sector.

Zim-AIED's strategy for FY2014 is to engage a few key buyers from the informal markets in addition to buyers from the formal sector. These buyers were already identified and direct contacts are being facilitated with marketing committee members from all 35 irrigation schemes where Zim-AIED is working. Efforts to identify more cash buyers like Simfresh and Bio-remedies will improve continuity of supply and reduce the necessity for speculative buying.

One successful market linkage facilitated by Zim-AIED involved 15 farmers from the Moza irrigation scheme in Bulilima, Matabeleland South who signed a contract to supply onions to Spar Supermarket and Komani Lodge in Plumtree town. Both buyers paid cash on delivery and were satisfied with the good quality of the onions. Spar intends to extend the contract to other crops including cabbages and butternut.

Zim-AIED hosted two input supplier and market days in Bulawayo and Gweru, both of which were well supported by input suppliers from irrigation, seed, fertilizer, chemical, and small farm tool companies as well as microfinance institutions such as Untu Capital, Viril Microfinance, and MicroKing. The success of these days has translated into a greater level of buy-in from the commercial sector as they are more willing to provide inputs for demonstration plots thanks to an increased awareness of business opportunities coming from the anticipated farmer adoption of new technologies. Some companies like Charter Seeds pledged disease resistant hybrid vegetables for the demonstration plots in the Midlands province and Prime Seeds continues to be very supportive in the Matabeleland and Mashonaland East irrigation schemes. A major supplier of agricultural chemicals, Syngenta, has worked closely with provincial teams to ensure important seed treatments and PERSUAP compliant, green labeled chemicals are available at key outlets in Kadoma, Kwekwe, Gweru, and Hwange during the growing season.

Of notable interest has been the strong representation of buyers from Kombayi Open Market in Bulawayo. The buyers from Kombayi Market received a loan by Untu Capital to increase their working capital and develop new supply chains. Zim-AIED is facilitating these linkages with growers beyond the Midlands province to as far as Mashonaland East province.

### 3.6.5 Export Horticulture

Although the demand for Zimbabwean fresh vegetables from international markets continues to increase, the involvement of the smallholder sector is still limited. During the reporting period, there was an increased number of new buyers visiting Zimbabwean exporters who experienced a very profitable pea season during 2013, achieving their highest prices in the last 10 years. Even though these supermarket audits were successful and orders substantial, most of the exporters still prefer to commit to lower quantities as they are not prepared to engage smallholder farmers.

The experience of Lonrho Agriculture through their outgrower bean program is a case in point. Lonrho contracted 104 farmers to grow 17 hectares of beans on four irrigation schemes in Mutoko district of which 41 farmers were linked to the contract scheme through Zim-AIED; the rest were facilitated by the Zimbabwe International Youth Council. Lonrho supplied full inputs to the farmers on a cost-recovery basis, and provided crates, transport, and limited technical support. Farmers under Zim-AIED planted 0.1 hectares each while others were given inputs for up to one hectare.

Zim-AIED beneficiaries received substantial training in contract negotiations, budgets, recordkeeping, GAPs, safe use of pesticides, harvesting, and post-harvest handling. Lonrho was appreciative of this support due to their personnel constraints and requested that Zim-AIED include the ZIYC growers in these training sessions. Although these growers were offered the same technical support and had the same opportunity to attend training sessions, they rarely made an effort to attend and did not want to be closely monitored.



*Photo by Fintrac Inc.*

Export quality beans required by Lonrho Agriculture.

To build trust in this business arrangement, Lonrho provided all farmers an opportunity to visit their packhouse to understand the processes involved and conduct a farm tour. Despite this effort, Lonrho still experienced an extremely high level of side marketing (more than 60 percent of their expected product) and, although the farmers achieved excellent yields, most of the beans were sold to informal buyers who collected straight from their fields coming from as far as Mozambique. Side selling was spurred by lack of presence of Lonrho personnel on the ground, shortages on the local market pushing prices to between \$0.40-\$0.60 per kilogram, and the farmers' desperation for quick cash. Although Lonrho had guaranteed growers a price of \$1.30 per kilogram, they were only able to pay farmers one month after delivery – terms that were clearly stated upfront and accepted by farmers. The farmers who sent beans to the Lonrho packhouse were also required to pre-grade their crop due to stringent quality controls. The farmers' grade outs were affected by extremely high temperatures during the flowering period combined with 12-14 hour daily load shedding by ZESA making it difficult to complete irrigation cycles in the required time. The resultant low pack outs increased the level of despondency among these farmers which influenced the continued side marketing of the later harvests.

Although this contract farming initiative has not been an outright success for Lonrho, the farmers have realized good money from this crop (gross margins of \$1,800 to 2,000 per hectare) and will easily cover their costs should Lonrho pursue cost recovery measures. It is estimated that gross sales from beans resulted in a cash injection of more than \$38,000 into this community; and the fact that most farmers have adopted beans as a part of their ongoing planting program is an indication of success. Zim-AIED has scheduled a feedback discussion for all stakeholders in the second quarter to determine the way forward and try and facilitate an agreeable outcome for all parties involved. Another initiative provides Virl an opportunity to work with the farmers who did not side market their produce, which will highlight that there are more long-term benefits to those who are prepared to abide by their contractual arrangements.

During the growing season, Zim-AIED facilitated a field day at Chipu irrigation scheme in Mutoko sponsored by Lonrho where seven private-sector partners, local government, and Agritex officers participated. To encourage greater productivity, the top three bean growers received prizes and the VIP speaker encouraged farmers to repay their input loans. The farmers also had an opportunity to discuss fine bean production and share their observations and experiences. The private sector partners had the opportunity to display their wares and advertise their services. One of the irrigation suppliers offered to train two farmers from each scheme at workshops in Harare, and provide pump repairs without requiring an upfront payment as long as the operations and maintenance funds facilitated by Zim-AIED were in place.

### 3.6.6 Value Addition

Zim-AIED works at all levels to promote opportunities for value addition of its agricultural products. The program's postharvest improvements are aimed at reducing crop losses, extending product shelf life, and raising incomes of farmers and other agribusinesses.

During the review period, Zim-AIED held meetings with Nestle Zimbabwe, a leading food manufacturing company and a competitor in the local food flavoring and cooking aid industry. Nestle manufactures the Maggi brand range of different flavored soup powders and uses about five tons of a

variety of dried vegetables every month. Currently, Nestle imports 27 different types of dried vegetables (including onions, cabbages, paprika, and tomatoes) from South Africa. Ivanhoe Farm on the outskirts of Harare used to be a key local supplier of dried vegetables to Nestle until management changed five years ago. The meetings explored possible market linkages to smallholder farmers to supply a variety of dried vegetables to Nestle. While Nestle was keen to source supplies from smallholder farmers, a major concern was the management of the drying process.

A key to Zim-AIED's successful processing activities is training and pre-audit assistance in quality control systems and international food safety standards protocols and good manufacturing practices. As a result, Nestle plans to train farmers on hygienic drying of vegetables and expected quality standards. Zim-AIED and Nestle will explore this collaboration further in the next quarter as Nestle continues to refine its strategy regarding local sourcing of dried vegetables.

Nestle uses the banana puree/pulp in the manufacture of cereals and baby foods. From recent media reports, Nestle invested in factory refurbishment and aims to speed up production and export of cereals in 2014. This implies that there will be an increased demand for banana puree by Nestle. Currently, Honeywood Cannery, a fruit canning plant in Manicaland processes banana puree for Nestle. Honeywood Cannery buys about seven tons of "industrial grade" bananas per month from Matanuska's Burma Valley plantation in Manicaland, and also from smallholder farmers in Rusitu, Chimanimani district at \$0.25 per kilogram. The bananas are processed into a puree and packaged into 5-kilogram cans for Nestle. To meet the anticipated increased demand by Nestle, Zim-AIED will intervene next quarter to facilitate market linkages between banana farmers in other parts of Manicaland and Honeywood Cannery.

### 3.6.7 Livestock

The Zim-AIED livestock program continued to deepen and expand its impacts through the following activities:

- Consolidating operations of the two partners: Inala Enterprises in Nkayi district of Matabeleland North and O'Enem Meats Products in Mazowe district of Mashonaland Central.
- Integrating crop and livestock farming activities in and around some of the 35 irrigation schemes Zim-AIED is implementing activities.
- Implementing a streamlined dairy development program.

Activities in and around the irrigation schemes were confined to some schemes in Matabeleland North and South, Midlands and Manicaland provinces, while the dairy activities were directed to milk collection centers in Rusitu Valley in Chipinge district, Tsonzo in Mutasa district, Gokwe in Gokwe South district, and Claremont in Umzingwane district. Trainings are based on a calendarized livestock farmer school module that focuses on livestock fodder planning, production and conservation, veldt reinforcement, and good animal husbandry practices such as castration, vaccination, de-horning, supplementary feeding, drought mitigation strategies, recordkeeping, and livestock marketing.

A total of 331 farmers at three nucleus breeding centers (NBCs) in Nkayi received technical assistance and training during the quarter. Farmers were trained on deworming, supplementary feeding, and urea treatment of stover. Construction of the third nucleus breeding center at Mkalathi, in Nkayi District is 90 percent complete with three cattle pens, a cattle crush, and a cattle race. Finalization of the loading ramp and borehole is underway and will be completed by February 2014. The three NBCs are currently servicing more than 400 head of cattle under the cattle lease and heifer loan programs, in addition to the estimated 2,000 cattle already owned by farmers.

Nearly 5,000 kilograms of meat was sold at the Inala meat market center in Nkayi this quarter, realizing total sales of \$16,656. On average, one head per week was sold at the market, which buys cattle from surrounding farmers and through local auctions. Inala bought 23 head of cattle from the smallholder livestock farmers at a total value of \$11,155 (\$485 per animal, on average).

