



FOOD AND ENTERPRISE DEVELOPMENT (FED) PROGRAM FOR LIBERIA

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Photo Caption: Soil laboratory at Booker Washington Institute (BWI) constructed by USAID FED

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

Acronyms

AEDE	Agency for Economic Development and Empowerment
APDRA	Association Pisciculture et Development Rural en Afrique
AVTP	Accelerated Vocational Training Program
AYP	Advancing Youth Project
BSTVSE	Bureau of Science, Technical, Vocational and Special Education
BWI	Booker Washington Institute
CARI	Center of Agriculture Research Institute
CAHW	Community Animal Health Worker
CBF	County Based Facilitator
CILSS	Permanent Interstates Committee for Drought Control in the Sahel
CoE	Center of Excellence
CYNP	Community Youth Network Program
DAI	Development Alternatives Inc.
DCOP	Deputy Chief of Party
ECOWAS	Economic Community of West African States
ECREP	Evangelical Children Rehabilitation Program
EMMP	Environmental Mitigation and Monitoring Plan
EO	Extension Officer
FtF	Feed the Future
FGD	Focus Group Discussion
FUN	Farmer Union Network
GAP	Good Agriculture Practices
GBCC	Grand Bassa Community College
GCAP	Green Coast Agricultural Program
GPS	Global Positioning Systems
IBEX	Investing in Business Expansion Liberia
IFDC	International Fertilizer Developmental Center
IITA	International Institute for Tropical Agriculture
IP	Implementing Partner
IQC	Indefinite Quantity Contract
ISFM	Integrated Soil Fertility Management
KRTTI	Kakata Rural Teachers Training Institute
LABEE IPG	Liberia Agriculture Business Enabling Environment Inter-Agency Policy Group

LAUNCH	Liberia Agriculture, Upgrading Nutrition & Child Health
LCCC	Lofa County Community College
LIFE	Livelihood Improvement for Farming Enterprises
LIPAS	Liberia Integrated Professional Agriculture Service
LMEP	Liberia Monitoring and Evaluation Program
LNGO	Local Non-Governmental Organization
MFI	Micro Finance Institution
MIS	Market Information Systems
MoA	Ministry of Agriculture
MoCI	Ministry of Commerce and Industry
MoE	Ministry of Education
MoHSW	Ministry of Health and Social Welfare
MoP	Muriate of Potash
MoU	Memorandum of Understanding
MSME	Micro, Small and Medium Enterprise
NDA	National Diploma in Agriculture
NCCC	Nimba County Community College
NIC	National Investment Commission
PERSUAP	Pesticide Evaluation Report and Safer Use Action Plan
PIDS	Performance Indicator Database System
PMP	Performance Management Plan
PUA	Peri-Urban Agriculture
R&RF	Rights & Rice Foundation
RFTOP	Requests for Task Order Proposals
RRA	Rapid Rural Appraisal
TAMIS	Technical Administrative Management Information System
TSP	Triple Super-Phosphate
TVET	Technical, Vocational Education and Training
UDP	Urea Deep Placement
UL	University of Liberia
USADF	United States African Development Foundation
USAID	United States Agency for International Development
VET GOV	Veterinary Governance in Africa
WAAPP	West Africa Agriculture Productivity Program
WAFP	West Africa Fertilizer Project
WASP	West Africa Seed Project

WFP

World Food Program

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Background

The USAID Food and Enterprise Development (FED) Program is a flagship Feed the Future (FtF) Initiative, USAID-funded development program in Liberia that was launched in September 2011. USAID FED uses an all-inclusive strategy incorporating MSME farmers, processors, suppliers, women, and youth while partnering with the government of Liberia and local civil society to achieve food security.

The goal of USAID FED is to increase food availability, utilization, and accessibility by building an indigenous incentive structure that assists agricultural stakeholders in adopting commercial approaches.

This incentive structure is built upon:

- Improved technology for productivity and profitability
- Expanded and modernized input supply and extension systems
- Commercial production, marketing, and processing
- Enterprise services
- Workforce development

USAID FED works with the Ministry of Agriculture (MoA), civil society and the private sector in providing communities access to agricultural inputs, extension services, nutrition messages, processing services, market information, transportation, credit, agro-business education, training, and business development services.

In five years, USAID FED's thrust to expand market linkages is expected to lead to substantial increases in income and job opportunities. USAID FED aims to significantly boost the production, processing, marketing and nutritional utilization of rice, cassava and vegetables, and to enhance the productivity of goat farming in the counties covered by the program.

These initiatives are being carried out in Bong, Lofa, Nimba, Grand Bassa, Montserrado, and Margibi counties. USAID FED focuses on these counties because they are situated along regional development corridors that are crucial in promoting intra and inter-county commerce. These growth corridors are expected to improve food availability and access for all Liberians.

USAID FED's methodology is market-led and value chain-driven; it is committed to developing indigenous capacity building, with a specific focus on Liberia's women and youth.

USAID FED is implemented by five partners: Development Alternatives, Inc. (DAI), Winrock International, International Fertilizer Developmental Center (IFDC), Louisiana State University (LSU), and The Cadmus Group.

Executive Summary

USAID FED has met or exceeded its targets in 12 out of 26 indicators by the end of quarter three of fiscal year 2015 (FY15).

Indicator	FY15 Target	Achieved as of Q3	% of Target Accomplished
Number of rural households benefitting directly from USG interventions	83,905	84,794	101%
Number of farmers and others who have applied new technologies and management practices as a result of USG assistance	88,566	88,152	100%
Number of jobs attributed to FtF implementation	1,848	2,096	113%
Number of MSMEs, including farmers, receiving business development services from USG-assisted sources	19185	28,555	149%
Number of individuals who have received USG supported long-term agricultural sector productivity or food security training	2	2	100%
Number of individuals who have received training on management and leadership	19,195	26,209	137%
Number of students and Faculty/Administration benefitting from improved academic facilities and programs	2,500	2,851	114%
Number of public-private partnerships formed as a result of FtF assistance	1,795	2,052	114%
Number of firms (excluding farms) or Civil Society Organizations (CSOs) engaged in agricultural and food security-related manufacturing and services now operating more profitably (at or above cost) because of USG assistance	250	359	144%
Number of individuals who have received USG supported short-term agricultural sector productivity or food security training	96,024	108,340	113%
Number of farmers and others with access to improved planting materials	67,178	77,231	115%
Number of individuals receiving nutrition messages within agricultural programs as a result of USG assistance	39,610	65,103	164%

USAID FED is on track in nine other indicators and will be achieving or exceeding targets in these indicators by the end of September 2015.

Indicator	FY15 Target	Achieved as of Q3	% of Target Accomplished
Number of hectares under new technologies or management practices as a result of USG assistance	16,834	13,632	81%
Hectares under new or improved/rehabilitated irrigation or drainage services as a result of USG assistance	5,427	5,039	93%
Number of private enterprises, producers organizations, women's groups, trade and business associations and community-based organizations (CBOs) receiving USG assistance	2,292	1,819	79%
Number of private enterprises, producer organizations, women's groups, trade and business associations and community-based organizations (CBOs) that applied new technology or management practices as a result of USG assistance	2,292	1,819	79%
Total increase in installed storage capacity (M3)	8,170	6,507	80%
Value of incremental sales (collected at the farm level) attributed to FtF	4,879,108	3,668,950	75%
Number of MSMEs, including farmers, receiving USG assistance to access loans	9,000	6,631	74%
Value of new private sector investment in the ag sector or food chain leveraged by FtF implementation	2,405,500	1,685,869	70%
Total amount of financing (cash and in-kind) accessed by farmers and agribusinesses through formal, informal, and embedded services.	751,654	686,018	91%

For three indicators: 1) number of households with improved diet diversity as a result of USG assistance, 2) percentage reduction in Post-Harvest Losses (for rice, cassava and vegetables) and 3) gross margins, special surveys will be carried out in quarter four to determine level of accomplishment.

For increased installed milling capacity, USAID FED has achieved 3600MT out of its target of 10,560MT. This represents 34% of target achieved. The target will be achieved with the completion of nine rice business hubs, which will have a total milling capacity of 7,600MT/annum. This is anticipated to be achieved by end of September 2015.

USAID FED planned in FY 15 to advance six policies to the next stage. These policies are: 1) the seed regulation, 2) pesticide regulation, 3) fertilizer regulation, 4) National Standards Laboratory (NSL), 5) National Livestock Policy, and 6) EO#64. EO#64 was implemented briefly, but did not have significant impact because its implementation period coincided with the Ebola outbreak. It expired in April 2015. Effectively, FED's target has been reduced to five policies as a result of the expiry of EO#64. FED will focus work in advancing to the next stage the seed, pesticide and fertilizer regulations, the National Standards Laboratory, and the National Livestock Policy in quarter four. A seed policy STTA has been hired and commenced work in the last week of June.

Major Events in FY15 Quarter Three

On April 9th, 2015 the President of Liberia, H.E. Ellen Johnson Sirleaf, and United States Ambassador to Liberia, Deborah Malac, were in Kakata, Margibi County to officially inaugurate Liberia's first industrial rice processing and warehousing facility, Fabrar Liberia Inc. Fabrar Liberia Inc. (Fabrar) is a fully incorporated, Liberian owned and run agriculture holding firm created in 2009. In 2014, with financial and technical support from the U.S. Government through the USAID Food and Enterprise Development (USAID FED) program and private equity financing from West Africa Venture Fund, Fabrar was able to procure an automated rice processing mill and expand its warehouse facilities. The industrial scale facility, now with double its previous capacity, can mill 30

metric tons (MT) of rice each day and store 1,000-MT with proper ventilation and protection from pests, mold, fungus and mildew. As the country's largest rice processor, and currently, the only industrial processor, Fabrar Liberia Inc. will provide Liberian farmers with an incentive and motivation to grow quality rice as a business and not just for subsistence.

On May 14, 2015 USAID FED hosted a high level delegation from USAID Washington, White House National Security Council, and the Congressional Liaison Office. The delegation visited one youth farming group in Margibi County called See Yourself Farming Group. This farming group is currently growing okra for export to the European markets. After visiting the farm, the delegation toured Fabrar Liberia Inc. rice processing facility at Kakata, Margibi County, which was supported by USAID FED. After completing the facility tour, the delegation participated in a round table discussion with USAID FED supported farmers and other beneficiaries representing all four USAID FED value chains. The delegation from Washington DC was headed by Eric Postel, Associate Administrator, USAID and John Mark Winfield, USAID Liberia Mission Director.

On May 20, 2015, USAID FED in collaboration with the Government of Liberia (GoL) inaugurated the Liberia Business Incubator (LBI) Cassava Processing Facility in Virginia, Monsterrado County. The Honorable Speaker of the House, Alex Tyler, US Ambassador Deborah Malac, the Honorable Minister of Commerce and Industry (MoCI), Axel Addy, other GoL Officials, cassava farmers and representatives from development organizations officially launched the facility in the outskirts of Monrovia. LBI, a fully incorporated woman owned Liberian business which is also run as an agriculture holding firm, was created in 2010. LBI adds value to cassava by processing it into gari, fufu and cassava flour. USAID FED supported LBI with improved cassava processing equipment worth USD \$44,950, which will enable the enterprise to process 5 MT of cassava per day instead of the previous 2 MT daily. LBI employs 6 staff but now with the added capacity will increase its staff to 14 full time employees.

On June 3, 2015 USAID FED conducted a roundtable conference with the media to discuss what the FED project is about, its accomplishments, ongoing and upcoming activities and future plans. A total of 21 media institutions participated in the event. At least five newspapers printed articles and four radio stations aired the roundtable discussion. Three online publications including the Government website, Liberia News Agency (LINA) published electronic articles about FED following the press roundtable event.

Component One: Increase Agricultural Productivity and Profitability

Task 1A: Increased Productivity and Profitability of the Rice Value Chain

Rice Sales from FY14:

During quarter three, a total of 875 MT of FY14 rice crop was sold at a value of US \$478,054. In total 3,341 MT of FY14 rice crop has been sold at a value of US \$1,531,676 year to date (Table 1).

Table 1: FY14 Rice crop sales

County	Sales Volume Q1 2015 (MT)	Sales value Q1 2015 (US\$)	Sales Volume Q2 2015 (MT)	Sales value Q2 2015 (US\$)	Sales volume April 2015 (MT)	Sales value April 2015 (US\$)	Sales volume May 2015 (MT)	Sales value May 2015 (US\$)	Sales volume June 2015 (MT)	Sales value June 2015 (US\$)	Sales Volume YTD (MT)	Sales value YTD (US\$)
Lofa	122	47,983	1,703	681,652	20	7,700	145	56,950	27	10,705	2,017	804,990
Nimba	-	-	36	17,216	-	-	-	-	-	-	36	17,216
Bong	96	38,979	477	255,633	199	140,402	274	149,831	203	110,126	1,250	694,971
Grand Bassa	18	7,080	14	5,078	7	2,340	-	-	-	-	39	14,498
TOTAL	236	94,043	2,230	959,579	226	150,442	419	206,781	230	120,831	3,341	1,531,676

Activity 1.A.1 Improving productivity and profitability of upland rice

During the reporting period, a total of 2,532 hectares out of 2,994.50 in the upland were planted (Table 2). It is anticipated that planting in the upland will be completed by the end of July.

Table 2: Upland rice commercial sites harvests

County	Number of targeted hectares of FY15 upland	Number of upland hectares planted in June	Number of Hectares planted by Q3	Total number of Hectares Planted YTD
Lofa	420	378	378	378
Nimba	182	182	182	182
Bong	2030	1,735	1,735	1,735
Grand Bassa	333	228	228	228
TOTAL	2,965	2,523	2,523	2,523

Establishment of 297 hectares of new demonstration sites:

During the quarter three reporting period, 185 hectares of upland demonstration sites out of 297 had been planted (Table 3). The rest will be planted in July.

Table 3: Lowland commercial sites harvests

County	Number of upland demo hectares targeted	Number of upland demo hectares planted in June	Number of upland demo hectares planted by Q3	Total number of upland demo hectares planted YTD
Lofa	61	45	45	45
Nimba	110	110	110	110
Bong	109	15	15	15

Grand Bassa	17	15	15	15
TOTAL	297	185	185	185

Distribution of 198 MT of Nerica -14 seed to 297 ha of demonstration sites:

During the reporting period and specifically the month of May, USAID FED had distributed a total of 198MT of Nerica L-14 seed to 11,296 upland beneficiaries across the four counties (Table 4).

