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**SOUTH SUDAN**

## THE FOOD, AGRICULTURE, AND RURAL MARKETS (FARM) PROJECT

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## ACRONYMS

AAHI	Action Africa Help International
AgBC <sup>®</sup>	Agricultural Behavioral Change
AGRA	Alliance for Green Revolution for Africa
CAD	Country Agriculture Department (Government Office)
CES	Central Equatoria State
CMVD	Cassava Mosaic Variety Disease
COP	Chief of Party
COR	USAID Contracting Officer Representative
DAP	Di-Ammonium Phosphate
DCOP	Deputy Chief of Party
EES	Eastern Equatoria State
ERF	Environmental Review Form
ERR	Environmental Review Report
FaaB	Farming as a Business
FAO	United Nations Food and Agriculture Organization
FARM	Food, Agribusiness and Rural Markets
FBO	Farmer Based Organization
Feddan	Feddan (unit of area measuring 60m x 70m)
FOG	Fixed Obligation Grants
GIS	Geographic Information System
GIZ	German Technical Cooperation
Ha	Hectare (100m x100m)
ICC	Internal Coordination Committee
IFDC	International Fertilizer Development Corporation Centre
IGF	Innovative Grant Fund

IPM	Integrated Pest Management
IQC	Indefinite Quantity Contract
KG	Kilogram
MAFCRD	Ministry of Agriculture and Forestry
MSME	Micro, Small and Medium Enterprises
NGOs	Non-Governmental Organizations
MT	Metric Ton (1,000 Kg)
OFDT	On-Farm Demonstration Trial
PCC	Project Coordination Committee
PERSUAP	Pesticide Evaluation Report and Safe Use Action Plan
PMP	Performance Management Plan
PSA	Public Service Announcement
RAISE	Raising Rural and Agricultural Incomes with Sustainable Development
RSS	Republic of South Sudan
S4D	Seeds for Development
ToT	Training of Trainers
USAID	United States Agency for International Development
USG	United States Government
WES	Western Equatoria State
WFP	World Food Programme

# EXECUTIVE SUMMARY

The FARM Project's second full year built upon the solid foundation for operational and technical activities built previously to provide the platform throughout the life of the project. The project was launched by the USAID Administrator, Rajiv Shah, in May 2010 and has enjoyed a high level of visibility both within USAID, the Government of the Republic of South Sudan (RSS), and with partner and donor organizations. The FARM Project has built a lasting partnership with government counterparts, and has created an operational environment conducive to economic growth in the agriculture sector.

The project accomplished several notable deliverables during the year.

- The quantity of seed distributed was 324 metric tons, a 66% increase from the 2011 distribution. This quantity was sufficient to plant 13,900 feddans (5,838ha) of land. The quantities distributed included 65 MT of certified maize seed, 8 MT of certified sorghum seed, 100 MT of groundnut seed 141 MT of cassava stems and 10 MT of beans to 310 Farmer Based Organizations (FBOs) whom the project serves.
- Two yield assessments were completed for the Longe 5 maize crop showing a yield increase of 87% over the baseline figure of 336kg/feddan.
- The area ploughed was 529 feddans, a 40% increase on the 2011 ploughing program.
- Two blocks of contiguous land, each covering an area of 100 feddans was opened up in Obbo and Kajo-Keji, each following environmental guidelines developed by Abt and approved by USAID and coordinated with local farming communities.
- An overarching agriculture policy has been developed for the Ministry of Agriculture, Forestry, Cooperatives and Rural Development (MAFCRD) and passed through the Council of Ministers. Additional policies developed in 2011 have been finalized. Two new policies on marketing and rural finance were developed during the year.
- The FARM Project led the successful implementation of the First National Agricultural Trade Fair which attracted over 2,500 visitors and 70 exhibitors, 26 from outside South Sudan.
- In connection with the 2012 Trade Fair, The FARM Project has provided training to the three state Ministries of Agriculture on how a trade fair should be conducted and has hired a consultant to lead the process of developing the national trade fair scheduled for the last week of November 2012.
- One hundred and twenty four additional farmer-based organizations (FBOs) were added to the project's network of local community-based FBOs since September 2011, bringing the period-ending total to 310 FBOS. During this period, relationships and understanding of existing FBOs have significantly improved.
- An integrated pest management assessment has been completed.

- Twenty-seven FBOs received grants to build local cribs to test post-harvest storage and ways to improve drying and reduce storage losses. Imported structures that remove oxygen were also distributed. An evaluation of all post-harvest storage method will be conducted during 2013.
- In 2011, thirty-eight land plots were identified through coordination with state, county, and local government counterparts and local FBOs for farming demonstration plot sites. However, management of these sites was very difficult so for 2012, the activities were consolidated into 10 sites, one state and nine county sites. These sites were used to visually demonstrate to farmers the benefits of using improved seed varieties and fertilizer, with adoption of best agronomic practices.
- Twenty eight public service announcements were developed into eight vernacular languages and broadcast over public and private radio stations in Central and Western Equatoria. These messages will be broadcast in Eastern Equatoria in 2013.
- As part of the joint Greenbelt Initiative that USAID is sponsoring, 5,873 farmers received samples of fertilizer (1kg of urea and 1kg of DAP) and 150g of a hybrid seed variety. The seed was identified by MAFCRD and AGRA and the fertilizer was procured by IFDC with FARM support for customs clearance.
- Joint planning sessions have been held with MAFCRD in each of the three states to outline how the project proposes to assist each Ministry in the forthcoming season.
- No progress was made during the year on the rehabilitation of priority feeder roads Magwi to Labone; Kagelu to Morobo; and Morobo to Kajo-Keji to improve farmer access to markets. This was largely due to the austerity measures.
- Farming as a Business (FaaB), building the capacity of lead farmers to better understand the value of their farm and the opportunity it presents to exploit trading opportunities, was provided to 174 farmers during 2012. Nine FaaB trainings were conducted at the county level followed by three state-level FaaB trainings of trainers for Ministry and project staff.
- The FARM Project has continued in close collaboration with MAFCRD and state- and local-level government counterparts. In August 2012 and September 2012, The FARM Project shared their work plan with each of the three state Ministries of Agriculture.

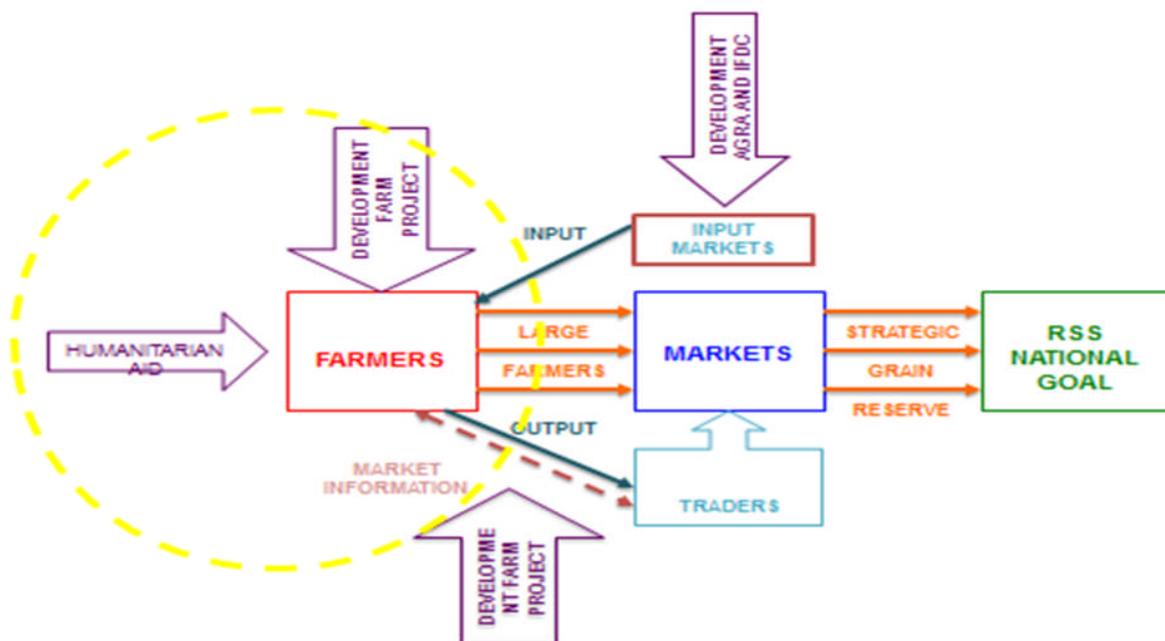
# 1. INTRODUCTION

The USAID Food, Agribusiness and Rural Markets (FARM) Project is an integral part of the U.S. Government's Greenbelt Initiative program to South Sudan and is funded through the RAISE Plus (Raising Rural and Agricultural Incomes with a Sustainable Environment) Indefinite Quantity Contract (IQC). The FARM Project contributes to the Republic of South Sudan's (RSS) goals of achieving food self-sufficiency, reducing poverty and promoting economic growth through pursuit of its own overall assistance objective, which is to "increase food production in targeted areas of South Sudan."

The vision for The FARM Project is to promote sustained increases in food production by establishing the foundation for a viable and profitable commercial agricultural sector that enhances food security in South Sudan and provides opportunities for significant job creation and new business opportunities. One of the project's contributions to the development discussion in South Sudan has been to build consensus on the need to begin transitioning from a relief model to a market-driven approach for agricultural development. This approach is reflected in FARM's five-year strategy for the sustainable development of the commercial agriculture sector in the three states of the country where the project operates.

**Figure 1: Project's Role in National Plan**

Where The FARM project fits in the National Plan for agriculture



The project supports the MAFCRD strategy to rapidly increase food production over the next three years with the aim of producing 2 million MT of grain annually for South Sudan.

Over its five-year duration, The FARM Project will increase agricultural productivity in selected commodities (currently maize, sorghum, cassava and groundnuts) increase agricultural trade, and improve the capacity of producers and private sector and public sector actors in South Sudan to develop commercial smallholder agriculture. The FARM Project will foster economic growth to reduce poverty and food insecurity by improving the competitiveness of staple food value chains. The project also aims to move farmers who are cultivating purely for subsistence purposes to become smallholder producers able to generate money from their farming enterprise.

As USAID's most comprehensive agricultural program in South Sudan, The FARM Project is taking a leadership role in the coordination of agricultural development initiatives of other development partners in the three states of South Sudan where the project is focused. The FARM Project is providing technical assistance and capacity building support to South Sudan's MAFCRD as well as to the state-level ministries of agriculture in Central, Eastern and Western Equatoria.

## **1.1. Program Objectives**

In support of the overall program objective to increase production of targeted agricultural commodities in the project's targeted areas, major program outcomes will include:

### **1.1.1. Agricultural Productivity**

- Increased areas under cultivation within the targeted three Greenbelt states
- Higher yields per unit of land from which surpluses can be marketed
- Increased numbers of agricultural service providers (e.g., seed and fertilizer suppliers)
- Expansion of financial institutions into the agricultural sector with production loans

### **1.1.2. Agricultural Trade**

- Increased volumes of smallholder products sold in markets
- Farmers making market-based decisions that result in a net profit
- Producers consistently meet market standards for timing, quality, and quantity of product
- Increased volume of value added/processed products from local agricultural production
- Increased willingness of financial institutions to provide loans through the entire value chain process

### 1.1.3. Capacity Building

#### *Private Sector Capacity*

- Emerging, small, medium, and producer organizations are able to plan and adapt production to market demand;
- Selected value chains are more vertically integrated with enhanced business relationships;
- Increased investment in commercial agriculture across the entire value chain(s).

#### *Public Sector Capacity*

- RSS provides reliable quality services that are key for economic growth, e.g. plant and pest inspection;
- State governments are able to develop sound strategies and plans that support market-led agriculture;
- Improvement in management capabilities of MAFCRD at state and county levels.

#### *Enabling Environment*

- Taxation and trade policies do not inhibit trade and there is free movement of agricultural goods within South Sudan;
- Public services do not compete with the private sector nor distort market incentives in the provision of goods and services;
- Agriculture and food security policies and regulations help foster the growth of the agricultural sector in South Sudan.

## 1.2. Activities Covered in This Report

This report covers project activities between October 1, 2011, and September 30, 2012. Reference is also made to the semi-annual report submitted in April 2012 which highlights several activities in greater detail. In Section 2, critical changes in project leadership and management and scope of operations are addressed. In Section 3-5, the project's technical activities are outlined. Section 6 addresses activity on cross-cutting themes during the reporting period.

## 2. PROJECT MANAGEMENT AND SCOPE

### 2.1. Consolidation of Project Leadership, Staffing and Management

Considerable progress was made toward the consolidation of project leadership, staffing, and management during the current reporting period. These advancements will have lasting positive effects on project activities moving forward.

With respect to project leadership, the Chief of Party (COP) and Deputy Chief of Party (DCOP) remained in post throughout the duration of this report. Several staff changes did however occur and these are explained in Annex 1 of this report. As of September 30<sup>th</sup> 2012 there are 75 people employed by the four different partners as per the table below with 9 replacement vacancies and three proposed vacancies for the implementation of the FY2013 work plan.

**Table 1: Staffing Status**

Organization	Number of Employees	Vacancies
Abt Associates	22	3
ACDI-VOCA	7	1
AAH-I	38	2
RSM	8	3

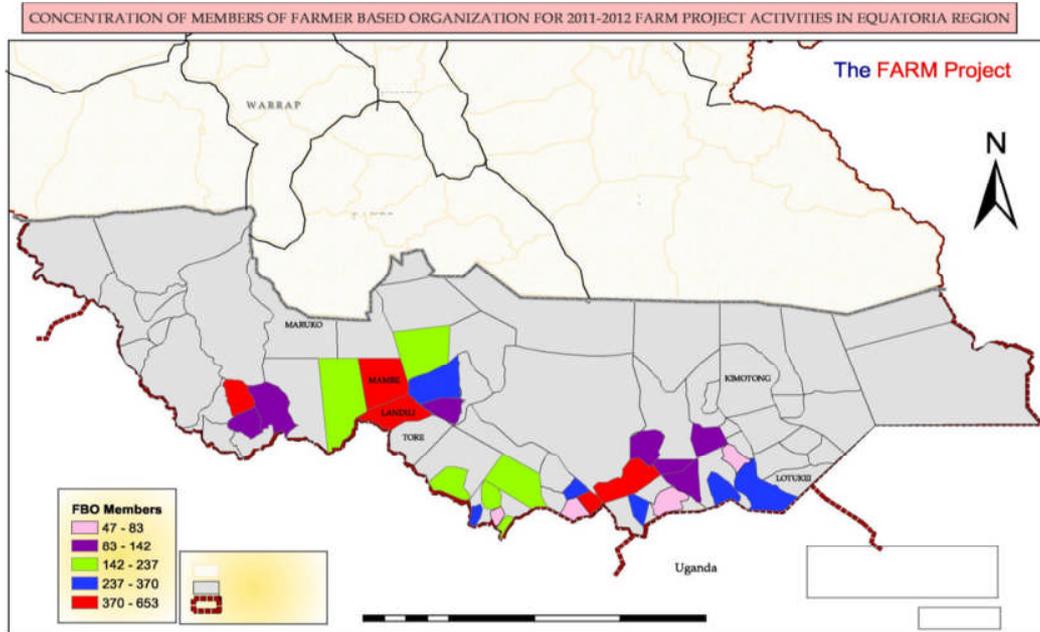
Technical management of the project was also consolidated during this period, with a key advancement being the formation of the Juba based technical team that met at least every two weeks to develop joint planning between the three sectors on which the project is built. The Capacity Building Coordinator position was not replaced since capacity building was integrated into the Crop Production and Crop Marketing activities, though oversight for training was incorporated into the job description of the Project Coordinator. The Policy Advisor position was replaced with short-term technical assistance drawn from within East Africa.

### 2.2. Shifts in Project Technical and Geographic Scope

#### 2.2.1. Continued Consolidation in the 27 Target Payams

USAID requested that the project start looking at payams with better market access. However the Ministry did not support expansion to new areas until the project has demonstrated it can achieve significant change in the currently targeted counties. The spatial location of the 27 selected payams where the project operates is shown below in color.

**Figure 2: Project Service Area (By Payam)**



### 2.2.2. Prioritization of Counties with Access to Markets

The project worked very closely with the State Ministries of Agriculture in the three Equatoria states. Within each state three counties were selected and within the three counties three payams were identified by the state governments. Selection was based primarily on the agro-ecological potential and not on access to markets. At the direction of USAID South Sudan, The FARM Project has identified priority feeder roads for rehabilitation to increase farmer access to both inputs and markets. These included the roads from Magwi to Labone; Kagelu to Morobo; and Morobo to Kajo-Keji. Outside of project control, minimal progress was made on the rehabilitation of these roads during the last year.

### 2.2.3. Supporting Expansion of Alternative Land Clearing and Land Preparation Strategies

In 2012, farmers made requests for a total of 1,344 feddans to be ploughed through The FARM Project grants program. Because of budget cuts imposed by the donor, the availability of funds for ploughing was limited to 600 feddans for farmers in the project area. Local service providers who had tractors and ploughs were organized to plough the land. A combination of limited destumped land, a dearth of tractors in good operating condition and frequent breakdown of tractors resulted in the project reaching 531 feddans, 89% of the target. For 2013, the project will aim to plough 700 feddans. The project supplemented this initiative with 12 two-wheel

tractors distributed in May 2012 which were distributed to trained FBO groups. This was too late for their effective use in 2012 due to the massive biomass that develops early in the growing season and the two wheeled tractors not being sufficiently heavy to break up this biomass. These machines will be reassessed in 2013. The FARM Project continues to work with farmers who have oxen that they wish to use for animal traction.

#### **2.2.4. Supporting the Use of Inputs, Especially DAP Fertilizer and Urea**

The project was instructed by USAID to develop a joint intervention involving FARM, IFDC and AGRA at a planning meeting held in October 2011. This resulted in a large scale demonstration of fertilizer and hybrid seeds to 6,000 farmers allowing each farmer to plant an area of 75 square meters to see the impact of fertilizer and hybrid maize seed on productivity. Of the proposed total, 5,873 farmers (97.8% of the target) received these demonstration packages and this was followed up with 2,896 farmers obtaining IFDC vouchers in July 2012 for 100kg of fertilizer and 10kg of hybrid seed, sufficient to plant one feddan of hybrid maize.

## 3. COMPONENT 1: AGRICULTURAL PRODUCTIVITY

### 3.1. Overview

The FARM Project aims to increase farm-level production and productivity of smallholder farmers through the expansion of the area of land under cultivation and the promotion of increased adoption of improved technologies and management practices. Specifically, it aims to increase yields through the provision of high-quality seeds and planting material with corresponding trainings in agronomic best practices as well as through the sustainable expansion of land under cultivation through the introduction of mechanization.

The project distributed over 324 MT of seed to 6,695 beneficiaries in its distribution program, which correspond to approximately 13,947 feddans (5,838 hectares) under improved technology and management. All seeds were planted in the period under review. A total of 531 feddans were plowed through the project's innovative grants scheme on land preparation.

Farmers have also been introduced to enhanced technologies and production practices in various ways. A major thrust to support the Greenbelt Initiative was to provide over 80% of FARM's farmers with an on-farm demonstration package of hybrid seed (selected by MAFCRD) and fertilizer (purchased by IFDC) which was sufficient to plant a 10 meter x 10 row plot within each farmer's field. Farmers who participated in the on-farm demonstration trial were also encouraged to procure vouchers from the IFDC voucher program.

A series of 28 public service radio announcements were developed and aired during the year, complementing input distributions, and in-person trainings with messages about appropriate agricultural best practices at that time of the agriculture season for a broad audience.

During the course of the year the project focused on staple crop production of maize, sorghum, cassava and groundnuts. Efforts were made to not only identify improved planting material but also improved production practices within these four crops. Additionally *Phaseolus* beans were tested.

### 3.2. Improved Seeds and Planting Materials

Provision of good quality seeds of improved crop varieties to smallholder and progressive farmers is essential for increased crop production and productivity to achieve one of the FARM Project's pillars of improved Agricultural Productivity in South Sudan.

The USAID-funded FARM Project conducted seed distributions corresponding to the two cropping seasons in the Greater Equatoria Region of South Sudan. The procurement process to

obtain the improved seeds and planting materials was completed in January 2012 and tenders were awarded to successful bidders in the same month to deliver 65mt maize seed, 8mt sorghum seed, 100mt groundnuts seed and 10mt beans seed. Suppliers started deliveries by February and completed by June 2012. Cassava planting materials was awarded to vendors after a thorough assessment of the fields for availability and inspection for stalk quality and absence of important diseases such as Cassava Brown Streak Virus (CBSV) and Cassava Mosaic Virus (CMV). The assessment was conducted in Uganda during April 2012 for 80mt NASE 14 variety which was delivered in May 2012. In South Sudan, an assessment for 60mt TME 14 cassava variety was conducted in May and was successfully delivered in June 2012. The local sourcing was aimed at stimulating and building the capacity of the local seed sector. To minimize procurement risks, the chief of party and other senior project staff visited vendors in advance of procurement to develop relationships with potential vendor and to clearly express the project's expectations in regards to product quality and delivery standards. Project staff were also highly engaged in selecting the fields to be used for cassava cuttings in Uganda.

The distribution process was ably handled by both the project and state ministry staff together with the leadership of various FBOs.

### 3.2.1. Seed Beneficiaries and Crop Types

To reach a critical mass of beneficiaries in the implementing areas, The FARM Project worked with 310 FBOs during 2012. These FBOs were used to channel seeds to 6,695 individual group members (2,342 female) in the three States, 9 Counties and 27 project implementation Payams. This FBO total is an increase from 186 in 2011 with 4,325 members. The 324mt of seeds distributed during FY2012 of focus (maize, sorghum, cassava, groundnuts and beans) was an increase of 65% over the 2011 distribution of 195mt. Table 2 below gives a summary of the number of FBOs who received seeds in each State and the quantities of seed distributed.