Zim-AIED and Inala Enterprises continue to coordinate livestock sales in Nkayi district by engaging in public livestock auctioneers in conjunction with the local authority, Nkayi Rural District Council. The total number of cattle auctioned during the quarter was low at 41 head of cattle with a total sales value of \$20,255. This is partly attributable to the poor physical condition of animals typical during these drier months of the year.

The target to loan out all 91 heifers scheduled for the quarter under the Inala PFA was not achieved as only 57 were loaned out. The slow uptake was due to the effects of the seasonal drought experienced during the period, as farmers were preoccupied with exchanging and selling their cattle to buy maize meal for their families, thus leaving them with very little disposable income.

Zim-AIED has put in place plans to scale up the heifer loan scheme beyond the Inala PFA to other districts of Matabeleland North and South, in particular around the irrigation schemes where Zim-AIED is currently active. Zim-AIED is already engaging buyers like Heads and Hooves, Grills, Mbokodo, and Carswell to discuss the mechanics of swapping farmers' older animals for new heifers. Preliminary discussions with farmers around Tschongokwe irrigation scheme in Lupane district indicate strong interest in exchanging their cull cows, old oxen and bulls for younger heifers of better breeds. To date, 48 farmers have already registered for 62 heifers.

An emergency stockfeed intervention in five wards of Nkayi district in Matabeleland North helped save 490 cattle from imminent starvation. Zim-AIED facilitated farmers' direct purchase of 65 bags of pen feeding meal to 49 farmers in the five wards. In addition to the stockfeed, Zim-AIED trained 157 farmers on animal feed options and various aspects of livestock supplementary feeding. Farmers in the semi-arid district face challenges in accessing adequate feed for their livestock during the dry season as pastures and water become scarce. The project is working with smallholder farmers to develop sustainable local fodder conservation strategies to keep their livestock in good condition during the dry season and in times of drought.

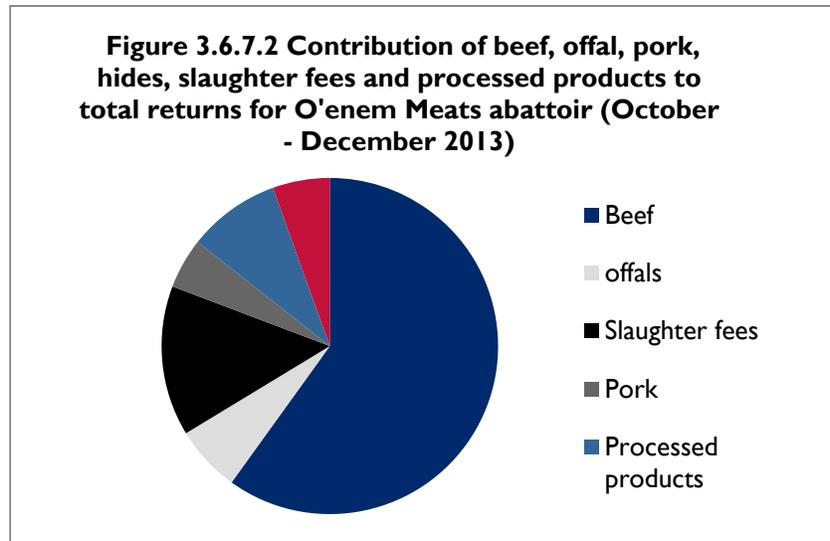
Supply of adequate feed is key to any livestock production system. A total of 1,090 farmers in Mazowe district (Mashonaland Central) received technical assistance and training in fodder planning, production and conservation. 458 farmers received general training while an additional 90 farmers received training on urea treatment to enhance fodder nutrition. All trainings took place around four fodder demonstration plots.

Zim-AIED technicians established 20 fodder demonstration plots in Matabeleland North and South provinces. Fifteen are under dryland farming in Nkayi district while five are on five irrigation schemes throughout the two provinces. The program also established three fodder demo plots at Ngondoma, Exchange and Hama Mavhaire irrigation schemes in the Midlands province and a further five around the Gokwe Milk Collection Center. In Manicaland, the program established a total of 13 fodder demo plots at Nyamaropa irrigation scheme (1), Honde Valley (3), Tsonzo Milk Collection Center (2), Musikavanhu irrigation scheme (2), Mutema irrigation scheme (1), and Rusitu Valley (5) around the milk collection centers.

The fodder demonstration plots are showcasing good production practices for velvet bean, sun hemp, silver leaf, giant Rhodes grass, and lab-lab. In addition, fodder tree nurseries were established at each demo plot, totaling 1,200 trees of *Luecaena* and *Acacia* species. Livestock will benefit by feeding on the fodder trees that farmers plan to transplant from January to March. In addition, 25 demonstration farmers in Nkayi received 500 grams of velvet bean each (covering 0.0125 hectares) to plant in their own fields.

One hundred and twenty farmers from four milk collection centers in Manicaland, Midlands and Matabeleland South received technical assistance and training on dairy management practices such as fodder planning, production, conservation and utilization; calf and heifer rearing; artificial insemination; and dairy cow health and nutrition. Fodder planning is pivotal to all management practices as it ensures farmers have enough feed for the dairy cow throughout the year.

Fourteen mature and young cattle belonging to nine farmers were pen fed during the quarter at a farmer-run feedlot at Tschongokwe irrigation scheme in Matabeleland North. Zim-AIED facilitated the procurement of stock feed and veterinary drugs to cover 66 days of fattening under a recoverable basis. The animals were sold to a leading butchery in Bulawayo (Heads and Hooves) that

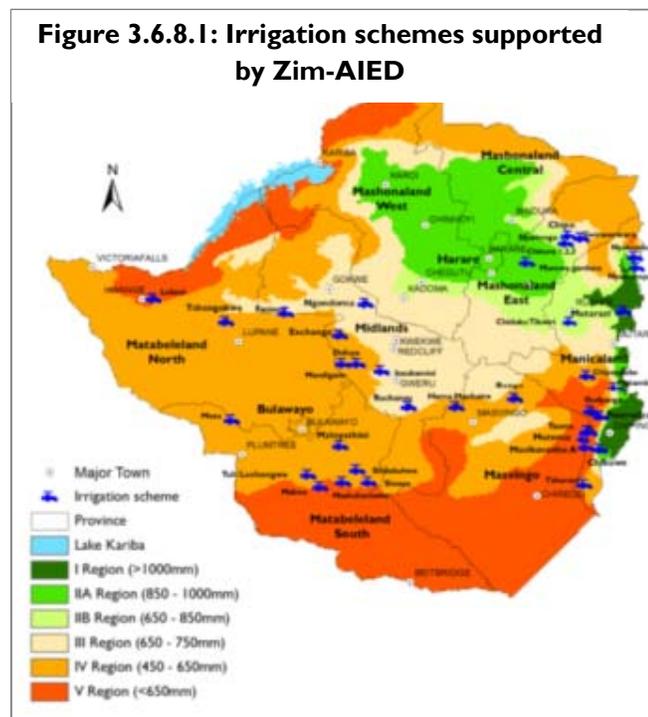


Capacity utilization of both the abattoir and feedlot has remained at undesirable levels. The abattoir slaughtered a total number of 469 cattle and 65 pigs of which the bulk (396) were toll slaughters. The feedlot only handled 11 animals during the quarter. Zim-AIED has tabled a suggestion with O'Enem Meats to identify another partner that can adequately stock and manage the feedlot. The current partner is cash-strapped and shows reluctance in accessing working capital through Zim-AIED's AgriTrade credit facility.

### 3.6.8 Irrigation

Zim-AIED views all irrigation schemes as economic agribusiness hubs whose success and long term sustainability hinges on incorporating all aspects of productivity in a holistic approach. This approach addresses efficiency challenges at all levels including production, markets, leadership, input availability, and liquidity. Zim-AIED pursues a 'win-win' scenario for private sector partners, farmers and rural agrodealers in and around the 35 irrigation schemes (Figure 3.6.8.1) by actively encouraging and facilitating direct linkages between the different entities. The private sector partners include input suppliers, microfinance institutions, and wholesale and retail markets.

**Figure 3.6.8.1: Irrigation schemes supported by Zim-AIED**



Although the benefits to the farmers are obvious, the advantages for the private sector players through their association with more than 8,000 farmers on 4,664 hectares are many. These schemes provide the perfect entry point into the smallholder sector as there is low competition for market expansion, and therefore risk is reduced as farmers are concentrated in specific locations resulting in improved economies of scale with efficient delivery and collection mechanisms; the groups are well-coordinated under the IMCs and farmers are more resilient than their dryland counterparts resulting in higher household incomes and greater purchasing power.

Approximately 75 percent of the irrigation schemes that Zim-AIED is working with are located in climatic regions V and VI and are key economic drivers in their respective communities. However, livestock also plays a significant role in these regions so in addition to working with crop value chains Zim-AIED is implementing targeted livestock interventions in and around these irrigation hubs in order to further increase household incomes.

During the quarter, the Zim-AIED irrigation team held 38 training events in 21 of the 35 schemes with 825 participants covering the practical aspects of water management, drainage, land levelling, utility bill negotiations, establishing and running operations, sprinkler layout for soil and water conservation and maintenance funds. The practical, hands-on trainings increased farmer participation and demonstrated ways to maximize irrigation efficiency through correct scheduling, repair of delivery systems, water saving techniques, and linkages with relevant irrigation equipment suppliers.