Table 4: Upland rice farmer recruitment

County	Beneficiaries	Total Seed Supplied (kg)
Bong	4,064	73,060
Nimba	4,550	81,088
Lofa	1,912	32,403
Grand Bassa	770	11,911
TOTAL	11,296	198,462

Distribution of 60MT of fertilizer to 297 ha of demonstration sites:

In May, USAID FED had distributed 45 MT of NPK fertilizers to the 297 demonstration sites (Table 5).

Table 5: Fertilizer distribution by county

County	Number of demo sites	Quantity (kg)
Bong	109	16,350
Lofa	61	9,150
Nimba	110	16,500
Grand Bassa	17	2,550
TOTAL	297	44,550

Distribution of 334 liters of herbicides to 297 ha of demonstration sites:

During quarter three, USAID FED determined the herbicide requirements of the upland demonstration sites (Table 6) and commenced the procurement process with Greenfield, the contracted vendor. The herbicides arrived in the country at the end of June. These will be distributed to the counties in July.

Table 6: Revised herbicide requirements for FY15 upland demo sites

County	Number of Hectares	Agro Chemical requirements (liters)		Total Agro Chemical (Liters)
		Glyphosate	2,4-D	
Bong	27.00	82	41	123
Lofa	15.00	46	23	69
Nimba	28.00	83	41	124
Grand Bassa	4.00	13	6	19
TOTAL	74.00	223	111	334

Activity I.A.2 Expanding lowland rice production

During this reporting period, a total of 533 hectares out of 3,546 hectares of lowland were planted across the four counties (Table 7). The rest will be planted in Q4.

Table 7: Lowland commercial sites cleared for planting

County	Targeted hectares for FY15	New targeted hectares for FY15	Hectares cleared in Q2 FY15	Hectares cleared in April	Hectares cleared in May	Hectares cleared in June	Hectares cleared in Q3	Hectares cleared YTD	Hectares Planted In Q3	Hectare planted YTD
Bong	700	1,654.50	1,265.00	150	239.5	0	389.5	1,654.50	350	350
Lofa	350	969.9	197.9	70	505	121	696	893.90	7.3	7.3
Nimba	812	835.5	60.96	215	275	200	690	750.96	169	169
Grand Bassa	46.2	86	6.3	31.3	5	36	72.3	78.60	7	7
TOTAL	1,908.20	3,545.90	1,530.16	466.30	1,024.50	357	1847.8	3,377.96	533.3	533.3

Establishment of 267 hectares of new demonstration sites:

All 267 hectares of demonstration fields were cleared during this quarter. By the end of June, de-stumping and bunds and canal lay out were completed on all 267 hectares (Table 8).

Table 8: Lowland demonstrations sites establishment

County	Demo sites target hectares	Number of hectares cleared as of April	Number of hectares de-stumped and laid out in May	Number of hectares de-stumped and laid out in June	Total hectares de-stumped and laid out YTD
Bong	79	79	79	0	79
Lofa	50	50	50	0	50
Nimba	111	111	111	0	111
Grand Bassa	27	27	17	10	27
Total	267	267	257	10	267

Distribution of 28 MT of Nerica-L19 seeds to 267 ha of new demo-sites:

During the reporting period, USAID FED distributed 28MT of Nerica L-19 seeds to lowland beneficiaries across the Counties (Table 9). The distribution was completed by the end of May.

Table 9: Lowland rice farmer recruitment

County	Targeted inputs (MT)	Qty distributed as of April (MT)	Qty distributed in May (MT)	Qty distributed YTD
Bong	14	14	0	14
Nimba	6	0	6	6
Lofa	7	0	7	7
Grand Bassa	1	0	1	1
Total	28	14	14	28

Distribution of 192MT of TSP, MOP, and Urea Briquette & Urea fertilizer to 267 demonstration sites:

In quarter three, USAID FED distributed 192MT of TSP, MOP, Urea Briquette and Urea fertilizer to the demonstration sites (Table 10).

Table 10: Lowland commercial sites cleared for planting

County	Fertilizer type	Quantity (kg)
Bong	Urea	35,392
	Urea Briquette	22,720
	TSP	15,666
	MOP	11,109
Nimba	Urea	26,645
	Urea Briquette	16,598
	TSP	11,221
	MOP	8,000
Lofa	Urea	18,091
	Urea Briquette	10,802
	TSP	7,890
	MOP	5,223
Grand Bassa	Urea Briquette	1,000
	TSP	700
	MOP	502

Distribution of 301 liters of herbicides to 191 demonstration sites:

During the quarter three reporting period, USAID FED determined the herbicide requirements of the lowland demonstration sites (Table 11) and commenced the procurement process with Greenfield, the contracted vendor. The herbicides arrived in the country at the end of June. These will be distributed to the counties in July.

Table 11: Revised herbicide requirements for FY15 lowland demonstration sites

County	Number of Hectares	Herbicide requirements (liters)		Total Herbicide (liters)
		Glyphosate	2,4-D	
Bong	20	59	30	89
Lofa	13	38	19	57
Nimba	28	83	42	125
Grand Bassa	7	20	10	30
TOTAL	68	200	101	301

Distribution of 92 liters of pesticides to 191 demonstration sites plots for trials:

USAID FED determined the pesticide requirements of the lowland demonstration sites (Table 12) and commenced the procurement process. The pesticides arrived in the country at the end of June. These will be distributed to the counties in July.

Table 12: Revised pesticide requirements for FY15

County	Number of Hectares	Pesticides required (liters)				
		Malathion	Flubendiamide	Azoxystrobin	Thiram	Total
Bong	20	15	1	10	2	27
Lofa	13	9	1	6	1	17
Nimba	28	21	1	14	2	38
Grand Bassa	7	5	0	3	1	9
TOTAL	68	50	3	33	5	92

Activity 1.A.3 Enhancing mechanization for lowland rice production

Distribution of 30 power tillers to youth entrepreneurs:

USAID FED conducted a five-day training on power tiller operations and mechanical maintenance for 30 youth entrepreneurs (all males) in Gbarnga City, Bong County. This training was conducted from June 15-19, 2015. These 30 youth will receive power tillers from USAID FED in July under cost share arrangements (Table 13). Each entrepreneur will till 48 hectares of USAID FED assisted lowlands in order to meet their cost share obligations under the agreement. An official ceremony to hand over 30 power tillers equipment to the 30 youth entrepreneurs will take place on July 16, in Suakoko, Bong County.

Table 13: Power tiller distribution by county

County	Number of youth entrepreneurs	Number of power tiller
Bong	10	10
Lofa	9	9
Nimba	10	10
Grand Bassa	1	1
Total	30	30

Contracting of power saw operators to assist with de-stumping and clearing of new lowlands:

During the reporting period, 20 power-saw operators contracted by USAID FED cleared 3,545 hectares of lowlands across the four counties. This included felling and de-stumping (Table 14).

Table 14: Land cleared by power saw operators by county

County	Number of operators	Targeted hectares	Hectares cleared in May	Hectares cleared in June	Total Ha cleared YTD
Bong	7	1,655	900	755	1,655
Lofa	5	970	569	400	970
Nimba	6	836	540	296	836
Grand Bassa	2	86	46	40	86
TOTAL	20	3,546	2,055	1,490	3,546

Distribution of 20 paddy drum seeders for demonstration:

In June, AIM Global was contracted to supply 12 paddy drum seeders to USAID FED. Eight paddy drum seeders had already been procured from GroGreen. AIM Global has informed USAID FED that the paddy drum seeders will arrive in Liberia by July 10. These paddy drum seeders will be used to demonstrate labor saving technology in lowland rice planting through direct seeding.

Distribution of 20 cono-weeders for demonstration:

During the reporting period, 20 cono-weeders were delivered to the counties for distribution to the rice business hubs (Table 15). These cono-weeders will be used to demonstrate labor saving technology in removing weeds from lowland rice fields.

Table 15: Cono-weeder distribution by county

County	# of Cono -weeder distributed
Bong	6
Lofa	6
Nimba	6
Grand Bassa	2
Total	20



Figure 1: Cono-weeder distributed to USAID FED counties.

Activity 1.A.4 Promoting use of fertilizers in upland and lowland rice production

Distribution of Leaf Color Charts to determine Nitrogen requirements to upland and lowland demonstration sites:

During the reporting period, USAID FED received leaf color charts procured through DAI-HO. The leaf color charts will be used as guide to determine the sufficiency or insufficiency of nitrogen in the rice crops to enable farmers to provide the required nitrogen application during a given time. Farmers will be trained during FY15 by USAID FED and LNGO staff, and are expected to use the leaf color chart to actually apply the required supplemental nitrogen in FY16.



Figure 2: Extension staff being trained on how to use leaf color charts

Training upland and lowland lead farmers, LNGOs and extension officers on the use of Leaf Color Charts

During June, USAID FED trained 10 extension staff from LNGOs and 8 USAID FED extension staff (16 male and two female) on the use of leaf color charts to determine fertilization requirements. The training was held in Gbarnga, Bong County on June 9-11, 2015. The training was conducted by USAID FED's Senior Rice Technical Specialist.

Activity 1.A.6 Promoting 2 rice crops per years

Construction of 30 new irrigation spillways and head dykes:

By the end of the quarter three reporting period, Tallobenku Construction had completed the construction of 13 new spillways in the counties (Table 16). It is anticipated that all the 17 pending spillways will be completed by the end of July.

Table 16: Completed spillways by county

County	Targeted spillways for FY15	Number of spillways completed in April	Number of spillways completed in May	Number of spillways completed in June	Total number of spillways completed YTD	Number of spillways pending completion
Bong	10	0	0	3	3	7
Nimba	6	0	0	0	0	6
Lofa	11	0	10	0	10	1
Grand Bassa	3	0	0	0	0	3
TOTAL	30	0	10	3	13	17

In total, 15 hectares out of 50 hectares supported by the 12 FY14 spillways are currently under double cropping. Of the 15 hectares under double cropping, 6 hectares were harvested in June in Bong and Lofa Counties (Table 17). A total of 20MT of rice was harvested from 6 hectares, giving an average yield of 3.6MT/ha. It is anticipated that the remaining 9 hectares will be harvested by August. In order to optimize utilization of the spillway infrastructure for two crops a year, USAID FED will train the farmers in the double cropping calendar that was developed by FED STTA Dr. Pandian Balamurugan.

Table 17: Hectares under double cropping that have been harvested

County	Hectares under double cropping	Number of hectares harvested in June	Volume of harvest (MT)	Number of hectares to be harvested
Bong	4	4.0	14	0
Lofa	6	1.5	5	4
Nimba	5	0	0	5
TOTAL	15	5.5	20	9

Activity I.A.7 Enhancing post-harvest management practices

FY14 Rice Business Hubs:

During the reporting period, the nine rice business hubs established in FY14 processed a total of 76MT of paddy rice and generated revenues of US\$54,260 through the sale of rice to community markets and the World Food Programme (Table 18).

Table 18 RBHs inventory and sales

County	RBH location	Sales volume in April (MT)	Sales Value as of April (US\$)	Sales volume in May (MT)	Sales Value in May (US\$)	Sales volume in June (MT)	Sales Value in June (US\$)	Sales volume in Q3(MT)	Sales Value in Q3 (US\$)	Sales volume YTD (MT)	Sales value YTD (US\$)
Lofa	Serkonedu	40	\$28,800	6	\$4,200	0	\$0	46	\$33,000	46	\$33,000
	David Selma Town	5	\$3,600	2	\$1,400	0	\$	7	\$5,000	7	\$5,000
	Foya town	3	\$2,160	3	\$2,100	0	\$	6	\$4,260	6	\$4,260
	Sub Total	48	\$34,560	11	\$7,700	0	\$	59	\$42,260	59	\$42,260
Nimba	Dumpa	0	\$0	5	\$3,600	0	\$0	5	\$3,600	5	\$3,600

	Payee	0	\$	2	\$1,400	0	\$0	2	\$1,400	2	\$1,400
	Boweh	0	\$	2	\$1,400	0	\$0	2	\$1,400	2	\$1,400
	Sub Total	0	0	9	\$6,400	0	\$0	9	\$6,400	9	\$6,400
Grand Bassa	Kpelle Town	0	\$	0	\$0	0	\$0	0	\$0	0	\$0
	Sub Total	0	\$	0	\$0	0	\$0	0	\$0	0	\$0
Bong	Garmue	0	\$0	0	\$0	5	\$3,500	5	\$3,500	5	\$3,500
	Bongmines	0	\$0	0	\$0	3	\$2,100	3	\$2,100	3	\$2,100
	Sub Total	0	\$0	0	\$0	8	\$5,600	8	\$5,600	8	\$5,600
Total		48	\$34,560	20	\$14,100	8	\$5,600	76	\$54,260	76	\$54,260

Establishing 10 new Rice Business Hubs (RBH):

During the reporting period, a total of nine rice business hub sites for FY15 were selected and verified in Bong, Lofa and Nimba Counties (Table 19). It is anticipated that the construction of these nine rice business hubs will commence in quarter four.

Table 19: Verified rice business hubs sites

County	Proposed Business location	Rice Hub	Farming Group	GPS Coordinates
Bong	Zowien-ta		Leelah Agriculture Business Coop	29N-0479071 ; UTM-0753606
	Salala		Salala Yalafama Association	29N-0377706; UTM-0746012
	Sinyea, Suakoko		Sumo's farm	29N-043888; UTM-0779252
Lofa	Kahenjala		Kahenjala Farmers Association	29P-0379115; UTM-0920083
	Foyah		Barliloe Farmers Association	29P-0371491; UTM-0935109
	Foyah		Mayor Farmers Association	29P-0365193; UTM-0925001
Nimba	Gorkor Town, Tappita		Gbondeamon Farmers Association	29N-0493978; UTM-0703504
	Karnplay		Zoedwar Farmers Association	29N-0554817; UTM-0802252
	Zoeluapa		Zoeluapa Farmers Association	29N-0523982; UTM-0779291

Activity I.A.8 Stimulating private sector investment in commercial rice production

Facilitating linkages between Fabrar, Government Agencies and Institutional buyers:

On April 9, Fabrar Liberia Inc.'s processing facility was officially inaugurated by her Excellency Madam Ellen Johnson Sirleaf, the President of the Republic of Liberia. This occasion was also attended by her Excellency Honorable Deborah Malac, the US ambassador to Liberia, and by high level USAID Liberia officials as well as Government officials from the Ministry of Agriculture, Commerce and representatives of the legislature.