**Table 2: Summary of 2012 Seed Distribution**

STATE	Number of FBOs Benefited	Total Membership (Number of Farmers)	Maize (kg)	Sorghum (kg)	G/nuts (kg)	Cassava (kg)	Beans (kg)	Total Seeds (kg)
EES	103	2,361	17,310	4,584	38,740	56,175	2,935	119,744
CES	102	2,337	16,300	904	29,485	30,490	3,010	80,189
WES	105	1,997	31,085	2,132	30,655	56,175	4,240	124,287
<b>Total</b>	<b>310</b>	<b>6,695</b>	<b>64,695</b>	<b>7,620</b>	<b>98,880</b>	<b>142840</b>	<b>10,185</b>	<b>324,220</b>

A total of 324.22mt of seed crops were successfully distributed to the intended beneficiaries against a target of 323mt (see table 3). The total value of the seed and planting material being

distributed was \$376,030 (\$140,663 in Eastern Equatoria, \$118,224 in Central Equatoria \$117,153 in Western Equatoria). It is estimated that the delivered seed will cover a total land area of 13,947 feddans (5,838ha). The project used a seed rate of 10kg/feddan for maize; 2kg/feddan for sorghum; 40kg/feddam for groundnuts 40kg/feddan for beans and 200kg/feddan for cassava stalks. Although slightly higher than the globally accepted recommended levels, these reflect the high use of seed by farmers since they still tend to plant multiple seeds in a hole and broadcast their seed, neither of which is recommended. All the seeds distributed were tested for germination and treated with *Imidacloprid*, an insecticide, as well as *Thiram*, a fungicide, to protect them in storage and promote a good start of germination and seedling establishment. The germination test results were all satisfactory for all seeds because they were above the minimum germination rates recommended for each crop type, e.g. 94% for maize.

### 3.2.2. Types of Seeds Distributed

During 2012, seeds of five crops were distributed and comprised of maize, sorghum, groundnuts, cassava and *Phaseolus* beans as indicated in the Table 3 below. This was the first season to distribute beans.

**Table 3: 2012 Seed Target Distributions and Achievement Levels**

Crop	Target 2012 (kg)	Achieved 2012 (kg)	Achieved 2011 (kg)	Change From 2011	Area to Be Planted (fd)	Equivalent Area To Be Planted (ha)
Maize	65,000	64,695	60,000	7.83%	6,514	2,736
Sorghum	8,000	7620	10,000	-23.80%	4,000	1,680
Cassava	140,000	141,615	100,000	41.62%	701	294
Beans	10,000	10185	0		250	105
Groundnuts	100,000	98,880	25,000	295.52/%	2,482	1,042
<b>All Crops</b>	<b>323,000</b>	<b>324,220</b>	<b>195,000</b>	<b>65.64%</b>	<b>13,947</b>	<b>5,857</b>

### 3.2.3. Maize Seed Distribution

The variety distributed to farmers was OPV Longe 5. A total of 243 FBOs with a membership of 4,903 beneficiaries (3,244 males and 1,659 females) received 64.695mt of maize seed. The seed quantity is estimated to plant 6,500 feddans (2,730ha).

Out of these, 57 FBOs in EES with a membership of 1,265 (776 male and 489 female) received 17,301 kg maize seed, sufficient to cover 1,700 feddans (714ha). There were 81 FBO beneficiaries from CES with a membership of 1,641 (1,154 male and 487 female). The seeds will plant 1,600 feddans (672ha). All 105 FBOs in WES received maize seed with a membership of 1,997 (1,314 males and 683 females). Maize seed amounting to 31,085 kg was distributed sufficient to plant 3,155 feddans (1325ha). Table 4 below gives the details of maize distribution, number of recipient FBOs, number of members who have benefited and the estimated area that will be planted with maize seed in each county.

**Table 4: 2012 Maize Seed Distribution to FBOs per County**

No.	Number of FBOs and Beneficiaries (By Gender) Receiving Maize Seed					Seed Distributed And Estimated Production Area		
	County	FBOs	Male	Female	Total	Amount Distributed (kg)	Estimated Feddans	Estimated Hectare
1	Yambio	34	499	258	757	13,665	1,367	574
2	Maridi	34	396	175	571	6,590	699	294
3	Mundri West	37	419	250	669	10,830	1,089	457
	<b>WES</b>	<b>105</b>	<b>1,314</b>	<b>683</b>	<b>1,997</b>	<b>31,085</b>	<b>3,155</b>	<b>1,325</b>
1	Yei	32	542	136	678	6,900	678	285
2	Morobo	25	410	111	521	5,750	520	218
3	Kajokeji	24	202	240	442	3,650	442	186
	<b>CES</b>	<b>81</b>	<b>1,154</b>	<b>487</b>	<b>1,641</b>	<b>16,300</b>	<b>1,640</b>	<b>689</b>
1	Magwi	26	289	321	610	9,610	961	404
2	Ikwotos	13	139	99	238	2,980	286	120
3	Torit	18	348	69	417	4,720	472	198
	<b>EES</b>	<b>57</b>	<b>776</b>	<b>489</b>	<b>1,265</b>	<b>17,310</b>	<b>1,719</b>	<b>722</b>
	<b>Total</b>	<b>243</b>	<b>3,244</b>	<b>1,659</b>	<b>4,903</b>	<b>64,695</b>	<b>6,514</b>	<b>2,736</b>

### 3.2.4. Groundnuts Seed Distribution

Groundnuts is one of the most important crops in the Greenbelt area of South Sudan serving both as food and a cash crop. It is a good source of protein, vitamins and vegetable oils and is consumed in various ways including using it as a paste in most food sauce side dishes. However, the production of groundnuts in South Sudan is insufficient and the country has been importing most of its groundnut requirements from neighboring countries. Most local varieties being used by farmers possess low yielding characteristics and succumb to diseases, especially Rosette. Nonetheless, when groundnuts are grown in rotation with other crops such as maize and

sorghum, they improve soil fertility because of their capacity to fix atmospheric nitrogen. Groundnuts are becoming an important trading agricultural enterprise bringing cash at the household level and has a readily available market. It is against this background that The FARM Project enhanced agriculture production by expanding the area under cultivation through provision of seed and improving yields through introduction of improved germplasm.

During this year's distribution, a total of 98,880 kg of groundnuts were distributed, sufficient to plant 2,500 feddans (1,050ha). A total of 100mt were procured compared to 25 mt in 2011. Red Beauty was the only variety procured in 2011. It is a very old variety and highly susceptible to Rosette. For this reason, Red Beauty was dropped from the program and replaced by rosette resistant varieties Egola (25 mt), Serenut 2 (25 mt) and Serenut 4 (48.880 mt) as part of an Integrated Pest Management (IPM) approach. A total of 297 FBOs received groundnuts comprising 6,420 members (4,168 male and 2,252 female). In EES, 90 FBOs with total membership of 2,086 (1,278 male and 808 female) received 38,740 kg of groundnuts, sufficient to grow 997 feddans (419 ha). In CES, all 102 FBOs comprising 2,337 members (1,576 male and 761 female) received 29,485 kg of groundnuts sufficient to plant 737 feddans (310ha). In WES, similarly all 105 FBOs comprising 1,997 members (1,314 male and 683 female) received 30,655kg sufficient to cultivate 748 feddans (314 ha). Table 5 below shows total FBOs and their membership for each county and the distributed seeds and estimated areas of production.

**Table 5: 2012 Groundnut Seed Distribution to FBOs per County**

No.	Number of FBOs and Beneficiaries (By Gender) Receiving Groundnut Seed					Seed Distributed And Estimated Production Area		
	County	FBOs	Male	Female	Total	Amount Distributed (kg)	Estimated Feddans	Estimated Hectare
1	Yambio	34	499	258	757	12,850	321	135
2	Mundri West	37	419	250	669	10,035	251	105
3	Maridi	34	396	175	571	7,770	176	74
	<b>WES</b>	<b>105</b>	<b>1,314</b>	<b>683</b>	<b>1,997</b>	<b>30,655</b>	<b>748</b>	<b>314</b>
1	Yei	38	659	148	807	10,440	261	110
2	Morobo	30	436	133	569	7,360	184	77
3	Kajokeji	34	481	480	961	11,685	292	123
	<b>CES</b>	<b>102</b>	<b>1,576</b>	<b>761</b>	<b>2,337</b>	<b>29,485</b>	<b>737</b>	<b>310</b>
1	Magwi	48	540	580	1,120	19,270	479	201
2	Ikotos	12	135	79	214	7,780	221	93
3	Torit	30	603	149	752	11,690	296	125
	<b>EES</b>	<b>90</b>	<b>1,278</b>	<b>808</b>	<b>2,086</b>	<b>38,740</b>	<b>997</b>	<b>419</b>
	<b>Total</b>	<b>297</b>	<b>4,168</b>	<b>2,252</b>	<b>6,420</b>	<b>98,880</b>	<b>2,482</b>	<b>1,043</b>

### 3.2.5. Sorghum Seed Distribution

The FARM Project distributed 7.620mt sorghum seeds comprised of Seso 1 (4.0mt) and Seso 3 (3.620mt) mainly for second season planting. This is sufficient to plant 4,000 feddans (1,680 ha). The seed was distributed to 147 FBOs with a membership of 3,113 (2,025 male and 1,088 female). About two-thirds of the seed was distributed to EES, due to higher demand in the state.

In EES, 89 FBOs received 4,584kg sorghum which was distributed to 2,043 members (1,350 male and 693 female). In CES 25 FBOs with a membership of 483 farmers (296 male and 187 females) received 1,000 kg of sorghum. In WES, 33 FBOs with a membership of 587 farmers (379 male and 208 female) received 2,132kg, sufficient to plant 1,100 feddans (462ha). Table 6 below gives a summary of sorghum seed distributed and beneficiary FBOs and their membership for each county.

**Table 6: Sorghum Seed Distribution to FBOs per County**

No.	Number of FBOs and Beneficiaries (By Gender) Receiving Sorghum Seed					Seed Distributed And Estimated Production Area		
	County	FBOs	Male	Female	Total	Amount Distributed (kg)	Estimated Feddans	Estimated Hectares
1	Yambio	7	92	36	128	516	258	108
2	Maridi	12	122	94	216	880	367	154
3	Mundri West	14	165	78	243	736	476	200
	<b>WES</b>	<b>33</b>	<b>379</b>	<b>208</b>	<b>587</b>	<b>2,132</b>	<b>1,101</b>	<b>462</b>
1	Yei	10	142	40	182	364	183	77
2	Morobo	4	50	25	75	150	77	32
3	Kajokeji	11	104	122	226	390	240	101
	<b>CES</b>	<b>25</b>	<b>296</b>	<b>187</b>	<b>483</b>	<b>904</b>	<b>500</b>	<b>210</b>
1	Magwi	38	478	420	898	1,820	910	382
2	Ikwotos	21	269	124	393	1,014	507	213
3	Torit	30	603	149	752	1,750	982	412
	<b>EES</b>	<b>89</b>	<b>1,350</b>	<b>693</b>	<b>2,043</b>	<b>4,584</b>	<b>2,399</b>	<b>1,007</b>
	<b>FARM</b>	<b>147</b>	<b>2,025</b>	<b>1,088</b>	<b>3,113</b>	<b>7,620</b>	<b>4,000</b>	<b>1,679</b>

### 3.2.6. Cassava Stalk Distribution

Cassava is an important food security crop in the Equatoria Region. The crop is becoming more popular in other States such as EES and CES as returnees bring knowledge of the crop from their experience in neighboring countries. There is also increasing interest in South Sudan in developing cassava for added-value products for consumer use.

These developments and the potential to expand the contribution which cassava makes to household income and national development are threatened by the spread of diseases into South Sudan. In South Sudan, the main disease problem was historically CMV. The improved variety, TME14, was distributed, due to its resistance to CMV and its other desirable quality of high yield. Unconfirmed reports from research and field staff of the MAFCRD and The FARM Project indicate that CBSD, an even more serious disease, is already in South Sudan. Now that CBSD has entered the country, TME14 is no longer part of the solution because of its high susceptibility to CBSD. In order to stop the likelihood of spreading the disease from imported materials, external procurement of TME 14 was stopped and was replaced by locally sourced cassava stem. The project did continue with importation of other newly released materials of NASE 14 (MM96/4271) which was released in May 2011 and is tolerant to CBSD. This variety was procured from Uganda upon consultations with the National Research Program of the Uganda Ministry of Agriculture, Forestry and Fisheries.

During 2012, The FARM Project distributed cassava stalks to 58 FBOs comprising 1,124 members (746 male and 378 female). Out of the 58 FBOs, 7 were recipients of both NASE 14 and TME 14 stems. These beneficiaries received 141,615 kg of cassava stalks. Of this total 60,000 kg was TME 14 which was sourced locally in South Sudan and distributed to 30 FBOs while 81,600 kg was for NASE 14 (MM96/4271) sourced from Uganda and distributed to 35 FBOs. The NASE 14 stems were sprayed against pests that could be transported together with the stems. A total of 162 sprayers were distributed to the 58 cassava beneficiary FBOs in the states. Training was given to all recipient FBOs on how to spray and on safety precautions. It is estimated that all the stems (NASE 14 and TME 14) will plant 700 feddans (295 hectares).

In WES, 25 FBOs with 545 members (384 male and 161 female) received 56,580 kg of cassava stems comprising of 32,655 kg of NASE 14 and 23,520 kg of TME 14. A total of 75 sprayers were distributed with each FBO receiving three to spray the cassava. In CES, 16 FBOs with 311 members (206 male and 105 female) received cassava stems of 30,490 kg in total comprising 17,290 kg NASE 14 and 13,200 kg TME 14. The expected area of production is 156 feddans (66 hectares). A total of 48 sprayers were issued to the FBOs each getting three. In EES, 17 FBOs with 268 farmers (156 male and 112 female) received 54,950 kg stems. Out of this, 31,675 kg was NASE 14 and 23,275 was TME 14. The expected area to be put on the crop is 272 feddans (114 hectares). Table 7 below gives a summary of cassava distributed to FBOs and members in different counties.

**Table 7: Cassava Seed (and Sprayers) Distribution to FBOs per County**

No.	Number of FBOs and Beneficiaries (By Gender)Receiving Cassava Stem					Distribution And Estimated Production Area				
	County	FBOs	Male	Female	Total	Amount of Nase 14 Distributed (kg)	Amount of Tme 14 Distributed (kg)	Estimated Feddans	Estimated Hectares	Hectares Sprayed
1	Yambio	11	191	77	268	15,960	11,620	134	56	33
2	Maridi	6	80	26	106	6,405	4,515	53	22	18
3	Mundri West	8	113	58	171	10,290	7,385	86	36	24
	<b>WES</b>	<b>25</b>	<b>384</b>	<b>161</b>	<b>545</b>	<b>32,655</b>	<b>23,520</b>	<b>273</b>	<b>114</b>	<b>75</b>
1	Yei	4	88	13	101	4,585	4,300	51	21	12
2	Morobo	4	58	16	74	4,515	3,100	37	16	12
3	Kajokeji	8	60	76	136	8,190	5,800	68	29	24
	<b>CES</b>	<b>16</b>	<b>206</b>	<b>105</b>	<b>311</b>	<b>17,290</b>	<b>13,200</b>	<b>156</b>	<b>66</b>	<b>48</b>
1	Magwi	7	18	39	57	9,765	2,275	58	24	9
	Magwi (Pageri)	3	35	28	63	5,775	9,030	73	31	9
2	Ikwotos	3	28	26	54	6,160	5,005	58	24	9
3	Torit	4	75	19	94	9,975	6,965	83	35	12
	<b>EES</b>	<b>17</b>	<b>156</b>	<b>112</b>	<b>268</b>	<b>31,675</b>	<b>23,275</b>	<b>272</b>	<b>114</b>	<b>39</b>
	<b>Total</b>	<b>58</b>	<b>746</b>	<b>378</b>	<b>1,124</b>	<b>81,620</b>	<b>59,995</b>	<b>701</b>	<b>294</b>	<b>162</b>

### 3.2.7. Phaseolus Bean Seed Distribution

Beans are becoming one of the important crops in some parts of the Greenbelt area of South Sudan both for a food and cash crop. It is a good source of protein and vitamins for growing children, lactating mothers and the elderly. Apparently, the production of *Phaseolus* beans in South Sudan is not adequate. As a result, the country is importing most of its beans requirements from Uganda and Kenya.

Most of the current local varieties being used by farmers possess low yielding characteristics. However, when beans are grown in rotation or mixed with other crops such as maize, cassava and sorghum cropping systems, this improves the soil fertility because of their capability of fixing atmospheric nitrogen. Recent observations show that beans are fast becoming an important trading agricultural enterprise bringing cash to the household level. It is against this background that The FARM Project enhanced its production by expanding the list of approved

crops under its mandate for cultivation by its selected FBOs through provision of improved bean seed. This year, upon recommendations from various stakeholders, The FARM Project distributed 10,185 kg of K132 variety. The total estimated area for these seeds is 250 feddans (105 ha). The distribution was to a total of 42 FBOs with 786 beneficiaries (542 male and 244 female). In EES, 11 FBOs with 238 members (161 male and 77 female) received 2,935 kg, sufficient to plant 74 feddans (31ha). In CES, 17 FBOs with a membership of 301 (220 males and 81 females) received 3,010 kg of beans. About 75 feddans (31.5 ha) have been designated to grow this crop due to this initiative. In WES, 14 FBOs with 247 members (161 males and 86 females) received 4,025 kg of beans to be planted on 101 feddans (42 ha). Table 8 gives a summary of bean seeds distributed and beneficiary FBOs and their membership for each county.

**Table 8: Bean Seed Distribution to FBOs per County**

Number of FBOs and Beneficiaries (By Gender) Receiving Bean Seed						Seed Distributed And Estimated Production Area		
No.	County	FBOs	Male	Female	Total	Amount Distributed (kg)	Estimated Feddans	Estimated Hectare
1	Yambio	6	71	39	110	2,000	50	21
2	Mundri West	4	48	24	72	1,105	26	11
3	Maridi	4	42	23	65	1,135	25	10
	<b>WES</b>	<b>14</b>	<b>161</b>	<b>86</b>	<b>247</b>	<b>4,240</b>	<b>101</b>	<b>42</b>
1	Yei	5	85	15	100	1,000	25	11
2	Morobo	6	88	13	101	1,010	25	11
3	Kajokeji	6	47	53	100	1,000	25	10
	<b>CES</b>	<b>17</b>	<b>220</b>	<b>81</b>	<b>301</b>	<b>3,010</b>	<b>75</b>	<b>32</b>
1	Magwi	5	72	30	102	1,220	32	13
2	Ikwotos	3	31	19	50	855	21	9
3	Torit	3	58	28	86	860	21	9
	<b>EES</b>	<b>11</b>	<b>161</b>	<b>77</b>	<b>238</b>	<b>2,935</b>	<b>74</b>	<b>31</b>
	<b>FARM</b>	<b>42</b>	<b>542</b>	<b>244</b>	<b>786</b>	<b>10,185</b>	<b>250</b>	<b>105</b>

### 3.2.8. Conclusion and Discussion

Although the seed distribution program has been successfully implemented registering a record 100% success against target, there have been some challenges that were faced. Identification of seed suppliers was a major challenge in the country and this forced the project to look for seed sources within the region. The cost of the program was also high due to poor infrastructure such

as bad roads, poor communication and long distances. This resulted in major problems to identify appropriate transporters for the seeds and once they were identified, there were breakdowns and road accidents. This resulted in late deliveries of seeds. Coupled with this problem was the lack of seed threshing and dressing technologies. For example, groundnuts deliveries were seriously affected by the shelling process by the vendor due to inappropriate technology which resulted in high rate of seed damage and slow rate of shelling.

It is recommended that next year's seed distribution be mostly focused on new FBOs while efforts are put in place to train the old FBOs on good seed selection, handling and storage techniques as they have already received seeds which they can recycle if well informed. Those who can select and store their seed in recommended ways can act as sources of planting material for other farmers within the Greenbelt and beyond and this will enable the country to reduce the current seed deficit levels.

Nonetheless, nearly 20% of the seed weight distributed was sourced locally. This is a significant achievement given that there is no organized seed trade system in the country. The involvement of local vendors this year has assisted in building their capacity and confidence in seed trade. It is recommended that future seed distributions should focus on developing local capacities by engaging local seed suppliers who can potentially be turned into seed trade associations. They can also be involved in output marketing if they are properly organized and this can assist farmers' access to local markets within their areas to sell farm produce and access inputs.

### **3.3. Increased Availability of Appropriate Cassava Varieties**

The FARM Project is collaborating with the MAFCRD/RSS to expand the list of approved varietal material for cassava. The germplasm for these varieties were sourced from Uganda, which has released seven new varieties available for the regions with similar ecological zones. All the planned six cassava varieties were brought into the country for evaluation and validation. These varieties were MM96/4271 (NASE 14), NASE 15, NASE 16, NASE 17, NASE 18 and NASE 19. These NASE series are being handled by cassava research scientist from MAFCRD at the Palotaka Basic Seed Center in Magwi County, Eastern Equatoria State. A follow-up to check the performance of the six cassava varieties was made and it was discovered that all six crops were established and were doing well. Table 9 below gives details of the lines and evaluation.