A key result during this quarter has been the continued reduction of power and utility bills in all schemes where operations and maintenance funds are now being implemented. These funds have been established in 66 percent of the schemes that require this function as the wetland areas do not have a requirement for this kind of fund. The IMCs have also gained a greater understanding of their leadership roles and their strategic importance to the long term survival of the schemes. Systems have been put into place to penalize individuals for non-payment while keeping the overall scheme operational.

The Fanisoni irrigation scheme, which is the only scheme in the Nkayi district, has been brought back to life through Zim-AIED's intervention. Following the opening of the Meat Market under the Inala partnership in September of 2013, discussions were held with the District Administrator of Nkayi who made an appeal for support and complained that the town vendors were having to buy vegetables from suppliers in Bulawayo making fresh produce extremely expensive. Through several follow on meetings, the Zim-AIED team pledged to support 55 farmers at the scheme if they were willing to contribute to the repair of their pump. Zim-AIED technical support and linkages with



*Photo by Fintrac Inc.*  
Farmers at Fanisoni celebrating their newly installed pump that has been self-financed by 55 farmers in the scheme.

key input suppliers resulted in the farmers making a 50 percent deposit on a pump in December 2013 and had running water before Christmas. They will pay the remainder in January 2014.

At Silalabuhwa irrigation scheme, ZINWA had been allocating limited water supplies since July 2013 after having disconnected the scheme because of non-payment of outstanding bills dating back to 2008. The water was not sufficient to produce high yielding crops as the long cycles between applications stressed the crops but through ongoing discussions and lobbying Zim-AIED managed to get all stakeholders together in meeting at the scheme in October 2013. This meeting was the catalyst to improving the farmers' situation as there were key local government officials and traditional leadership (local Chiefs) present along with representation from ZINWA, the Sub Catchment Council, AGRITEX, DOI, the local growth point committee. Some critical outcomes have been achieved where ZINWA will charge each of the blocks individually, the farmers will volunteer their services as water bailiffs for each block, ZINWA will not arbitrarily cut water supplies in the middle of crop production as that jeopardizes farmers' ability to pay their bills and farmers have committed to a repayment plan.

## 4. CLIMATE CHANGE AND ENVIRONMENT

This section summarizes Zim-AIED's environmental mitigation and adaptation interventions, particularly as they relate to climate change. Commercialization underpins all activities implemented by Zim-AIED. This strategy focuses on profitable and sustainable agricultural production, which in itself is a key adaptation to any change. In addition, all Zim-AIED activities are based on good agricultural and business practices that have positive environmental outcomes directly relevant to climate change adaptation.

### Chemicals

The Agri-Service Provider (ASP) program for chemical application service providers was launched this quarter on irrigation schemes in Manicaland and Midlands provinces. At Musikavanhu and Chibuwe A irrigation schemes, a total of 20 farmers received intensive ASP training on the following:

- Safe use of pesticides
- Knapsack management and calibration
- Economics of herbicide use
- Correct use of Personal Protective Equipment (PPE)
- Practical application of herbicides

As part of the practical training, the ASP's were trained on the chemical control measures for yellow and purple nutsedge which are rife in the Musikavanhu B irrigation scheme and are responsible for huge yield losses and weeding costs. The trained ASPs worked with the Zim-AIED team to develop herbicide demonstration plots within the irrigation scheme. Zim-AIED will continue to provide scheduled training during FY2014 to the ASPs to enable them to commercialize chemical application services within the irrigation schemes.

A total of 112 farmers (44 females and 68 males) from Chibuwe, Ngondoma, and Exchange irrigation schemes received training on the safe use of chemicals as well as the negative effects and danger of improper use during the quarter. In all Zim-AIED paprika producing areas, the team continued to provide technical assistance to farmers on using registered chemicals, proper handling and disposal, and the use of personal protective equipment (PPE).

There has been a gradual increase in use of PPE among the 1,131 farmers in Nkayi. Farmers have conformed to using PERSUAP compliant chemicals such as *tick buster* and *tritix* for controlling ticks on cattle. The program has also introduced simple five-liter containers for hand washing purposes that is now widely used by farmers. Chemical containers are also being disposed of in local Blair toilets instead of leaving them strewn in the open air posing an environmental hazard. Almost every household in Nkayi has a Blair toilet. This has helped to reduce contamination of local water bodies through leaching or surface runoff of hazardous residual chemicals.

Awareness of safe use of pesticides has improved in Matabeleland, particularly with understanding the toxic category of the various chemicals. Zim-AIED is continually encouraging farmers to use the safest chemical available to do the job.

As an effort to limit the use of chemicals, Zim-AIED and farmers are investigating cultural control methods for mole rats in bananas. Farmers growing tissue-cultured bananas in Ngarura, Nyamatsupa, Mandeya, and Chipote areas of Honde Valley suffer between 1 and 5 percent crop loss because of damage by mole rats. During the quarter, they came together to share information on cultural control methods for this pest. Those proven the most effective include:

- Opening up the tunnels.
- Using irrigation water to flood the tunnels and drowning the mole rats.

- Inserting dried grass stems in the opened tunnel as an indicator. Grass movement indicates presence of the rodent, which is then quickly dug out.
- Inter-planting the banana rows with plant species such as ginger which repel the mole rats.

Chemical control of mole rats is not an option since currently registered chemicals are not PERSUAP compliant.

### **Livestock**

The livestock team established a total of 45 fodder demonstration plots in Manicaland, Mashonaland Central, Midlands, Matabeleland North and Matabeleland South to showcase proper fodder production, conservation, and utilization. The fodder crops enable greater environment stewardship by farmers by providing additional stock feed that reduces pressure on the already-degraded veldt.

In Nkayi, Rusitu Valley and Chiweshe, forage legumes and improved grass species were introduced into rangelands and farmer-owned paddocks to improve the poor quality of currently available forage and to suppress noxious weeds that tend to invade degraded rangelands and paddocks. This also improves soil fertility and palatability of food sources for livestock. A total of 166 farmers were trained in the exercise.

Two trial plots of 0.01 hectare of *Cassia* have been planted in order to try to suppress the growth of *Dichapetulum symosum*, is a noxious weed common in Nkayi Wards 20 and 16. *Cassia* is a prolific fodder crop and the aim is for it to outgrow and suppress the noxious weed.

Overgrazing in paddocks and infestation of invasive species is being countered by encouraging farmers to weed out grass species such as *Sporobolus spp*, as well as practice rotational grazing, fertilization of the pastures, and in some cases destocking if the carrying capacity of the pasture is exceeded.

One dairy farmer in Rusitu Valley is mowing down the undesirable and poor quality forage species, mainly *Sporobolous pyramidalis*, to enhance the vigor of his star-grass pasture, a desirable species. The farmer was also advised to top dress the pasture with some ammonium nitrate or manure to boost the vigor of the plant.

Wild guava trees have invaded pastures in Rusitu Valley and Zim-AIED is advising and mobilizing farmers to stamp out the guava trees (in areas where they have individual control of the pastures) in addition to following good veldt management practices such as keeping the recommended stocking rates, rotational grazing, and veldt reinforcement.

Forage legumes also fix atmospheric nitrogen into the soil, which supports plant growth by adding nutrients to the soil such as nitrogen, minerals, and organic matter. In Chiweshe, 40 beneficiaries in wards 3, 7, 9, and 10 were trained on using forage legumes such as velvet bean, sun hemp, and lablab as green manure crops to enhance the levels of nitrogen and organic matter in soil.

Nutrient leaching is rampant in Nkayi district during the rainy season. Zim-AIED trained 33 farmers from Wards 20, 27, and 16 on the use of cattle manure to boost the nutrient content of their soils. Zim-AIED helped the farmers establish maize plots to showcase the good practice. The farmers that applied manure exhibited healthy plant with good growth, while the opposite was true for the farmers who did not apply manure, resulting in stunted, yellowish maize stands.

In Rusitu Valley, manure from dairy parlors spills over into water systems as a result of incessant rains during the rainy season. Zim-AIED provided technical assistance to two dairy farmers who constructed sumps to drain all waste from the milking sheds to avoid contamination of the nearby river as well as to capture and decompose the manure.

### **Water**

Efficient and effective water management on dryland and irrigation schemes is extremely important in mitigating adverse climatic changes. During the period under review, Zim-AIED trained farmers in natural resource management techniques to combat the changes in temperature and rainfall patterns and assisted farmers on irrigation schemes to repair and maintain equipment and infrastructure. The focus on irrigation management training to maximize use of water has helped farmers achieve higher

yields in crops such as sugar bean, green mealies and tomato. This translates into new income that is essential in driving the adaptations needed to withstand the effects of climate change.

Trainings were held at Ngondoma and Exchange irrigation schemes in Midlands and Nedziwa irrigation scheme in Chimanimani district on natural resource management, covering topics such as soil, water conservation, and drainage channel maintenance. During the rainy season, some fields at these schemes are inundated as a result of unmaintained canals and storm water drains that block drainage channels. Farmers were urged to cut grass and tree shrubs along drainage channels to allow water to drain out of the fields.

At Ngondoma irrigation scheme, farmers repaired 120 meters of cracked and leaking canal. These leakages caused massive water losses and soil erosion with some plots becoming unproductive. Repairs to the primary canal improved canal efficiency from 35 to 60 percent thereby enabling farmers to save on water charges.

A total of 620 farmers in Musikavanhu irrigation scheme (Manicaland) and 18 farmers in Chipso irrigation scheme (Mashonaland East) were trained on water conservation methods such as the use of check plates and canals.