During the ceremony, President Sirleaf expressed her gratitude to USAID FED for supporting Fabrar in creating market access for



Figure 3: President Ellen Johnson Sirleaf cuts the ribbon at FABRAR Liberia as US Ambassador Deborah Malac looks on.

Liberian farmers and adding value to the local rice. Other speakers at the occasion included the US Ambassador, Dr. Anthony Oboh, of the West Africa Venture Fund, Senator Oscar Cooper of Margibi County and USAID FED's Chief of Party Ms. Agnes Luz.

In May, Fabrar met with the Ministry of Commerce to work out contracts for the supply of local rice to the Government of Liberia (GoL) for the Independence Day Celebration. FABRAR Liberia signed a contract with the Ministry of Commerce and Industry to supply 17.5MT for the Independence Day Celebration. Fabrar is also working with other government ministries to secure a contract to supply 300MT of rice to its employees for the same Independence Day program

Task 1B: Increased Productivity and Profitability of the Cassava Value Chain

FY14 cassava crop harvests and sales:

During the reporting period, a total of 10,561MT of cassava tubers were harvested from 598 hectares of FY14 USAID FED supported cassava farms. The reported total volume of FY14 cassava crops harvested comes to 11,832MT (Table 20). The farmers are harvesting cassava in a staggered manner hence harvesting in the same area continues one year through 18 months from the time of planting. For example, farmers started harvesting in May 2015 the cassava planted in May 2014. Harvesting from the same area will continue through November 2015. The last batch of cassava under the FY14 cropping season was planted in August 2014 and will start to be harvested in August 2015. It is anticipated that harvesting of all the planted areas for FY14 crop will be completed by February 2016.

Table 20: FY14 Cassava crop harvests

County	Area planted for FY14 crop (Ha)	Expected Harvest FY14 Crop (MT)	Volume harvested in Q1 of FY15 (MT)	Volume harvested in Q2 of FY15 (MT)	Volume harvested in April (MT)	Volume harvested in May (MT)	Volume harvested in June (MT)	Volume harvested in Q3 (MT)	Total FY14 crop harvested YTD (MT)
Bong	480	8,640	0	56	256	190	111	557	613
Nimba	960	17,280	0	0	810	1,078	1,008	2,896	2,896
Lofa	240	4,320	0	0	102	29	12	142	142
Grand Bassa	720	12,960	0	1,215	3,024	2,268	1,674	6,966	8,181
TOTAL	2,400	43,200	0	1,271	4,192	3,565	2,805	10,561	11,832

8,737 MT of FY14 cassava tubers were sold for US \$465,330 during this quarter. A total of 10,824MT of cassava has been harvested year-to-date, of which 9,952MT has been sold for US \$512,979 (Table 21).

Table 21: FY14 cassava crop sales

County	Volume sold in Q2 (MT)	Value of Sales in Q2 (US\$)	Volume sold in April (MT)	Value of Sales in April (US\$)	Volume sold in May (MT)	Value of Sales in May (US\$)	Volume sold in June (MT)	Value of Sales in June (US\$)	Volume sold in Q3 (MT)	Value of Sales in Q3 (US\$)	Volume sold YTD (MT)	Value of sales YTD (US\$)
Bong	0	\$0	256	\$16,467	190	\$10,625	111	\$12,635.00	557	\$39,727	557	\$39,727
Nimba	0	\$0	595	\$70,088	502	\$70,729	1008	\$85,714	1097	\$140,816	1097	\$140,816
Lofa	0	\$0	102	\$7,560	29	\$2,012	10	\$774	141	\$10,346	141	\$10,346
Grand Bassa	1215	\$47,649	3024	\$145,288	2268	\$74,350	1650	\$54,803.00	6942	\$274,441	8157	\$322,090

TOTAL	1215	\$47,649	3977	\$239,402	2989	\$157,716	2779	\$86,488	8737	\$465,330	9952	\$512,979
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Linking kuus and cassava farmers to commercial nurseries:

During the reporting period, USAID FED facilitated meetings between nursery owners and cassava Kuus in Nimba County in order to link USAID FED-supported farmers to the commercial cassava nurseries. These meetings were held in June. The commercial cassava nurseries in all four counties have sold a cumulative total of 12,399 bundles valued at US \$37,790.

Activity I.B.3 Enhancing knowledge on improved varieties and technologies

Mobilizing 12,960 new famers in 648 Kuus towards FY15 cassava production:

During the reporting period, a total of 2,671 hectares of land were planted with cassava under the FY15 cropping season production (Table 22). In total, 2,671 hectares have been planted against a target of 3,564 ha. It is anticipated that planting will continue up to August 2015.

Table 22: Land preparation and planting for FY15 crop

County	Target area for production (Ha)	Area planted in April (Ha)	Area planted in May (Ha)	Area planted in June (Ha)	Area planted in Q3 (Ha)	Total area planted YTD	Area pending to be planted (Ha)
Bong	688	150	267	200	617	617	71
Nimba	1,474	0	1,284	190	1,474	1,474	0
Lofa	413	6	0	0	6	6	406
Grand Bassa	990	250	221	103	574	574	416
TOTAL	3,564	406	1,772	493	2,671	2,671	893

A total of 8424 bundles of cassava (Carica 1, Carica 2 and TMS series) from USAID FED were earmarked for distribution to 648 Kuus in FY15. By the end of Q3, about 70% (5,874 bundles) of the total number of cuttings were distributed to beneficiaries. The remaining 30% (2,550 bundles) will be distributed by the end of July. Table 23 breaks down number of Kuus by county and the cutting distribution plan from April to July.

Table 23: Cuttings distributed to cassava Kuus for demonstration sites

County	Number of Kuus	Number of bundles to be supplied	Number of bundles supplied in April	Number of bundles supplied in May	Number of bundles supplied in June	Number of bundles supplied YTD	Number of bundles pending
Bong	125	1,625	750	546	166	1,462	163
Nimba	268	3,484	0	0	1,800	1,800	1,684
Lofa	75	975	0	0	272	272	703
Grand Bassa	180	2,340	600	870	870	2,340	0
Total	648	8,424	1,350	1,416	3,108	5,874	2,550

4,366 kg of peanuts were distributed to 577 Kuus to be used for intercropping in order to demonstrate ISFM in FY15 (Table 24).

Table 24: Peanut distribution by county

County	Number of Kuus	Volume of peanuts to be supplied (Kg)	Number of Kuus supplied with peanuts in April	Volume of peanuts supplied in April (Kg)	Number of Kuus supplied with peanuts in May	Volume of peanuts supplied in May (Kg)	Number of Kuus supplied with peanuts in June	Volume of peanuts supplied in June (Kg)	Number of Kuus supplied with peanuts in Q3	Volume of peanuts supplied in Q3 (Kg)	Number of Kuus pending	Volume of peanuts pending (Kg)
Bong	125	938	18	207	58	566	49	165	125	938	0	0
Nimba	268	2,010	0	0	0	0	268	2,010	268	2,010	0	0
Lofa	75	563	0	0	75	563	0	0	75	563	0	0
Grand Bassa	180	1350	28	247	0	0	81	608	109	855	71	495
Total	648	4,861	46	454	133	1,129	398	2,783	577	4,366	71	495

A total of 301 demonstration sites (representing 92% of the total 325) were prepared with mounds and ridges and planted with improved cassava varieties (Table 25). The remaining 24 sites will be planted in July.

Table 25: Demonstration sites planted with mounds and ridges

County	Target demo hectares for FY15	Demo hectares cleared and planted by April	Demo hectares cleared and planted by May	Demo hectares cleared and planted by June	Demo hectares cleared and planted by Q3	Demo hectares pending planting
Bong	63	20	14	20	54	9
Nimba	134	0	134	0	134	0
Lofa	38	6	32	0	38	0
Grand Bassa	90	40	18	17	75	15
TOTAL	325	66	198	37	301	24

Activity I.B.4 Improving access to market information and market:

Market information on volumes and prices available to cassava producers

On May 20, USAID in collaboration with the Government of Liberia (GoL) inaugurated the Liberia Business Incubator (LBI) Cassava Processing Facility in Virginia, Monsterrado County. In FY15, USAID FED provided LBI with cassava processing equipment worth US\$44,950. This included a generator, cassava peeler, hammer-mill, cassava roaster for gari production, cassava dryer and cassava sifters.

LBI invested US \$35,760 towards construction of the facility as their cost share. LBI will use the facility to process gari, fufu and cassava flour. With this recent upgrade, LBI will increase its processing capacity of tubers from 2MT to 5MT per day. Its staffing base will also increase from the current 6 to 14 full time employees. This facility will also procure cassava tubers from USAID FED-supported farmers.



Figure 4: Ms. Ruggie Barry, CEO of LBI guiding guests in the processing facility during the launch

Activity I. B.5 Facilitating access to financial services for processors:

Task I.B.5.2 Procure and distribute processing equipment for 16 micro/ small processors:

During the reporting period, 18 out of 22 micro-processors had fully installed all of the processing equipment they received from USAID FED. In order to ensure that all the processors have the equipment installed and running, USAID FED will hire two additional mechanical technicians during the month of July to assist with the installation of the pending machinery. It is anticipated that all the 22 processors will be fully operational by mid-August.

Task I.B.5.4 Link processors to financial services providers:

25 cassava microprocessors were linked to LEAD, a Micro-finance Institution, for possible financing for expansion of their storage areas during this quarter. A total of seven processors applied for loans. Of these, one processor out of two processors assessed in Nimba received a US\$5,000 loan. Five other processors assessed (two in Bong and three in Grand Bassa) did not qualify. USAID FED is still waiting for a report from LEAD regarding reasons why these processors were disqualified.



Figure 5: Republic of Liberia Speaker of the Senate, Hon. Steve Tyler and the US Ambassador Deborah Malac cutting the ribbon at the LBI's facility

Task I.C: Improving Productivity and Profitability of the Horticulture Value Chain

Vegetable harvest and sales from FY14 clusters:

During the reporting period, a total of 107MT of assorted vegetables were harvested and sold for US\$74,433 from the FY14 clusters in Montserrat, Margibi, Nimba and Grand Bassa counties. These clusters have harvested a total of 225MT of vegetables which they sold for US \$166,548 year to date (Table 26).

Table 26: Vegetable sales from FY14 clusters

County	Total sales volume in Q1 (KG)	Total sales value in Q1 (US\$)	Total sales volume in Q2 (KG)	Total sales value in Q2 (US\$)	Total sales volume in April (KG)	Total sales value in April (US\$)	Total sales volume in May (KG)	Total sales value in May (US\$)	Total sales volume in June (KG)	Total sales value in June (US\$)	Total sales volume in Q3 (KG)	Total sales value in Q3 (US\$)	Total sales volume YTD (KG)	Total sales value YTD (US\$)
Montserrat	23,721	11,728	23,175	37,679	16,756	11,894	22,605	19,410	20,066	9,102	59,427	40,406	106,323	89,813
Nimba	9,000	6,173	-	-	-	-	5,370	3,981	3,453	2,356	8,823	6,337	17,823	12,510
Margibi	38,022	14,916	23,597	18,195	17,693	7,798	7,431	4,863	10,248	11,999	35,372	24,660	96,990	57,770
Grand Bassa	-	-	128	3,424	-	-	803	1,406	2,690	1,625	3,493	3,031	3,621	6,454
Total	70,743	32,817	46,900	59,297	34,449	19,692	36,209	29,659	36,457	25,082	107,115	74,433	224,757	166,548

Vegetable harvest and sales from FY15 clusters:

A total of 280MT of assorted vegetables were harvested and sold for US\$288,178 from the FY15 clusters in Montserrat, Margibi, Nimba and Grand Bassa during this reporting period. These clusters have harvested a total of 417MT of vegetables which they sold for US\$416,325 year to date (Table 27).

Table 27: Vegetable sales from FY15 clusters

County	Total sales volume in Q2 (KG)	Total sales value in Q2 (USD)	Total sales volume in April (KG)	Total sales value in April (USD)	Total sales volume in May (KG)	Total sales value in May (USD)	Total sales volume in June (KG)	Total sales value in June (USD)	Total sales volume in Q3(KG)	Total sales value in Q3 (USD)	Total sales volume YTD (KG)	Total sales value YTD (USD)
Montserrado	92,320	\$88,388	16,146	\$14,225	10,929	\$12,077	34,758	\$46,489	61,833	\$72,791	154,153	\$161,179
Margibi	23,679	\$31,643	88,254	\$46,254	29,422	\$24,521	56,669	\$74,292	174,345	\$145,067	198,024	\$176,710
Bong	1,775	\$1,458	289	\$2,138	362	\$24,660	19,250	\$25,925	19,901	\$52,723	21,676	\$54,181
Nimba	16,660	\$5,339	5,800	\$3,562	1,153	\$893	3,875	\$2,612	10,828	\$7,067	27,488	\$12,406
Lofa	265	\$218	1,200	\$447	1,113	\$508	1,113	\$508	3,425	\$1,464	3,690	\$1,682
Grand Bassa	2,041	\$1,101	1,095	\$1,459	3,177	\$3,734	5,511	\$3,874	9,783	\$9,066	11,824	\$10,167
Total	136,740	\$128,147	112,784	\$68,085	46,156	\$66,393	121,176	\$153,701	280,115	\$288,178	416,855	\$416,325

Note: No harvest and sales in FY15 Q1

Establishment of rain shelters on FY14 sites:

During the quarter three reporting period, 19 USAID FED-supported FY14 sites in Montserrado, Margibi, Nimba and Grand Bassa counties installed with rain shelters planted cabbages, cucumbers, African eggplants and watermelon. It was observed that the vegetables grown in the rain shelters exhibited uneven growth. It was determined that this was due to high temperatures within the shelters. In some rain shelters, temperatures recorded using a data logger were as high as 50 °C during daytime and 28 °C during the night time. This was caused by the design of the rain shelters, which does not allow adequate ventilation to release warm air. These rain shelters were adopted from CARE's UPA (Urban and Peri-urban Agriculture) project that was implemented in 2011 to 2013. This was the only available design in Liberia at the time USAID FED introduced the technology.