**Table 9: Assessment Results of New Ugandan Cassava Varieties in South Sudan**

Variety/Line	Series	CMV Status	CBSV Status	Under Evaluation	Preliminary Result
MM96/4271	NASE 14	Resistant	Tolerant	Yes	Established
28-TME 14	NASE 15	Resistant	Tolerant	Yes	Established
266-BAM	NASE 16	Resistant	High tolerance	Yes	Established
349-KAK	NASE 17	Resistant	High tolerance	Yes	Established
109-TME 14	NASE 18	Resistant	High tolerance	Yes	Established
72-TME 14	NASE 19	Resistant	High tolerance	Yes	Established

Source: NaCRRRI – Namulonge, Uganda (2011)

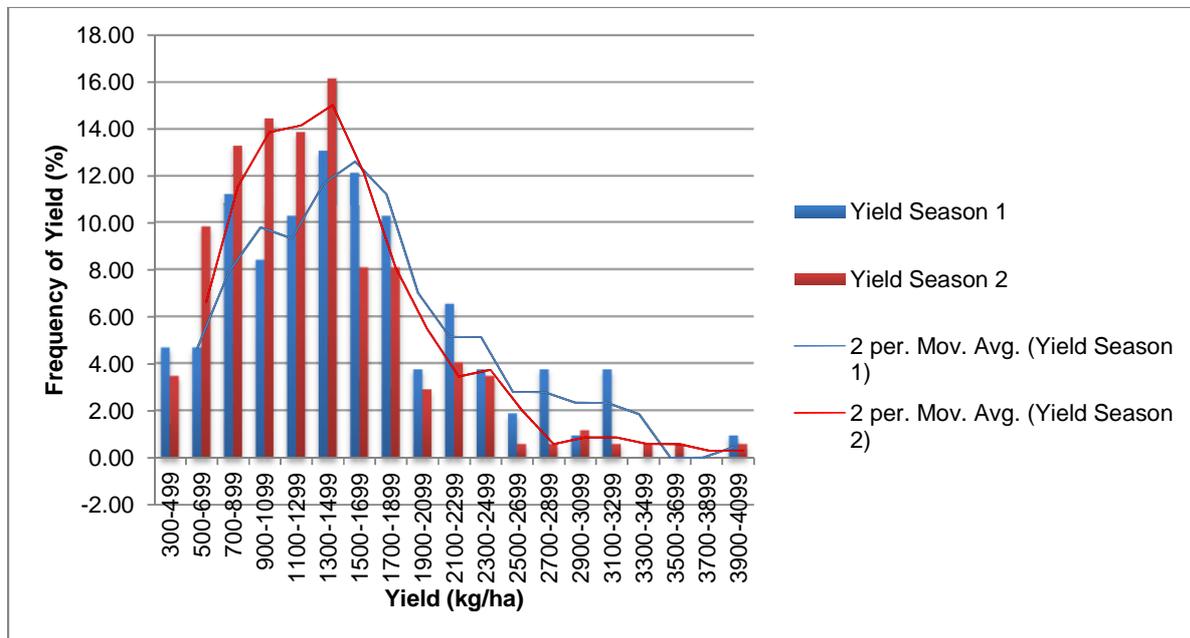
### 3.4. Crop Yield Performance Assessments

As part of the demonstration of the possible productivity improvement that can be achieved through the introduction of improved varieties, yield assessments of the maize variety have been undertaken after each harvest. The project baseline for maize undertaken in June 2010 is indicated to be 800kg/ha. Randomly selected farmers were assessed during both September and December 2011 for the level of productivity from their maize crop. For each selected farmer, three plots each of 8.41 square meters (25.2 square meters total) were used in the analysis. The number of plants, the spacing, the number of cobs, the yield and the presence of pests, diseases, Striga and weeds were noted. A sample of the cobs were then shelled to obtain the moisture content and the grain weight was then determined based on a moisture content of 13.5%. In each of the analyses approximately 120 samples were obtained from all three regions.

The results show that the modal yield for both the first and second rains harvests in 2011 were approximately 1400 kg/ha though the second season harvest in Central Equatoria was significantly lower than in the first season. The yield assessment completed for the first harvest of 2012 shows that the yield has increased to 1766kg/ha again using Longe 5. The increase can be attributed to good rainfall patterns in the project area as well as improved adoption of good agronomic practices by farmers.

To date, it has not been possible to undertake assessments of the other crops that have been distributed through The Farm Project. Yield assessments of groundnuts are not possible on farmers' fields unless the crop is harvested and removed for drying and shelling. The cassava distributed in 2011 will not be ready for assessment until late in 2012 and will be reported in the next semi-annual report. Due to the problems with the quality of the Sekedo seed distributed in 2011 being of mixed phenotype, it was not possible to get yield data for the 2011 sorghum crop. A yield assessment for the 2012 sorghum crop is planned for December 2012.

**Figure 3: Result of Maize Yield Assessment for 2011 Growing Season**



### 3.5. On-Farm Demonstration Trials

After the successful distribution of the On-FARM Demonstration Trials (OFDTs) reported in the semi-annual report in April 2012, the project undertook several different ways to follow up on these observations. A three-tier reporting system was developed with 120 farmers being assessed for their support to the program. The first tier was originally planned to be collected by the payam extension agents to reflect the number of farmers who received instruction from the 300 motivational farmers and who planted the demonstration on their farm. The second tier involved discussions with the farmers to see their opinion of the program. To implement this, six interns from the Catholic University in Wau were hired to visit farmers. Their purpose was to independently verify farmer perspective of the benefits of fertilizer and hybrid seed and to determine whether they anticipated taking up vouchers in the future. The third tier involved collecting yield data from 120 farmers to ascertain the benefits that accrued from this activity.

Two issues did arise in connection with the implementation of the demonstrations. The first was around the special separation of the seed and fertilizer. Consultants from Mango Tree had been contracted by IFDC to develop training materials and provided a graphic with seed and fertilizer in the same planting hole. When hybrid seed was placed in the same planting hole as Di-Ammonium Phosphate (DAP), the seed failed to germinate. This was noticed by a large number of farmers and led to The FARM Project conducting germination tests on the three varieties with three different application methods for the fertilizer. These included a control group with no fertilizer added, placing the correct amount of fertilizer in the planting hole and then placing the fertilizer in a second hole about 5cm from the seed. There were four rows of 25 seeds per plot and the germination rate was assessed 14 days later. The results are shown below in Table 10:

**Figure 4: Comparison of Maize Control and Trial Group 14 Days After Planting**



**Figure 5: Comparison of Maize Control and Trial Group Later in Growing Season**



**Table 10: Germination Rate of Three Hybrid Lines When Interacting with DAP Fertilizer**

Variety	No Fertilizer	Fertilizer in Same Hole As Seed	Fertilizer Beside the Seed
KH500-22A	96%	23%	98%
KH500-44A	69%	4%	85%
Longe 6	57%	6%	57%

It is clear that spatial separation of fertilizer and seed is required to avoid the risk of scorching the seed and rendering it unviable. It is also clear that when effectively managed the maize grows very well.

While conducting the yield assessment in September a total of 61 OFDT plots were analyzed for yield data. The results for the three varieties are presented below.

**Table 11: Yields of Three Hybrid Lines under Farmer Field Conditions**

Variety	Number of Samples	Average Yield (kg/ha)
KH500-22A	23	4,926
KH500-44A	17	5,725
Longe 6	21	5,038

The results show that even under good conditions, farmers can significantly increase their productivity and produce yields well in excess of those produced using traditional improved production practices of open pollinated varieties and good agronomic practices without the use of fertilizer.

### **3.6. Weed, Pest and Disease Control Using Integrated Pest Management (IPM)**

To develop a comprehensive Integrated Pest Management (IPM) Plan for South Sudan's agricultural sector, The FARM Project engaged an IPM expert who has worked with the Virginia Polytechnic Institute and State University (Virginia Tech) CRISP Program. His work, which started in September 2011, included an assessment and evaluation of crop pests and the IPM methods available for their mitigation; customization of these methods to South Sudan's particular socio-economic, environmental, and farming systems; and the dissemination (and subsequent and ongoing revision) of these methods through development of curricula and training activities with public sector extension workers, FBOs and farmers. The findings of his work were submitted as an annex to the Semi-Annual Report submitted in April 2012. It is

anticipated that the same consultant will return in FY2013 to develop an IPM curriculum and to conduct training at the state centers.

### **3.7. Demonstration Plots**

Demonstration plots show farmers the benefits of improved seed varieties, adoption of best management practices and fertilizer application. During the reporting period, The FARM Project established demonstration plots at state and county levels which are managed by extension workers in collaboration with research technicians.

A total of 10 plots out of a target of 12 demonstration sites were identified. Of these, 1 was selected for state and 9 for county sites located in strategic locations where FBOs were able to attend field days. The aim of these county demonstration plots was to show the improved germplasm that the project was promoting. For 2012, the project also demonstrated the impact of fertilizer on maize yields of both hybrid and open-pollinated varieties.

### **3.8. Mechanized Land Preparation and Land Reclamation**

During the war many farmers abandoned farming. Their fallow lands grew trees as they were left uncultivated for over twenty years. This has made land preparation throughout the Equatorias very challenging. Mechanized land preparation (reclamation, plowing and harrowing) will allow for significant increases in the amount of land under cultivation, and enable more efficient cultivation, planting, weed control and harvest. These, in turn, will increase cumulative production and farmer productivity, and reduce labor requirements, resulting in reduced costs of production and increased competitiveness. Mechanization also will reduce the burden of farm labor, particularly for women and children.

Through the innovative grants facility program, a total of 531 feddans were ploughed through mechanized land ox traction preparation. Although 600 feddans were targeted, challenges continued to be encountered. These included the lack of availability of reliable service providers (tractors) to plough; high costs of ploughing per feddan; frequent breakdowns of equipment; and the unavailability of spare parts for maintenance of equipment. In order to achieve the 700 feddans in the coming months, The FARM Project will undertake a thorough assessment of available service providers both within South Sudan and northern Uganda. Due to the limited availability of working tractors throughout the country, The FARM Project has explored alternative plowing options, such as ox-plows and two-wheel tractors. The two-wheel tractors arrived too late to be effective in the 2012 agricultural season due to the massive biomass growth and the size of the implements. They will be reassessed in 2013. Farmers who have oxen and wish to be trained will be linked to ox trainers to assist with this training.

**Table 12: Land Plowing Target and Results**

State	Target Area Plowed (feddans)	Area Plowed By Tractor to Date (feddans)	Area Plowed by Oxen to Date (feddans)	Area Not Yet Plowed (feddans)	Remarks
Eastern Equatoria	200	130	27	43	Limited number of service providers
Central Equatoria	200	140	32	28	Inadequate tractor service providers
Western Equatoria	200	200	0	0	Limited number of service providers
<b>Total</b>	<b>600</b>	<b>470</b>	<b>59</b>	<b>71</b>	<b>88% achieved with available service providers</b>

Concurrently with improved land preparation assistance, the project established an initiative where it worked with two different farming communities on two 100-feddan contiguous blocks of land that could be cultivated by a community group of farmers. This was done to test a land conservation management model and increase the efficiency of service provision in terms of ploughing. Fifty farmers in Obbo (Magwi County) and Kudaji (Kajo-Keji County) each have been provided with support on land reclamation and ploughing. The land reclamation has been conducted to create a parkland type environment with trees of cultural and economic importance being retained. Not only were the two sites opened during 2012 but the plots were planted during the second planting season. Farmers in Obbo planted Maize and beans while in Kudaji an intercrop of Cassava, sorghum and groundnuts was planted. These fields will soon be ready for harvesting. The project also has worked with MAFCRD to hold a national two-day forum in June entitled “Guidelines and Procedures for ‘Good Stewardship’ Practices in the Rehabilitation of Agricultural Land of the Equatoria Region of South Sudan” which included 115 people representing all ten states of South Sudan who attended the meeting. The guidelines are annexed to this report.

### **3.9. Small Ruminant Program**

The FARM Project undertook two assessments during the year on the goats that had been distributed in 2011. However, under the direction of USAID this program was discontinued as the project was asked to focus on the four basic food crops of maize, sorghum, cassava, and groundnut for the beginning of the project. From project follow-up assessment, the project found that a large number of the kids born through the program have died. Mortality among the breeding stock was attributed to respiratory infection, diarrhea and loss of appetite, although it is likely that some of these were also lost due to theft, relocation, sale or consumption by the families who received them. Inadequate husbandry measures were perceived to be a major factor

in the high mortality rates of the offspring. To obtain closure of the program a final assessment will be conducted in December 2012 and reported in the next semi-annual report.

**Table 13: Goat Distribution During 2011**

Payam	Number of Male And Female Goats Distributed		Number of Offspring	Distribution of Beneficiaries		
	Male	Female		Male	Female	Total
Yambio	47	235	160	24	23	47
Ri-rangu	28	140	132	14	14	28
Bangasu	29	145	9	13	16	29
<b>Total</b>	<b>104</b>	<b>540</b>	<b>301</b>	<b>51</b>	<b>53</b>	<b>104</b>

### 3.10. Rainfall Data Collection

In April and May 2012, the project procured and delivered 27 rain gauges to FBOs in each of the payams where the project is working. Farmers were requested to collect information on behalf of the project and were provided with notebooks for this purpose. While there is no way to measure the accuracy of the information being collected, it does appear that the majority of the meters were recorded accurately. It is not clear why some locations had gaps in data collection with the exception of Kangapo II where the recorder was locked-up for the month of August 2012. The farmers who collected rainfall data will be provided with a stipend of SSP100 for their efforts and as an incentive to continue the program in 2013.

The rainfall data will be further analyzed to determine the effective wet season in each location using data collected from May to September. Data that will be collected in 2013 will be used to establish recommended planting windows for various crops in different locations throughout the Greenbelt.

**Table 14: 2012 Monthly Rainfall Data Collected from  
24 Greenbelt Sites (in mm.)**

Payam	County	April	May	June	July	August	September	Total
CAD Ikwota	Ikotos	128	115	98	100	139	150	730
Katire	Ikotos		82	103	152	318	233	888
Tseretenya	Ikotos	83	125	23	83	207		521
Obbo Magwe	Magwi			149	193	147		489
Moli-Andu-Pageri	Magwi	16	47	110	215	117	140	645
Pajok	Magwi	142	47.5	116	58.5	160		524
Kudo	Torit					89	87	176
Mura Ifwotu	Torit	8	213	120	108	238		687
Ifohu-Imurok	Torit	51	186	235	295	479	93	1,338
Wudabi	Morobo		91	270	277	263	296	1,197
Mugwo	Yei		66	173	425	147	179	990
Otago	Yei		249	109	432	261	175	1,226
Lasu	Yei		137	173	351.5	117.5	114	893
Lire	Kajo-Keji		55	113	192	148	65	573
KangapoII	Kajo-Keji		106	158.	222.		62	548
Gulumbi	Morobo		53	298	352	200	206	1,109
Juba	Juba		107	106	109	127	161	610
Bangolo	Mundri		35	184	224	182	193	818
Kotobi	Mundri		82	124	195	204	162	767
Landilli	Maridi			218	111	217	221	767
Mambe	Maridi			88	119	161	208	576
Maridi	Maridi		41	198	93	262	167	761
Bangasu	Yambio		191	51	139	233	169	783
Rirangu	Yambio		207	37	283	207	174	908
Yambio	Yambio		244	88	103	178	225	838

## 4. COMPONENT 2: TRADE AND MARKETING

### 4.1. Introduction

Markets are critical to the success of any commercial enterprise in the agricultural sector. However, weak infrastructure, poor business linkages and a virtually nonexistent market information system has limited access to markets throughout the Equatorias. The FARM Project has therefore been working to increase smallholders' access to and availability of market services, particularly along critical trade routes. The FARM Project is also undertaking initiatives to improve the legal, regulatory, and policy environment that governs marketing and trade.

Agricultural marketing presents great challenges to many producers who lack knowledge and skills on how to identify, access, evaluate, and plan for marketing opportunities. Among others, reluctance to look for markets, lack of knowledge on existing markets, and difficulties in identifying and addressing market opportunities and constraints warrant the need to build the marketing capacity of farmers and FBOs.

Of even more importance in the development of markets is the availability of a working infrastructure. Within the location in which the project works, areas of high agricultural productivity are cut off from markets by roads made impassable due to either a lack of bridges or a lack of maintenance. Figure 6 below illustrates this point.

**Figure 6: Photograph Illustrating Poor Transport Infrastructure in South Sudan**



## 4.2. Agricultural Trade Fairs – South Sudan

As part of a strategy to spur economic development in a predominantly agricultural economy, the project provided significant support to South Sudan's first agricultural trade fair which was held from the 9<sup>th</sup> to the 12<sup>th</sup> of November 2011 at Nyakuron Cultural Center in Juba. The objective of this significant event was to provide national and international participants the opportunity to facilitate business deals for agriculture products and equipment; they will learn more about investing in the agribusiness sector in the country, and showcase new agricultural technologies and services to one of the fastest growing markets in East Africa. The five main objectives of the fair were:

- To create suitable agricultural linkages with national, regional and international investors;
- To increase market information exchange in agriculture and other related sectors;
- To expose agricultural potential and increase trade opportunities;
- To promote private sector development;
- To promote the use of modern technologies.

At the successful conclusion of the first national Agriculture Fair, the Deputy Minister of Agriculture Honorable Beda Machar Deng informed the participants during his closing presentation that each state should have its own agriculture show and that the winners of each agriculture show at the state level would be invited to the second national Agricultural Trade Fair to be held in November 2012.

In preparation for the Second Agricultural Trade Fair – South Sudan, three different activities were undertaken,

- A manual was produced for the Ministry outlining the steps needed to implement subsequent trade fairs.
- The FARM Project agreed to support one state agriculture fair in preparation for the second national fair. As the program unfolded, The FARM Project was requested to provide training to staff of the three state ministries on how to conduct a trade fair. The project organized a two-day training and planning workshop on how to organize and implement an agricultural show in the 3 states of the greater equatorial region. This was conducted at the end of September 2012. The objective of these trainings was to inform the ministry staff of the overall organizational needs of the fair and the benefit of such an event, particularly to establish sustainable business relationships with business suppliers and input dealers. The training drew participants from MAFCRD, Ministry of Health-Department of Nutrition, Ministry of Animal Resources and Fisheries, and Ministry of Physical Infrastructures-Department of Survey.

**Table 15: Number of Participants for Agriculture Trade Show Preparation and Training**

State	No. of Males	No. of Females	Total
EES	39	4	43
CES	22	5	27
WES	20	0	20

- The FARM Project agreed to provide a consultant to support the development of the second National Fair scheduled for November 27-30, 2012. The Ministry selected the candidate from a candidate pool supplied by The FARM Project and the consultant arrived in country on September 6<sup>th</sup>. The consultant has been based in the MAFCRD and is working with a local coordinator and six Ministry working groups covering protocol, logistics, finance, and communication.

### 4.3. Market Assessments

In order to gauge market users' viewpoints on the extent to which different constraints in market outlets present an impediment to the expansion of trade in key commodities, The FARM Project carried out market assessments. These assessments explored possible resolutions to these constraints and how these resolutions can best be implemented. The focus, wherever possible, promoted private sector solutions through capacity building, grants competitions, and provision of technical assistance.

Based on extensive rapid appraisals of markets in the target states in January 2011, a database was developed in September 2011 to analyze and interpret assessment results. This led to the development of a market assessment tool. In September 2011, a team from The FARM Project travelled to Rumbek in Lakes State to test this tool and assess the capacity and interest of Rumbek traders, who are well placed to provide a potential end market for Western Equatoria State.

A total of 9 market assessments were conducted; nine within the Greenbelt zone in Yei, Morobo, Kajo Keji, Juba, Yambio, Mundri, Maridi, Torit and Magwi. The objective of these assessments was to support farmers to attain market led production, through the identification of impediments to and within agricultural markets and marketing, and to recommend feasible and specific investments and interventions that will resolve key constraints to the function of agricultural markets. Ultimately The FARM Project is looking at measuring gains that can be achieved through such strategies. In preparation for the market assessments the 11 enumerators, who were hired to conduct the assessment, were trained on data collection techniques. They then had the opportunity to practice data collection and have feedback sessions with enumerators. After the assessments had been carried out, that data was entered, analyzed and a report was compiled. The initial findings were shared at an Interagency Coordination Committee (ICC) meeting in March 2012 and the feedback was used to finalize the report. Currently the findings of the report

are being used to design further programs. For example, discussions have been initiated with traders in Mundri, Maridi, Torit and Yambio markets on the standardization of measurements units as this was found to be a challenge in the report. The full report and findings were provided in the April 2012 Semi-Annual Report.

## **4.4. Linking Commodity Buyers To FBOs**

Following the success of the first Farmer-Trader Forums that were held in September 2011 in Yei, The FARM Project continued to bring together farmers and traders in other states as well. The objective of these forums is to create and strengthen business relationships between farmers and traders. In particular, during the reporting period, farmer-trader forums were held in Torit, Kajo Keji, Maridi, Mundri and Yambio. During these forums, farmers and traders have the opportunities to engage with each other, learn about each other's costs and exchange contacts for organizing and conducting business transaction. As a result, the traders, who attended the forums, are now aware where they can source their goods locally and the business relationship between the farmers and traders has been established. They have exchanged mobile numbers and can therefore continue to foster these relationships in the future.

In June, the project led a value chain workshop in Torit linking farmer groups, traders, representatives of the Ministry and representation from the chamber of commerce and microfinance groups working in Eastern Equatoria. The aim of the meeting was to not only link the farmers with the traders but also to try and identify challenges that could be overcome with improved communication. One of the initiatives that resulted from that meeting was the distribution to farmers in the project's FBOs network a questionnaire to outline what commodities were available for sale and the anticipated price. This information was then collected by the project and distributed during August 2012 in time for the first harvest.

The project initiative to try using smart phones to access similar information in Central Equatoria was put on hold due to the budget limitations imposed on the project as well as the absence of a focal staff person in the Juba office with the technical skills to provide oversight and management of the activity. This has been addressed with the arrival of Ojja Silvestro in September and the activity will start in FY2013.

The project also supported farmers to sell produce between April and September 2012 through linking them to institutions such as schools, traders and other organizations that are interested in buying produce. When added to the totals reported in the Semi-Annual Report, the totals are as follows:

**Table 16: Value of Crop Sales Supported by  
The FARM Project for 2012**

State	Crop	Volume (kg)	Value (SSP)	Value (SSP per kg)	Value (USD)
WES	Maize	12,500	31,250	2.5	\$10,081
	Sorghum	1,700	2,890	1.7	932
	Cassava	0	0	0	0
	Groundnuts-unshelled	2,430	9,720	4.0	3,531
EES	Maize	3,805	6,088	1.6	1,964
	Sorghum	1,508	2,412	1.6	778
	Cassava	0	0	0	0
	Groundnuts-unshelled	1,891	6,618	3.5	2,135
CES	Maize	37,400	74,800	2.0	24,129
	Sorghum	1,800	3,240	1.8	1,045
	Cassava	0	0	0	0
	Groundnuts (Unshelled)	25,787	77,362	3.0	24,955

Dollar rate; 3.1 SSP per 1 USD

During the year, local traders were identified and linked to farmers in Yei, Maridi, Yambio, Mundri, Kajo Keji and Torit. Thus, through this FARM initiative, 20 FBOs have been linked directly to traders. The overall quantities and value of produce sold to traders with support from the FARM Project in the Greater Equatoria region is shown in the table below:

**Table 17: Value of Crop Sales Sold to Traders  
Through Project Support**

Produce Type	Volume Sold (kg)	Value (SSP)	Value (SSP/kg)
Maize	170,580	345,888	2.03
Sorghum	22,510	43,546	1.93
Groundnuts (Unshelled)	72,829	264,584	3.63
Cassava Chips	3,700	7,400	2.00

There are two observations from the above table. The first is the relatively high price being reportedly paid for maize and sorghum. At the official rate this translates to a cost per ton of \$670 for maize and \$637 for sorghum. If marketing is to be competitive with imports from

Uganda then the wholesale price of grain will need to fall significantly. The second observation is the relatively small quantity of cassava that has entered into the market through The FARM Project's FBOs. This would imply that cassava is the food security crop of choice and farmers produce it to address their nutritional needs. In 2013, this economic data will be linked with the production data to determine the efficiency of production for the four crops.