To reduce the possibility of contamination of river and dam water with fertilizer residues from Zim-AIED's banana activities in Manicaland, 126 banana farmers in Honde Valley were advised to place and cover their fertilizer in holes beside the plants to prevent wash away. They were also taught to avoid applying fertilizer when heavy rains are imminent. In addition, farmers were encouraged to plant bana grass along the water ways and on contours to prevent soil erosion. The bana grass also provides a source of fodder for livestock.

### Land

Incidences of soil erosion, especially around back roads and pathways have been observed in many areas because of high rainfall in December 2013. Dongas (gullies) have been observed in some places. Farmers are being encouraged to fill dongas with rocks and tree branches to slow the flow of water and limit erosion.

As a result of continuous rains in Nkayi area, farmers were advised to establish contour ridges to divert water flow away from the fields. This was done at five of the demo plots around the Nucleus Breeding Centre at Mkalathi in Ward 27. Ineffective contour ridges on other fields have resulted in some areas becoming waterlogged. Farmers have been advised to re-ridge the crops in these areas with the support of Agritex to realign the contours during the dry season.

Tobacco production has increased in areas where Zim-AIED operations are underway. In Chiweshe, Guruve and Hurungwe, farmers have shifted from both paprika and cotton production to tobacco. Tobacco curing uses wood, coal or fossil fuel; if unchecked it can result in massive deforestation. Tobacco companies have observed the effectiveness of Zim-AIED's agribusiness hub approach in training and commercializing farmers and are now working with Zim-AIED to support trainings on woodlot establishment around the hubs. Implementation of the program will begin in the second quarter. The program will cover four hubs in Mazowe; seven in Guruve and seven in Hurungwe. Extension officers will conduct trainings once a week at the central demo plot, covering topics such as the benefits of woodlots to the environment, the effects of deforestation on climate change, establishing woodlot nurseries, and woodlot management. The tobacco company will provide the tree seedlings and funding for field days.



Photo by Fintrac Inc.  
A 120 meter canal section was repaired at the Ngondoma irrigation scheme, Midlands.

Zim-AIED encourages farmers to reduce water flow into channels through good irrigation management practices such as land levelling before planting and applying the three-fourths rule when irrigating.

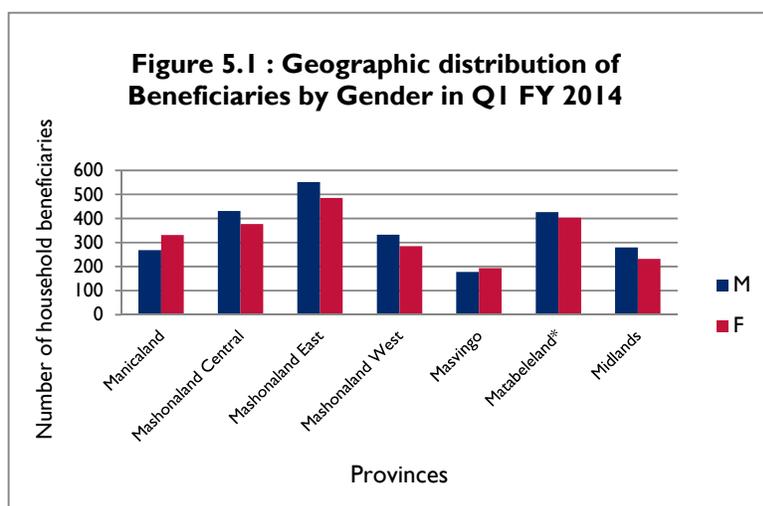
## 5. GENDER

- GNDR 1: Number of lead farmers in assisted programs*
- GNDR 2: Proportion of female participants in USG-assisted programs designed to increase access to productive economic resources.*
- GNDR 3: Number of project participants in relevant leadership positions*
- GNDR 4: Proportion of target populations reporting increased agreement with the concept that males and females should have access to social, economic, and political opportunities.*
- GNDR 5: Number of farmers engaged in contract farming*

To enable women in agriculture to reach their full potential, Zim-AIED promotes female participation in leadership, fosters gender dialogue that increases women’s access to finance and credit, and encourages female farmers to adopt labor-saving new agricultural technologies that increase productivity.

### Measuring Zim-AIED’s Gender Impact and Women’s Empowerment

Zim-AIED has actively integrated gender mainstreaming into all its activities bringing a greater awareness of gender related issues in operational areas throughout the country. From agronomy to marketing, irrigation to leadership, contract farming to credit, Zim-AIED endeavors to create an environment that addresses gender disparities. This ongoing commitment to gender integration has focused on women, youth,



and the disabled in order to improve the quality of their lives and families through increased efficiencies in productivity, access to leadership, credit and new markets. A strategy to incorporate farming as a family business that addresses many of the gender related topics in a format that is acceptable to the whole community, as well as inefficiencies in the smallholder sector through the commercialization of farmers, will be implemented throughout all the key agribusiness hubs in 2014.

This quarter Zim-AIED assisted 5,725 farmers (4,771 households) across the country, of which 48 percent (2,767) were women who were exposed to labor saving new technologies and gained increased knowledge in all aspects of farming including GAPs, water management, safe use of pesticides, market trends, household budgeting and leadership skills. The overall number of women registered in Zim-AIED trainings to date remains at 76,656 (50 percent). Masvingo and Manicaland recorded the two highest percentages of women attending their training sessions in the first quarter (Figure 5.1). The cumulative number of women that have adopted new technologies including crop genetics, improved pest and disease management, correct fertilization and water management is 36,610 (48 percent of total) and the proportion of female participants in US government assisted programs designed to increase access to productive economic resources is 47 percent.

- The general lack of liquidity in the economy has affected farmers, limiting their ability to hire labor for critical operations, purchase adequate inputs, and receive payments from buyers on time. The lack of liquidity has also affected the ability of financial institutions to extend credit, which is essential for commercialization. Zim-AIED has continued to engage a number of players outside AgriTrade to directly finance farmers, and the results are coming in.
- Input recovery for buyers remains a challenge due to the risk of side marketing. This was especially prevalent in farmers that produced export horticultural crops. Zim-AIED has engaged a number of financial institutions to provide production credit directly to farmers to fund the purchase of inputs. Where recoverable grants are used, the farmers pay a down payment upfront of up to 30 percent as commitment fees.
- Poor germination attributed to a poor start of the rainy season resulting in poor crop stands. Farmers have been encouraged to replant and gap fill, which is having a positive impact.
- Delays in USAID's waiver for agricultural commodities and in the FY2014 fiscal obligation stalled program implementation significantly during the quarter, and arguably more so than the erratic start of the rainy season.
- Despite Zim-AIED's interventions, low productivity remains a problem at the national level. Although rainfall has been much higher this year, inputs were not accessible to the majority of smallholders, which will cause relatively low yields. Many smallholders are also farming on soils with sub-optimal pH (high acidity) and low fertility, which take several years to rehabilitate. Much of the potentially productive land, where high yields can be achieved, is held by A1 and A2 farmers not accessible to the program.
- Donor and government subsidies for seed and fertilizer have not increased productivity or production over the past five to 10 years and may even have had a negative impact. The expectation of free inputs is preventing many smallholders from raising their productivity and profitability and preventing private sector players in commercially engaging them.
- The multi-purpose nature of cattle delayed the timely implementation of the heifer loan scheme as farmers were reluctant to exchange their cattle before completing their land preparations. The scheme has been realigned to take this seasonality into account.

## 8. CONCLUSIONS

After 39 months of implementation, Zim-AIED is on course to meet its main objectives. A summary of performance against PMP indicators is shown in Annex 2 and results against the 14 Feed the Future indicators employed to track Zim-AIED are described below.

**FTF MIS 4.5.2-13** The FY2014 target for the indicator is to reach 15,000 new rural households by giving out technical assistances through agronomy, livestock and irrigation specialists, providing credit through the AgriTrade facility, linking farmers to sustained markets, or a combination of these various types of assistances. For this quarter a total of 4,771 new beneficiary households have been reached by Zim-AIED. Since inception to date, the program has reached a total of 127,594 households that have benefited from Zim-AIED activities. The agribusiness hub approach served as a mechanism to increase the interface between the program and more farmers. The central hub not only provided a forum for agronomy training but also an opportunity for farmers to interact and link with input suppliers and output buyers on a weekly basis. The 15 lead farmers around each hub cascaded technical assistance and training by using part of their farms as demonstration plots for farmers in their immediate surroundings.

**FTF MIS 4.5.2-23** The FY2014 target for incremental sales is \$60.93 million. For the quarter under review a total of \$4.41 million in actual sales has been recorded, with crops like maize, banana, soybean and livestock contributing the highest percentage of sales.

### **FTF 4.5 (16) – Gross margin per unit of land, kilogram, or animal of selected product (crops / animals selected vary by country)**

- **Maize** is grown by 92 percent of the farmers in areas where Zim-AIED is promoting maize production and most of the areas are under rain-fed (dryland) condition. The figures for this

quarter are based on estimates from the current crop under production. Maize gross margin per hectare is estimated to be at \$266 which is above the target of \$250. Given the current good rains being received in different parts of the country, the season is promising to be good.

- **Paprika** is grown by about 1,488 farmers under the industrial approach. From the current estimates, yield is estimated to be around 1,400 kilogram per hectare with a gross margin of \$1,179 per hectare against a target of \$1,500. The difference is mainly because of non-availability of a commercial partner to pre-finance inputs for paprika production, with only a smaller percentage of farmers (216 farmers) having accessed financing from Virl Microfinance.
- **Banana** The increased output of banana production to date has mainly come from the rejuvenated old plantations supported by Zim-AIED trainings programs in Honde Valley and Rusitu Valley and harvesting of tissue-cultured bananas. Average yields and total production are expected to increase significantly to around 15.88 tons per hectare with prices also remaining consistently higher. Gross margin per hectare is currently at \$3,011.