Recently, USAID FED hired Emmanuel Owusu as Senior Horticulture Specialist. He is recommending that the old rain shelters be modified with additional netting on the sides and doors to expand ventilation. Further, he recommended a better design of the rain shelters, which USAID FED is using for its FY15 rain shelter distribution.

Activity 1.C.2: Promoting Integrated Pests Management Practices

Establishment of 188 demonstration plots in 6 counties:

During the reporting period, a total of 188 demonstration sites on 57 hectares were established across the six counties. The 57 hectares were planted with watermelons, cucumbers, cabbages, chili pepper, black beauty eggplant and African eggplant.

Demonstrate IPM using improved seeds and pesticides

During April and May, USAID FED provided improved seeds, fertilizer and pesticides to 188 demonstration sites (Table 28). The pesticides will be used to demonstrate Integrated Pest Management (IPM).

Table 28: Seed and pesticide distributed by county

Vegetable type	Unit	Counties						Total Volume Delivered (grams)
		Montserrado	Margibi	Bong	Nimba	Lofa	Grand Bassa	
Chilli Pepper	Grams	20,400	8,460	0	0	0	0	28,860

Water melon	Grams	9,300	8,460	11,980	12,380	11,180	7,580	60,880
Cucumber	Grams	9,600	17,375	17,400	0	16,270	11,330	71,975
African eggplant	Grams	20,400	8,460	11,980	12,380	11,180	7,580	71,980
Cabbage	Grams	0	0	0	22,905	0	0	22,905
Chemicals								
Copper Oxide	Grams	9,000	8,000	6,500	6,500	6,000	4,000	40,000
Metalaxyl		95	85	70	65	50	35	400
Deltamethrin	Liter	20	18	14	15	13	8	88
Glyphosate	Liter	20	18	14	15	13	8	88

Train 188 lead farmers on GAP, IPM, Production planning and appropriate harvesting:

From March 30 to April 3, USAID FED trained a total of 35 participants (33 male and two female) on Good Agricultural Practices (GAP) and Integrated Pest Management (IPM). The participants included two MoA Extension Officers, 26 LNGO staff, and seven USAID FED extension officers. The training was conducted by USAID FED's Senior Horticulture Specialist at the Mensah Farm in Montserrado County (Table 29). This field based training also focused on Agro Ecosystem Analysis methods, where participants were taught how to conduct ecological and social analysis of their agricultural environment, and how they can understand the effects of rainfall and soil types in order to plan and develop agricultural activities such as cultivation and irrigation.

Table 29: Extension staff trained on GAP and IPM

Name of Organization	Number of participants	Male	Female
<i>Gborkwado Development Association</i>	4	4	0
<i>Human Development Foundation</i>	17	16	1
<i>TECURD</i>	4	4	0
<i>VADEMCO</i>	1	1	0
<i>MoA</i>	2	2	0
<i>USAID FED</i>	7	6	1
Total	35	33	2

During June, the deployed extension staff had trained a total of 51 lead farmers in Montserrado and Nimba counties. Lead farmers in Bong, Grand Bassa, Lofa and Margibi counties will be trained during the month of July.

Technical assistance from the Senior Horticulture Specialist (STTA)

USAID FED's Senior Horticulture Specialist, Mr. Emmanuel Owusu, continued to provide technical assistance to USAID FED's vegetable clusters. Technical support was provided on the demonstration of plot layout, field maintenance, fertilizer application, pests and diseases identification and control, production of okra for export, supervision of the construction and testing of low cost cooling technologies (zero energy and charcoal coolers) as well as the installation and planting of vegetables in FY14 and FY15 rain shelters.

Activity I.C.3 Reducing harvesting and post-harvest losses

In April, USAID FED identified six trader associations who will be linked to USAID FED-supported vegetable clusters in FY15 for access to markets. These included: Kakata Marketing Association located in Margibi County;

Gbarnga Marketing Association located in Bong County; Buchannan Marketing Association located in Grand Bassa County; Ganta Marketing Association located in Nimba County; and Voinjama Marketing Association located in Lofa County. These trader associations have a cumulative membership of 143 traders (29 male and 114 female). In addition, USAID FED will continue to provide technical assistance to the Monrovia Vegetable Traders Association located in Montserrado County (Table 30).

Table 30: Trader associations to be supported by USAID FED in FY15

County	Trader Association	Number of members	Male	Female
Montserrado	Monrovia Vegetable Traders Association	28	10	18
Margibi	Kakata Marketing Association	30	5	25
Bong	Gbarnga Marketing Association	28	6	22
Nimba	Ganta Marketing Association	24	8	16
Lofa	Voinjama Marketing Association	15	0	15
Grand Bassa	Buchannan Marketing Association	18	0	18
TOTAL		143	29	114

Train Lead farmers and trader association on packaging, storage and transportation methods:

During June, USAID FED trained 69 lead farmers (60 male and 9 female) and 42 traders (17 male and 25 female) on how to properly pack, store and transport vegetables in order to reduce post-harvest losses (Table 31 and 32). A total of 93 participants were trained in two separate workshops held on June 9-10 in Montserrado and June 25 in Margibi County.

Table 31: Lead farmers trained on packing, storage and transportation of

County	Number of lead farmers	Male	Female
Montserrado	24	21	3
Margibi	45	39	6
TOTAL	69	60	9

Table 32: Traders trained on packing, storage and transportation of vegetables

County	Number of lead farmers	Male	Female
Montserrado	24	13	11
Margibi	18	4	14
TOTAL	42	17	25

Distribute plastic packing crates to Lead Farmers and traders for transportation of vegetables through cost-share:

In May, USAID FED distributed a total of 940 plastic crates to the 188 clusters in Bong, Nimba, Lofa, Grand Bassa, Montserrado and Margibi counties (Table 10). USAID FED also distributed 250 plastic crates to 6 trader associations during the same month (Table 33).

Table 33: Distribution of crates by county

County	Number of clusters	Number of crates per cluster	Total Number of crates distributed per county
Montserrado	51	5	255
Margibi	38	5	190
Bong	27	5	135
Nimba	28	5	140
Lofa	25	5	125

Bassa	19	5	95
Total	188		940

Table 34: Distribution breakdown of packaging crates to trader associations

County	Number of Association	Number of crates distributed per Association
Margibi	1	50
Bong	1	50
Nimba	1	50
Lofa	1	50
Bassa	1	50
Total	5	250

Provide 6 trader associations with low cost charcoal cooler technologies on cost share

During the reporting period, the construction of two zero energy coolers commenced in Montserrado and Margibi counties. It is anticipated that construction of four pending zero energy coolers will be completed by the end of July. During the month of April, one zero energy cooler was completed at the Red Light Market in Monrovia and tested for its effectiveness in preserving vegetables over a period of seven days. The cooler demonstrated a reduction of temperature by 3 to 5 degrees in comparison to the outside ambient temperature.



Figure 6: Charcoal Cooler in Margibi County.

On June 4, USAID FED held a meeting with members of the Monrovia Vegetables Trader Association (MVTA), who are beneficiaries of the zero energy cooler at Red Light. USAID FED presented the findings of the tests done on the cooler to check how effective it functioned in preserving vegetables. The traders were also assisted in calculating and determining what the running and maintenance costs of the current zero energy cooler entails, and how it should be overseen. During the meeting, it was agreed that four members of MVTA who are retailers will utilize the zero energy cooler on a daily basis, each storing three crates at a time as the cooler can only accommodate 12 crates. Each trader will pay LD\$500 per month to use the facility. USAID FED will provide technical assistance to the traders to plan for and establish a zero energy cooler with a larger capacity that can accommodate 200 - 250 crates. The traders will be required provide the site and to meet the cost of the building materials.

By the end of June, four out of the 18 charcoal coolers planned for construction had been completed in Montserrado and Margibi counties (Table 35). During the month of July, the charcoal coolers will be tested to determine how effective they are in preserving vegetables at cluster level. It is anticipated that construction of all the 14 charcoal coolers will be completed by the end of July.

Table 35: Constructed charcoal coolers

County	Number of charcoal coolers to be installed	Number of charcoal coolers installed in June	Number of charcoal coolers installed YTD	Number of charcoal coolers pending installation
Montserrado	3	3	3	0
Margibi	3	1	1	2
Bong	3	0	0	3
Nimba	3	0	0	3
Lofa	3	0	0	3
Grand Bassa	3	0	0	3
TOTAL	18	4	4	14



Figure 7: Vegetables stored in ZEC after seven days

Provide two private sector firms with cold storage facilities on cost share:

During the reporting period, Greenfield, the vendor, informed USAID FED that the refrigerated containers will arrive in Liberia during the month of August. ROSNA has committed to cost share 50% of the value of two containers. Grain Coast Inc. was to receive a refrigerated container, but the firm is currently experiencing financial difficulties and may not be in a position to meet its cost share obligations. USAID FED has identified an alternative potential firm, Gboimah Farms, and negotiations are currently taking place to determine whether the firm can cost share as a potential recipient. Further, to facilitate the ability to export vegetables, USAID FED will make a decision in July on whether the third container can be installed at the Roberts International Airport if the trial shipments scheduled for July are considered successful and commercial exports can begin.

Activity 1.C.4: Farmers produced vegetables for the markets during the dry and wet seasons

Install 360 drip irrigation kits to high value vegetable producers:

During June, a total of 360 drip irrigation kits were distributed to 18 high value vegetable clusters in Montserrado, Margibi, Nimba and Grand Bassa counties in preparation for the next dry season production starting in October (Table 36). USAID FED received the drip irrigation kits from the contracted vendor GroGreen during the month of May.

Table 36: Drip irrigation kits distributed to clusters

County	No of high value vegetable clusters	No of farmers for high value vegetable sites	No of kit per cluster
Montserrado	6	120	120
Margibi	5	100	100
Bong	2	40	40
Nimba	3	60	60
Lofa	0	0	0
Grand Bassa	2	40	40
Total	18	360	360

Distribute motorized pumps to 188 clusters:

Also during June, a total of 188 motorized pumps were distributed to 188 vegetable clusters in Montserrado, Margibi, Bong, Nimba, Lofa and Grand Bassa counties in preparation for the next dry season production starting in October (Table 37). USAID FED received the motorized pumps from the contracted vendor GroGreen during the month of May.

Table 37: Motorized pumps distributed to the counties

County	No of vegetable clusters per county	No of pumps per cluster
Montserrado	51	51
Margibi	38	38
Bong	27	27
Nimba	28	28
Lofa	25	25
Grand Bassa	19	19
Total	188	188

Distribute vegetable seeds as start- up seeds, pesticides and tools as start-up kits to 360 farmers:

In April, pesticides were received by USAID FED from the vendor, GorGreen (Table 38). USAID FED distributed these pesticides to the six counties, which will be utilized on an as needed basis, i.e., when pests and diseases reach an economic threshold necessitating chemical control.

Table 38: Pesticides procured for controlling weeds, vegetable pests and diseases

Description	Quantity	Unit
Copper Oxide	80,000	Grams
Metalaxyl	800	Liters
Deltamethmethrin	118	Liters
Glyphosate	118	Liters

Improve wet season production through protected cultivation:

Also during April, the contracted vendor AIM Global supplied USAID FED with 18 imported rain shelters. By the end of June, a total of 13 rain shelters had been installed with tomatoes planted in them (Table 39). It is anticipated that the remaining five rain shelters will be installed during the month of July. It was also observed that these rain shelters were superior in design when compared to the FY14 rain shelters, and allowed for better ventilation and cooler conditions.

Table 39: Rain shelters installed in FY15 sites

County	Number of high value vegetable sites	Number of rain shelters delivered	Number of rain shelters installed in May	Number of rain shelters installed in June	Number of rain shelters installed to date	Number of rain shelters pending installation
Montserrado	6	6	6	0	6	0
Margibi	5	5	2	3	5	0
Bong	2	2	0	0	0	2
Nimba	3	3	0	0	0	3
Grand Bassa	2	2	0	2	2	0
Total	18	18	8	5	13	5

Note: no rain shelters were installed in April

Enhancing linkages with local and high value vegetable markets:

USAID FED and Grain Coast Inc. (GCI) held several meetings during quarter three to follow up on the planning requirements for export of okra to France. During these discussions, it emerged that GCI is experiencing difficulties in meeting its cost share obligations due to financial constraints. In order to ensure that the okra produced by the out growers reaches the market, USAID FED identified two additional private sector firms willing to invest their own funds in exporting Okra (ROSNA and Gboimah Farm). Discussions also commenced with VS.CO, the buyer in France, in order to facilitate similar forward contracts to that which was signed with GCI. Currently, a total of 11 ha are under okra production for export.

In June, USAID FED, ROSNA and Brussels Airlines agreed to pilot a trial shipment to VS.CO during July. Under this agreement, USAID FED will provide the 10 kg of okra and 5 kg of chilies to be shipped, ROSNA will provide the shipping boxes and Brussels Airlines will ship the samples to Paris via Brussels free of charge.

Task 1D: Increased Productivity and Profitability of the Goat Value Chain

FY14 Goat production sites - kidding and kid mortality

During the quarter three reporting period, a total of 281 new kids (115 male and 166 female) were born in the FY14 goat production intensification sites (Table 40). The total herd size in FY14 goat production intensification sites stands at 8,139 goats (4,894 does, 1,826 bucks and 1,419 kids). By the end of June, 606 kids (321 males and 285 females) born during January 2015 reached maturity and were added to the doe and buck statistics. Only two kids were reported to have died in Q3 out of the 281 kids that were born. Their deaths resulted from the loss of their mother due to theft.

Table 40: FY 14 Goat herd statistics

County	Number of farmers supported in FY14	Number of males	Number of females	Total number of goats in herd YTD	Number of does	Number of bucks	Total number of kids remaining in Q2	Total number of kids recorded April	Total number of kids recorded May	Total number of kids recorded in June	Total number of kids recorded Q3	Total number of kids YTD
Nimba	637	341	296	1,285	633	425	114	78	11	24	113	227
Grand Bassa	277	166	111	1,368	1,031	198	41	40	18	40	98	139
Bong	672	493	179	2,833	1,817	464	161	168	53	170	391	552
Lofa	474	260	214	2,653	1,413	739	292	98	64	47	209	501
Total	2,060	1,260	800	8,139	4,894	1,826	608	384	146	281	811	1,419

FY15 Goat production sites – kidding and kid mortality

In June, a total of 183 new kids (71 male and 112 female) were born in the FY15 goat production intensification sites (Table 44). The total herd size in FY15 goat production intensification sites stands at 5791 goats (2,518 does, 1,160 bucks and 2,113 kids) as of end of quarter three of FY15.