## **4.5. Value Chain Interventions**

Given the very high price of commodities, adding value needs to be contextualized into those activities that will allow further capital appreciation for the farmers and those activities that will preserve wealth. One of the major thrusts in the second half of FY2012 has been the development of a program to train local farmers to process cassava into cassava chips using a method practiced in Uganda. Fourteen groups in Morobo County were trained in how to produce cassava chips and the trainers, who are farmers in their own right, have also extended their services to other organizations to promote chip production in other parts of South Sudan.

One of the major challenges moving forward is that TME 14 which is the variety that The FARM Project has been promoting because of its high yield and resistance to Cassava Mosaic Virus (CMV) does not store well in the ground and needs to be processed to retain its productivity. The project is working out how to expand access to cassava processors to mechanize the process of harvesting and processing cassava chips.

A training guide that has been developed for cassava chip processing which is available upon request.

## **4.6. Farming As A Business**

During 2012, The FARM Project conducted six (6) Farming as a Business (faab) Training of Trainers' workshops to 170 members of lead FBOs and 25 extension workers; with an objective of providing basic financial and business management skills to improve the trading and marketing capacity of lead farmer groups. The farmers selected for the trainings represented progressive farmers groups which are committed to improve farm productivity for market opportunities.

The participants were introduced to various farm records they can put in place to track farm costs and revenues to effectively make pricing decisions for their produce, and also help them concentrate on profitable crops to increase production.

The trainings provided an opportunity for farmers across the three counties in a state to share experiences on farm costs. It identified logical ways of bringing down cost before putting a unit of produce to the market.

The participants were also introduced to topics such as effective group formation, governance, and leadership to ensure that farmers' groups are properly managed to benefit members through the sharing of common costs and storage, jointly market produce and access financing.

The participants rated highly the knowledge, skills, and experiences shared in the trainings and expressed commitment to use and transfer the knowledge gained to improve group business capacity. One of the motivational farmers from Mundri who attended the training had the following to say;

*“The FARM Project has provided us with valuable business skills that we shall definitely apply to ensure that we get best returns out of our farms. We now know how to track our costs and set prices based on cost of production per unit. We are also enlightened that traditional farming approaches such as communal labor carries high costs in terms of in-kind-payment and thus puts us out of profitability; something we shall now be doing differently” - Rev Paul Mbori*

## **4.7. Post-Harvest Handling, Storage And Processing Technologies And Management For Staple Crops**

A key component of the program is the promotion of improved post-harvest handling, storage and processing technologies and methods. These practices have the potential to help reduce post-harvest losses, which are consistently high in South Sudan and account for considerable crop loss each year. To assess which intervention is most suitable for the South Sudanese context, in terms of ease of production, dissemination and efficacy, The FARM Project had planned to test a variety of different storage options at a state and county level.

During the reporting period, locally improved cribs were constructed for trial purposes. These cribs, based on models currently in use in South Sudan, represent simple but effective improvements, focusing on increasing drying rates while reducing losses due to insect, rodent, and rain damage. These cribs were designed to be affordable, durable, and practical and easy for farmers to erect and maintain. To show their ease of construction, two farmers will be brought to Torit to construct one of the cribs during the Eastern Equatoria agriculture show.

Because of the high level of post-harvest losses, that have been estimated to be as high as 45%, the project attempted to test alternative technologies that were available on the market to see how well they could preserve grain that had been harvested and dried. These included:

1. GrainPro Zip-up Mats: These mats made of synthetic materials are relatively low-cost and have the ability to increase drying rates, reduce exposure to pests, and protect the grain from adverse climatic conditions as they have zip-up covers that can be closed during periods of rain. Depending on the results of these mats during the evaluation phase, additional purchases and distribution will be pursued as appropriate.
2. GrainPro hermetically sealed GrainSafes: This product provides an oxygen deficient environment that precludes the multiplication of weevils. The GrainSafes have been distributed to the state and county demonstration plots for evaluation as an alternative

storage option. Results of the test will be reported and used to determine whether this option serves the interests of South Sudanese farmers.

3. **Smallholder-Sized Silos:** This alternative storage mechanism is an important element of The FARM Project's post-harvest commodities handling and processing activities as they offer a low-cost solution to on-farm grain storage. The model that is being used to compare with the other alternatives was developed through CIMMYT's Effective Grain Storage Project in Kenya which aimed to manufacture a simply-designed silo made of galvanized steel that can be produced using local artisans making them a potentially sustainable technology.

Twenty four FBO members have been identified across the three states, according to specific criteria, to be the beneficiaries of grants from the IGF and receive grants to test the drying equipment for the FARM Project. Additionally, testing equipment for aflatoxin, moisture, and oxygen were procured and distributed to the county Extension Officers. Pictorial training manuals for this equipment have also been developed. However, due to unforeseen delays, the storage equipment will only be tested with the harvest from the second cropping of the 2012 season, instead of the second cropping of the 2011 season.

Markets are critical to the success of any commercial enterprise in the agricultural sector. However, weak infrastructure, poor business linkages and a virtually nonexistent market information system limit access to markets throughout the Equatorias. The FARM Project has therefore been working to increase smallholders' access to and availability of market services, particularly along critical trade routes. The FARM Project is also undertaking initiatives to improve the legal, regulatory, and policy environment that governs marketing and trade.

Agricultural marketing presents great challenges to many producers who lack knowledge and skills on how to identify, access, evaluate, and plan for marketing opportunities. Among others, reluctance to look for markets, lack of knowledge on existing markets, and difficulties in identifying and addressing market opportunities and constraints warrant the need to build the marketing capacity of farmers and FBOs.

## 5. COMPONENT 3: CAPACITY BUILDING

### 5.1. Overview

Capacity building is fundamental to The FARM Project's mission. The project's capacity building strategy is based on an understanding that true and transformational learning is an iterative and developmental process in which information must not only be received (such as through a training) but also retained, assimilated, evaluated and adapted to the unique needs of each person. As such, multiple capacity building interventions are being employed in an integrated manner, with their deployment strategically aimed at catalyzing lasting behavior change—whether it is the adoption of new cultivation techniques, the consideration of market opportunities in planting decisions, or other changes that The FARM Project seeks to promote.

During this reporting period, The FARM Project continued to identify and organize project beneficiaries, assessing their capacities and needs, and structuring a program of coordinated interventions to achieve specific capacity building objectives. Both public and private beneficiaries are targeted by these interventions; in the public sphere, policymakers and the extension service providers are the primary beneficiaries; in the private sphere, the primary target is producers. The capacity building component addresses specific needs that have been identified in technical, managerial, and organizational development areas, among others, through a series of integrated interventions. These interventions are designed to support both the production and the marketing component in The FARM Project.

During the period under review, a second series of field-based training was conducted in all project implementing areas, targeting 310 FBOs with membership of 6,695 farmers who are seed beneficiaries. During the training, class and field training on improved handling and seed planting to maximize yields was conducted.

The following production technologies for maize, sorghum and groundnuts were provided through field trainings:

- land preparation;
- use of tractors or animal traction on land from which the stumps have been removed,
- planting;
- weeding;
- witchweed (*Striga spp.*) control in maize and sorghum;
- birds control in sorghum;
- harvesting;
- drying;
- marketing of surplus production;
- preservation of seed.

Additionally, 5,873 farmers were beneficiaries of seed through the On-Farm Demonstration Trials which were conducted to demonstrate the benefits of planting hybrid maize seed with Di-

ammonium phosphate (DAP) and Urea provided as a top dressing. As part of this program, 300 motivational farmers were identified to lead the exercise for which they were each supplied with a bicycle by the project to provide outreach to their targeted farmers.

## 5.2. Training Of Trainer Model

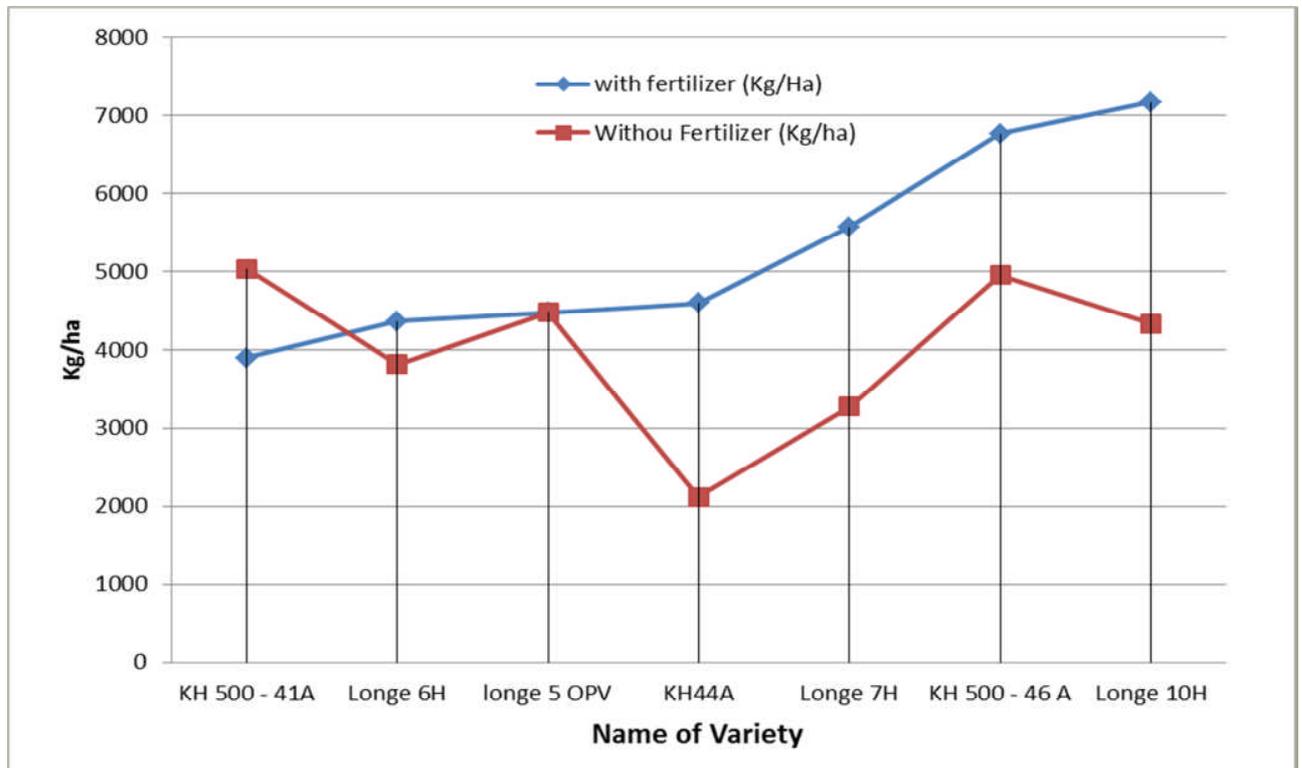
To disseminate training in specific areas, The FARM Project applies a Training-of-Trainers (ToT) approach. The trained members are expected to train others at the payam level. The FARM Project ToT trainings are mainly targeted at extension agents and MAFCRD staff from extension, rural development, cooperatives, plant protection and post-harvest areas. During 2012, The FARM Project also made a concerted effort to train local NGOs and some FBO lead farmers. In particular for the OFDTs, 300 motivational farmers were trained so that each would be able to disseminate the information to up to 25 of their fellow farmers. The trainings at the state and county level are conducted in English. ToTs aim to provide the core technical staff with best-practice skills in various areas of production and farming as a business. The participants are then qualified to transfer their skills through trainings for FBOs, lead farmers and producer groups at the payam level, often in the vernacular language. With the hiring of the payam extension agents and their deployment in June 2012, these project staff have taken a lead role in dissemination of training information.

The methods used in all ToT trainings, include the following:

- participatory group discussion and plenary presentations;
- pre- and post-training testing of participants and correction of results;
- hands-on practical application in the field;
- question and answer sessions;
- presentation and exercises with the aid of handouts;
- sharing of experiences in the sessions; and
- field visits and practical demonstrations of technologies in the field.

During FY2012 one exchange visit was conducted. This was for farmers from Central Equatoria state (Kajo-Keji and Yei/Morobo) to travel to Moyo and Arua respectively to meet other smallholder farming groups in Uganda. Many farmers were also brought to the county demonstration plots to see the practices being promoted by the project. The county demonstration plots provided a very useful venue to demonstrate good agronomic practices. The graph below shows the impact of fertilizer on different maize varieties, including several hybrid lines that have been promoted by the project.

**Figure 7: Comparison of Maize Productivity With and Without Fertilizer Use on Project Demonstration Plots**



Unfortunately because of theft and damage by wild animals, some sites allocated by the MAFCRD could not be harvested or yield useful results to the project. More rigorous selection criteria will be used in 2013 for the selection of these sites.

### **5.3. Training On Appropriate Application Of Improved Technologies And Management Practices**

Several trainings were conducted during the course of the past year. These emphasized the importance of good agronomic practices and were conducted at state, county and payam levels. The details of the trainings undertaken during the course of the year are summarized in Appendix B.

In addition to GAP training, the following courses were offered during the course of the year:

**On Farm Demonstration Trials:** This was a joint project between IFDC and The FARM Project. At the initiation of the program, IFDC contracted a group of artists to make posters and

to come and train 50 participants who would then be the lead trainers in the implementation of this activity. Unfortunately this training was not coordinated with The FARM Project and the number of people trained was less than the 300 recommended by the project. Also the trainers were unable to answer many of the technical questions regarding the use of fertilizer. The FARM Project therefore initiated training at the county level identifying 300 motivational farmers who could then each train approximately 20 farmers in the correct use of hybrid seed and fertilizer. Farmer practice results during the 2012 planting season suggest that additional training is needed on the separation of seed and fertilizer during planting to avoid the killing of seed embryo.

**Aflatoxin Training:** The project recognizes that if farmers are to provide high-quality grain to the market, not only do the farmers need to practice good husbandry practices but also good storage practices to ensure that grain does not develop mould and weevils are kept at bay. Additionally, the Greenbelt Initiative is in an area where *Aspergillus flavus*, a fungus that is present in the soils and gives rise to aflatoxin poisoning that is implicated in stunting and debilitating illnesses such as stomach cancer, is prevalent. The project provided training to extension and county agriculture staff on how to undertake the testing of Aflatoxin with currently available test kits.

**Value Chain Training:** The project has been undertaking farmer trader forums largely to try and source the availability of surplus produce and affect its sale. However, there is a clear need to expand the market aspect into a broader discussion how commodities can be more efficiently produced, harvested and prepared for market. The major thrust in 2012 was the development of Uganda style cassava chips. Fourteen FBOs were trained in how to produce high quality cassava chips that attract a premium in the marketplace. The training was focused on Morobo County.

**Two-wheel Tractor Training:** Given the new nature of this equipment, training was undertaken in February 2012 for 24 farmers from 12 FBO's where the machines would be used because of the lack of service providers in the area. A four-day training was extended to one week so that all participants could understand how the machine works and how to operate it in a safe and effective manner. There were delays getting the two-wheel tractors out to the field and they were finally dispatched at the beginning of May 2012, too late to be highly effective for ploughing in the high biomass environment of the Greenbelt. However, they will be further tested during the first rains of 2013 to see how they can best be used.

**Farming as a Business Training:** The program aimed at helping farmers understand the business and management challenges to overcome to realize a successful and sustainable farming enterprise. In particular, focus was placed on three particular aspects:

### **a) Organizational Development**

The development of farmers capacity to bulk and market produce is very vital to the realization of the project's goal. The FARM Project carried out capacity building activities that will enhance farmer capacity to organize and market produce. Such activities shall include;

- i. *Formation of farmer cooperative organizations* (farmer Coops) with relatively large number of members (21-100) who can pool adequate share capital to invest in important farming infrastructure without affecting control of management;
- ii. *Re-structuring of productive and existing farmer Coops* to improve management and organization for sustainable marketing;
- iii. *Leadership & Governance training of farmer Coops* to ensure effective decision making and value for money implementation of planned group activities;
- iv. *Basic financial & business skills training* to orient members to look at farming as a business to improve farmer Coops' financial & business management skills, improve book keeping capacity to properly track and manage costs, and strategically plan for profitable group investments.

### **b) Institutional Systems Development**

To consolidate on the organizational development aspects outlined in 5.3.a above; the project will carry out the following specific technical assistance support on a case-by-case basis to improve the institutional capacity of model farmer Coops developed;

- i. *Support Model Coops to establish proper record keeping systems* that include financial accounting & reporting, warehouse management, asset tracking, etc. The systems would be manual in the short-run with ease of transition to computerization as the coop develops;
- ii. *Support Model Coops to establish an organizational structure* supportive of systems developed with leadership and governance roles clearly defined to encourage transparency and accountability for group resources and earnings;
- iii. *Support Model Coops develop Strategic Business Plans* with clear objectives that are easily measurable and verifiable; such Business Plans would be used to obtain credit financing to widen the base of the Coop for larger investments and larger scale production and marketing;
- iv. *Adopt behavioral Change approaches* to re-focus farmers' attitude and thinking away from relief aid to farming as a business and self-sufficiency. Through organizing exposure visits & tours to successful farmer Coops; organizing business discussion symposiums among peer farmers, and radio talk shows on farming as a business etc.

### **c) Business Opportunity Enhancement**

To enhance the farmers' ability to be successful in the market place, The FARM Project will provide the following supports:

- i. *Farmer-Trader forums* to negotiate produce price and to create; sustainable, honest and mutually beneficial farmer-trader relationship. Farm gate prices are significantly higher than in Uganda and getting farmers to understand price competition is imperative;
- ii. *Linking farmer Coops to important support services* such as tractor hire; seeds/tools supply, and fertilizers;
- iii. *Linking farmer groups to financial services* to encourage members to save and seek loans, and support payment transfers for Coops' imports and exports;
- iv. *Local Trade Shows & Exhibitions such as Market Open Days.*

## **5.4. Improve Producer Organization Business and Management Skills**

The FARM Project continues its work to improve producer organizations' capacity through a staged process of needs assessment, assistance with formal registration, capacity strengthening and business planning programming, and a competitive grants program that will allow FBOs to make targeted investments that will help increase their viability and competitiveness as businesses. It had been proposed to undertake an assessment of all FBOs to determine those with the appropriate management skills but a reduction in project funding prevented this assessment from being conducted during the previous work plan year.

The project has identified three types of FBOs based on their organizational structure. These include type one organizations that work predominantly as subsistence organizations being formed to access inputs. The second group is those with a volunteer leader who tends to control the activities of the FBO and does not readily allow a high level of dialogue among its members. The third group consists of organizations that have systems that allow the organization to work effectively and hopefully will be able to form cohesive operating partnerships. Table 18 below shows the number of FBOs that have been identified in each cohort from the small sample of 55 of the 310 overall FBOs that have been assessed.

**Table 18: Geographic Distribution of Assessed FBOs by Level of Organizational Development per State**

Type of FBO	Western Equatoria	Central Equatoria	Eastern Equatoria	Total
1. Subsistence	10	3	3	16
2. Volunteer Leader	11	6	9	26
3. Cohesive	8	4	1	13
Total	29	13	13	55

The below table describes the characteristics in more detail of the three different types of clusters in which the FBOs will fall under:

**Table 19: Description of Three FBO Cohort Classifications**

Cluster	Characteristics
<b>FBO Type 1:</b> Subsistence Farmer Organization (SFO)	<ul style="list-style-type: none"> <li>• Members loosely associated to access common support services and grants facility;</li> <li>• Sole purpose of production is for food security with limited surplus to market during good harvests;</li> <li>• Members involved in independent production and marketing of surplus produce, if any;</li> <li>• No subscriptions or share of dividends by group members, the earner takes it all.</li> </ul>
<b>FBO Type 2:</b> Volunteer-Led Farmer Organization (VFO)	<ul style="list-style-type: none"> <li>• Not registered as a legal entity, but recognized by local authority as a farmer group active in production and marketing of common produce;</li> <li>• Has some form of group norms or rules that are either documented or verbally known by all members;</li> <li>• Has appointed board that voluntarily serves the interests of the members;</li> <li>• Has technical management team with clear scope of work and guidelines;</li> <li>• Conducts regular meetings to discuss progress of group work and provides guidance to members;</li> <li>• Does not have written business plan but members know what crop enterprises or animal husbandry they are producing and marketing;</li> <li>• Members contribute fees and other forms of subscriptions to finance common group activities;</li> <li>• Actively involved in group and individual member production with surplus jointly sold to the market.</li> </ul>
<b>FBO Type 3:</b> Functional Farmer	<ul style="list-style-type: none"> <li>• Is formally registered and recognized as a primary farmer cooperative or private farming enterprise with legal entity to trade;</li> <li>• Has Bylaws, Memorandum of Understanding (MoU), and Standard Operating</li> </ul>

Organizations (FFO)	<p>Procedures (SOP);</p> <ul style="list-style-type: none"> <li>• Has strategic plan with clear vision , mission and objectives;</li> <li>• Has share capital fully or partially subscribed by members;</li> <li>• Has Board of Directors that are elected and functional with clear roles and responsibilities;</li> <li>• Has technical management team with clear scope of work and guidelines;</li> <li>• Has incentives or rewards to members elected to the board or appointed to the management committees;</li> <li>• Conducts regular board and management meetings to discuss group plans and performance;</li> <li>• Actively involved in production and marketing of group and individual member produce;</li> <li>• Maintains clear records on the activities and transactions of the organization, with regular and accurate reports presented to members.</li> </ul> <p>Declare periodic share of dividends and losses by members.</p>
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## 5.5. Facilitation of FBO Establishment

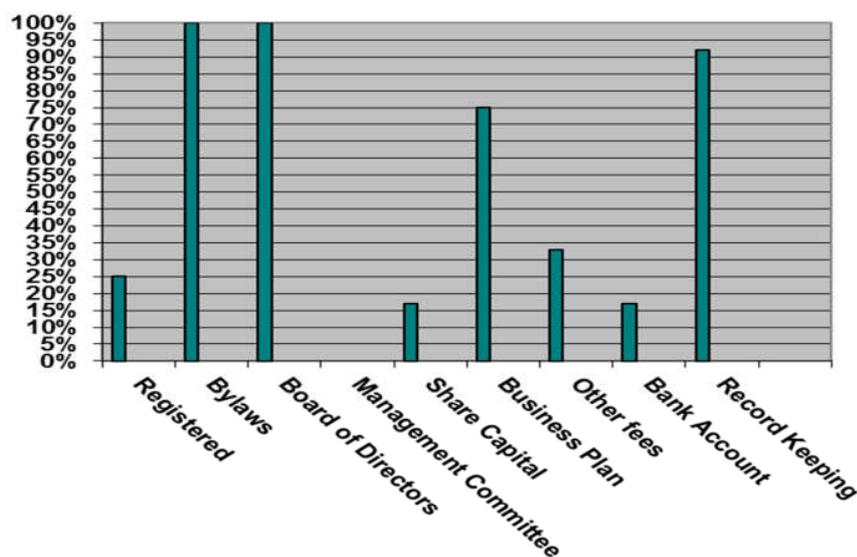
For maximum impact, The FARM Project works with cooperatives, groups, and associations collectively referred to as Farmer-based Organizations (FBOs). In order for the project to effectively work with these groups, it will further assess and invest in developing the capacity of these groups from both institutional/organizational and technical fronts.