**FTF MIS 4.5.2-11** The FY2014 target for the number of enterprises and organizations receiving assistance is 100 new organizations. Five new agrodealers accessed loans from financial institutions this quarter. With more activities and intensification of the AgriTrade component, more agrodealers are likely to benefit in the coming quarters.

**FTF MIS 4.5.2-38** The FY2014 target for the value of new private sector investment in agriculture is \$1 million. So far \$38,317 has been invested by the different partners, with more expected to be invested as the season progresses. Most investment funds available are debt capital for the short end of the market and require high interest rates.

**FTF MIS 4.5.2-43** The FY2014 target for the number of firms operating more profitably thanks to program assistance is 15. This indicator will be reported at year end in September 2014.

**FTF MIS 4.5-2** For the quarter under review, only one partner created new employment. More jobs are likely to be created as the season progresses. Smallholder farmers provide on farm casual labor lasting five days at most, and are not counted under this indicator.

**FTF MIS 4.5.2-2** The FY2014 target for number of new hectares under improved technologies is 39,945 hectares. Given the trainings and technical assistance offered, this target is likely to be achieved. Currently information collected was for demo plots only which provided 529 hectares under new technologies. More areas will be collected through interviews with farmers during the gross margin survey.

**FTF MIS 4.5.2-5** For this quarter a total the number of farmers applying new technologies is at 1,480 most of them being lead farmers host demo plots. Again more information will be reported in subsequent quarters after gross margin data collection. Farmers are continuing to apply technologies implemented last year. The demo plots facilitated visual learning thus increasing the uptake of improved technologies by both new and continuing household beneficiaries.

**FTF MIS 4.5.2-7** The FY2014 target for the number of farmers receiving short-term agricultural productivity training is 60,000. 6,364 farmers received training this quarter, 54 percent of which were women.

**FTF MIS 4.5.2-42** A total of five new organizations adopted new management practices as a result of US government assistance. The new organizations are agrodealers who received loans for the first time under AgriTrade facility

**FTF MIS 4.5.2-29** There was \$77,582 in loans disbursed to agrodealers and smallholder farmers through AgriTrade this quarter.

**FTF MIS 4.5.2-37** The FY2014 target is 55,610 MSMEs, and so far 7,124 MSMEs have received business development services from Zim-AIED. With intensification of technical assistance and training in the coming quarter, more MSMEs are likely to receive assistance from Zim-AIED.

By the end of December 2013, Zim-AIED recovered \$753,140 in recoverable grants from both the farmers and partners (Table 9.3). During the quarter, \$136,213 was recovered by companies from farmers for inputs advanced, and \$16,103 was recovered from partners for loans advanced by the program to purchase capital items that could not be financed from normal bank loans. Recoveries for the year under the Smallholder Technology Fund were \$3,622.

**Table 9.3: Zim-AIED sub-grant disbursement summary – Q1, FY2014**

Partner	ZIM-AIED Budget (Grants + Recoverables)	Recoverables Disbursed To-Date	Total Spent To-Date (Grants + Recoverables)	Probable Write-Off Amount	Probable Amount Recovered	Recovered To-Date	Net Expenditure To-Date	Remaining Balance		Percent Recovered To-Date
	(a)							(b)	(c)	
<b>PF01 Mercy Corps</b>	\$99,996	0	\$99,233		\$0	-	\$0	\$0	0%	0%
<b>F02 IRD</b>	\$99,990	0	\$99,737		\$0	-	\$0	\$0	0%	0%
<b>PF03 O'Enem Meat</b>	\$656,760	\$562,829	\$652,205	\$211,004	\$351,825	\$220,412	\$431,793	\$224,967	34%	39%
<b>PF04 Matanuska</b>	\$1,589,942	\$785,118	\$971,533		\$785,118	\$189,330	\$782,203	\$807,739	51%	24%
<b>PF05 SAT</b>	\$969,595	\$0	\$956,048		\$0	0	\$956,048	\$13,547	1%	0%
<b>PF06 FAVCO</b>	\$389,500	\$186,425	\$227,643		\$186,425	\$65,239	\$162,403	\$227,097	58%	35%
<b>PF07 Better Agriculture</b>	\$142,968	\$146,156	\$150,754	\$0	\$146,156	\$41,140	\$109,614	\$33,354	23%	28%
<b>PF08 Capsicum</b>	\$606,024	\$382,596	\$637,085	\$197,276	\$185,320	\$103,886	\$533,199	\$72,825	12%	27%
<b>PF09 Prime Seed</b>	\$368,250	\$261,288	\$347,749	\$168,145	\$93,143	\$43,143	\$304,606	\$63,644	17%	17%
<b>PF10 Agriseeds</b>	\$569,800	\$36,010	\$38,085		\$36,010	\$36,010	\$2,075	\$567,725	100%	100%
<b>PF11 Inala Enterprises</b>	\$146,053	\$112,131	\$147,500		\$112,131	\$50,358	\$97,142	\$48,911	33%	45%
<b>PF12 Technology Fund</b>	\$150,000	\$5,901	\$65,585		\$5,901	3,622	\$61,963	\$88,037	59%	61%
<b>Total</b>	\$ 5,788,878	\$2,478,453	\$4,393,156	\$576,425	\$1,902,028	\$753,140	\$3,441,046	\$2,147,846	37%	30%
<b>SUB04-SAT</b>	\$1,261,976	\$0	\$903,897		\$0	\$0	\$903,897	\$358,079	28%	0

## ANNEX I: SNAPSHOTS

### Safe Herbicide Use Saves Time, Money

**Farmers lose about 30 percent of their potential maize yield because of late weeding. By applying herbicide, they can improve productivity and reduce crop loss.**



Photo by Fintrac Inc.

Raina Chitembwe of Honde Valley, Manicaland in her 0.25 hectare weed free maize demonstration plot thanks to the use of herbicide technology.

**Not only do agrochemicals save farmers on effective time management but also it is a major saving on production costs.**

“We used to spend many hours doing backbreaking weeding work in our fields, but our yields still decreased every farming season,” said Jennifer Dzambo, a smallholder farmer at Mutema irrigation scheme in southern Manicaland. Zimbabwean farmers lose about 30 percent of their potential maize yield because of late weeding.

Now, she says, the farmers at the scheme have learned how to use agrochemicals such as herbicides that help increase yields and incomes by saving time and money. Smallholders traditionally thought herbicides were harmful to the soil and their crops – not to mention expensive – so they avoided using them.

USAID’s Zimbabwe Agricultural Income and Employment Development (Zim-AIED) program is working with government extension agencies and agricultural input suppliers to promote the use of safe herbicides among rural farmers. All promoted agrochemicals are compliant with the international Pesticide Evaluation Report and Safe Use Action Plan (PERSUAP).

Before attending a one-day training session on herbicide technology in August, Dzambo knew very little about the product, but after learning the benefits and how to properly apply it, she began using herbicide on her maize crop. Without herbicides, she harvested 2 tons of maize per hectare; with the herbicide, she is now harvesting 5 tons of maize per hectare.

At the Tschongokwe and Makwe irrigation schemes in Matabeleland, Zim-AIED trained 89 farmers in selecting PERSUAP compliant herbicides and the proper application to ensure maximum effectiveness of the herbicide.

Titus Nyathi, a smallholder from Makwe, said, “This is my first time to use an herbicide thanks to Zim-AIED. I have saved \$50 from using the herbicide that I bought for \$10.”

At Silalabuwa irrigation scheme in Matabeleland South, Zim-AIED demonstrated herbicide technology on sugar bean plots. The herbicide, *Bateleur Gold*, has no residual effects on the traditional follow on crop to sugar bean – maize, and has no waiting period.

Siphiwe Mathuthu used the herbicide on her sugar bean plot last season and on her maize plot this season. Manual weeding on 1 hectare costs \$120 per round, while 1 liter of herbicide, which covers a hectare, costs only \$32. With these costs differences, Mathuthu saved \$208. She has been able to increase the area under cropping due to the savings made.

“I have increased my inputs for the 0.05 hectare of potato that I have now planted,” she said.

To date, the program has trained 30,000 farmers on herbicides use resulting in increased yields and incomes.

## Collective Purchasing Power Strong

**Through better organization, smallholder farmers can increase their purchasing power and access the inputs they need to improve agricultural productivity.**



*Photo by Fintrac Inc.*

Members of Nyanhunzi farmer group stand in front of a truck loaded with fertilizer inputs they purchased from Windmill, a commercial supplier.

**“Our maize and sugar bean yields this season will surely be much better than before.”**

*Hudson Kambuzuma, smallholder farmer and chairperson of Nzarayapera Farmer Group*

Before the Zimbabwe Agricultural Income and Employment Development (Zim-AIED) program arrived in Guruve, Mashonaland Central, smallholder farmers had trouble accessing agricultural inputs on time. Transportation constraints and a lack of information on alternative suppliers meant farmers had to wait for sellers to come to them. Others had to farm without appropriate fertilizers and pesticides, leading to poor yields and potential health and environmental concerns.

To address these challenges, Zim-AIED is linking farmer groups to input suppliers to make better agricultural products more readily available. After attending BDS training, more than 100 beneficiary farmers formed four farmer groups to mobilize funds for purchasing farming inputs for the 2013/2014 agricultural season.

The work started at the farm level where program agribusiness advisors offered technical assistance to farmers. The trainings focused on basic business principles: crop budgeting, recordkeeping, crop rotation, mulching, herbicide use, and proper fertilizer application.

In their groups, the farmers collected cash for fertilizer inputs and agrochemicals. Armed with cash and knowledge, the groups purchased fertilizers and agrochemicals worth more than \$38,230 from commercial supplier Windmill. With these quality inputs, the farmers are optimistic for the next harvest.