Table 41: Goat herd statistics in FY15 sites

County	Number of farmers in FY 15	Number of male famers	Number of female farmers	Total number of goats in herd YTD	Number of does	Number of bucks	Number of Kids recorded in Q2	Total number of kids recorded in April	Total number of kids recorded in May	Total number of kids born in June FY	Total number of Kids Q3	Total number of kids YTD
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Nimba	522	316	206	1,698	901	174	347	187	63	26	276	623
Grand Bassa	268	168	100	587	333	121	34	26	43	30	99	133
Bong	625	478	147	1,710	737	359	374	168	5	67	240	614
Lofa	421	277	144	1,796	547	506	428	135	120	60	315	743
Total	1,836	1,239	597	5,791	2,518	1,160	1,183	516	231	183	930	2113

Goat Mortality in FY14 and FY15 USAID FED sites

In Lofa County, 66 goats from USAID FED FY14 sites and 128 goats from USAID FED FY15 sites died from an outbreak of Peste des Petites Ruminant (PPR), suspected to have originated from animals imported from Guinea. The cause of death was confirmed after an analysis of samples were collected and tested by the MoA at the Fendell Campus. A total of 633 animals from FED and non-FED supported sites died of the disease in Lofa County. A total of 406 goats were treated by CAHWs trained by USAID FED. All 406 goats responded to the treatment and recovered.

USAID FED procured emergency drugs (*Oxytetracycline*) worth US \$5,410, which were supplied to the Lofa County office for the treatment of goats showing symptoms of PPR. By the end of June, 406 goats had been treated by CAHWs trained by USAID FED. All goats responded to the treatment and recovered.

A total of 84 goats were reported dead in USAID FED supported FY14 goat production intensification sites (Table 41).

Table 42: Goat mortality in FY14 sites

County	Mortality recorded in Q2	Mortality recorded in April	Mortality recorded in May	Mortality recorded in June	Total Mortality Q3	Total Mortality YTD
Bong	8	5	0	0	5	18
Nimba	2	2	0	5	7	9
Lofa	17	0	66	0	66	83
Grand Bassa	8	0	3	3	6	14
TOTAL	35	76	69	8	84	124

During quarter three, a total of 149 goats were reported dead in USAID FED supported FY15 goat production intensification sites (Table 42). In total, 3.3% of goats from these herds have died year to date. Most deaths were attributed to the goats consuming plastic, and some to diarrhea and pneumonia.

Table 43: Goat mortality in FY15 sites

County	Mortality recorded Q2	Mortality recorded in April	Mortality recorded in May	Total Mortality in June	Total Mortality in Q3	Total Mortality YTD
Bong	8	5	3	0	7	15
Nimba	4	3	0	0	3	7
Lofa	29	0	60	68	128	157
Grand Bassa	2	2	7	2	11	13
TOTAL	43	10	70	70	149	192

FY14 goat production sites - Access to veterinary care:

During quarter three, a total of 2,527 animals received veterinary treatment from Community Animal Health Workers in Bong, Nimba, and Grand Bassa and Lofa counties (Table 43).

Table 44: Veterinary treatment by CAHWS

County	Number of animals treated in Q2	Number of animal treated in April FY15	Number of animal treated in May FY15	Number of animal treated in June FY15	Total number of animals treated In Q3	Total number of animals treated YTD
Nimba	144	58	75	894	1,027	1,171
Bong	375	61	52	134	247	622
Lofa	29	0	329	77	406	435
Grand Bassa	254	0	360	487	847	1,101
Total	802	119	816	1594	2527	3329

In May, USAID FED conducted a survey to determine the profitability of the CAHWS supported in FY14. This was conducted by the LINGO's contracted by USAID FED using questionnaires. A total of 65 CAHWS (all women) completed the questionnaires. Results of the survey will be made available during quarter four. Based on the findings of this survey, USAID FED will strategize on how to address the bottlenecks that CAHWS are facing in terms of how they can generate more revenues to sustainably provide services to the goat farmers.

Activity I.D.I Promoting Goat Shelters

Contract and train 8 sawyers to cut wood for shelter construction:

A total of 35 sawyers (all male) produced 26,383 pieces of wood required for the construction of goat shelters during quarter three (Table 45). The wood produced was sufficient for the construction of 60 shelters.

Table 45: Sawyers recruited and pieces of wood produced in customized sizes for Goat shelter construction by county

County	Number of sawyers recruited	Number of wood required	Number of wood produced in April	Number of wood produced in May	Number of wood produced in June	Total number of wood produced YTD	wood outstanding for completion
Nimba	12	11,440	5,650	2,520	1,880	10,050	1,390
Bong	6	9,680	2,300	416	3,134	5,850	3,830
Grand Bassa	10	4,400	660	450	1,462	2,572	1,828
Lofa	7	8,360	3,896	4,015	0	7,911	449
Total	35	33,880	12,506	7,401	6,476	26,383	7,497

Contract and train 8 carpenters (2 per county) on shelter construction:

A total of 34 carpenters (all male) completed the construction of 20 goat shelters across the four counties during this reporting period. These carpenters have completed 28 goat shelters so far. It is anticipated that all 49 pending shelters will be completed by the end of quarter four.

Design and construction of two water wells in Grand Bassa County

By the end of the quarter three reporting period, Organized Community for Reconstruction and Rehabilitation (OCRAR) Company completed the water well at the Neorpeh site. The water well at the Blagbah site was being lined with culverts and will be completed in July. The completion of this water well was delayed due to difficulties of drilling through the bed rocks.

Construct 77 shelters in Bong, Nimba, Lofa, and Grand Bassa through cost share:

During the reporting period, a total of 28 goat shelters have been completed. It is anticipated that the 49 remaining shelters will be completed by the end of quarter four (Table 46).

Table 46: Number of shelters constructed in FY15 goat production intensification sites

County	Number of carpenters recruited	Number of shelters required	Number of shelters built in April	Number of shelters built in May	Number of shelters built in June	Total Number of shelters built YTD	Shelters outstanding for completion
Nimba	14	26	0	6	3	9	17
Bong	11	22	0	0	7	7	15
Grand Bassa	10	10	0	1	2	3	7
Lofa	10	19	0	1	8	9	10
Total	45	77	0	8	20	28	49

Herd production and Salt Lick fabrication training for satellite communities:

During the reporting period, USAID FED trained 125 livestock chair people (86 male and 16 female) on goat herd management and mineral/salt lick fabrication (Table 47). These trainings were conducted from May 12 - 13 across the four counties (Table 47). USAID FED distributed mineral salt lick ingredients which included oyster shells, salt and cement to the counties for onward distribution to satellite communities. The mineral/salt licks are anticipated to benefit at least 2,500 goat farmers in 125 satellite communities.

Table 47: Cattle chairmen trained on mineral/salt lick fabrication

County	Number of livestock chairmen trained	Male	Female
Nimba	42	42	0
Bong	37	33	4
Grand Bassa	15	0	4
Lofa	31	11	8
Total	125	86	16

Activity 1.D.2 National PPR Campaign

In May, USAID FED provided the MoA with 2,080 vials of the PPR vaccine. These vaccines will be used during the national PPR campaign, which is tentatively scheduled to commence in September 2015. The vaccines are currently being stored at the National Drugs Service (NDS) cold storage facilities in Monrovia.

Draw blood samples after campaign to test efficacy of vaccination

During the quarter three reporting period, USAID FED procured ELISA Plate Reader with support from the DAI Home Office. This ELISA plate reader will be provided to the MoA to test and analyze blood samples from goats to determine the antibody efficacy from the previous PPR vaccination. In April, the MoA informed USAID FED that the levels of response for the 2012 PPR vaccination campaign have to be ascertained



Figure 8: Vaccine vials at the National Drug Service cold storage facility in Monrovia

prior to conducting another PPR vaccination campaign. The procurement of the ELISA reader has taken longer than expected as DAI Home Office was negotiating for a price reduction with the vendor in order to fall within USAID approved restricted goods budget. It is anticipated that the ELISA reader will be shipped to Liberia in July, after which USAID FED and the MoA will collect blood samples for testing.

Activity 1.D.4 Establishment of Nucleus Breeding Herd

Sign a MoU with CARI whereby CARI commits to allocating funds to hire people to maintain and manage the nucleus breeding herd (100 goats):

On May 28, USAID FED participated in a project assessment mission organized by the USDA to evaluate activities implemented by Land O' Lakes under their Food for Progress program. USDA, USAID Liberia, Land O' Lakes, CARI and USAID FED representatives participated in the assessment mission. A field visit was conducted at the quarantine facility located at CARI in Suakoko, Bong County. Discussions were also held regarding the achievements and challenges of the CARI, Land O' Lakes and USAID FED partnership, as well as on the status of the planned establishment of a nucleus breeding herd at CARI. Under this partnership, USAID FED was to provide infrastructure development support towards the establishment of a facility while LOL was to import goats towards establishment of a nucleus breeding herd.



Figure 9: Trader IC training goat farmers in Sakie Boita Town, Bong County

Ms. Ingrid Argosoediro, Senior Analyst at USDA, informed the participants that USDA is conducting a compliance review of Land O' Lakes projects in Liberia. USDA will provide all partners with a final assessment of whether Land O' Lakes will receive approvals to continue with activities by the end of June, after which new timelines for activities can be developed by all partners. At the end of the meeting, it was agreed that:

1. Establishing the nucleus breeding herd remains a priority for all parties
2. USDA will revert with a final position on Land O' Lakes by the end of June
3. CARI will provide USAID FED with the structural adjustments required at the quarantine facility in order to convert it to serve the purpose of a nucleus breeding center
4. USAID FED will assist CARI using USAID FED's in house engineers to determine what the civil works required for structural adjustments are
5. CARI, USAID FED and USAID Liberia will discuss on whether the proposed structural adjustments can be funded or not
6. Land O' Lakes will ensure that CARI is involved in the selection of animals for the nucleus breeding herd
7. The 100 goats for the nucleus breeding herd will be sourced from identified herds with good genetic stock in-country

By the end of June, USAID FED had not received any updates from USDA regarding their decision on whether Land O' Lakes will continue implementing activities in Liberia.

Activity 1.D.5 Formalizing livestock market

Train goat farmers on selection of animals for sale and fattening techniques:

USAID Food and Enterprise Development Program for Liberia
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During May, USAID FED deployed a trader contracted as an IC to train goat farmers on how to select and fatten animals for sale. A total of nine goat lead farmers from nine communities were trained on selection and fattening of goats. The training is expected to benefit 198 goat farmers. In addition, two LINGO and one USAID FED extension officers were trained to pass on the knowledge to USAID FED supported goat producers in Bong County.

Identify location venues for goat marketing events at county and cluster level:

USAID FED identified four locations in Bong, Nimba, Lofa and Grand Bassa counties for hosting goat marketing events based on available buck populations in the herds. The idea is to assist goat farmers to sell the excess bucks within their herds to ensure a healthy buck to doe ratio. A goat marketing event was held in Bong County during the month of May. On a monthly basis, USAID FED will identify clusters to prioritize for marketing events based on the excess bucks available for sale.

Facilitate one marketing event every month in each county:

During the reporting period, USAID FED facilitated one goat marketing event at Jorquelleh cluster in Melekie, Bong County. A total of 24 goat farmers and four traders participated in the event. 47 goats (40 bucks, 5 does and 2 kids) were sold at a total value of US\$3,550.00. This translated to an average of US\$76 per animal. Product standard specifications like girth, sex, and other attributes to determine the price were agreed upon with traders prior to the event.

It was observed during the event that some farmers continued to transport their animals on motorbikes, which increases the probability of injuries and mortality. In addition, there is weight loss due to stress if goats are transported far distances without feeding and water. USAID FED will conduct multiple events across several clusters to reduce transport requirements for animals. It is anticipated that similar marketing events will be held in Nimba and Grand Bassa during the month of July in time for the Eid'l Fitr.

Goat Sales

During the reporting period, a total of 1,333 goats from FY14 and FY15 production sites supported by USAID FED were sold for US \$84,357. In total, 4,709 goats from production intensification sites supported by USAID FED have been sold for US \$258,752 year to date (Table 48). This shows that by end of June 2015, USAID FED has exceeded its target for number of goats sold by 72% and its target value of sales by 35%.



Figure 10: Traders and goat farmers at the marketing event in Melekie, Bong County

Table 48: Goat Sales

County	FY15 Goat sales target	FY15 Goat Sales Target (US\$)	Number of goats sold Q1 FY15	Value of goats sold Q1 FY15 (US\$)	Number of goats sold Q2 FY 15	Value of goats sold Q2 FY15 (US\$)	Number of goats sold in April FY15	Value of goats sold in April FY 15 (US\$)	Number of goats sold in May FY15	Value of goats sold in May FY 15 (US\$)	Number of goats sold in June	Value of goats sold in June (US\$)	Number of goats sold in Q3	Value of goats sold in Q3 (US\$)	Number of goats sold YTD	Value of goats sold YTD (US\$)
Nimba	932	\$65,280	142	\$6,396	486	\$25,301	104	\$6,025	87	\$3,985	29	\$2,023	220	\$12,033	848	\$43,730
Grand Bassa	330	\$23,040	133	\$8,475	133	\$7,620	43	\$2,795	35	\$2,275	100	\$6,500	178	\$11,570	444	\$27,665
Bong	795	\$55,680	388	\$32,070	628	\$42,206	208	\$17,200	77	\$6,375	144	\$12,535	429	\$36,110	1,445	\$110,386
Lofa	686	\$48,000	310	\$13,177	1,156	\$39,150	131	\$6,035	262	\$11,635	113	\$6,974	506	\$24,644	1,972	\$76,971
Total	2,743	\$192,000	973	\$60,118	2,403	\$114,277	486	\$32,055	461	\$24,270	386	\$28,032	1,333	\$84,357	4,709	\$258,752

Activity I.D.6 Improving nutrition for higher livestock value

Develop databases for forages most suitable for Liberia

USAID FED recruited a Forage Production Expert, Mr. Samuel Tucker, to assist with the identification and selection of nutritious forages as well as to train farmers on which forage species are the best for herd health and fattening. This information will help the project to develop a comprehensive database of forages and animal nutritional requirements that goat herds can benefit from.