The FARM Project provided institutional capacity building assistance to these FBOs in close collaboration with the County Agricultural Department and the State Cooperatives Department during the past year. Through its assessment findings, The FARM Project is advising FBOs on the following:

1. Registration;
2. Group Formation and Development;
3. Developing capabilities and procedures for internal management;
4. Developing group constitutions/bylaws;
5. Preparing business plans;
6. Opening bank accounts, and;
7. Holding elections.

A summary of the achievements to date of the FBOs assessed in Eastern Equatoria is shown below. As outlined, the areas with the lowest uptake are registration and the presence of share capital but FBOs have made good progress to develop bylaws and establish boards of directors. More analysis from the other regions is ongoing as the cohort of assessed FBOs increases:

**Figure 8: Results of Initial FBO Assessment in Eastern Equatoria Regarding Status of Organization Development**



As of September 2012, the number of FBOs has increased to 310 with a total membership of 6,695 beneficiaries of whom 2,331 (34.81%) are women. A summary of FBO beneficiaries is provided in Table 20 and a full list of FBOs is provided in Appendix C.

**Table 20: Distribution of Project's FBO Network through September 2012**

County	Total Number of FBOs	Total Number of Farmer Beneficiaries
Ikwoto	25	489
Magwi	48	1,120
Torit	30	752
<b>EES Subtotal</b>	<b>103</b>	<b>2,361</b>
Yei	38	807
Morobo	30	569
Kajokeji	34	961
<b>CES Subtotal</b>	<b>102</b>	<b>2,337</b>
Yambio	34	757
Maridi	34	571
Mundri West	37	669
<b>WES Subtotal</b>	<b>105</b>	<b>1,997</b>
<b>Total</b>	<b>310</b>	<b>6,695</b>

## **5.6. Farmer To Farmer Field Tours**

To help farmers interact and learn from each other, 10 progressive farmers, including 3 female farmers, from Kajo Keji, Central Equatoria State, accompanied by project extension staff and an extension officer from the County Agricultural Department, had the opportunity to travel to Moyo and Adjumani in Northern Uganda. The objective of this trip was to introduce farmers in South Sudan to their counterparts in Northern Uganda and allow them to observe and learn from the recommended agronomic practices and improved technologies that the Ugandans are implementing. The technologies that were introduced included post-harvest handling, agro-processing, marketing and seed production among others. Furthermore, by bringing them to Northern Uganda, smallholder farmers became exposed to potential regional markets.

The team visited 14 farmers' associations, farmers groups and individual progressive farmers. Seeing how farmers could come together in organized structures inspired the progressive farmers from Kajo Keji. They are now aspiring to further strengthen their farmer-based organizations through improved record-keeping and work planning with the ultimate aim to bring them together into larger associations and cooperatives.

The farmers were also able to learn about processing and value addition with maize and cassava, in particular. One method used by the Ugandan farmers is to pool their harvests together to sell to traders in bulk. They do this in order to raise their negotiation power for prices. This system is very well engrained and impressed the farmers from South Sudan. Furthermore, they learned about the market information systems being used by the farmers in Uganda.

In Adjumani, the farmers were able to visit an AGRA-supported project where progressive farmers were mobilized to purchase a grain mill. This collective action, both in terms of value addition and in terms of marketing and selling the goods, has encouraged The FARM Project farmers to strengthen their efforts to emulate the model. The farmers in Uganda were impressed with the South Sudanese farmers and are interested in visiting their farms and FBOs in Kajo Keji.

## **5.7. Improve Capacity of Public Sector for Development of Enabling Environment to Support Market-Led Agriculture**

During the reporting period, many of the project's activities to support improvements to public sector service provision will be continued from year two. Co-location between project field staff and MAFCRD has continued, allowing for joint engagement and learning.

As part of the yield assessments, The FARM Project worked closely with government officials from the County Agricultural Department (CAD) and extension workers. To build their capacity to carry out yield and other similar assessments, project staff trained the extension workers and government officials in data collection and other statistical techniques. This includes sampling

methods, taking weight measures, moisture measures and other techniques. Being an active member of the yield assessment team allowed the government staff to become acquainted with various statistical concepts as well as the procedures of the assessment. The trainees also learned how to use a moisture meter and a GPS tracking device and noted that this hands-on approach was very effective in helping build capacity.

Also this year, The FARM Project met with each of the State Ministries of Agriculture and Forestry to discuss its annual work plan for 2013. These two-day meetings held in Torit, Juba and Yambio highlighted areas of mutual cooperation and there was support for The FARM Project to focus activities at the county level in terms of support for the A/Commissioners for Agriculture in the nine counties where the project works.

## **6. CROSS-CUTTING ACTIVITIES**

### **6.1. Policy, Legislation And Regulatory Framework**

The FARM Project focuses on improved agricultural productivity, food security, enhanced rural markets, and capacity development. For all these components to effectively be accomplished there is a need to develop a conducive environment through a sound and effective policy framework.

During the course of the year the project finalized three draft policies (fertilizer, horticulture and mechanization), developed two new policies (marketing and rural finance) and produced an overarching policy framework that built upon an initial draft provided by FAO in 2011. A regional consultant was contracted to finalize the three draft policies and to develop the new overarching policy. By the end of FY2012, the overarching policy had been approved by the council of ministers though the sector policies were still being finalized. A workshop is being organized for FY2013 to finalize the 6 outstanding policies developed under this project.

### **6.2. Synergies With Donor And Rss Partners**

The development community in South Sudan is relatively large. There are many donors and implementing partners involved in livelihoods activities, which means there are both a number of actors to coordinate with and a great number of opportunities for collaboration. In order to minimize the possibility of duplication and to ensure greater impact, The FARM Project has actively engaged partner organizations and forged strategic partnerships in the past reporting period.

#### **6.2.1. AGRA and IFDC**

The FARM Project has worked closely with AGRA and IFDC on numerous projects as part of the USAID Greenbelt Initiative. This included but was not limited to the incorporation of Agro Input Dealers at The First Agricultural Trade Fair – South Sudan, coordination of reporting, led by The FARM Project, for the Agricultural Weekly Highlights, the On-Farm Demonstration Trials and joint farmer selection for the IFDC voucher program. The FARM Project, AGRA and IFDC also held a joint meeting for high-level national government officials, state government officials and officials from the County Agricultural Departments throughout the nine counties in which The FARM Project operates, to introduce hybrid seed and fertilizer. This meeting was to garner the support for the OFDTs which were implemented in FY2012. Collaboration is ongoing.

## 6.2.2. Other NGOs

To expand the geographical reach of the OFDTs and therefore the number of farmers who benefit, The FARM Project held numerous meetings with other development partners and NGOs who are operating in the Greenbelt region to ascertain whether they had farmers who wanted to partake in the OFDTs. This included meetings with World Relief, CHF, the Mundri Relief and Development Association (MRDA) and Fulaa, with the latter organizations being local NGOs. Ultimately, CHF farmers, in Morobo County, and Fulaa farmers, in Magwi County, were involved in the OFDTs. Together these two organizations distributed seed and fertilizer to 520 farmers.

The FARM Project has also worked closely with FARM Africa which is developing the productive capacity of farmers to produce cassava that can be sold to a processing company Dadtco. Dadtco has a brewery venture in South Sudan which will produce starch from cassava for the purpose of brewing beer. Not only is the project distributing high yielding germplasm but also training farmers in cassava processing and then letting FARM Africa hire these trained farmers to train other groups.

## 6.2.3. Coordination

The FARM Project participated in the MAFCRD's monthly Internal Coordination Committee (ICC) meetings until they were curtailed in the middle of 2012. It was agreed in May 2012 that the Ministry would resurrect the Project Coordination Committee (PCC) for FARM but despite high level involvement from a range of agencies, the terms of reference of the committee were not developed during the remainder of the year. Efforts will be made to resurrect the PCC in 2013 since there continues to be complaints that MAFCRD staff are unaware of project activities.

## 6.2.4. Other Donors and UN Agencies

The project has held meetings and discussions with GIZ (German International Development) to discuss collaboration particularly in Morobo District where both FARM and GIZ implement programs. In particular we are looking at more closely coordinating our value chain activities. The project has also held discussions with the Government of the Netherlands who intend to support cassava processing through the Dutch Private Sector Company Dadtco. Discussions are ongoing with both WFP and FAO to try and coordinate grain and seed purchases within the project's operational areas. This will be expanded in 2013 as The FARM Project will try to source seed from the project's FBOs within South Sudan and the cooperative warehouses expand marketing in their areas of project operation.

## **6.3. Agricultural Behavior Change (AgBC®)**

During the reporting period, twenty-six public service announcements (PSAs) on agricultural best practices overall, and for maize, sorghum, groundnuts and cassava specifically, were developed. These were done in conjunction with the Sudan Radio Service. After the initial scripting of the messaging a six-month process ensued, during which the state ministries of agriculture in Central, Eastern and Western Equatoria State vetted all the messages. The changes were consolidated and the final scripts were translated into eight vernacular languages (English, Simple Arabic, Madi, Acholi, Toposa, Lotuka, Bari, Zande, Baka and Moru). Each of the translations was vetted by the local governments as well, with only one (Toposa) requiring re-recording. The messages then went on air on local and national radio stations to correspond with the different stages of the agricultural cropping season. The messages for Eastern Equatoria were delayed due to the aforementioned issues with the Toposa translation and also the State Ministry of Agriculture wanting to air the messages themselves through government radio but at a fee that was higher than the private radio station that operated in only part of the state. This issue will be resolved in FY2013. The effectiveness of this messaging will be monitored at the end of the cropping season, during harvest.

## **6.4. Grants**

The Grant Component with a budget of USD 5 million continues to serve a very important role in support of The FARM Project's three technical components. The FARM Project developed a grant infrastructure in the first year of the project during which grants supported the Phase 1 and 2 seed distribution for the first and second agricultural growing seasons of 2011 through the issuance of in-kind grants to FBOs. It continued this support through the issuance of in-kind grants during the Phase 3 and 4 seed distribution for the two agricultural growing seasons of 2012. The FARM Project continues to develop grants opportunities where other types of agricultural inputs are provided to FBOs within the agriculture sector. This has included plowing, walk-behind tractors, post-harvest storage facilities, and land reclamation grants.

The FARM Project also continues to work with newly selected FBOs to assist them to register so they meet eligibility requirements for grant consideration. The local organizations not fully registered by the time of grant execution are required to be certified by local government offices as a legitimate FBO eligible to receive grant resources from The FARM Project. They are also were required to commit to pursuing registration with the Government.

### **6.4.1. Phase 3 and 4 Seed Grant Reviews**

There are various milestones that are specified in the in-kind grant letters and those have to be achieved during the time of implementing a particular grant. For seed grants, the milestones are as follows:

1. Land preparation;
2. Seed distribution and planting;

3. Yield monitoring and assessment (from planting to the measurement of the yield itself);  
and
4. Cost-share contribution.

Phase 3 Grants: The FARM Project issued grants to FBOs for an in-kind seed supply of maize, groundnuts, imported cassava stem and limited beans and sorghum. Both Milestones 1 and 2 were completed during the reporting period. Yield measurements are now becoming available for Milestone 3. As part of yield measurements, yield assessment forms are being sent to the FBOs to fill out with the help of The FARM Project staff. Arrangements are also currently being made to verify Milestone 4 cost share contributions. In order to do this farmer, contribution lists are sent to the FBO management who works with The FARM Project staff to collect the 30 percent contributions outlined in the grant agreement.

Phase 4 Grants: The FARM Project issued grants to FBOs for an in-kind supply of local cassava TME 14 stem as well as additional maize and groundnut grants.

## 6.4.2. Plowing Grant Review

In Year 2, 76 Fixed Obligation Grants (FOGs) for plowing were executed and all were implemented and closed during this reporting period. The FBOs receiving plowing grants each received between 5 and 20 feddans of plowing support. The FBOs engaged the services of local tractors to plow land under these grants. The size of the grants ranged in value from the equivalent of USD 433 to USD 2,040. All grant recipients were required to provide in-kind equivalent matches from USD 130 to USD 612. At this time, 529 feddans have been plowed through 76 ploughing grants issued to plow 600 feddans of land in the three Equatoria states. Furthermore, FOG letters were modified to take into consideration an unexpected increase in fuel costs due to the closing of the fuel supply from Sudan. Final verifications are being carried out on grants where the land has been completely plowed.

## 6.4.3. Goat Breeding Improvement Grant Review

The FARM Project continued to monitor the three in-kind grants issued in the previous reporting period for the goat-breeding program in Western Equatoria. The grants provided between 168 and 282 goats to three FBOs in Western Equatoria ranging in value from USD 18,920 to USD 29,735 per grant. A total of 624 goats were purchased through a competitive process from a vendor in Juba. The grants are entering into the final 6 months of the grant period and a final evaluation of the three grants is scheduled for December 2012. Interim reports from FARM staff have indicated mixed results for the grants.

## 6.4.4. Walk-Behind Tractors Grant Review

Eleven In-Kind Grants for walk behind tractors for a total value of \$64,402 US were implemented during this reporting period. The selected FBOs received a grant in the value of

\$5,855 US for a walk-behind tractor and accessory equipment valued at \$5,610 with a cash payment of \$245 US for an initial supply of grease, oil, and fuel for the startup use of the tractor. The walk behind tractors' accessory equipment included: double blade plow, double blade disk, a harrow unit and a small wagon. Trainees were selected and trained in Juba for one week before returning to the FBO with the equipment which was delivered by project-provided transportation. At this time, the 11 grants will receive continued evaluation during the 2013 planting season. If evaluation results are positive, more mechanized grants will be considered for the next agricultural season.

### **6.4.5. Post-Harvest Storage Grant Review**

Twenty four In-Kind Grants for post-harvest storage for a total value of \$46,872 US were implemented during this reporting period. The selected FBOs received post-harvest grants for storage equipment that was valued at \$1,953 US. The equipment included: Improved traditional grain storage unit, a GrainPro Safe II unit, a GrainPro Drying unit, and a metal storage silo. At this time, the 24 grants are being evaluated as the selected FBOs are using the units for yields from the first and second harvest of this year's agriculture season. With positive evaluation results, more post-harvest grants will be considered for the next agricultural season.

### **6.4.6. Land Reclamation Grant Review**

Two In-Kind Grants for land reclamation for a total value of \$121,777 US were implemented during this reporting period. The Kudaji and Obbo Farmers Groups received grants for \$60,721 US and \$61,056 respectively. The objective of these two grants was to pilot an environmental friendly and sustainable agriculture model of reclaiming fallow land that was previously cultivated prior to the war. The project identified two community groups each comprised of 50 farmers. Each farmer received 2 feddans of reclaimed and ploughed land within a contiguous 100-feddan block of land funded through each grant. Under the grants, each group received services from local companies to clear bushes and trees and to plow the land, and to receive a variety of seeds for planting in the 100 feddans. An additional 2 to 3 land reclamation grants are being considered for the next agricultural season.

## **6.5. Geographic Information System**

The FARM Program is making use of Geographic Information System (GIS) technology as an aid for pre-programmatic assessment, decision-making, monitoring, evaluation, and reporting. To accomplish these tasks, The FARM Project started developing a database of its programmatic activities using GPS measurements. Furthermore, information files for the area of South Sudan have been acquired in order to start mapping project activities. The FARM Project will continue with these activities and start mapping its FBOs.

During the year geographic information system data was collected from all of the initiatives being undertaken by The FARM Project including data on the farms being selected for the yield assessment, the farmers who were assessed by the Catholic University of Wau interns who

worked with the project for three months from Mid-May to Mid-August 2012 as part of the OFDT assessment, and the locations where the cribs and storage facilities are being tested.

Not only has there been an expansion of the data being collected but also the number of people who have been trained to read GIS implements and to record this data. This has included extension staff as well as MAFCRD staff who participated in the yield assessments.

## **6.6. Monitoring And Evaluation**

Monitoring and evaluation enables us to assess the quality and impact of work against what was planned. It also helps in reviewing progress, identifying problems in planning and implementation and making adjustments in order to see that difference.

A major activity undertaken during the reporting period was the second and third yield assessments in November 2011 and August 2012 on the maize variety Longe 5 that had been distributed as part of the grants program among The FARM Project beneficiaries. The assessment was primarily undertaken by the project's field staff who had been previously trained.

The project also started assessment of cassava yields but the protocol for this is still being tested to find its suitability for implementation by Payam and County Extension staff.

During the reporting period, monitoring of the on-farm demonstration trials was implemented though the proposed coverage was not reached due to the late hiring of the FARM Payam Extension workers. As a result, the project hired six interns from the Catholic University at Wau who worked with the state-based staff to visit farmers who had received the OFDT and monitor their perception of hybrid seed and fertilizer.

In May 2012, the project distributed eleven two-wheel tractors to eleven FBOs that had received a week of training earlier in the year. In August the project staff visited the eleven recipients to monitor progress on the use of the two-wheel tractor. While some groups found the machine to be useful for small areas, the overall consensus was that by the time the machines arrived in the field there was already too much grass for the tractor to plough in. The assessment of these machines will continue in 2013.

Below are the achievements of the PMP targets. There are several significant deviations from the target to the actual. These are outlined below:

- 1.1. Number of hectares. There is a significant underachievement from the 8,694 planned. This is explained two ways. The first is the significant reduction in the use of sorghum. Sorghum is planted at a rate of 2kg/feddan and whereas in 2011 we had planned to distribute 60 tons (sufficient to plant over 12,000 hectares), in 2012 the amount was reduced to 8 metric tons sufficient for only 1,679 hectares. All other crops have much higher planting rates and hence require more seed to get the hectare coverage. Secondly, we found that farmers had not adopted single seed per hole planting strategies and hence the area covered by the seed was less than planned.