“Our maize and sugar bean yields this season will surely be much better than before, thanks to Zim-AIED,” said Hudson Kambuzuma, chairperson of the Nzarayapera farmer group.

Contributions from each farmer were as little as \$10 per month (minimum) for six months. The four groups purchased Ammonium Nitrate, Compound D and C, and other herbicides that would help them save money and time by eliminating the need to hire expensive labor for hand weeding.

The four groups have leadership structures with full committees headed by an elected chairperson, and each group affords women a fair representation in these committees, comprising 42 percent of the positions.

Zim-AIED’s market-driven approach ensures sustainability – suppliers will continue to provide better products and services to smallholders even after the project ends in 2015. This joint effort is benefiting all levels of the agricultural value chain: farmers improve their yields while input suppliers increase their sales. The positive experience of these groups is having the trickle-down effect of inspiring other farmers in the region to adopt similar procurement models.

# Fodder Production Doubles Livestock Value

**The introduction of fodder crops to smallholders is essential to ensure full livestock commercialization.**



*Photo by Fintrac Inc.*

Simbarashe Dzaramba's cattle are gaining weight rapidly after starting on a mixture of maize stover, maize bran, velvet bean and molasses.

**“I am grateful to be part of the livestock program under Zim-AIED. The health of my livestock has improved significantly since I began using fodder supplements at a very affordable cost.”**

*Simbarashe Dzaramba,  
Smallholder farmer*

Maintaining the availability of adequate feed for livestock is crucial to rural smallholder farmers in Zimbabwe who depend on agriculture for their livelihood. Traditionally, lack of appropriate technologies hampered efforts to improve the quality and availability of fodder, which accounts for 70 percent of all livestock inputs.

Zim-AIED discovered that the problems of fodder availability have just as much to do with access to knowledge as with access to appropriate technology. To address the issue, the program introduced an integrated crop and livestock approach that will ensure consistent supply of high-quality feed.

Simbarashe Dzaramba of Chiweshe, Mashonaland Central could not afford to purchase fattening feeds as a supplement to the basic grass he fed his 10 cattle, especially during the dry season. After joining Zim-AIED in 2011 as a lead farmer for maize and soybean, Dzaramba learned how to strengthen his fodder production through better storage and mixing in fortifying foodstuff such as maize, velvet bean, and molasses.

In the 2012/2013 agricultural season, Dzaramba established a 600 square meter demonstration plot with velvet beans, bana grass, and other fodder crops, which yielded one ton of dry mass herbage. Preserving the herbage in a shed, Dzaramba fed his cattle with salted stover to provide crude protein and roughage.

The results of the new diet are dramatic: each cattle is gaining 50 grams of weight daily and the cows have doubled their milk production. He has already sold three cattle for \$1,360, a 30 percent increase over the manufacturers' price. Dzaramba's cattle improved from manufacturer to economy grade thanks to fodder technology.

“I am very grateful to be part of the livestock program. The health of my livestock has improved significantly,” Dzaramba said.

At Tschongokwe irrigation scheme in Matabeleland North, Zim-AIED is overseeing a feedlot fattening pen for 20 cattle using fodder production technologies. Gaining between 0.75 and 2 kilograms per cow per day, the value of pen-fed animals increases by up to 75 percent. Previously selling at a price of around \$400 per beast, farmers now earn up to \$1,026 per cow.

Using fodder as supplementary feed for livestock is ideal, as it is affordable to produce. Velvet bean requires no fertilizers or chemicals for production, while farmers only require seed procurement costs of \$667 per hectare and can earn up to \$14,333 in gross margins per hectare. More than 130 Zim-AIED assisted farmers in Mashonaland, Manicaland, and Matabeleland provinces have adopted fodder production technologies, doubling their livestock income.

## Sugar Bean Production in Manicaland on the Rise

**Thanks to improved technologies and trainings, 1,056 farmers in Manicaland generated more than \$1 million in new income.**



*Photo by Fintrac Inc.*

Ngwariranai Mlambo and his wife stand in front of one of the homes he built with his increased income from sugar bean production.

**With increased income, Mlambo is now able to afford a better lifestyle and procure required inputs for his farming activities.**

Ngwariranai Mlambo is a 63-year-old smallholder farmer in Chipinge district in southern Manicaland. His area of Chipinge is in a rain shadow and receives less than 400 millimeters of rain per year, making agricultural production nearly impossible without an irrigation system. Mlambo had trouble supporting his family of 12 from the small profits he earned from his 1.2 hectare tomato plot.

He began working with the Zimbabwe Agricultural Income and Employment Development (Zim-AIED) program in 2011, learning good agricultural practices such as land preparation, correct use of fertilizers, improved integrated methods for pest and disease control, mulching, use of organic manure, and correct plant spacing, and use of better quality seed.

In 2012/2013, he started growing sugar beans using the new technologies, and harvested 3,700 kilograms worth \$4,440 in his first season, a 28 percent increase over the 2,900 kilograms he harvested the previous year.

One key to Mlambo's success was the integration of manure and fertilizer in his cropping practice. To improve the health of his soil, he combined cattle manure and fertilizer and planted early.

Zim-AIED also helped link Mlambo to Matanuska, a marketing and distribution company which is contracting thousands of Zim-AIED beneficiaries. This partnership is reintroducing contract farming to rural smallholders and increasing access to inputs for many sugar bean farmers in the area.

With the increased income, Mlambo paid school fees for his seven school-age children, purchased four cows worth \$1,500, and built two modest houses for his family. He also bought 900 kilograms of fertilizers and agrochemicals and 70 kilograms of maize seed. He has already planted 0.4 hectares of maize, which he plans to harvest in January. "Sugar bean farming has really pulled me out of poverty," he said.

Zim-AIED's initiatives in Chibwe-Musikavanhu have linked farmers with local seed company Pannar to supply high-quality sugar bean seed. The introduction of insecticide seed dressing technology curbed huge losses caused by the bean stem maggot, which was causing yield losses of up to 50 percent.

Training, technical assistance, and field demonstrations helped farmers increase yields from 700 kilograms per hectare to 1,738 kilograms per hectare.

A total of \$1.9 million in new income entered the Chibwe-Musikavanhu agribusiness hub during the 2013 sugar bean growing season, stimulating local economic growth. The 1,056 smallholder farmers at the hub produced 1.5 million kilograms of sugar bean on 863 hectares.

## ANNEX 2: PERFORMANCE INDICATOR SUMMARY TABLE

#	Indicator	Source	Unit	Baseline	FY2013	FY2014		
					Actuals	Target	Quarter I	Total
1	# of rural households benefiting from USG assistance	FTF 4.5.2-13	HH	0	56,869	55,000	7,071	7,071
2	Net income per household from target agricultural products	Custom (AIED 1)	US\$	483	1,062	1,300	1,062	1,062
3	Value of incremental sales attributed to FTF implementation	FTF 4.5.2-23	<b>Value of incremental sales</b>	<b>(3,379,669.31)</b>	<b>47,058,701</b>	<b>60,930,431</b>	<b>125,274</b>	<b>3,403,855</b>
			Total Number of direct Beneficiaries	22,038.00	122,823.00	55,000.00	127,594.00	127,594.00
			Total Baseline sales (US\$)	4,137,569.31	4,137,569.31	4,137,569.31	4,137,569.31	608,440.31
			Total Reporting year sales (US\$)	757,900.00	51,196,270.25	65,068,000.00	4,012,295.75	4,012,295.75
			Total Reporting Year Volume of sales (mt)	16,318.43	116,908.06	169,303.00	5,735.61	5,735.61
			Bananas	(28,249.00)	5,498,508.00	8,971,751.00	572,581.00	572,581
			Baseline sales (US\$)	28,249.00	28,249.00	28,249.00	28,249.00	28,249
			Reporting year sales (US\$)	-	5,526,757.00	9,000,000.00	600,830.00	600,830.00
			Reporting Year Volume of sales (mt)	282.49	19,742.25	30,000.00	2,387.45	2,387.45
			Number of Direct Beneficiaries	-	3,440.00	4,140.00	3,440.00	3,440.00

#	Indicator	Source	Unit	Baseline	FY2013	FY2014		
					Actuals	Target	Quarter 1	Total
			Maize	(2,742,980.00)	22,343,242.00	27,257,020.00	(1,785,769.00)	(1,785,769.00)
			Baseline sales (US\$)	2,742,980.00	2,742,980.00	2,742,980.00	2,742,980.00	2,742,980.00
			Reporting year sales (US\$)	-	25,086,222.00	30,000,000.00	957,211.00	957,211.00
			Reporting Year Volume of sales (mt)	13,715.00	80,242.08	100,000.00	2,896.64	2,896.64
			Number of Direct Beneficiaries	-	86,818.00	98,778.00	82,695.00	82,695.00
			Paprika	-	152,955.00	367,700.00	(756,684.76)	(756,684.76)
			Baseline sales (US\$)	757,900.00	757,900.00	757,900.00	757,900.00	757,900.00
			Reporting year sales (US\$)	757,900.00	910,855.00	1,125,600.00	1,215.24	1,215.24
			Reporting year Volume of sales (mt)	757.90	737.37	804.00	0.98	0.98
			Number of Direct Beneficiaries	2,650.00	2,650.00	1,750.00	1,488.00	1,488.00
			Beans and pulses	-	2,870,967.00	3,602,805.00	30,741.00	30,741.00
			Baseline sales	63,195.00	63,195.00	63,195.00	63,195.00	63,195.00
			Reporting year sales	-	2,934,162.00	3,666,000.00	93,936.00	93,936.00
			Volume of sales (mt)	63.20	2,425.16	3,055.00	74.75	74.75
			Number of Direct Beneficiaries	-	25,076.00	28,576.00	300.00	300.00
			Beans, fresh	-	5,406.00	204,791.00	25,911.00	25,911.00
			Baseline sales	9.00	9.00	9.00	9.00	9.00
			Reporting year sales	-	5,415.00	204,800.00	25,920.00	25,920.00
			Volume of sales (mt)	0.03	10.00	160.00	36.80	36.80
			Number of Direct Beneficiaries	-	20.00	250.00	104.00	104.00
			Bird's eye chilis	-	59,890.00	207,960.00	(40.00)	(40.00)
			Baseline sales	40.00	40.00	40.00	40.00	40.00