The Forage Production Expert identified nine different forages which farmers can select and cultivate. These include *Brachiaria*, *Panicum maximum*, *Pennisetum purpureum*, *Leucaena*, *Stylosanthes*, *Soybean*, *Moringa*, *Centrocema* and *Kudzu*. Among the nine forages identified, the Forage Production Expert recommended three forages suitable for cultivation based on the nutritional level, ease of propagation, fast growth and PERSUAP compliance (Table 49).

Table 49: Forages recommended

Name of forage Recommended	Nutritional level	Method of Propagation
Pennisetum purpureum/Elephant/Napier grass	12-24% protein	Cuttings
Centrocema	18-19% protein	Seeds
Moringa /Radish tree	Vitamins C,B,K	Seed& Cuttings

Provide cuttings of successfully cultivated forages to farmers

During the reporting period, USAID FED deployed the Forage Production Expert to train goat farmers on how to select and cultivate suitable nutritious forage species for their animals. The Forage Production Expert trained a total of 34 goat farmers (23 men and 11 women). USAID FED was to provide the three identified forages to the farmers for cultivation on their goat production intensification sites during the month of June. This activity was deferred to July due to the ill health of the Forage Production Expert.

Sub Task I.1 Special Studies and MoA Data Collection System Development

Deliverable I.1.2 Program Indicators Surveys Conducted

During the quarter three reporting period, USAID FED contracted two Special Studies Advisors (STTAs) to support the implementation of special studies identified in the FY15 work plan. Based on discussions with the Special Studies Advisors upon arrival in Monrovia, it was decided that certain studies will be combined to be more efficient. A total of 10 surveys/special studies were finally agreed upon. The two STTAs, Justice Djokoto and Asnakew Negash, were deployed to Liberia during the end of June. Each Special Study Advisor will supervise the design, implementation and reporting of a set of special studies and present the information to USAID FED to guide decision making within the value chain strategies.

Justice Djokoto, Special Studies Advisor I will conduct the following:

1. Post-harvest losses for rice and vegetable without USAID FED and with USAID FED's intervention
2. Impact of increase in rice production to the economies of the Households (savings and consumption)
3. Impact of USAID FED's intervention on household diet diversity and hunger index
4. Adoption rate of USAID FED-supported and non-USAID FED farmers of technologies introduced by USAID FED

Asnakew Negash, Special Studies Advisor II will conduct the following:

1. Study on the effectiveness of USAID FED's Extension Materials
2. Women Agricultural Empowerment Index three years after USAID FED interventions
3. Impact of USAID FED goat shelters in goat production
4. Effectiveness of Community Animal Health Workers on the goat farmer
5. Rice seed demand in FED's core counties
6. Impact of rice business hubs in the communities

It is anticipated that training of enumerators, LINGO staff and FED Extension Officers will be done in July. Data collection and information gathering exercises will also commence during the month of July. All of the planned special studies will be completed by the end of September 2015.

Activity 1.1.3.1 Equipment and materials procured for the MoA Offices in Nimba, Lofa and Grand Bassa counties

In April, USAID FED launched the MoA M&E pilot activity in Bong County. Seven MoA personnel (6 male and 1 female) were trained by USAID FED on data collection and data management, data analysis and reporting. Additionally, training was conducted in Excel and other computer programs to enhance the computer knowledge and skills of the staff. This training was conducted in Suakoko, Bong County from June 3-5, 2015.

NXP requests for additional materials and equipment that would support the MoA M&E system in Lofa, Nimba and Grand Bassa counties were forwarded to USAID for review and approval in March.

Activity 1.1.4.1 Recruitment of data repository system consulting firm

HAK Technologies, a locally contracted firm, presented an analysis of the system requirements specification for the database system design to USAID FED and received approval to commence with the database software design. During June, HAK technologies presented a series of trial runs for the online database system with the participation of USAID FED management, where feedback on how to improve the system was provided. It is anticipated that the online database repository system will be fully functional and activated for use by USAID FED by the end of July.

Activity 1.1.4.2 Piloting/quality assurance of the database system design

This activity will be implemented once the final online data repository system is approved. HAK technologies will develop a user's training manual and provide training to USAID FED and MoA staff on how to utilize the system. It is anticipated that this will take place during the month of August.

During the reporting period, USAID FED trained seven staff from the MoA in their Bong County Office, including the County Agriculture Coordinator on four different M&E modules as follows:

1. Module I –Overview of Monitoring and Evaluation,
2. Module II - Overview of the Data Management, Analysis and Reporting,
3. Module III – Simple descriptive statistics using Microsoft Excel data sheets and,
4. Module IV - Procedures for Data Collection and Reporting.

These MoA staff will be performing monitoring and data collection in assigned districts and will share information during the monthly County Agriculture Coordination Committee Meetings. USAID FED will continue to provide technical assistance to these MoA Staff to ensure that the pilot activity is effective. The training was conducted from June 3 – 5 in Bong County.

In June, the M&E team provided the Nutrition sub-component of Component One with technical assistance to developing questionnaires for a Barrier Analysis Study. In addition, technical assistance was provided to Component Two in developing tools for a Women Owned Enterprise Incubation Project Baseline Study.

Sub Task 1.2 Improved Access to Agricultural Inputs

Activity 1.2.1.1 Support the establishment of commercial production and marketing of rice seed:

Technical assistance and BDS to 22 Rice Seed Multiplication site operators:

During the reporting period, USAID FED delivered 6MT of foundation seed to 12 upland rice seed multiplication sites in four counties (Table 50). These foundation seeds were provided by the WAAPP, Africa Rice and the MoA.

Table 50: Upland Rice Seed supplied to the counties (MT)

County	Target RSM seed distribution FY15 (MT)	Number of sites for	Seed delivered in May (MT)
Bong	4.5	9	4.5
Nimba	0.5	1	0.5
Lofa	0.5	1	0.5
Grand Bassa	0.5	1	0.5
TOTAL	6.0	12	6.0

By the end of June, 115 hectares of upland had been planted using these foundation seeds at a seeding rate of 50Kgs per hectare (Table 51). It is anticipated that by July, all the upland and lowland RSM sites will have been planted with the distributed foundation seeds.

Table 51: Planting of Upland RSM sites

County	Target upland RSM hectares to be planted (Ha)	Number of hectares planted in June (Ha)	Total number of hectares planted YTD (Ha)
Bong	90	90	90
Nimba	10	10	10
Lofa	10	5	5
Grand Bassa	10	10	10
TOTAL	120	115	115

During the same reporting period, USAID FED delivered 10 MT of foundation seed to 58 lowland rice seed multiplication sites in four counties (Table 52). These foundation seeds were provided by the WAAPP, Africa Rice and the MoA. All of the lowland rice seed multiplication sites had established their nurseries by the end of May. Transplanting of rice seedlings on the lowland sites will commence during the first week of July. For the lowlands, a seeding rate of 30 kgs per hectare will be applied.

Table 52: Lowland Rice seed supplied to the Counties (MT)

County	Target RSM seed for distribution FY15 (MT)	Number of sites	Seed delivered in May (MT)
Bong	3.93	20	3.93
Nimba	1.92	9	1.92
Lofa	3.42	25	3.42
Grand Bassa	0.73	4	0.73
TOTAL	10.0	58	10.0

Support to 17 rice seed inspectors:

In May, 15 Rice Seed Inspectors were contracted by USAID FED to inspect rice seed production in 22 FY14 sites and 48 FY15 sites. These Rice Seed Inspectors were deployed to the field in June when planting commenced in the uplands. Each Rice Seed Inspector will conduct a minimum of six inspections between the months of June 2015 to January 2016.

On June 30, USAID FED held a meeting with Dr. Inussa Akintayo from Africa Rice to discuss how USAID FED and Africa Rice could collaborate on the production of certified seed rice. Upon the request of Africa Rice, USAID FED agreed to make four power tillers available so that Africa Rice supported farmers in Gbedin, Nimba County could conduct land preparation on 164 hectares towards certified seed production. Africa Rice will contribute the cost of fuel for the power tillers.

It was also agreed that Africa Rice will conduct at least three inspections to USAID FED’s rice seed multiplication sites in FY15 and FY16 to check whether these sites were conforming to certified rice seed multiplication protocols. Africa Rice was willing to provide USAID FED with additional certified lowland rice seed for distribution to USAID FED’s rice seed multiplication sites and beneficiaries. USAID FED will provide Africa Rice with the required volumes during the first week of July.

Support to private sector firm for commercial production and marketing of rice seeds:

From April 9 - 10, 2015 USAID FED participated in a workshop organized by Africa Rice at the Cape Hotel in Monrovia, which was aimed at providing Africa Rice with technical inputs to their proposed work plan that will be funded by USAID’s Bureau of Food Security. During the workshop, USAID FED presented its rice seed interventions in Liberia. One of the critical challenges emerging from the discussions was how difficult it is to identify private sector firms interested in investing in commercial rice seed production and marketing.

During this workshop, it was acknowledged that an enabling environment, a level playing field and a guaranteed demand for rice seed must prevail for any private sector firm to be motivated to invest in commercial rice seed production. It was also acknowledged that recent donations of large volumes of certified rice seed by foreign donors may further negatively impact the interest of the private sector to invest in developing a rice seed brand for Liberia.

Collaboration with WAAPP and WASP in developing the rice seed industry in Liberia:

In June, USAID FED received 10 MT of Nerica L19 foundation seed for the lowland and 6 MT of Nerica 8 foundation seed for the upland from WAAPP. The foundation seeds were distributed to the rice seed multiplication (RSM) sites in June.

Support to commercial production and marketing of cassava cuttings

Screening of cassava cuttings on 2 sites in Lofa through collaboration with CARI:

During the quarter three reporting period, USAID FED continued to manage the two cassava screening sites in Lofa County in close collaboration with CARI. Out of 11 varieties screened, CARI released nine varieties for multiplication during the month of June (Table 53). Two varieties, IITA-TMS-01/1371 and IITA-TMS-01/1368 were not released as they exhibited symptoms of cassava mosaic virus on varieties planted at CARI’s screening site. The disease was not observed with the varieties at the Lofa screening sites.

Table 53: Improved varieties released for multiplication

Varieties released	Date of planting
IITA-TMS-9000581	May, 2014
TME419	May, 2014
IITA-TMS-IBAO11412	May,2014
IITA-TMS-IBA30572	June, 2014
IITA-TMS-IBA010040	June, 2014
IITA-TMS-IBA-980505	June, 2014
IITA-TMS-IBA950289	June, 2014
IITA-TMS-IBA920057	June,2014
IITA-TMS-IBA961632	June 2014

Inspections conducted by CARI and IITA to assess adaptability of varieties

In May, CARI conducted an inspection on the two cassava screening sites in Lofa County. These inspections informed the decision by CARI to release nine varieties for multiplication during the month of June.

Suitable varieties released for multiplication:

From April 28 - May 1 2015, USAID FED and CARI facilitated a training for 40 commercial nursery owners, five FED extension officers and five LNGO staff on rapid multiplication of cassava cuttings through efficient production and handling of cuttings (Table 54). The training was held at CARI in Suakoko, Bong County.

Table 54: Rapid multiplication training participants list

County	Total number of participants	Male	Female
Bong Nursery owners	8	7	1
Nimba Nursery owners	16	13	3
Lofa Nursery owners	4	3	1
Grand Bassa Nursery Owners	12	12	0
IITA Staff	4	3	1
LNGO Extension Officers	5	5	0
FED Staff	8	8	0
TOTAL	57	51	6

With support from Input Supply, four commercial cutters trained by CARI were contracted by USAID FED in June to begin harvesting and bagging of the cuttings from June 22, 2015. Eight casual laborers were also contracted to support this exercise. By the end of June, only 304 bundles had been harvested. It is anticipated that the remaining 416 bundles will have been harvested and all the harvested cassava cuttings will be delivered to the counties by July.



Figure 11: Cassava cuttings harvested in Lofa County

Improved varieties released by CARI distributed to and multiplied by 40 commercial nurseries:

On May 20, USAID FED received a final approval from CARI to proceed with harvesting of nine out of eleven varieties that were screened in Lofa County. By the end of May, 40 commercial cassava nurseries had completed land preparation on 60 hectares to multiplication these varieties (Table 4). By the end of June, all the 60 hectares had been prepared for planting. Planting will be completed end of July.

Activity 1.2.1.3 Support to commercial production and marketing of vegetable (including legumes) seeds and seedlings

USAID FED continued to face challenges throughout quarter three in identifying firms that are interested in investing in the development of a local brand of vegetable seeds. This challenge is similar to the circumstances affecting seed rice. As there is no significant demand for seeds from farmers, agro-input suppliers and agro-dealers will not risk investing in or stocking of inputs that they cannot sell.

Activity 1.2.2.2 Awareness campaign on benefits of agro-inputs through radio and other platforms:

Engage STTA for optimal packaging

In May, USAID FED received approval from USAID to deploy the Optimal Packaging and Voucher Specialist (STTA). Mr. John Hurrell commenced his assignment on June 2, 2015. Given that the lowland rice production season has commenced, USAID FED made a decision to prioritize activities that would increase UDP adoption with FY14 lowland rice farmers exposed to the technology as the immediate focus of the STTA's activities.

Deliverable 1.2.3 Efficient inorganic fertilizer use and organic fertilizer mix introduced and promoted

Comparative study of use of appropriate fertilizer rates using UDP, MoP and TSP vs. generic fertilizer rate recommendations

During May, USAID FED completed the cost benefit analysis of the use of UDP compared to urea broadcast and zero fertilization. This analysis took into consideration the cost of inputs, labor and tools required for land preparation, planting, and maintenance and harvesting at the trial sites. The conclusion from the cost benefit analysis is that the use of UDP is 347% more profitable than broadcast, and 780% more profitable than zero fertilization (Table 55).