- 1.3.1 The number of women farmers participating in the program is 34% of the total farmers compared with our planned 15%. As such we have more than doubled our target of women farmers.
- 2.2. The delay in establishing market information systems meant that it was not possible to measure the number of farmers who accessed information data.
- 2.3. The delay in the establishment of USAID’s DCA credit guarantee meant that project farmers were not able to access credit through project initiatives.
- 3.1.1 The number of training courses to address trade and investment was significantly less than planned and the number of people reached was about 11% of the total. This reflects a much more ambitious plan to develop the market sector in 2012 than was possible. The target for 2013 is much lower and more realistic.
- 3.1.2 The project could not attribute the number of MSMEs undergoing capacity assessments given the large number of trainings being done by IFDC.
- 3.1.3. The project targets for October 2012 to September 2013 are included in the following table:

**Table 21: Monitoring of Actual Results versus Established Performance Indicator Targets**

<b>Performance Indicators: Component 1</b>	<b>Unit of Measurement, Disaggregation</b>	<b>Data Source</b>	<b>BL/ 2010</b>	<b>Oct 2011- Sept 2012 Target</b>	<b>October 2011 to Sept 2012 Actual</b>	<b>October 2012 to Sept 2013 Target</b>
<b>1.1 Increase adoption of improved technologies: Production</b>						
Number of farmers, processors, and others who have adopted new technologies or management practices as a result of USG assistance	Number	Farmer, processor, trader surveys	3,501	6,900	6,695	11,132
Hectares under improved technologies or management practices as a result of USG assistance	Hectares,	Farmer surveys	4,556	8,694	5,838	7,589

Number of individuals (total) that have received USG-supported short-term agricultural sector productivity training	Number, Gender	Project record keeping	849	3,960	3,171	3,963
Number of individuals (women) that have received USG-supported short-term agricultural sector productivity training	Gender	Project record keeping		792	886	1,107
<b>1.3 Improve producer organization business and management skills</b>						
Number of producers' organizations, water users associations, trade and business associations, and community-based organizations receiving USG assistance	Number and type of organization	Project record keeping	132	300	310	484
Number of women farmers, organizations/associations assisted as a result of USG-supported interventions	Number, Gender	Project record keeping	0	1,035	2,342	3,784
<b>Performance Indicators: Component 2</b>	<b>Unit of Measurement/Disaggregation</b>	<b>Data Source</b>	<b>BL/2010</b>	<b>Oct 2011-Sept 2012 Target</b>	<b>October 2011 to Sept 2012 Actual</b>	<b>October 2012 to Sept 2013 Target</b>
<b>2.1 Increase smallholders' access to market services: Trade</b>						
Number of agriculture-related firms accessing critical agricultural services (such as credit, veterinary, agricultural inputs, machinery and business development) as a result of USG interventions/assista	Number	Farmer, processor, trader surveys	0	20	25	25

nce						
Volume and value of purchases from smallholders of agricultural commodities targeted by USG assistance	Machinery, fertilizer, crop protection inputs, improved seed, veterinary services, feed	Farmer surveys	0	30%		
Volume and value of purchases from smallholders of agricultural commodities targeted by USG assistance	Gender			5%	269,619kg/ \$219,013	404,428kg/ \$174,091
Usage of price and market information systems as a result of USG assistance	Number	Farmer surveys	0	13,800	Not measured	
Usage of price and market information systems as a result of USG assistance	Gender			3,450	Not measured	
<b>2.3 Increase private sector services (including MSMEs) that support marketing and finance</b>						
Value of private sector services provided that support marketing and finance	Number	Service provider survey	0	\$50,000		
	Type of organization					
<b>2.4 Improve the legal, regulatory, and policy environment to facilitate marketing and trade</b>						
Number of policies/regulations/administrative procedures drafted, analyzed, approved, and implemented as a result of USG assistance.	Number	Policy specialist	0	5	3	0
<b>Performance Indicators: Component 3</b>	<b>Unit of Measurement/Disaggregation</b>	<b>Data Source</b>	<b>BL/2010</b>	<b>Oct 2011-Sept 2012 Target</b>	<b>October 2011 to Sept 2012 Actual</b>	<b>October 2012 to Sept 2013 Target</b>

<b>3.1 Improve business, management and service provision skills of private sector including MSMEs</b>						
Number of USG-supported training events held that are related to improving the trade and investment environment, and public sector capacity to provide quality services	Number	Project record keeping	0	75	6	15
Number of individuals who have received short-term agricultural enabling environment training	Number	Project record keeping	0	1,500	170	375
Number of MSMEs undergoing organization capacity/competency assessment and capacity strengthening as a result of USG assistance	Number	Project record keeping	0	20		
<b>3.2 Improve capacity of public sector for development of enabling environment to support market-led agriculture</b>						
Number of public sector agents sufficiently trained to be qualified to support market-led agriculture as a result of USG assistance	Number	Trainer records	0	165	179	200
<b>3.3 Strengthen public sector's capacity to provide quality services</b>						
Number of public sector agents qualified to provide services	Number	Trainer records	0	165	179	200

## 6.7. Environmental Evaluations

As some of the interventions proposed by The FARM Project require careful examination of the potential environmental impact, the project has already completed and submitted some follow-up environmental review forms to supplement the Initial Environmental Review. These include an Environmental Review Form (ERF) and the related Environmental Review Report (ERR) for the agricultural seed distribution activity. One of the environmental threats from this distribution activity was that the high-quality, certified seed was treated with the pesticides Thiram and Imidacloprid to protect it during transport, storage, and after planting. These pesticides were included in a Pesticide Evaluation Report and Safer Use Action Plan (PERSUAP), initially focused on these types of seed treatments. A revised PERSUAP that covers a broad range of basic and low-risk agricultural chemicals, including herbicides, pesticides, fungicides, and storage protection chemicals, has been submitted and awaiting finalization from USAID.

A draft ERF/ERR for mechanized plowing and land preparation grants has been submitted to USAID for approval and covers land to be plowed during the first rainy season of 2011. The mitigation measures for this activity include plowing across the slope/on the contour and also planting crops across the slope/on the contour to help control soil and water erosion. It, too, will need to be updated if there are additional grants for plowing alone during the second rainy season.

The FARM Project also initiated an environmental assessment process to address the issue of land clearing, following a request from the MAFCRD that the project intercede to help farmers clear land. The issue is complicated. South Sudan has an estimated 4 million displaced persons who are returning to their native villages and fields after an absence of anywhere from several years to more than 20 years.

Returning families are leaving locations where relief food is distributed and spreading out across the countryside, such that food distribution is much more difficult. They need to quickly produce crops to feed their families and produce income to provide food security. The new nation is receiving large quantities of relief food and importing most of the food for urban centers from neighboring countries. South Sudan needs a vibrant agricultural sector to feed its population and provide income to the approximately 80% of the population that lives in rural areas. Rapidly increasing agricultural production, required at both the household and national level, would be greatly facilitated by helping farmers clear fields now overgrown with trees and brush from an extended fallow. While clearing fields for agricultural production may have negative environmental implications, this must be weighed against the needs of farm families.

Slash and burn, extensive agriculture is the norm in South Sudan, and to maintain some long-term forest cover, the country needs to move towards more intensive and more permanent agricultural production systems. Agricultural intensification is also the basis for increasing farm productivity, and the foundation upon which efforts to improve farm income, returns and the competitiveness of the value chains for agricultural products are built. Labor is very constrained, both for heavy activities such as land clearing, but also for timely operations on multiple crops, growing at the same time.

Therefore, in addition to the plowing grant ERF/ERR, an ERF/ERR has been drafted and submitted to USAID to cover reclamation of 900 feddans of fallow land during the life of the project to help local populations settle and produce food and income more quickly. In 2012 two pilot land reclamation activities covering 100 farmers and 200 feddans focused on developing a responsible approach to land reclamation, which results in sustainable and more intensive agricultural activities and good land stewardship practices were initiated.

## 7. CONCLUSION

The FARM Project has made notable progress in all three components in this reporting period. The project has been externally reviewed though the findings of the evaluation are still awaited. The initial push to develop the production and productivity improvements are now being followed up with increasing emphasis on the value chain improvements in marketing. The project sees a significant need to get price consolidation so that farmers can start to be more competitive with their peers in neighboring countries. The project also has to determine what is the growth potential of the four crops that they are currently focusing on and what further productivity improvements are possible. More dialogue is needed with farmers to ascertain their preferences and their understanding how to increase competitiveness.

A major thrust in the next year is to scale up capacity building at the county level where most of The FARM Project farmers can be reached. Increasing knowledge of both production and markets is crucial if the next step of re-establishing cooperatives is to be attained. Early stratification of FBOs into three different types including identification of those with the capacity to lead cooperative bodies is ongoing.

Moving forward it will be important to assess the impact the technical activities have made on the agricultural sector in South Sudan. Labor continues to be the major constraint to growth of the area under cultivation and there continues to be a need to expand labor saving technologies that can be used to ease this burden. In 2013, the project will explore the availability of monkey winches to help farmers with root removal so that land is suitable for mechanical cultivation. Use of animal traction in areas where there are animals will continue to be encouraged. Also two wheel tractors will be further assessed.

The project enters its second year of working with the Seed for Development (S4D) strategy being implemented by AGRA and IFDC through funding from USAID. The FARM Project will work in close coordination with AGRA to increase locally available seed varieties and gain more insight into the seed types farmers prefer. The FARM Project will also work with IFDC in their project area to support the improvements that can be obtained from the use of improved seed and fertilizer.

The successful implementation of technical activities during this reporting period has strengthened relations with project beneficiaries, the MAFCRD at a national level, ministries of agriculture at the state level, and county-level agriculture departments. The joint planning meetings in August and September with the three state Ministries were a start for increased collaboration. The employment of several highly motivated South Sudan professionals to join the existing team has resulted in an increased sense of national ownership of the project. There is still a long way to go and advocacy for improved infrastructure, which is beyond the scope of the project, is imperative if markets are to develop. However the FARM Project has done many exciting things and hopefully the benefits of this work are appreciated by our most important clients, the farmers of the 27 payams where we work to improve their wellbeing.

# APPENDIX A – STAFFING

## FOOD, AGRIBUSINESS & RURAL MARKETS (THE FARM PROJECT) STAFF EMPLOYMENT MATRIX

	TITLE	NAME OF STAFF	ORGANIZATION	STATUS
	<b>JUBA STAFF (30 Staff)</b>			
1	Chief of Party	Hughes, David	Abt/Expat	
2	Deputy Chief of Party for Grants & Operations	Gould, Jeffrey	Abt/Expat	
	Capacity Building Expert	Dhel, Kuyu	Abt/Expat	Resigned March 2012; to be replaced with Information Officer (Expat)
	Agric.Strategy/Policy Expert	Mataya, Charles	Abt/Expat	Resigned January 2012
	Communications Specialist	Haas, Astrid	Abt/Expat	Resigned July 2012
3	Communication Specialist	Maya Logo	Abt/CCN	Hired September 2012
4	Agriculture Production Specialist	Mwale, Costa	ACDI/VOCA/Expat	
5	Finance and Business Development Coordinator	Taban, Stephen Louro	ACDI/VOCA/CCN	
	Value Chain/Private Sector Expert	Emery, Nathan	ACDI/VOCA/Expat	Resigned July 2012 (to be replaced with Marketing specialist)
6	Special Advisor	Otika, Lawrence	Abt/CCN	
	Senior Finance Manager	Ayiga, Francis	Abt/CCN	Resigned January 2012
7	Senior Finance Manager	Bahati Lasu	Abt/CCN	Transferred from Torit, January 2012
8	Technical Program Coordinator	Amule, Timothy	Abt/CCN	
9	M&E/Gender Specialist	Awate, Elizabeth	Abt/CCN	
10	M&E Specialist	Silvestro Ojja	Abt/CCN	Hired in September 2012
	Grants Specialist	Gimu, Betty	Abt/CCN	Resigned April 2012; candidate identified awaiting donor approval
11	Operations Manager	Lomuja, Alex	Abt/CCN	
12	IT Specialist	Onyango, Moses	Abt/CCN	
13	IT Specialist	Navara, Ovio	Abt/CCN	Resigned May 2012; Reapplied in September 2012
14	Procurement Specialist	Mawut, Jacob	Abt/CCN	
15	Accountant	Kitara, Phillip Lam	Abt/CCN	
16	Admin Asst/Receptionist I	Lukudu, Ropani	Abt/CCN	
	Admin Asst/Receptionist II	Christine Nabobi	Abt/CCN	Resigned January 2012; candidate identified awaiting donor approval
17	Community Outreach Expert	Tombe, Redento	AAH-I/CCN	
18	Junior Accountant	Cesar Temale	AAH-I/CCN	Hired in June 2012
19	Marketing Coordinator/Juba	Titia, Esther	ACDI/VOCA/CCN	
20	Junior Accountant	Juan, Mary	ACDI/VOCA/CCN	
21	Logistics & Procurement Officer	Ayume, Justin	RSM/CCN	
	Senior Driver	Mawa Mustafa	RSM/CCN	Dismissed September 2012; replacement being considered for permanent position
	Driver	Ladu Mikaya	RSM/CCN	Resigned September 2012; candidate identified
	Driver	Amule Denis Osmas	RSM/CCN	Transferred to Yambio January 2012; Resigned March 2012;
22	Driver	Aloro,James	RSM/CCN	

## FOOD, AGRIBUSINESS & RURAL MARKETS (THE FARM PROJECT)

### STAFF EMPLOYMENT MATRIX

	TITLE	NAME OF STAFF	ORGANIZATION	STATUS
	<b>CENTRAL EQUATORIA STAFF (18 Staff)</b>			
	Capacity Building Coordinator	Vacant	Abt/CCN	To be advertised
23	F&A Office Manager	Gwolo Daniel Eluzai	Abt/CCN	
24	Grants/Procurement Officer	Justo, Adelmo Lumana	Abt/CCN	
25	Ag. Production Coordinator	Wani, Simon Pitia	ACDI/VOCA/CCN	
26	Senior Extension Officer	Bullen, Augustine	AAH-I/CCN	
27	Extension Officer	Batali, Isaac Sadarak	AAH-I/CCN	
28	Extension Officer	Kidden, Esther Dima	AAH-I/CCN	
29	Extension Officer	Murye, Alex Anthony	AAH-I/CCN	
30	Driver	Peter Malish Joseph	RSM/CCN	
31	Driver	Ramadan, Oliver	RSM/CCN	Transferred from HQ January 2012
32	Payam Extension Worker Otogo	Aliki Ramadan	AAH-I/CCN	Hired June 2012
33	Payam Extension Worker Mugwo	Christopher Lumori	AAH-I/CCN	Released November 2011; Rehired June 2012
34	Payam Extension Worker Lasu	Duku George	AAH-I/CCN	Hired June 2012
35	Payam Extension Worker Kangapo 1	Jame Emmanuel	AAH-I/CCN	Released November 2011; Rehired June 2012
36	Payam Extension Worker Kangapo 2	Duku Jakson	AAH-I/CCN	Released November 2011; Rehired June 2012
37	Payam Extension Worker Lire	Sanya Moses	AAH-I/CCN	Released November 2011; Rehired June 2012
38	Payam Extension Worker Wudabi	Faustino Amule	AAH-I/CCN	Released November 2011; Rehired June 2012
39	Payam Extension Worker Kimba	Joseph Mawa Baba	AAH-I/CCN	Released November 2011; Rehired June 2012
40	Payam Extension Worker Gulumbi	Biaga Robert	AAH-I/CCN	Released November 2011; Rehired June 2012
	<b>WESTERN EQUATORIA STAFF (18)</b>			
50	F&A Office Manager	Mambo, Kassim	Abt/CCN	Resigned January 2012; to be advertised
41	Capacity Building Coordinator	Jackson Zowai Simon	Abt/CCN	
42	Grants/Procurement Officer	Alex, Eli Bidal	Abt/CCN	
43	Senior Extension Officer	Habakuk, Eliaba	AAH-I/CCN	
44	Extension Officer	Aziti, Wilson Mambere	AAH-I/CCN	
45	Extension Officer	Bullen, Benty	AAH-I/CCN	
46	Extension Officer	Mamur, David Yotama	AAH-I/CCN	
47	Ag. Production Coordinator	Henry Muganga Kenyi	ACDI/VOCA/CCN	
48	Driver	Seka Joseph Warija	RSM/CCN	
49	Driver	Luke Lumori	RSM/CCN	Hired March 2012
50	Payam Extension Worker Mundri	Nicholas Wine	AAH-I/CCN	Hired June 2012
51	Payam Extension Worker Bangalo	Herbert Tunis	AAH-I/CCN	Released November 2011; Rehired June 2012
52	Payam Extension Worker Kotobi	Niymaya Christopher	AAH-I/CCN	Released November 2011; Rehired June 2012

## FOOD, AGRIBUSINESS & RURAL MARKETS (THE FARM PROJECT)

### STAFF EMPLOYMENT MATRIX

	TITLE	NAME OF STAFF	ORGANIZATION	STATUS
53	Payam Extension Worker Maridi	Charles Mustafa	AAH-I/CCN	Released November 2011; Rehired June 2012
54	Payam Extension Worker Mambe	Charles Nyoso	AAH-I/CCN	Hired June 2012
55	Payam Extension Worker Landili	Charles Mustapha	AAH-I/CCN	Hired June 2012
56	Payam Extension Worker Ri Rangu	Beyo Simon	AAH-I/CCN	Hired June 2012
	Payam Extension Worker Yambio		AAH-I/CCN	Candidate identified
57	Payam Extension Worker Bangasu	Anthony Tunga	AAH-I/CCN	Released November 2011; Rehired June 2012
	<b>EASTERN EQUATRIA STAFF (15)</b>			
	Livestock Coordinator	Nyika, Samuel D.	Abt/CCN	Released April 2012; to be replaced by F&A coordinator
58	Capacity Building Coordinator	Cham Puro Nygoni	Abt/CCN	
59	Grants/Procurement Officer	Joseph Ladu	Abt/CCN	
60	Senior Extension Officer	Ronyo, Emmanuel	AAH-I/CCN	
61	Extension Officer	Modi, Angelo William	AAH-I/CCN	Left his post in January 2012
62	Extensions Officer	Loboka Alex-Torit	AAH_I/CCN	Hired June 2012
63	Extension Officer	Osenya Mark- Ikotost	AAH-I/CCN	Hired June 2012
64	Extension Officer	Lawiri Gabriel-Magwit	AAH-I/CCN	Hired June 2012
65	Ag. Production Coordinator	Kenyi, Alfred Tako	ACDI/VOCA/CCN	
66	Driver	Boboya, Michael	RSM/CCN	
67	Driver	Salah Ladu Baruti	RSM/CCN	Transferred to Torit January 2012
68	Payam Extension Worker Ikotos Central	Lino Kwonga	AAH-I/CCN	Released November 2011; Rehired June 2012
	Payam Extension Worker Katire	Vacant	AAH-I/CCN	To be advertised
69	Payam Extension Worker Lomohedang North	Luka Amai	AAH-I/CCN	Hired June 2012
70	Payam Extension Worker Magwi	German Edward	AAH-I/CCN	Hired June 2012
71	Payam Extension Worker Pageri	Ambayo Charles	AAH-I/CCN	Released November 2011; Rehired June 2012
72	Payam Extension Worker Pajok	Okot David	AAH-I/CCN	Hired June 2012
73	Payam Extension Worker Imurok	Okot James	AAH-I/CCN	Hired June 2012
74	Payam Extension Worker-Ifwoto	Joseph Obalu	AAH-I/CCN	Hired June 2012
75	Payam Extension Worker- Iyire	Okotch Mark	AAH-I/CCN	Hired June 2012

# APPENDIX B – TRAINING

**Eastern Equatoria State Table 1: Agronomy Training Summary**

Location	Description of Training	Participants by Gender		FBOs	Farmers
		Female	Male		
<b>1) Ikwoto County</b>					
1.1 Ikwoto Town	Cassava cuttings handling, distribution and best agronomic practices	2	10	2	8
1.2 Ishoe (Lomohidang North Payam)	Cassava cuttings handling, distribution and best agronomic practices	4	13	0	14
1.3 Katire Payam	Cassava cuttings handling, distribution and best agronomic practices	6	6	3	12
1.4 Tseretenya( Ikotos Central Payam)	Cassava cuttings handling, distribution and best agronomic practices	3	5	3	6
<b>Total</b>		<b>15</b>	<b>34</b>	<b>8</b>	<b>38</b>
<b>2). Magwi County</b>					
2.1 Obbo	Cassava cuttings handling, distribution and GAP	8	23	20	26
2.2 Pageri Payam	Cassava cuttings handling, distribution and GAP	2	15	2	15
2.3 Magwi County	Safe Treated Seeds handling and Best Agronomic Practices	-	-	12	-
2.4 Pageri	Safe Treated Seeds handling and Best Agronomic Practices			9	28
2.5 Pageri Payam	Farming as a Business( FaaB)	18	16	3	32
2.6 Magwi	GAP training on( Groundnuts, Maize, Sorghum)	9	20	17	18
2.7 Pageri	GAP training on( Groundnuts, Maize, Sorghum)	13	14	12	25
2.8 Pajok Payam	Cassava cuttings handling, distribution and best agronomic practices	13	15	2	27
<b>Total</b>		<b>63</b>	<b>103</b>	<b>77</b>	<b>171</b>
<b>3) Torit County</b>					

3.1 Torit County	Post Harvesting Handling and Warehouse Management	2	24	6	5
3.2 Torit County	Safe Treated Seeds handling and Best Agronomic Practices	5	34	0	0
<b>Total</b>		<b>7</b>	<b>58</b>	<b>6</b>	<b>5</b>
<b>State Total</b>		<b>85</b>	<b>195</b>	<b>91</b>	<b>214</b>

**Eastern Equatoria State Table 2: Gender Breakdown**

Total Trained Individuals		Total Trained	% by Gender		FBOs Trained
Female	Male		Female	Male	
85	195	280	30.36%	69.64%	All

**Eastern Equatoria State Table 3: Capacity Building Training**

Location:	Description of Training	Participants by Gender		FBOs	Farmers	Total
		Female	Male			
<b>COUNTY</b>						
<b>1. Magwi County</b>	1.1 OFDT Training	16	46		61	62
	1.2 GAPP Training	54	69		119	123
	1.3 TWT Training	0	4		4	4
<b>Total</b>		<b>70</b>	<b>119</b>		<b>184</b>	<b>189</b>
<b>2. Torit County</b>	2.1 OFDT Training	3	31		34	34
	2.2 GAP Training	7	52		56	59
	2.3 Value Chain and Business Plan Trainings	5	19			24
	2.4 TWT Training	0	2		2	2
<b>Total</b>		<b>15</b>	<b>104</b>		<b>92</b>	<b>119</b>

<b>3. Ikwoto County</b>	3.1 OFDT Training	0	15		15	15
	3.2 GAPP Training	0	10		10	10
	3.3 TWT Training	1	3		4	4
<b>Total</b>		<b>1</b>	<b>28</b>		<b>29</b>	<b>29</b>
<b>State Total</b>		<b>86</b>	<b>251</b>		<b>305</b>	<b>337</b>

**Eastern Equatoria State Table 4: Other Trainings Involving MAF and FARM Staff**

Type of Training	Participants by Gender		Total	Location
	Female	Male		
Aflatoxin		4	4	Yei Crop Training Centre (CTC)
Post-Harvest		4	4	Yei CTC
Agriculture Show Training	7	33	40	MAF Conference Hall, Torit

**Eastern Equatoria State Table 5: Gender Breakdown**

Participants By Gender		Total Trained	Total % by Gender		FBOs Trained
Female	Male		Female	Male	
93	292	385	24.15%	75.85%	All

*(\*) Does not include the total of (C) breakdown. Therefore refer to (D) for overall total for year 2012*

**Western Equatoria State Table 1: Agronomy Training**

Location	Description of Training	Participants by Gender		FBOs	Total No. Farmers
		Female	Male		
<b>Yambio County</b>					
Yambio	Cassava cuttings handling, distribution and best agronomic practices	83	151	17	234
Bangasu Payam	Cassava cuttings handling, distribution and best agronomic practices	21	33	2	54
Ri-rangu Payam	Cassava cuttings handling, distribution and best agronomic practices	20	34	4	54
<b>Total</b>		<b>124</b>	<b>218</b>	<b>23</b>	<b>342</b>
<b>Mundri West County</b>					
Mundri Town Payam	Cassava cuttings handling, distribution and GAP	20	41	8	61
Kotobi Payam	Cassava cuttings handling, distribution and GAP	45	95	13	140
Bangallo Payam	Cassava cuttings handling, distribution and GAP	6	19	1	25
<b>Total</b>		<b>71</b>	<b>155</b>	<b>22</b>	<b>226</b>
<b>Maridi County</b>					
3.1 Maridi payam	Cassava cuttings handling distribution GAP	81	206		287
3.2 Mambe Payam	Cassava cuttings handling, distribution and GAP	10	30	3	40
3.3 Landili Payam	Cassava cuttings handling, distribution and GAP	5	13	1	18
<b>Total</b>		<b>96</b>	<b>249</b>	<b>4</b>	<b>345</b>
<b>State Total</b>		<b>291</b>	<b>622</b>	<b>49</b>	<b>913</b>