#	Indicator	Source	Unit	Baseline	FY2013	FY2014		
					Actuals	Target	Quarter 1	Total
			Reporting year sales	-	59,930.00	208,000.00	-	-
			Volume of sales (mt)	0.05	72.33	220.00	-	-
			Number of Direct Beneficiaries	-	102.00	179.00	243.00	243.00
			Cabbage	-	337,665.00	598,608.00	188.00	188.00
			Baseline sales	1,392.00	1,392.00	1,392.00	1,392.00	1,392.00
			Reporting year sales	-	339,057.00	600,000.00	1,580.00	1,580.00
			Volume of sales (mt)	4.64	1,785.51	8,000.00	15.20	15.20
			Number of Direct Beneficiaries	-	1,291.00	1,720.00	33.00	33.00
			Chili Pepper	-	150,880.00	239,250.00	(750.00)	(750.00)
			Baseline sales	750.00	750.00	750.00	750.00	750.00
			Reporting year sales	-	151,630.00	240,000.00	-	-
			Volume of sales (mt)	1.50	257.00	480.00	-	-
			Number of Direct Beneficiaries	-	331.00	550.00	417.00	417.00
			Cowpeas	-	87,251.00	21,735.00	(6,229.00)	(6,229.00)
			Baseline sales	6,265.00	6,265.00	6,265.00	6,265.00	6,265.00
			Reporting year sales	-	93,516.00	28,000.00	36.00	36.00
			Volume of sales (mt)	7.83	194.25	80.00	0.03	0.03
			Number of Direct Beneficiaries	-	4,183.00	4,633.00	1,523.00	1,523.00
			Groundnuts	-	985,421.20	1,518,579.20	(27,348.00)	(27,348.00)
			Baseline sales	28,420.80	28,420.80	28,420.80	28,420.80	28,420.80
			Reporting year sales	-	1,013,842.00	1,547,000.00	1,072.80	1,072.80
			Volume of sales (mt)	47.37	2,060.50	3,094.00	1.79	1.79

#	Indicator	Source	Unit	Baseline	FY2013	FY2014		
					Actuals	Target	Quarter I	Total
			Number of Direct Beneficiaries	-	18,963.00	22,713.00	14,355.00	14,355.00
			Butternuts - Other	-	255,065.00	321,975.00	1,215.00	1,215.00
			Baseline sales	2,025.00	2,025.00	2,025.00	2,025.00	2,025.00
			Reporting year sales	-	257,090.00	324,000.00	3,240.00	3,240.00
			Volume of sales (mt)	4.05	547.00	720.00	10.80	10.80
			Number of Direct Beneficiaries	-	861.00	900.00	108.00	108.00
			Peppers	-	16,988.00	43,988.00	(12.00)	(12.00)
			Baseline sales	12.00	12.00	12.00	12.00	12.00
			Reporting year sales	-	17,000.00	44,000.00	-	-
			Volume of sales (mt)	0.03	34.00	80.00	-	-
			Number of Direct Beneficiaries	-	55.00	80.00	100.00	100.00
			Potatoes	-	597,558.49	529,158.49	13,322.49	13,322.49
			Baseline sales	5,441.51	5,441.51	5,441.51	5,441.51	5,441.51
			Reporting year sales	-	603,000.00	534,600.00	18,764.00	18,764.00
			Volume of sales (mt)	10.27	900.00	972.00	22.84	22.84
			Number of Direct Beneficiaries	-	120.00	150.00	22.00	22.00
			Soybeans	-	62,476.00	151,112.00	122,198.00	122,198.00
			Baseline sales	2,888.00	2,888.00	2,888.00	2,888.00	2,888.00
			Reporting year sales	-	65,364.00	154,000.00	125,086.00	125,086.00
			Volume of sales (mt)	7.22	131.73	308.00	231.54	231.54
			Number of Direct Beneficiaries	-	8,035.00	8,435.00	2,608.00	2,608.00
			Sweet potatoes	-	1,028,204.00	1,889,191.00	67.00	67.00

#	Indicator	Source	Unit	Baseline	FY2013	FY2014		
					Actuals	Target	Quarter 1	Total
			Baseline sales	809.00	809.00	809.00	809.00	809.00
			Reporting year sales	-	1,029,013.00	1,890,000.00	876.00	876.00
			Volume of sales (mt)	4.50	3,040.00	3,780.00	2.01	2.01
			Number of Direct Beneficiaries	-	21,558.00	22,058.00	1,443.00	21,558.00
			Tomatoes	-	2,246,448.00	3,078,295.00	(401,785.00)	(401,785.00)
			Baseline sales	423,705.00	423,705.00	423,705.00	423,705.00	423,705.00
			Reporting year sales	-	2,670,153.00	3,502,000.00	21,920.00	21,920.00
			Volume of sales (mt)	1,412.35	4,728.88	17,550.00	54.80	54.80
			Number of Direct Beneficiaries	-	22,873.00	25,000.00	2,972.00	2,972.00
			Cattle	-	10,359,776.25	11,926,512.00	2,087,120.71	2,087,120.71
			Baseline sales	73,488.00	73,488.00	73,488.00	73,488.00	73,488.00
			Reporting year sales	-	10,433,264.25	12,000,000.00	2,160,608.71	2,160,608.71
			Number of animals	-	26,083.00	30,000.00	5,402.00	-
			Number of Direct Beneficiaries	-	17,441.00	20,000.00	3,601.00	3,601.00
4	Volume of production by program beneficiaries	Custom (AIED 2)	<b>Total volume of production (Tons)</b>	<b>22,369</b>	<b>148,125</b>	<b>217,204</b>	<b>180,344</b>	<b>180,344</b>
			Banana (Tons)	174.00	19,742	30,000	29,727	<b>29,727</b>
			Paprika (Tons)	72.00	737	804	641	<b>641</b>
			Maize (Tons)	21,600.00	110,104	144,000	117,672	<b>117,672</b>
			Beans (Tons)	97.3	2,653	3,055	120	<b>120</b>
			Bird's eye (Tons)	0.05	72	220	154	<b>154</b>
			Cabbage (Tons)	4.64	1,950	8,000	455	<b>455</b>
			Chillie Pepper (Tons)	1.50	257	480	368	<b>368</b>

#	Indicator	Source	Unit	Baseline	FY2013	FY2014		
					Actuals	Target	Quarter I	Total
			Cow Peas (Tons)	21.07	235	100	264	<b>264</b>
			Groundnuts (Tons)	256.19	2,831	4,420	3,403	<b>3,403</b>
			Butternuts (Tons)	10.97	547	720	1,442	<b>1,442</b>
			Fine Beans (Tons)	0.03	10	160	108	<b>108</b>
			Peppers (Cherry) (Tons)	0.03	34	80	120	<b>120</b>
			Potatoes (Tons)	9.52	900	1,080	165	<b>165</b>
			Soybeans (Tons)	16.50	163	385	752	<b>752</b>
			Sweet Potatoes (Tons)	202.07	3,091	4,200	5,171	<b>5,171</b>
			Tomatoes (Tons)	1, 623	4,799	19,500	19,782	<b>19,782</b>
			<b>Total Value of production (US\$ )</b>	<b>4,810,622</b>	<b>50,878,811</b>	<b>64,756,400</b>	<b>61,280,742</b>	<b>61,280,742</b>
5	Value of production by program beneficiaries	Custom (AIED 3)	Banana (US\$ )	40,000	5,526,757	9,000,000	7,431,840.00	<b>7,431,840</b>
			Paprika (US\$ )	80,000	910,855	1,125,600	791,882.00	<b>791,882</b>
			Maize (US\$ )	3,880,000	34,422,024	43,200,000	38,831,608.20	<b>38,831,608</b>
			Beans (US\$)	97,309	3,210,372	3,666,000	151,200.00	<b>151,200</b>
			Bird's eye (US\$)	40	59,930	208,000	127,512.00	<b>127,512</b>
			Cabbage (US\$)	1,392	370,500	600,000	45,450.00	<b>45,450</b>
			Chillie Pepper (US\$)	750	151,630	240,000	217,120.00	<b>217,120</b>
			Cow Peas (US\$)	16,857	113,235	35,000	327,303.17	<b>327,303</b>
			Groundnuts (US\$)	153,714	1,393,180	2,210,000	2,041,908.91	<b>2,041,909</b>
			Butternuts (US\$)	5,487	257,090	324,000	432,600.00	<b>432,600</b>
			Fine Beans (US\$)	9	5,415	204,800	75,600.00	<b>75,600</b>
			Peppers (Cherry) (US\$)	12	17,000	44,000	80,400.00	<b>80,400</b>