Table 55: Cost Benefit Analysis UDP versus urea broad cast and zero fertilization

Direct Costs		Fertilizer Applications		
		UDP (T ¹)	Broadcast (T ²)	Zero (T ³)
MATERIALS - INPUTS & EQUIPMENT				
A	SEEDS	45.00	75.00	75.00
B	FERTILIZER	153.50	262.18	0.00
C	CHEMICALS			
D	EQUIPMENT & TOOLS	28.25	21.25	21.25
LABOUR				
A	LAND PREPARATION	40.80	36.00	36.00
B	PLANTING	13.20	8.40	8.40
C	FERTILIZER APPLICATION	14.40	14.40	
D	CHEMICAL APPLICATION			
E	CROP MAINTENANCE	6.00	6.00	6.00
F	HARVESTING, DRYING & THRESHING	34.50	31.65	32.40
G	TRANSPORTATION (INPUTS & HARVEST)	198.93	154.08	60.00
H	STORAGE	17.16	12.98	5.28
Total		551.74	621.94	244.33
SUMMARY				
		UDP	Broadcast	Zero
Costs/ha		\$ 551.74	\$ 621.94	\$ 244.33
Yield kg/ha		3900	2950	1200
Cost US\$/50kg		\$ 7.07	\$ 10.54	\$ 10.18
Selling price at Farm Gate Price (FGP)(\$12/50kg)		\$ 12.00	\$ 12.00	\$ 12.00
Income US\$/ha		\$ 936.00	\$ 708.00	\$ 288.00
Gross Profit US\$/ha		\$ 384.26	\$ 86.06	\$ 43.67
		Input Cost/ha	Yield/ha	Gross Profit/ha
Lowland UDP vs Broadcast		-12.7%	32.2%	346.5%
Lowland UDP vs Zero Fertilizer		125.8%	225.0%	779.9%

Zoning of USAID FED rice sites carried out based on soils analysis and fertilizer recommendations developed for each zone:

The results from 100 soils samples analyzed were used to plot the soil fertility status of USAID FED supported sites where these soil samples were collected. With the assistance of the Liberia Institute of Statistics & Geo-Information Services (LISGIS), sample maps were plotted to determine how best the plotting of comprehensive maps would be approached.

During June, an additional 164 samples were dried and prepared for analysis by the University of Liberia. It is anticipated that either the Nimba County Community College (NCCC) will test these samples through their soil laboratories in the Center of Excellence. However, USAID FED may have to supervise the testing and analysis process to ensure it is conducted correctly using the HACH Kits provided to the CoE. The CoE will also be assisted to determine what fees they can charge for future testing and analysis services. A comprehensive soils map for USAID FED supported counties will be plotted by LISGIS once all the analysis results are submitted. This is expected to happen in August 2015.

Activity 1.2.3.2 Demonstrate on-farm composting for vegetables:

During June, USAID FED received the imported shredder machine that will used to demonstrate compost preparation after clearance with customs. The demonstration of compost preparation for two vegetable clusters will be conducted in July.

From April 27 - May 01, 2015, USAID FED's Senior Horticulture Specialist conducted a training on compost preparation for vegetable production to 25 Youth Extension Aides, five LINGO staff and seven USAID FED Extension Officers in Kakata, Margibi County.

Activity 1.2.3.4 UDP+SRI research

Complete UDP+SRI research and carry out comparative analysis of cost and benefits vs. UDP only and SRI only:

USAID FED continued to monitor the four UDP+SRI research sites in Bong and Nimba Counties. In May, it was observed that the applied spacing and number of plants per hill has significant impact on the quantities of tillers per plant.

It was also observed that treatments with 25cm x 25cm spacing and one plant per hill produced 71% more tillers (averaging 35 tillers per plant) in comparison with treatments with 20cm x 20cm spacing and three plants per hill (which averaged 14 tillers per plant). Although vigorous growth corresponds with wider spacing, the plant height did not seem to have a significant effect on tillering.

In June, data was collected from the four sites on the number of tillers and panicles per plant at each site. It was observed that treatment plots with 25cm x 25cm spacing and one plant per hill averaged 38 tillers and 35 panicles per plant, while treatment plots with 20cm x 20cm spacing and three plants per hill averaged eight tillers and seven panicles per plant.

When the plots with three plants per hill in both spacing variables were compared, it was found that those with 25cm x 25cm spacing produced 22% more tillers and 29% more panicles per plant than those with 20cm x 20cm spacing. Similarly, plots with 25cm x 25cm spacing and a single plant per hill had 416% more tillers and 507% more panicles per plant when compared to those with 20cm x 20cm and three plants per hill (Table 56, 57, 58 and 59). These trial sites will be harvested during the month of July to determine impact on yields.



Figure 12: USAID FED procured shredder to be used for compost demonstrations



Figure 13: Farmer counting tillers at Gbrangasiequelleh, Bong County

Table 56: Average number of tillers and panicles per plant per plot at Gamue2 trial site (Bong County)

Treatments	Number of tillers/plant	Number of panicles/plant
(T1) UDP only: 20cmx20cm spacing/3 plants per hill	9	7
(T2) UDP+SRI: 20cmx20cm spacing/1 plant per hill	34	30
(T3) UDP+SRI: 25cmx25cm spacing/3 plants per hill	11	9
(T4) UDP+SRI: 25cmx25cm spacing/1 plant per hill	42	39

Table 57: Average number of tillers and panicles per plant per plot at Gbarngasiequelleh trial site (Bong County)

Treatments	Number of tillers/plant	Number of panicles/plant
(T1) UDP only: 20cmx20cm spacing/3 plants per hill	6	4
(T2) UDP+SRI: 20cmx20cm spacing/1 plant per hill	20	17
(T3) UDP+SRI: 25cmx25cm spacing/3 plants per hill	11	10
(T4) UDP+SRI: 25cmx25cm spacing/1 plant per hill	35	32

Table 58: Average number of tillers and panicles per plant per plot at Karme Farm (Nimba County)

Treatments	Number of tillers/plant	Number of panicles/plant
(T1) UDP only: 20cmx20cm spacing/3 plants per hill	6	5
(T2) UDP+SRI: 20cmx20cm spacing/1 plant per hill	44	40
(T3) UDP+SRI: 25cmx25cm spacing/3 plants per hill	15	12
(T4) UDP+SRI: 25cmx25cm spacing/1 plant per hill	40	38

Table 59: Average crop number of tillers and panicles per plant per plot at Gausi (Nimba County)

Treatments	Number of tillers/plant	Number of panicles/plant
(T1) UDP only: 20cmx20cm spacing/3 plants per hill	10	10
(T2) UDP+SRI: 20cmx20cm spacing/1 plant per hill	31	28
(T3) UDP+SRI: 25cmx25cm spacing/3 plants per hill	13	12
(T4) UDP+SRI: 25cmx25cm spacing/1 plant per hill	35	31

Activity 1.2.3.5 Adoption of UDP by farmers in old sites

Towards promoting the adoption of UDP with FY14 groups, USAID FED embarked on developing an awareness campaign strategy to implement during early July to ensure that lowland rice farmers could have access to UDP briquettes 10 days after planting.

USAID FED held discussions with GroGreen, who has a briquette making machine in-country and a readily available stock of 12.2MT of urea. USAID FED also engaged with two aggregators and one agro-dealer who could be potential suppliers of UDP through embedded financing to the rice farmers. USAID FED staff in Bong and Lofa counties contacted lowland rice farmers supported in FY14 to their raise awareness of the voucher program. These farmers are expected to pay 50% of the cost of the UDP briquettes before the vendor can start manufacturing them. FED will subsidize 50% of the cost of the briquette fertilizer that will be supplied by GroGreen. A final roster of farmers who have deposited their cost share will be compiled by July 10.

**Activity 1.2.3.6 Pilot use of ICT in soils testing and analysis for rice
Recruitment of Project Manager**

It was anticipated that during the quarter three reporting period, USAID FED would pilot the use of ICT for soil testing and analysis using one of the CoEs supported under Component 3. As the CoEs are still in the process of constructing their laboratories, it was decided to defer the implementation of the activity to July. FED has already developed the Scope of Work for the Project Manager. It is anticipated that this pilot will be implemented by the current USAID FED's UDP+SRI Project Manager, who has been actively involved in the soils sampling, testing and analysis activities conducted by USAID FED.

Sub Task 1.3: Agricultural Extension Support

Activity 1.3.1 Development of de-concentration and decentralization strategies with MOA

Establish working group in collaboration with MOA, to evaluate existing strategies and to develop new strategies that address the need to de-concentrate and decentralize extension for implementation in FY15

During May, USAID FED developed a draft diagram illustrating the proposed de-concentration and decentralization strategy. A Technical Agriculture Core Team meeting was held on June 5 where USAID FED presented the diagram illustration to TACT. TACT endorsed USAID FED's strategy to focus on extension curriculum standardization and large-scale dissemination of extension materials and farmer guides that will be developed as part of the de-concentration and decentralization strategy presented. These extension materials and farmer guides will be available by the end of August 2015.

Workshop facilitated in collaboration with MOA, ADCCs and agriculture stakeholders towards validation of newly drafted de-concentration and decentralization strategy

During April, USAID FED hosted technical experts from the Government of Liberia (GoL), universities and vocational institutions, the private sector and development agencies to validate the curricula for the rice, cassava and horticulture value chains. The curriculum validation workshop for the goat value chain was hosted during the month of June.



Figure 14: Dr. Sizi Subah, MOA's Deputy Minister for Technical Services at the Rice curriculum validation workshop.

The curricula development and material dissemination informs the integral approach of MoA's de-concentration and decentralization strategy. Using the feedback and contributions received from these validation workshops, USAID FED will complete the development of all the required extension materials for the four value chains and have them validated during the quarter four reporting period.

Activity 1.3.3 Development of extension material and information access points

Extension material and packages covering technical aspects of production techniques, production planning, integrated pest and disease management, variety selection and post-harvest handling developed for rice, cassava, goats and horticulture value chains.

During the reporting period, USAID FED revised five lowland rice extension materials to incorporate inputs contributed during the validation workshop. This included materials on land preparation, nursery preparation and planting, rice stand establishment, seed selection and treatment as well as weed management (Figure 26).



Figure 15: Extension materials produced

Under vegetables, USAID FED also developed simple farmer guides for chili, okra and tomatoes. Under cassava, simple farmer guides were developed on selection of planting materials, preparation of planting materials, cassava planting methods, ISFM, harvesting and storage.

In quarter three, USAID FED also developed a seven minute video on land preparation for lowland rice. The video is meant to illustrate land preparation methods in the lowland using technologies that have been promoted by USAID FED.

Agricultural radio program content for monthly radio shows produced in collaboration with communications unit and five community radio stations

USAID FED held several meetings with the MoA to discuss how to share airtime on ELBC and UNMIL radios for broadcasting the *On the farm* radio program. The MOA insisted that USAID FED should pay 50% of broadcasting costs on ELBC radio and paying for any repeat broadcasting of these programs with community radio stations. After deliberations on how to cost effectively proceed with the airing of *On the Farm* radio program, a decision was made to proceed with developing content for the program for airing through the United Methodist Radio in Monrovia.

The United Methodist radio has signed an agreement with USAID FED to provide 30 minutes of broadcast time every week at no cost. During the month of June, United Methodist Radio could not broadcast *On the farm* as it was installing new equipment at their station that would enable them to expand their coverage. The broadcasting will begin in July.

Agricultural radio shows aired once weekly by five radio stations in Bong, Nimba, Lofa, Grand Bassa and Montserrado counties

In quarter three, a total of eight radio programs were produced and aired on Radio Super Bongese in Bong County and Tamba Taikor in Foya, Lofa County. Programs aired by Radio Super Bongese included: *Rice post-harvest management, Vegetable site selection, Cassava stem production and storage, and Goat herd management.* Programs aired by Tamba Taikor included: *Rice field clearing, Nursery bed preparation for rice production, Different plowing methods for rice production and Construction of bands, canals and head dykes for lowland rice production.* Two

other radio stations, Radio Kergheamahn in Nimba and Radio LACSA in Grand Bassa, have yet to submit their radio programs that they broadcasted during the quarter three period.

Information on listenership coverage collected from each radio station on a monthly basis to gauge number of people receiving extension information through radio

In order to assess the extent of coverage that the community radio stations have, USAID FED requested the International Research and Exchanges Board (IREX) for information on listenership coverage for radio stations in Liberia. IREX provided a booklet which did not include the community radio stations. USAID FED and IREX will partner during the quarter four reporting period to determine how this information can be captured at the county level.



Figure 16: Cabbage field managed by See Yourself agricultural youth group, Todee, Montserrado

Sub Task 1.4: Youth in Agribusiness

Activity 1.4.1 Establishment of agribusiness horticulture pilots

Task 1.4.1.2 Establish income generation and baselines for the identified clusters Inputs cost:

During the reporting period, USAID FED reviewed baseline data collected from the 25 youth agribusiness pilots. This data was collected by Green Coast Agriculture Program (G-CAP), an LNGO contracted by USAID FED to provide technical assistance to these youth groups. During a review of the pilots, some minor inconsistent data was discovered that needs to be corrected by the LNGO. The baseline information captures the land size under cultivation, production and sales prior to USAID FED assistance. This data will be used to determine the impact of USAID FED’s assistance at the end of FY15.

Task 1.4.1.3 Establish 25 demonstration plots of 0.25 hectares each:

During the quarter three reporting period, all 25 demonstration plots (each 0.25 hectares) were laid out and planted with six vegetables varieties (Okra, Cabbage, Cucumber, Bitter ball, Chili Pepper and African Eggplant) that were provided by USAID FED. By the end of the quarter three reporting period, the youth groups had planted vegetables on a total of 102 hectares of their own individual plots (Table 60).

Table 60 BSP Training to the Rice Business Hub participant list.

County	FY15 target Hectares	Area under production by April (Ha)	Area under production by May (Ha)	Area under production by June (Ha)	Total Area under production by Q3 (Ha)	Pending Area to be cultivated (Ha)
Montserrado	115	3	87	12	102	23
Margibi	10	0	10	0	10	0
Total	125	3	97	12	112	23

Task 1.4.1.4 Link vegetable clusters to local and high value markets:

During the quarter three reporting period, USAID FED and Grain Coast Inc. (GCI) held several meetings to follow up on the requirements of exporting okra to France. Two of the 25 youth groups had already signed

contracts with GCI to produce okra as outgrowers. During these discussions, it emerged that GCI was experiencing financial difficulties and was not in a position to meet its cost share obligations required for this initiative.