**Western Equatoria State Table 2: Capacity Building Training**

Location	Description of Training	Participant by Gender		FBOs	Farmers	Total
		Female	Male			
<b>1. Yambio County</b>	1.1. OFDT Training	3	17	8	20	20
	1.2. GAPP Training	36	60	13	96	96
	1.3. Value Chain and Business Training	0	31	3	31	31
	1.4. TWT Training	0	2	1	2	2
<b>Total</b>		<b>39</b>	<b>110</b>	<b>25</b>	<b>149</b>	<b>149</b>
<b>2. Maridi County</b>	2.1. OFDT Training	0	15	6	15	15
	2.2. GAP Training	1	6		7	7
	2.3. Value Chain and Business Plan Trainings	0	18			18
	2.4. TWT Training	0	2	1	2	2
<b>Total</b>		<b>1</b>	<b>41</b>	<b>7</b>	<b>24</b>	<b>42</b>
<b>3. Mundri West County</b>	3.1. OFDT Training	4	16	8	20	20
	3.2. GAPP Training	0	10		10	10
	3.3. Value Chain and Business Plan Trainings	2	26			28
	3.4. TWT Training	0	8	8	8	8
<b>Total</b>		<b>6</b>	<b>60</b>	<b>8</b>	<b>38</b>	<b>66</b>

**Central Equatoria State Table 1: Agronomy Training Summary**

Location/Date	Description of Training	Participants by Gender		FBOs	Farmers	Gov't Employees	Others- Including FARM Staff
		Female	Male				
<b>1) YEI COUNTY</b>							
CTC in Yei (4/3/2011)	State level (Seeds logistics, safe handling of treated seeds and GAPs for maize, sorghum and Groundnut) TOT	3	22	11	16	3	3
CTC in Yei (5/3/2011)	County level (Seeds logistics, safe handling of treated seeds and GAPs for maize, sorghum and Groundnut) TOT	1	10	5	6	1	4
Ottogo Payam. (31/5-6/6/2011)	Payalm Level (Safe Treated Seeds handling and Best Agronomic Practices of Maize, Sorghum and Groundnut)	16	70	5	84	2	0
Lasu Payam (2-6/6/2011)	Payalm Level (Safe Treated Seeds handling and Best Agronomic Practices of Maize, Sorghum and Groundnut)	8	49	7	54	0	3
Mugwo Payam (1-4/6/2011)	Payalm Level (Safe Treated Seeds handling and Best Agronomic Practices of Maize, Sorghum and Groundnut)	25	26	4	55	1	0
CTC in Yei (27/5/2011)	County level (groundnut seeds distribution Process, storage, seeds handling (treated seeds), planting techniques for groundnuts and Maize) TOT	3	30	20	22	3	8
CTC in Yei (13/6/2011)	State level (Cassava cuttings handling, distribution and best agronomic practices of cassava) TOT	2	26	0	0	12	16
CTC in Yei (27/6/2011)	County level ( Cassava cuttings handling, distribution and best agronomic practices of cassava ) TOT	3	20	16	19	1	3
Lasu Payam (29/6-1/7/2011)	Payam Level ( Cassava cuttings handling, distribution and best agronomic practices of cassava)	8	97	7	105	0	0

Mugwo Payam (30/6/2011)	Payam Level ( Cassava cuttings handling, distribution and best agronomic practices of cassava)	23	21	4	44	0	0
Ottogo Payam (30/6–6/7/2011)	Payam Level ( Cassava cuttings handling, distribution and best agronomic practices of cassava)	13	77	5	90	0	0
CTC in Yei (20/10.2011)	Agricultural Trade fair preparatory Training	1	9	9	9	0	0
<b>Subtotal</b>		<b>106</b>	<b>457</b>	<b>563</b>	<b>379</b>	<b>23</b>	<b>37</b>
<b>2) MOROBO COUNTY</b>							
Girilli Basic School, Gulumbi Payam 25th -27th Jan 2011	Delivery of FaaB Training to increase farmers' perception of Farming as an enterprise and profit generating activity and not just for subsistence	6	24	2	26	1	3
CAD Meeting Hall in Morobo (12/3/2011)	County level TOT Seeds logistics, safe handling of treated seeds and GAPs for maize, sorghum and Groundnut)	2	15	9	13	1	3
Kimba Payam (30/5/2011)	Payalm Level (Safe Treated Seeds handling and Best Agronomic Practices of Maize, Sorghum and Groundnut)	20	32	2	52	0	0
Wudabi Payam (31/5–3/6/2011)	Payalm Level (Safe Treated Seeds handling and Best Agronomic Practices of Maize, Sorghum and Groundnut)	17	74	5	91	0	0
Gulumbi Payam (1 - 3/6/2011)	Payalm Level (Safe Treated Seeds handling and Best Agronomic Practices of Maize, Sorghum and Ground nut)	39	117	6	156	0	0
Global lodge Hall in Morobo (28/6/2011)	County level ( Cassava cuttings handling, distribution and best agronomic practices of cassava) TOT	1	17	12	15	1	3
Kimba Payam (1/7/2011)	Payam Level ( Cassava cuttings handling, distribution and best agronomic practices of cassava)	7	32	2	39	0	0
Wudabi Payam (1-4/7/2011)	Payam Level ( Cassava cuttings handling, distribution and best agronomic practices of cassava)	5	30	2	35	0	0

Gulumbi Payam (1 - 7/7/2011)	Payam Level ( Cassava cuttings handling, distribution and best agronomic practices of cassava)	31	110	5	141	0	0
Subtotal		128	451	45	568	3	9
<b>3). KAJO KEJI COUNTY</b>							
Kiri Boma Center, Kangapo 1 Payam (25th - 27th Jan 2011)	Delivery of FaaB Training to increase farmers' perception of Farming as an enterprise and profit generating activity and not just for subsistence	25	16	3	37	1	3
Revival Hall in Kajokeji (10/3/2011)	County level TOT Seeds logistics, safe handling of treated seeds and GAPs for maize, sorghum and Groundnut)	8	23	22	26	2	3
Kangapo 1 Payam (4/6/2011)	Payalm Level (Safe Treated Seeds handling and Best Agronomic Practices of Maize, Sorghum and Groundnut)	33	40	4	73	0	0
Kangapo 2 Payam (2-5/6/2011)	Payalm Level (Safe Treated Seeds handling and Best Agronomic Practices of Maize, Sorghum and Groundnut)	163	216	16	389	0	0
Lire Payam (1-6/6/2011)	Payalm Level (Safe Treated Seeds handling and Best Agronomic Practices of Maize, Sorghum and Groundnut)	57	140	5	197	0	0
Resource Center in Kajokeji (30/6/2012)	County level ( Cassava cuttings handling, distribution and best agronomic practices of cassava) TOT	7	14	15	17	1	3
Kangapo 2 Payam (5-7/7/2012)	Payam Level ( Cassava cuttings handling, distribution and best agronomic practices of cassava)	158	221	13	379	0	0
Kangapo 1 Payam (1 - 6/7/2011)	Payam Level ( Cassava cuttings handling, distribution and best agronomic practices of cassava)	35	20	4	55	0	0
Lire Payam (5 -7/7/2011)	Payam Level ( Cassava cuttings handling, distribution and best agronomic practices of cassava)	55	112	5	167	0	0
<b>Subtotal</b>		<b>541</b>	<b>802</b>	<b>87</b>	<b>1,340</b>	<b>4</b>	<b>9</b>

<b>4) JUBA COUNTY</b>							
<b>Regency Hotel in Juba ( 2 -5/8/2011)</b>	<b>Post –Harvest handling and warehouse control training (TOT)</b>	<b>11</b>	<b>36</b>	<b>8</b>	<b>8</b>	<b>27</b>	<b>12</b>
<b>Grand Total</b>		<b>786</b>	<b>1,746</b>	<b>703</b>	<b>2,295</b>	<b>57</b>	<b>67</b>

**Central Equatoria State Table 2: Total Trained Individuals**

<b>COUNTY</b>	<b>PARTICIPANTS BY GENDER</b>		<b>TOTAL Trained</b>	<b>Total % by Gender</b>		<b>FBOs Trained</b>
	<b>Female</b>	<b>Male</b>		<b>Female</b>	<b>Male</b>	
Yei	106	457	563	18.8%	81.2%	16
Morobo	128	451	579	22.1%	77.9%	13
Kajokeji	541	802	1,343	40.3%	59.7%	22
Juba	11	36	47	23.4%	76.6%	0
<b>Total</b>	<b>786</b>	<b>1,746</b>	<b>2,532</b>	<b>31%</b>	<b>69%</b>	<b>51</b>

**Central Equatoria State Table 3: Capacity Building Training**

Location/Date	Description of Training	Participants by Gender		FBOs	Farmers	Government Employees	Others (including FARM staff)
		Female	Male				
<b>1) YEI COUNTY</b>							
CTC in Yei (26/1/2012)	Aflatoxin Sampling & Testing Training (TOT)	2	15	0	0	6	11
CTC Yei (22-24/2/2012)	Financial & Business Management Training (TOT)	1	25	24	24	0	2
CTC in Yei (14/3/2012)	County level On Farm Demonstration Trials Training (TOT)	7	36	38	38	1	4
CTC in Yei (4/4/2012)	County Level GAP training (TOT)	1	21	18	18	1	3
Ombasi Boma Center, Ottogo Payam (13 -23/4/2012)	Payam Level GAP Training	38	219	14	257	0	0
Longamere Boma Church, Mugwo Payam (17 – 19/4/2012)	Payam Level GAP Training	22	91	7	113	0	0
Tokori Boma, Lasu Payam (20/4/2012)	Payam Level GAP Training	4	11	1	15	0	0
Mugwo Payam (10-16/10/2012)	Payam Levels Post- harvest management Practices Training	15	27	11	42	0	0
Ottogo Payam (9 -15/10/2012)	Payam Levels Post- harvest management Practices Training	13	29	15	41	1	0
Lasu Payam (11-12/10/2012)	Payam Levels Post- harvest management Practices Training	10	20	9	30	0	0
<b>Total</b>		<b>113</b>	<b>494</b>	<b>137</b>	<b>578</b>	<b>9</b>	<b>20</b>
<b>2) MOROBO COUNTY</b>							
CAD Meeting Hall in Morobo (16/3/2012)	County level On Farm Demonstration Trials Training (TOT)	2	44	36	39	3	4
CAD Meeting Hall in Morobo	County Level GAP training(TOT)	1	22	18	19	1	3

(20/4/2012)							
Kimba Payam (16 -18/4/2012)	Payam Level GAP Training	64	85	8	149	0	0
Gulumbi Payam (13 -16/4/2012)	Payam Level GAP Training	28	37	4	65	0	0
Wudabi Payam (13 – 17/4/2012)	Payam Level GAP Training	23	89	7	112	0	0
Gulumbi Payam (29 -30/5/2012)	Cassava Chips processing Training (TOT)	7	11	3	12	1	5
Kimba Payam (11 -15/10/2012)	Payam Levels Post- harvest management Practices Training	8	34	9	42	0	0
Wudabi Payam (10/10/2012)	Payam Levels Post- harvest management Practices Training	12	36	11	47	1	0
Gulumbi Payam12 (16/10/2012)	Payam Levels Post- harvest management Practices Training	6	26	9	32	0	0
<b>Total</b>		<b>151</b>	<b>384</b>	<b>105</b>	<b>517</b>	<b>6</b>	<b>12</b>
<b>3) KAJO KEJI COUNTY</b>							
Naya Guest House Hall in Kajojeji (27- 29/2/2012)	Financial & Business Management Training (TOT)	2	27	25	25	0	4
Twins Hotel Hall in Kajojeji (12/3/2012)	County level On Farm Demonstration Trials Training (TOT)	11	45	34	47	5	4
Naya Guest House Hall in Kajojeji (2/4/2012)	County Level GAP training (TOT)	0	17	11	11	2	4
Mondikolok Farmers Training Center in Lire Payam (13/4/2012)	Payam Level GAP Training	28	37	6	65	0	0
Kiri Boma Center Kangapo 1 Payam (17 – 19/4/2012)	Payam Level GAP Training	22	28	3	50	0	0
Bori and Jalimo Bomas Center Kangapo 2 Payam (20/4/2012)	Payam Level GAP Training	50	58	6	108	0	0
Lire Payam (22 -24/10/2012)	Payam Levels Post- harvest management Practices Training	34	29	12	62	1	0
Kangapo 1 Payam (12 -	Payam Levels Post- harvest management Practices	29	33	11	62	0	0

15/10/2012)	Training						
Kangapo 2 Payam (16-19/10/2012)	Payam Levels Post- harvest management Practices Training	18	45	17	62	0	1
<b>Total</b>		<b>194</b>	<b>319</b>	<b>125</b>	<b>492</b>	<b>8</b>	<b>13</b>
<b>4) JUBA COUNTY</b>							
<b>Juba</b>	<b>Walk behind tractor training (TOT)</b>	<b>0</b>	<b>7</b>	<b>2</b>	<b>4</b>	<b>2</b>	<b>1</b>
<b>State Total</b>		<b>458</b>	<b>1,205</b>	<b>369</b>	<b>1,591</b>	<b>25</b>	<b>46</b>

**Central Equatoria State Table 4: Gender Breakdown**

COUNTY	Participants By Gender		Total Trained	Total % by Gender		FBOs Trained
	Female	Male		Female	Male	
Yei	113	494	607	18.6	81.4	38
Morobo	151	384	535	28.2	71.8	30
Kajo Keji	194	319	513	37.8	62.2	34
Juba	0	7	07	0	100	0
Total	458	1,205	1,662	27.6	74.4	102

# Appendix C – Farmer Based Organizations

FBO Information				KG of Crop Per Farmer (Based On Farmers In FBO)				
FBO	Payam	Boma	Farmers	Maize	Sorghum	Cassava	Beans	G/nuts
<b>WES_Yambio County - Payams: Yambio, Bangasu, Ri-Rangu (Benty) 27 old+7 new= 34</b>								
Nakiri Multipurpose cooperative society	Yambio	Timbiro	14	20				15
Naangbimo Women Association	Yambio	Naangbimo	32	20			15	20
Ndavuro Farmers Group	Yambio	Ndavuro	26	15				15
Tindoka Multi Purpose Association	Yambio	Yambogo	84	20		100		10
Ikpiro Womens Group	Yambio	Ikapiro	40	15				15
St. Mary Farmers Group	Yambio	Nagori	29	15				15
Kuzee Farmers Association	Yambio	Nagori	11	15			20	15
Gitikiri Farmers Cooperative Society	Yambio	Bazungua	25	20		100		20
Navundio Multi Purpose Cooperative Soc.	Yambio	Bodo	25	20			15	20
Makpara I Multi Purpose Cooperative Soc.	Yambio	Bodo	20	20		100		20
Feed My Sheep Ministries	Yambio	Bazungua	34	15				15
Pazuo I Multipurpose Cooperative Society	Yambio	Yabongo	30	15				15
Akorogbodi Farmers Association	Yambio	Akorogbodi	9	15			20	20
Nangbende Farmers Group	Ri-rangu	Makpaturu	15	15				15
Baguga Multipurpose Cooperative Society	Yambio	Ngindo	11	25		100		20
Nagbaka Farmers Group	Yambio	Ngindo	12	25			20	25
Arona Multipurpose Cooperative Society	Ri-rangu	Momboi	14	15				15
Zambando Women Group	Yambio	Ngindo	15	20				20
Saura 2 Multipurpose Cooperative Society	Yambio	Saura	15	15		100		15
RD Farmers Association	Yambio	Yabongo	43	20				20
Namakuru Farmers Group	Yambio	Saura	22	15				15
Bazungua Farmers Association	Yambio	Bodo	15	15		100		15
Asanza Farmers Group	Yambio	Naangbimo	15	15				15
Makpandu Women Multipurpose Coop. So	Bangasu	Remenze	22	15				15
Maboyoku Multipurpose Cooperative Soc.	Bangasu	Burezibo	21	15			20	20
Zambasenge Farmers Group	Ri-rangu	Mbambai	16	20		100		20
Makparturu Farnes Group	Ri-rangu	Ri-rangu	14	20				20
Makagio Farmers Group	Bangasu	Bangasu	25	20	4			20
Magida Farmers Group	Rirangu	Nambia	23	20	4	100		20
Nangbende II Farmers Group	Ri-rangu	Makpaturu	9	20	4			20
Paibeko Farmers Group	Bangasu	Remanze	11	20	4	100		20
Yamuse Farmers Group	Ri-rangu	Ri-rangu	23	20	4	100		20
Nabagu Farmers Group	Bangasu	Remenze	25	20	4	100		20
Naugudi II farmers Group	Bangasu	Remenze	12	20	4			20
<b>Total for Yambio County</b>			<b>757</b>					
<b>WES_Mundri West County -- Payams: Mundri 8, Bangalo 4, Kotobi 24 (David) 27 old+10 new= 37</b>								
FBO	Payam	Boma	Farmers	maize	sorghum	cassava	beans	G/nuts

Okari Farmers Group	Mundri	Mundri	13	15				<b>10</b>
Odra-Sako Farmers Group	Kotobi	Kotobi	18	20		100		<b>20</b>
Goda Farmers Group	Kotobi	Kotobi	7	15				<b>10</b>
Medewu (Kagyiapu) Farmers Group	Kotobi	Medewu	20	20			15	<b>20</b>
Singowa Farmers Group	Kotobi	Medewu	23	10				<b>10</b>
Yanga General Purpose Cooperative Soc.	Kotobi	Karika	25	20		100		<b>20</b>
Abi Farmers Group	Kotobi	Karika	24	15		100		<b>15</b>
Lubani Farmers Group	Kotobi	Karika	20	20		100		<b>20</b>
Kuritingwa Farmers Group	Kotobi	Karika	26	10				<b>10</b>
Delegu Farmers Group	Kotobi	Karika	23	10				<b>10</b>
Kurugu Farmers Group	Kotobi	Karika	16	10				<b>15</b>
Pari Pari Farmers Group	Kotobi	Karika	13	10				<b>15</b>
Kati Farmers Group	Kotobi	Karika	11	25			10	<b>15</b>
Lobido Farmers Group	Kotobi	Karika	20	15				<b>10</b>
Okonganji Farmers Group	Kotobi	Karika	17	10				<b>10</b>
Tadua Farmers Group	Kotobi	Karika	15	10		100		<b>15</b>
Garambele Farmers Association	Kotobi	Karika	28	20			15	<b>20</b>
Achafo Farmers Group	Kotobi	Karika	18	10				<b>15</b>
Sarala Farmers Group	Kotobi	Karika	13	10				<b>15</b>
Kyedu Farmers Group	Kotobi	kotobi	13	15			15	<b>15</b>
Thigbogbo Farmers Group	Mundri	Mundri	19	15				<b>15</b>
Gorikpoco Farmers Group	Mundri	Mundri	14	15		100		<b>15</b>
Moroka Farmers Group	Kotobi	Bari	15	15				<b>15</b>
Adangu Farmers Group	Kotobi	kotobi	14	15				<b>15</b>
Troalo Farmers Group	Mundri	Mundri	28	15		100		<b>15</b>
Bonya Farmers Group	Kotobi	kotobi	15	15	2			<b>15</b>
Midi Agbandi Farmers Group	Kotobi	kotobi	27	15	2	100		<b>15</b>
Terewa Farmers Group	Bangallo	Bangallo	21	20	4			<b>15</b>
Malanga Farmers Group	Bangallo	Bangallo	14	20	4			<b>15</b>
Logobe Farmers Group	Bangallo	Bangallo	17	20	4			<b>15</b>
Wanganusu Farmers Group	Kotobi	Medewu	14	20	4			<b>15</b>
Mirikodo Farmers Group	Mundri	Mundri	16	20	4			<b>15</b>
Maya Association Group	Mundri	Mundri	22	20	4			<b>15</b>
Malu farmers group	Bangallo	Bangallo	17	20	4			<b>15</b>
Aba farmers group	Bangallo	Bangallo	19	20	2			<b>15</b>
Aditi farmers group	Bangallo	Bangallo	18	20	4			<b>15</b>
Tabiri farmers group	Bangallo	Bangallo	16	20	4			<b>15</b>
<b>Total Mundri West County</b>			<b>669</b>					
<b>WES Maridi County -- Payams: Maridi, Mambe, Landili (Aziti) 20 old+ 14 new= 34</b>								
<b>FBO</b>	<b>Payam</b>	<b>Boma</b>	<b>Farmers</b>	<b>maize</b>	<b>sorghum</b>	<b>cassava</b>	<b>beans</b>	<b>G/nuts</b>
Kwanga Farmers Group	Maridi	Maridi	26	10		100		<b>20</b>