#	Indicator	Source	Unit	Baseline	FY2013	FY2014		
					Actuals	Target	Quarter I	Total
			Potatoes (US\$)	5,045	603,000	594,000	132,000.00	<b>132,000</b>
			Soybeans(US\$)	6,601	81,307	192,500	406,317.86	<b>406,318</b>
			Sweet Potatoes (US\$)	36,372	1,046,541	2,100,000	2,275,374.56	<b>2,275,375</b>
			Tomatoes (US\$)	487,034	2,709,975	1,012,500	7,912,625.66	<b>7,912,626</b>
			<b>Total Area Grown</b>	<b>16,950</b>	<b>77,180</b>	<b>82,514</b>	<b>78,615</b>	<b>78,615</b>
6	Area grown per target product	Custom (AIED 4)	Banana (Ha)	100.00	1,872	2,000	1,872.00	<b>1,872</b>
			Paprika (Ha)	100.00	689	536	458.00	<b>458</b>
			Maize (Ha)	16,000.00	68,057	72,000	70,462.00	<b>70,462</b>
			Beans (Tons)	97.30	2,312	2,350	120.00	<b>120</b>
			Bird's eye (Ha)	0.10	16	55	44.00	<b>44</b>
			Cabbage (Ha)	2.55	75	100	10.10	<b>10</b>
			Chillie Pepper (Ha)	1.00	75	120	92.00	<b>92</b>
			Cow Peas (Ha)	30.50	227	100	527.91	<b>528</b>
			Groundnuts (Ha)	246.30	2,327	3,400	3,445.20	<b>3,445</b>

#	Indicator	Source	Unit	Baseline	FY2013	FY2014		
					Actuals	Target	Quarter I	Total
			Butternuts (Ha)	2.30	60	60	73.00	<b>73</b>
			Fine Beans (Ha)	0.01	2	25	12.00	<b>12</b>
			Peppers (Cherry) (Ha)	0.01	6	8	10.00	<b>10</b>
			Potatoes (Ha)	3.60	60	60	11.00	<b>11</b>
			Soybeans(Ha)	20.37	159	350	501.63	<b>502</b>
			Sweet Potatoes (Ha)	121.00	655	700	397.79	<b>398</b>
			Tomatoes (Ha)	225.17	588	650	578.72	<b>579</b>
7	Average yields per target product	Custom (AIED 5)	Banana (tons/ha)	1.74	10.55	15.00	15.88	15.88
			Paprika (tons/ha)	0.72	1.07	1.50	1.40	1.40
			Maize (tons/ha)	1.35	1.62	2.00	1.67	1.67
			Beans (tons)	1.00	1.15	1.30	1.00	1.00

#	Indicator	Source	Unit	Baseline	FY2013	FY2014		
					Actuals	Target	Quarter I	Total
			Bird's eye (tons/ha)	0.50	4.52	4.00	3.50	3.50
			Cabbage (tons/ha)	1.82	26.00	80.00	45.05	45.05
			Chillie Pepper (tons/ha)	1.50	3.42	4.00	4.00	4.00
			Cow Peas (tons/ha)	0.69	1.04	1.00	0.50	0.50
			Groundnuts (tons/ha)	1.04	1.22	1.30	0.99	0.99
			Butternuts (tons/ha)	4.65	9.12	12.00	19.75	19.75
			Fine Beans (tons/ha)	3.00	5.00	6.40	9.00	9.00
			Peppers (Cherry) (tons/ha)	3.00	5.67	10.00	12.00	12.00
			Potatoes (tons/ha)	2.63	15.00	18.00	15.00	15.00
			Soybeans(tons/ha)	0.81	1.03	1.10	1.50	1.50

#	Indicator	Source	Unit	Baseline	FY2013	FY2014		
					Actuals	Target	Quarter I	Total
			Sweet Potatoes (tons/ha)	1.67	4.72	6.00	13.00	13.00
			Tomatoes (tons/ha)	7.20	8.16	30.00	34.18	34.18
8	Gross margin per unit of land, kilogram, or animal of selected product	FTF 4.5-16	Maize (US\$/ha)	37	213	250	266	266
			Paprika(US\$/ha)	416	767	1,125	1,179	1,179
			Banana(US\$/ha)	220	1,834	3,500	3,011	3,011
			Beans (US\$/ha)	690	1,046	1,130	960	960
			Bird's eye (US\$/ha)	50	2,946	2,220	#DIV/0!	#DIV/0!
			Cabbage ((US\$/ha)	173	3,956	4,300	3,250	3,250
			Chillie Pepper (US\$/ha)	120	1,303	1,300	#DIV/0!	#DIV/0!
			Cow Peas (US\$/ha)	502	397	250	567	567
			Groundnuts (US\$/ha)	362	460	500	270	270

#	Indicator	Source	Unit	Baseline	FY2013	FY2014		
					Actuals	Target	Quarter I	Total
			Butternuts (US\$/ha)	1,172	3,778	4,400	5,314	5,314
			Fine Beans (US\$/ha)	-50	2,439	5,792	5,650	5,650
			Peppers (Cherry)(US\$/ha)	100	880	3,500	#DIV/0!	#DIV/0!
			Potatoes (US\$/ha)	502	3,135	3,900	6,200	6,200
			Soybeans(US\$/ha)	36	415	450	452	452
			Sweet Potatoes (US\$/ha)	271	1,387	2,750	5,070	5,070
			Tomatoes (US\$/ha)	541	3,844	4,500	12,039	12,039

#	Indicator	Source	Unit	Baseline	FY2013	FY2014		
					Actuals	Target	Quarter I	Total
9	# of food security private enterprises (for profit), producers organizations, water users' associations, women's groups, trade and business associations, CBOs receiving USG assistance	FTF 4.5.2-11	Enterprises Organizations Groups Associations	0	976	1,042	978	978
10	# of buyer and market-related firms benefiting directly from interventions	Custom (AIED 9)	Buyers/ Firms	0	420	120	34	34

#	Indicator	Source	Unit	Baseline	FY2013	FY2014		
					Actuals	Target	Quarter I	Total
11	Value of new private sector investment in the agriculture sector or food chain leveraged by FTF implementation	FTF 4.5.2-38	US\$	0	1,362,366	1,000,000	38,317	38,317
12	# of firms (excluding farms) or CSOs engaged in agricultural and food security-related manufacturing and services, now operating more profitably because of USG assistance	FTF 4.5.2-43	Firms/CSOs	0	14	15	0	0

#	Indicator	Source	Unit	Baseline	FY2013	FY2014		
					Actuals	Target	Quarter I	Total
13	# of jobs attributed to FTF implementation	FTF 4.5-2	FTE	0	1,224	1,224	1,216	1,216
14	# of hectares under improved technologies or management practices as a result of USG assistance	FTF 4.5.2-2	New Ha	0	25,379	39,945	529	529
			Continuing Ha	0	25,379	43,144	50,758	50,758
			Total	0	50,758	83,089	51,287	51,287
15	# of farmers and others who have applied new technologies or management practices as a result of USG assistance	FTF 4.5.2-5	Total	0	75,178	80,327	76,658	76,658
			New farmers	0	39,744	47,393		1,480
			New	0	39,744	25,500	1,480	1,480
			Continuing	0	35,434	32,934	75,178	75,178

#	Indicator	Source	Unit	Baseline	FY2013	FY2014		
					Actuals	Target	Quarter I	Total
16	# of individuals who have received USG supported short term agricultural sector productivity or food security training	FTF 4.5.2-7	Individuals	0	54,851	60,000	6,364	6,364
17	# of private enterprises, producers organizations, water users' associations, women's groups, trade and business association & CBOs that applied new technologies or management practices as a result of USG assistance	FTF 4.5.2-42	Enterprises/ Organizations/ Groups/ Associations	0	942	1,042	978	978

#	Indicator	Source	Unit	Baseline	FY2013	FY2014		
					Actuals	Target	Quarter I	Total
18	Value of agricultural and rural loans	FTF 4.5.2-29	\$ US	790,000	6,023,493	6,460,000	77,582	77,582
19	# of beneficiaries receiving credit	Custom (AIED 6)	Individuals	1,002	6,580	3,780	3,304	3,304
20	Value of cost-sharing with alliance partners	Custom (AIED 7)	\$ million	0	0	0	0.11	0.11
21	# of individuals receiving training in business skills	Custom (AIED 10)	Farmers/ Borrowers	0	13,245	15,000	6,341	6,341
22	# of MSMEs receiving business development services from USG assisted sources	FTF 4.5.2-37	MSMEs	0	57,190	55,610	7,124	7,124

#	Indicator	Source	Unit	Baseline	FY2013	FY2014		
					Actuals	Target	Quarter I	Total
23	# of individuals receiving training in (NRM)	Custom (AIED 11)	Individuals	0	16,062	20,000	364	364
24	Number of lead farmers in assisted programs	GNDR 1	Individuals	538	538	850	839	839
			Females	216	216	383	346	346
			Males	322	322	467	493	493
25	Proportion of female participants in USG-assisted programs designed to increase access to productive economic resources	GNDR 2	Percent	48%	0	55%	0.47	47%
			Numerator	23,951	23,954		3,356	3,356
			Denominator	50,315	50,313		7,076	7,076
26	Number of project beneficiaries in relevant leadership positions	GNDR 3	Participants	455	455	455	470	470
			Females	159	159	182	165	165
			Males	296	296	273	305	305

#	Indicator	Source	Unit	Baseline	FY2013	FY2014		
					Actuals	Target	Quarter I	Total
27	Proportion of target populations reporting increased agreement with the concept that males and females should have access to social, economic, and political opportunities	GNDR 4	Proportion / Percent	79%	79%	84.00%	79%	79.00%
28	Number of farmers engaged in Contract farming	GNDR 5	Farmers	0	6,228	3,000	3,050	3,050
			Female	0	2,989	1,500	1,292	1,292
			Male	0	3,239	1,500	1,758	1,758