Kenapai Farmers Association	Maridi	Mboroko	23	10				<b>15</b>
Abiriko Farmers Group	Maridi	Nabaka	16	10				<b>15</b>
Sukulu Gaba Farmers Group	Landili	Dorlili	16	10		100		<b>15</b>
Oto (Mambe) Farmers Group	Mambe	Mambe	10	10		100		<b>15</b>
Rubu Farmers Group	Maridi	Nabaka	23	10				<b>15</b>
Malaga Farmers Group	Mambe	Malaga	23	10		100		<b>15</b>
Nanzere Farmers Group	Maridi	Nanzere	11	10				<b>15</b>
Toutin Farmers Group	Maridi	Mabirindi	12	10			16	<b>15</b>
Lalama 2 Primary Cooperative Society	Maridi	Maridi	26	10			15	<b>15</b>
Lalama I Farmers Group	Maridi	Maridi	12	10			16	<b>15</b>
Luru Multi Purpose Coopeartive Society	Maridi	Mabirindi	19	10		100		<b>15</b>
Mudubai Farmers Group	Maridi	Mudubai	12	15		100		<b>20</b>
Yokodoma I Primary Cooopeartive Society	Maridi	Mudubai	15	10			15	<b>10</b>
Bambu Farmers Group	Maridi	Mudubai	8	10				<b>15</b>
Landi Mame Farmers Group	Maridi	Mudubai	12	10				<b>15</b>
Tifino Farmers Group	Maridi	Mudubai	13	10				<b>10</b>
Mudubai 2 Farmers Group	Maridi	Mudubai	14	10				<b>10</b>
Kosolobar Farmers Groups	Maridi	Mudubai	15	10				<b>10</b>
Angopale Farnesr Group	Mambe	Longboa	22	10				<b>10</b>
Chaima Farmers Group	Maridi	Mboroko	15	15	4			<b>15</b>
Mabirindi Farmers group	Maridi	Mabirindi	15	15	4			<b>15</b>
Demango Farmers Group	Maridi	Mboroko	23	15	4			<b>15</b>
Mayuwa Women Group	Maridi	Nabaka	23	15	4			<b>15</b>
Ani-Colaha Farmers Group	Maridi	Mboroko	22	15	4			<b>15</b>
Kengerambia Farmers Group	Maridi	Mabirindi	11	15	4			<b>15</b>
Olo Farmers Group	Mambe	Olo	12	15	3			<b>10</b>
Bahr-olo Farmers Group (Dongu?)	Mambe	Olo	12	15	3			<b>10</b>
Lamoko Farmers Group	Mambe	Eyiara	22	15	4			<b>10</b>
Ojejo Farmers Group	Mambe	Mambe	20	15	4			<b>10</b>
Landi-Oluwa Farmers Group	Landili	Dorrolili	18	15	4			<b>10</b>
Ambanei Farmers Group	Landili	Gingingo	17	15	4			<b>10</b>
Dukudu Olo	Landili	Yukudu Olo	12	15	4			<b>10</b>
Landaburo Young farmers Association	Mambe	Eyiara	21	15	4			<b>10</b>
<b>Total for Maridi County</b>			<b>571</b>					
<b>Total for WES</b>			<b>1,997</b>					
<b>CES_Yei County - Payams: Lasu, Mugwo, Otego (Esther) - 16 old + 22 new FBOs=38</b>								
<b>FBO</b>	<b>Payam</b>	<b>Boma</b>	<b>Farmers</b>	<b>maize</b>	<b>sorghum</b>	<b>cassava</b>	<b>beans</b>	<b>G/nuts</b>
Jambo General Purpose Cooperative	Mugwo	Jombo	19	10				<b>15</b>
Jombo Titela Farmers Group	Mugwo	Jombo	10	10				<b>15</b>
Kujugale Cooperatives Society	Mugwo	Longamere	45	10				<b>15</b>
Abulometa Womens Empowerment Cooperative	Mugwo	Ligi	33	10				<b>15</b>

Society								
Kosoromi Farmers Group	Mugwo	Payawa	19	10				10
Wadupe Cooperatives	Mugwo	Longamere	10	10				15
Lun Farmers Group	Mugwo	Payawa	11	10	2			10
Undukori Cooperatives	Mugwo	Longamere	42	10		100		15
Isangaga Cooperatives	Mugwo	Yari	35	10			10	15
Intu Farmers Association	Mugwo	Yari	39	10				10
Lupiru Farmers Group	Mugwo	Payawa	15	10	2			10
Beacon of Hope Expanded Farm	Otogo	Logo	17	10		100		15
Dumo Cooperative Society	Otogo	Mongo	41	10				15
Gire Farmers Group 1- Kularima	Otogo	Ombasi	14	10				15
Gire Farmers Goup 2 - Yeiba	Otogo	Ombasi	9					15
Gire Farmers Goup 3 - Kajiko	Otogo	Ombasi	8					15
Ayikile Farmers Group	Otogo	Goja	23	10				10
Sajo farmers Association	Otogo	Rubeke	35	10	2			15
Ngunkoyi farmers group	Otogo	Goja	33	10	2			15
Tinate Farmers Group	Otogo	Ombasi	20	10				10
Latta Farmers Group	Otogo	Ombasi	14	10				10
Green Belt Seed Company	Otogo	Rubeke	15	10			10	10
Morji ta farmers Association	Otogo	Wotogo	11	10			10	10
Goli Cereal and seeds farm	Otogo	Mongo	11	10	2		10	15
Iyete Farmers group	Otogo	Mursak	20	10				10
Kodadama Farmers group	Otogo	Mursak	20	10	2			10
Loketa Farmers group	Otogo	Mursak	20	10				10
Ijanagwo Farmers group	Otogo	Mursak	20	10				10
Ombasi Farmers group	Otogo	Ombasi	15	10				10
Duani Farmers Group	Otogo	Goja	12	10				10
Lasu Progressive Farmers Assoc (LAPFA)	Lasu	Lasu	17					15
Suruba Cooperate Society	Lasu	Achuli	29	10	2			15
Lomi Farmers Group	Lasu	Tokori	6		2			15
Abuda Farmers Group	Lasu	Achuli	47					10
Ngakoyi Farmers Group	Lasu	Tokori	10	10	2			15
Jujumbita Farmers Group	Lasu	Tokori	28	10		100	10	15
Jabara Farmers Group	Lasu	Nyori	22	10				15
Logurupo Farmers Group	Lasu	Tokori	12	10	2			10
<b>Total for Yei County</b>			<b>807</b>					
<b>Morobo County - Payams: Wudabi Kimba, Gulumbi (Isaac) - 11 old+19 new FBOs=30</b>								
<b>FBO</b>	<b>Payam</b>	<b>Boma</b>	<b>Farmers</b>	<b>maize</b>	<b>sorghum</b>	<b>cassava</b>	<b>beans</b>	<b>G/nuts</b>
Gulumbi Farmers Association	Gulumbi	Kindi	45	10				10
Kendila General Purpose Co-Operative Society	Gulumbi	Kendila	49	10				10
Girilli Multipurpose Cooperative Society	Gulumbi	Girilli	38	10				10

Loketa Multipurpose Cooperative	Gulumbi	Kindi	25	10	2			<b>15</b>
Anika Farmers Association	Gulumbi	Kilikili	9				10	<b>15</b>
Young Girls farmers group	Gulumbi	Kendila	14					<b>15</b>
Iraga Farmers group	Gulumbi	Kindi	13	10	2	100		<b>15</b>
Luku farmers group	Gulumbi	Girilli	9	10		100		<b>20</b>
Abudusu Farmers Group	Gulumbi	Girilli	20	10			10	<b>10</b>
Kumeni Farmers Group	Gulumbi	Girilli	15	10				<b>10</b>
Jujume Farmers Group	Kimba	Kimba	17	10				<b>15</b>
Renu Farmers Cooperative	Kimba	Kimba	25	10			10	<b>15</b>
Iralo Farmers Farmers	Kimba	Yondu	20	10	2			<b>10</b>
Ayikile Farmers Group	Kimba	Yondu	15	10				<b>10</b>
Yibo Farmers Group	Kimba	Kimba	6					<b>15</b>
Gumbiri Farmers Group	Kimba	Yondu	20	10				<b>15</b>
Dodolabe (Zuzumbu Farmers Group)	Kimba	Yondu	31	10				<b>10</b>
Kimba Rice Growers Association	Kimba	Kimba	35	10		100		<b>15</b>
Kadupe Farmers Association	Kimba	Kimba	12	10				<b>15</b>
Ngiliku Farmers Group	Kimba	Kaya	11	10				<b>15</b>
Kangai Farmers Group	Wudabi	Nyei	12	10				<b>15</b>
Bakubiki Youth Farmers Group	Wudabi	Aloto	25	10				<b>15</b>
Ligi Youth Farmers Group	Wudabi	Geri	13	10				<b>15</b>
Aziwa Farmers Group	Wudabi	Geri	10	10				<b>15</b>
Bodiri Farmers Group	Wudabi	Geri	8					<b>15</b>
Abuguwa Farmers Group	Wudabi	Geri	12	10			10	<b>15</b>
Salongo Farmers Group	Wudabi	Aloto	18	10			10	<b>15</b>
Nyei Farmers Group	Wudabi	Nyei	14	10				<b>15</b>
Ajugi Highland Cooperative	Wudabi	Aloto	17	10	2	100	10	<b>15</b>
Kogulu Farmers Group	Wudabi	Nyei	11					<b>10</b>
<b>Total for Morobo County</b>			<b>569</b>					
<b>Kajokeji County - Payams: Kangapo 1 , Kangapo 2 , Lire (Alex) - 22 old +12 new FBOs=34</b>								
<b>FBO</b>	<b>Payam</b>	<b>Boma</b>	<b>Farmers</b>	<b>maize</b>	<b>sorghum</b>	<b>cassava</b>	<b>beans</b>	<b>G/nuts</b>
Ngongita CS (Sub group- Lomeri lo twan)	Lire	Mekir	15	10				<b>10</b>
Ngongita CS(Sub group- Moro ko san)	Lire	Mekir	18	10				<b>10</b>
Ngongita CS (Sub group- Wuyundita 1)	Lire	Mekir	15		2			<b>10</b>
Ngongita CS (Sub group- Wuyundita 2)	Lire	Mekir	15		2	100		<b>10</b>
Ngongita CS (Sub group- Tembita)	Lire	Mekir	25		2			<b>10</b>
Ngongita CS (Sub group- Somere)	Lire	Mekir	16		2			<b>15</b>
Ngongita CS (Sub group- lomeri Pujo Nyo)	Lire	Mekir	15				10	<b>10</b>
Ngongita CS (Sub group - 1 )	Lire	Mekir	15					<b>10</b>
Morji ta Farmers group	Lire	Likamerok	14	10		100		<b>15</b>
Nyi-Nyire na nyoi Farmers Group	Lire	Longira	12	10			10	<b>10</b>
Bulit Kole Farmers Group	Lire	Likamerok	10	10	2			<b>15</b>

Pekido Farmers Group	Lire	Mogiri	12	10				<b>15</b>
Ngakoyi 1 Farmers Group	Lire	Kudaji	10			100		<b>15</b>
Nyarling (Nedo farmers group)	Lire	Mekir	15	10				<b>15</b>
Lomeri Ti Dara Moro 1 Farmers Group	Kangapo 1	Sera-Jale	16	10	2			<b>15</b>
United Members of Ariwa Community Group (UNIMACO)	Kangapo1	Kiri	17				10	<b>15</b>
Abongorikin Women Group	Kangapo1	Kiri	21					<b>15</b>
Teme Ta Tem Farmers Group	Kangapo 1	Kiri	16					<b>15</b>
Ngun-kata New FG	Kangapo 1	Sera Jale	16		2			<b>10</b>
3k-dev. Association Farmers	Kangapo 1	Kiri	15		2	100	10	<b>10</b>
Kitakindi Mugun	Kangapo 1	Kiri	17		2	100		<b>10</b>
Jalimo Growers Cooperative (Sub group 1)	Kangapo 2	Jalimo	90					<b>10</b>
Jalimo GC (Sub group - Ngongita 3)	Kangapo 2	Jalimo	22					<b>15</b>
Jalimo GC (Sub group - Togoleta)	Kangapo2	Jalimo	26					<b>30</b>
Kinyiba FC (Sub group - 1)	Kangapo2	Kinyiba	112					<b>10</b>
Kinyiba FC (Sub group - Morundita)	Kangapo2	Kinyiba	25			100		<b>15</b>
Kinyiba FC (Sub group - Maradadi)	Kangapo2	Kinyiba	15					<b>15</b>
Julukita Farmers Group	Kangapo 2	Kinyiba	21		2		10	<b>15</b>
Wukabo B Farmers Group	Kangapo 2	Bori	18					<b>15</b>
Bata Kindi Mugun Farmers Group	Kangapo 2	Bori	14					<b>10</b>
Totonapayi Farmers Group	Kangapo 2	Bori	17					<b>10</b>
Lwokita Farmers Group	Kangapo 2	Bori	20					<b>10</b>
Tiyu Ko Yupet Farmers Group	Kangapo 2	Bori	9					<b>10</b>
Morokita Farmers Group	Kangapo 2	Bori	18					<b>15</b>
Ngongi ta 2 Farmers Group	Kangapo 2	Bori	16					<b>10</b>
Lomeri Ti Dara 2 Farmers Group	Kangapo 2	Bori	25					<b>15</b>
Ngongi Taling farmers group	Kangapo 2	Bamurye	19	10	2	100		<b>10</b>
Mamajita Farmers group	Kangapo 2	Bori	20	10	3			<b>10</b>
Yeyio farmers group	Kangapo 2	Bori	15	10				<b>10</b>
Ngongita 3 farmers group	Kangapo 2	Jalimo	23	10				<b>10</b>
Kuru ko konyen farmers group	Kangapo 2	Logu	21	10	2	100		<b>10</b>
Ngakoyi 2 Farmers Group Farmers Group	Kangapo 2	Bori	26					<b>10</b>
Ngarakita Farmers Group	Kangapo 2	Bori	20				10	<b>15</b>
Bende meling farmers group	Kangapo 2	Bori	25	10				<b>10</b>
kuru ko piong farmers group	Kangapo 2	Bori	19	10				<b>10</b>
<b>Total for Kajokeji County</b>			<b>961</b>					
<b>Total for CES</b>			<b>2,337</b>					
<b>EES_Magwi County - Payams: Magwi , Pageri , Parajok TBD Ext Officer) 38 old+10 new= 48</b>								
<b>FBO</b>	<b>Payam</b>	<b>Boma</b>	<b>Farmers</b>	<b>maize</b>	<b>sorghum</b>	<b>cassava</b>	<b>beans</b>	<b>G/nuts</b>
Ndaka Farmers Group	Pageri	Moli Tokuro	20	15	2		10	<b>40</b>
Moli Andu Farmers Group	Pageri	Moli Tokuro	11		2			<b>20</b>

Afoyi Hill Womens Group	Pageri	Moli Tokuro	23	15	2	250		20
Meria Farmers Group	Pageri	Moli Andu	54	15	2			20
Ama-Alu Farmers Group	Pageri	Pageri	60		2			20
Disa Limi Farmers Group	Pageri	Pageri	20	15	2			20
Mutuvu Farmers Group	Pageri	Pageri	20	15	2		15	40
Amandeku Women Farmers Group	Pageri	Kerepi	30	15	2			20
Koria Farmers Group	Pageri	Kerepi	20		2	200		20
Mutala Dizalimi Farmer Group	Pageri	Kerepi	30		2			20
Envookotu Farmers Group	Pageri	Kerepi	20		2			20
Gaga Matura Farmers Group	Pageri	Kerepi	20		2	250		20
Lakiyo Farmers Group	Pageri	Loa	30	15	2			20
Mama Women Farmers Group	Pageri	Loa	29		2			20
Goliloso Farmers Group	Pageri	Opari	26	15	2			20
Ama-omba Baba Farmers Group	Pageri	Opari	21		2			20
Cing Lonyo Farmers Cooperative Society	Magwi	Obbo	16	20	2			10
Gom Pat Pat Farmers Cooperative Society	Magwi	Obbo	16		2			10
Lacan Pekun Farmers Group	Magwi	Obbo	16					10
Atek Kilwak Farmers Group	Magwi	Obbo	16	20	2			10
Obbo Mii Komi Farmers Group	Magwi	Obbo	20	30	2		15	10
Dii Cwinyi Women Group	Magwi	Obbo	40					10
Lonyo Tek Ki Lwak Farmers Group	Magwi	Obbo	20					10
Rac Keco Farmers Group	Magwi	Obbo	22					10
Ribe en Tek Farmers Group	Magwi	Obbo	20					10
Alwongi RDO (ARDO)	Magwi	Obbo	13			250		10
Lerwa Women Association	Magwi	Obbo	21	15				10
Bedo Bor Farmers Group	Magwi	Obbo	30					10
Peko Rom Farmers Group	Magwi	Obbo	20					10
Ayee Pit Farmers Cooperative Society	Magwi	Magwi	18	15	2		10	20
Iburu Konya Farmers Group	Magwi	Magwi	12		2			10
Women out of Conflict (WOC)	Magwi	Panyikwara Abara	20	15	2	200		10
Atek ki lwak Two Farmers Group	Magwi	Panyikwara	39		2			10
Lomal Pol Women Farmers Group	Magwi	Abara	22	15	2			10
Mak-kwere farmers group	Magwi	Abara	18		2			10
Gang en gang de yaa Farmers Group	Magwi	Abara	20					10
Ribe Aye Teko Farmers Group	Parjok	Parjok	13		2			20
Can Guru Won	Pajok	pajok	24	15	2			20
Nyeko Gali Kitic	Pajok	pajok	21	15	2			20
Abongo Lajok	Pajok	pajok	24	15	2			20
Ticpaco-Peke	Pajok	Lawaci	24	15	2	200		20
laboo-Pur ber	Pajok	Lawacci	24	15	2			20

Patanga	Pajok	Lawaci	22	15	2			20
Pe Koyo Farmers Group	Pajok	Lawaci	24	10	3		10	15
KonyKoni	Pajok	Caigon	23	10	2			20
Bedober kedano	Pajok	Caigon	25	15	2			20
Adak -woo farmers groups	Pajok	Pajok	24	15	2			20
Ruk_long	Pajok	Lagii	19	15	2			20
<b>Total for Magwi county</b>			<b>1,120</b>					
<b>EES_Ikwotos County - Payams: Ikwoto 5, Katire 8, Lomohidang North 4 (Modi) 17 old+8 new= 25</b>								
<b>FBO</b>	<b>Payam</b>	<b>Boma</b>	<b>Farmers</b>	<b>maize</b>	<b>sorghum</b>	<b>cassava</b>	<b>beans</b>	<b>G/nuts</b>
Ingwa Tafha Farmers Group	Lomohidang N	Isohe	15	10	2		20	60
Woroworo Lolith Farmers Group	Lomohidang N.	Ishohe	15	15	2	250		40
Logir Farmers Cooperatve	Lomohidang N.	Chahari	38		2			40
Lohulumen Chahari Farmers	Lomohidang N.	Chahari	15		2			40
Lokupere Farmers Group	Ikwoto	Ifuda	10		4			
K. Longole farmers Group	Ikwoto	Ifuda	30		2			40
Lobuho Farmers Group	Ikwoto	Ifuda	25		4			
Fahi-Fahi Farmers Group	Ikwoto Central	Ifuda	57		4			
Ifune Farmers Group	Ikwoto	Ifune	22	10	4	200		
Morutore Farmers Group	Ikwoto	Ifune	21		2			40
Lokohi	ikwoto Central	Lonyori	16		2			
Kudulo	Ikwoto Central	Lonyori	15	15	2			
Imilai Farmers Group	Katire	Imilai	8	10	2			
Seven Loaves Farmer Group	Katire	Imilai	8		2			40
Chafi Chafi farmers group	Katire	Imilai	8		2			
All Nations Christian Farmers	Katire	Imilai	8		2			50
Lomini	Katire	Imiliai	15		2			20
Ngarije Farmers Group	Katire	Gilo	17	15	2		15	
Hafai Farmers Group	Katire	Gilo	17	15				
Afangu	Katire	Gilio	29	10				
Konoro	Katire	Gilio	24	10				
Lokoli	Katire	Iswak	26	10				
Muturi Farmers Group	Katire	Iswak	18	10	2		15	40
Asafa River	Katiri	ibunys	15	15	2			40
Nigoge Farmers Group	Katire	Katire Central	17	15	2	200		
<b>Total for Ikwotos County</b>			<b>489</b>					
<b>EES_Torit County -- Imurok,Kudo,Ifwotu &amp; Iyre = 30 FBOs all new</b>								
<b>FBO</b>	<b>Payam</b>	<b>Boma</b>	<b>Farmers</b>	<b>maize</b>	<b>sorghum</b>	<b>cassava</b>	<b>beans</b>	<b>G/nuts</b>
Loguhini Farmers Group	Iyre	Hafai	20	15	2			20

Hafijahu Farmers Group	Iyre	Hafai	12	15	2	200		20
Losulahini farmers Group	Iyre	hafai	15	15	2			20
Elocang Ilo Farmers group	Imurok	Ifoho	23	15	2			30
Nyekenyeke	Imurok	Ifoho	14	15	4			15
Hifedeng	Imurok	Ifoho	21		2			20
Mura Tobwor	Imurok	Ifoho	16		2			20
Oduleleng	Imurok	Ifoho	23		2			20
Katapillar/Ogorori	Imurok	Ifoho	26	15	2		10	20
Himina farmers group	Imurok	Ifoho	26	10	2			20
Niran/Lele farmers group	Imurok	Ifoho	14	10	2			20
Mukwano Farmers Group	Imurok	Ifoho	26	10	2			20
Maki Latin	Imurok	Ifoho	21		2			20
Chuful Farmers group	Imurok	Chuful	23	10	2			20
Unity/Atubo farmers group	Imurok	Chuful	23	10	2			20
Ataro Farmers group	Imurok	Chuful	24	10	2	200		20
Ohufa new Farmers group	Ifwotu	Imokoru	34	10	2			10
Lefirari	Ifwotu	Imokoru	23		2			10
Halere	Ifwotu	Imokoru	45		4			10
Ihutu	Ifwotu	Imokoru	40		4		10	10
Mura	Ifwotu	Imokoru	43		4	150		10
Tarubene	Ifwotu	Imokoru	29		4			10
Iluma	Ifwotu	Iholong	26		4			10
Matara	Ifwotu	Iholong	33		4			15
Kenyukenyuk	Ifwotu	Iholong	35	10	2			15
Tonok	Ifwotu	Iholong	31	10	2			15
Otimo Meyu	Ifwotu	Iholong	31	10	2			15
Amuno hotok1	Kudo	Hutyala	15		2	200		10
Amuno hotok 2	Kudo	Hutyala	20	10	2			10
Imaru Farmers group	Kudo	Hutyala	20	10	2		10	10
<b>Totals for Torit County</b>			<b>752</b>					
<b>Total for EES</b>			<b>2,361</b>					
<b>TOTALS FOR FARM</b>			<b>6,695</b>					