In order to ensure that the contracted youth groups had a market for their produce, USAID FED identified two alternative firms (ROSNA and Gboimah Farm) that could buy the okra from the youth groups and export these to the identified buyer in Paris, France. ROSNA has committed to participating in the initial trial shipments to determine whether there is a business case for the firm to invest in commercial exports of vegetables.

The assisted youth groups began harvesting of their plots during the month of June. By the end of June, two youth groups from Montserrado County harvested and sold 78 Kgs of assorted vegetables valued at US\$129 from 2 hectares of land (Table 61). It is anticipated that harvest and sales data will emerge from 23 clusters from the end of July, as these youth farmers have planted cabbage, bitter ball and chili pepper. These sales are expected to increase exponentially during the quarter four period.

Table 61: Vegetable sales

County / Cluster	Vegetable variety	Sales value in June (Kgs)	Sales value in June (USD)	Area harvested (Ha)	Total sales volume YTD (kg)	Total sales value YTD (USD\$)
Montserrado	Chili Pepper	0	\$0	0	0	\$0
	Cucumber	55	\$823	1	55	\$83
	Bitter ball	0	\$0	0	0	\$0
	Cabbage	0	\$0	0	0	\$0
	Okra	23	\$46	1	23	\$46
TOTAL		78	\$129	2	78	\$129

Activity 1.4.2 Supporting job creation through youth extension aides

Training and equipping youth extension aides with appropriate extension materials:

During the quarter three reporting period, the 25 youth extension aides commenced the training of 25 lead farmers on GAP and IPM. It is anticipated the continuous field training will end by July, and the lead farmers will be in a position to provide extension support to their group members.



Figure 17: Youth group members at Todee, Montserrado receiving training on nursery management from Extension Aides.

Activity 1.4.3 Supporting job creation through youth enterprises as transport service providers

Identify and recruit 49 youth towards establishment of transport businesses:

During the quarter three reporting period, USAID FED completed the verification process of 40 newly identified entrepreneurs (all male) from Bong, Nimba and Lofa Counties. These entrepreneurs were verified based on their ability to cost share on the *Tuk-Tuk* motorbikes. From the verified entrepreneurs, 10 of them will pay 50% of the value of the motorbikes with their own funds, while 30 will deposit 20% of the value of the motorbikes in order to receive 30% as a loan from LEAD. Verification of entrepreneurs from Grand Bassa will

be completed in July. Component 2 will provide technical assistance to these new entrepreneurs to ensure that their businesses are registered and that they have viable business plans.

Activity 1.4.4 Supporting job creation through youth enterprises as power tiller service providers

Identify and recruit 30 youth towards establishment of power tiller businesses to support lowland rice farmers in land preparation:

USAID FED conducted a five day training on power tiller operations and mechanical maintenance for 30 youth entrepreneurs (all males) in Totota, Bong County. This training was conducted from June 15-19, 2015. These 30 youth will receive power tillers from USAID FED under cost share arrangements. Each entrepreneur will till 48 hectares of USAID FED assisted lowlands in order to meet their cost share obligations under the agreement. An official ceremony to hand over 30 power tillers equipment to the 30 youth entrepreneurs will take place on July 16 in Suakoko, Bong County.

Identify and train 58 youth towards operation of cassava processing equipment:

During the quarter three reporting period, USAID FED conducted a five day training on how to operate and maintain cassava processing machines for 24 youth (22 males and 2 females) from 12 cassava processing centers in Bong County. Similar training exercises targeting 34 youth will be completed in Lofa, Nimba and Grand Bassa before the end of July.

Identify and train 40 youth towards operation of rice milling equipment:

USAID FED conducted a five day training on how to operate rice milling equipment for 12 youth (all male) from four rice hubs in Bong County. Similar training exercises targeting 28 youth will be completed in Lofa, Nimba and Grand Bassa before the end of August.



Figure 18: Youth group members being trained on Power Tiller use in Suakoko, Bong County.

Sub Task 1.5: Improving Human Nutrition

Activity 1.5.1 Development of Diet Behavior-Change Communications (DBCC) Strategy

Hiring of Behavior Change Communication Specialist:

During the quarter three reporting period, Ms. Alison Gardner, a Nutrition Specialist was successfully recruited as the Behavior Change Communication Specialist. Ms. Gardner was deployed to Liberia in June. Her role will be to coordinate the implementation of a barrier analysis survey, which will inform USAID FED's diet behavior change communication strategy in FY16.

Developing a work plan and methodology for a diet behavior change survey to identify barriers to diet diversity

During the reporting period, USAID FED developed a work plan to guide the barrier analysis survey exercise. With the assistance of the Diet Behavior Change Communication Specialist and M&E, questionnaires were developed for the barrier analysis survey, enumerators hired and the sample size to target determined.

It was decided to pilot the barrier analysis survey in Nimba County on the basis of its diversity of tribes and number of USAID FED-supported clusters producing rice and cassava. This targeted approach would enable USAID FED to implement a strategy that would impact at least 7,900 beneficiaries by the end of FY15. On the basis of these findings, USAID FED will replicate the recommended approaches to the other counties.

Conduct a diet behavior change survey through focus group discussions

During the month of June, USAID FED conducted a barrier analysis survey with 195 households (98 men and 97 women) that had children under the age of five in Nimba County. Semi-structured interviews were held in Ganta, Karnplay, Zoeluapa and Zeonghen over a seven day period. The results of this survey will be presented to stakeholders in the nutrition sector during the month of July.

Activity 1.5.3 Nutrition messaging outreach to more households

Disseminate material to direct beneficiaries through field extension staff and LNGOs:

USAID FED received approval during quarter three from the Ministry of Agriculture (MoA) and the Ministry of Health and Social Welfare (MoHSW) to commence the dissemination of the nutrition poster that was developed in collaboration with them. A total of 2,000 copies of the approved nutrition poster were printed and distributed to NGOs, CBOs, VSLA groups and lead farmers located in Bong, Nimba, Lofa, Grand Bassa, Montserrado and Margibi Counties during the month of June (Table 62).

Table 62: Distribution of nutrition posters by County and recipients

County	Number of poster distributed to NGOs	Number of poster distributed to CBOs	Number of poster distributed to VSLAs	Number of poster distributed to lead farmers	Number of poster distributed to Community Colleges	Total number of posters distributed
Bong	16	24	11	315	0	366
Nimba	199	183	11	416	38	847
Lofa	21	24	11	220	37	313
Grand Bassa	16	0	11	240	25	292
Montserrado	16	0	6	55	0	77
Margibi	25	0	5	50	25	105
TOTAL	293	231	55	1,296	125	2,000

USAID FED also developed a flyer illustrating the three recommended food groups (Figure 1). This flyer was approved by the MoA and MoHSW. 6,000 copies of the approved nutrition fliers will be distributed to the counties in July.

During the quarter three reporting period, a total of 23,368 individuals (6,276 male and 17,029 female) received nutrition messaging through posters, training and extension services provided by USAID staff, youth extension aides and the contracted LNGOs (Table 63).



Figure 19: Figure 19: Nutrition flyer approved by MoA and MoHSW.

Table 63: Beneficiaries who have received nutrition messaging

County	Targeted Individuals for FY15	Total Individuals reached by Q2	Individuals reached in April	Individuals reached in May	Individuals reached in June	Total Individuals reached in Q3	Total Individuals reached YTD	Total Male	Total Female
Bong	10,850	11	0	1,949	4,202	6,151	6,162	2,485	3,677
Nimba	15,015	11	0	8,891	0	8,891	8,902	2,481	6,421
Lofa	5,480	11	0	2,211	0	2,211	2,222	32	2,190
Grand Bassa	4,990	11	0	1,913	2,369	4,282	4,293	1,220	3,073
Montserrado	1,638	6	0	828	0	828	834	26	808
Margibi	1,638	5	25	925	0	950	955	32	923
TOTALs	39,611	55	25	16,717	6,571	23,313	23,368	6,276	17,092

Component Two: Stimulate Private Sector Growth and Investment

Task 2: Policy Enabling Environment for Private Sector Growth

Policy Reform Activities via Technical Working Groups

During the reporting period, USAID FED met with officials at the Ministry of Agriculture (MoA), Ministry of Commerce and Industry (MoCI) and Ministry of Finance and Development Planning (MoFPD) to determine the current status of policy reforms and discuss ways to advance reforms to the next stage in order to improve the business-enabling environment. Policy reforms discussed included the implementation of ECOWAS Seed, Pesticide and Fertilizer regulations, progress on renewing EO#64, and tax incentives for small scale farmers with the MoFPD.

Additionally, USAID FED met with the Commissioner for Domestic Tax, Revenue and Tax Policy Division at the Ministry of Finance and Development Planning. It was learned that the main functions of the Revenue and Tax Policy Division are: development and implementation of tax policy proposals, drafting legislation, regulations, procedures and guidance, and participation in the negotiation of mining, petroleum and other concession agreements.

The following information on Tax Clearance Certificates and procedures of registering a business was gathered during the meeting:

At the time of registration a Standard Integrated Tax Administration System (SGTAS) Number is assigned to the new company. Then the company needs a Tax Clearance Certificate to assure it is fully compliant with tax obligations which is issued within four days of request. The certificate is only issued in Monrovia by the Liberia Revenue Authority. The certificate is required if the registered company wants to bid on a government procurement including the 25% set aside for small business procurement.

USAID FED informed the Commissioner of the various incentives for agriculture investment that other West African countries are implementing. There was a lengthy discussion on suspending the Tax Clearance Certificate for three years for MSME agribusinesses. This would allow for permanent custom duty exemption for agricultural machinery and inputs, in addition to reduced tax rates for MSMEs. The Commissioner, Mr. Talery would like a policy forum to discuss tax clearance forms, tax awareness policy issues among newly registered agriculture-based companies and tax incentives for small scale farmers who want to register as a business. USAID FED will propose this as one of the policy topics to be discussed during the 2015 MSME Conference.

Seed, Pesticide, and Fertilizer Technical Working Group

The Seed, Pesticide, and Fertilizer Technical Working Group met three times to discuss measures to be undertaken to implement the three ECOWAS regulations published and made into law last year. It was decided that a small working group would be formed to ensure implementation of the ECOWAS Seed Regulation Road Map (Agreed Actions for Liberia prepared by the ECOWAS Secretariat). This small working group will also be responsible for implementing ECOWAS pesticide and fertilizer regulations. The Chairman of the working group is the MoA Assistant Minister for Planning, USAID FED serves as Co-chair, and the World Bank serves as Secretary. The MoA decided it needed to catalogue available human resources and infrastructure within the seed sector such as seed scientists, inspectors, technicians and laboratories within different institutions such as CARI, MoA, Africa Rice, University of Liberia, and USAID FED. Information was provided to the MoA on seed

inspectors trained by USAID FED. The West Africa Seed Program (WASP), the West and Central African Council for Agricultural Research and Development (CORAF/WECARD), Mano River Union Secretariat, and the World Bank have expressed their commitment to working with Liberia to implement all three regulations.

Domesticating the ECOWAS Seed Regulation

An international seed policy expert, Josiah Wobil, was hired by USAID FED and commenced work on June 22, 2015. Mr. Wobil will draft the guidelines and complementary regulations for the implementation of the ECOWAS Seed Regulation promulgated in the Liberian gazette in August 2014. He will also identify what is needed to upgrade and/or establish existing laboratories necessary to certify seeds.

In a meeting with the Technical Working Group on June 16, 2015, it was agreed that the MoA will second one of its staff from the Technical Services Department to work alongside the international seed policy expert. The purpose of appointing a local counterpart from MoA is to ensure ownership, establish institutional memory and build local capacity.

Mr. Wobil submitted his inception report on June 26, 2015. The report highlights the difference between policy and regulations, and also the differences between the ECOWAS roadmap and the work the USAID FED has contracted him for, which is to domesticate the ECOWAS seed regulation in order for Liberia to quickly move forward with its implementation.

Domesticating the ECOWAS Fertilizer and Pesticide Regulations

In June, USAID FED drafted SOWs for STTAs who will draft the implementing rules and regulations of the ECOWAS Fertilizer and Pesticides regulations that were promulgated last year. Hiring for these positions will be done in July.

Assessment of Training Needs and Training for Relevant Government Agencies and Private Sector

Discussions are under way with the MoCI to prepare a draft scope of work to recruit an international consultant with expertise in assessing and building capacity to improve organizational development and strategic planning in the MoCI including the Department of Small Business Administration (DSBA,) which will be officially launched on July 1.

Support to MoCI through the MSME Annual Conference

USAID FED participated in three planning meetings for the third annual Micro, Small and Medium Enterprise (MSME) Conference to take place in November 2015. The planning process brings together the MoCI, Ministry of Youth and Sports (MoYS), donors and private sector stakeholders in collaboration to achieve a successful event. This year's event theme is "Youth Innovation for Economic Empowerment." USAID FED serves as Co-chair on the Policy and Agenda Committee. To date, the committee prepared a draft concept note for the MoCI indicating that the conference is aimed at boosting entrepreneurship among Liberians, particularly the youth, and to highlight the need for support of innovation geared toward growth and development of the MSME sector in Liberia.

National Standards Laboratory (NSL)

In April, the NSL reviewed and approved the draft scope of work for a consultant to conduct a gap assessment, market study and business plan for a self-sustaining and functioning institution. The SOW was finalized and recruitment of this consultant commenced in May.

USAID FED faced some challenges with the recruitment of the consultant, as candidates who applied generally have expertise on the technical side and less on the business/marketing side. Further, in June, USAID FED learned that a DFID-funded project, GROW, is also supporting a consultant for the strengthening of the NSL. FED will be meeting with GROW and its consultant in July to determine what capacity areas of the NSL they are working to strengthen.

Legal Advisory Services

The FY15 work plan calls for the recruitment of local and international legal advisors to advise on the implications of implementing national policies concurrently with ECOWAS regulations (seed, pesticide, fertilizer) and the impact on World Trade Organization (WTO) accession. Based on discussions with Mr. Josiah Wobil, this activity may not be relevant anymore. It is quite clear that executive action on the implementing rules and regulations is legal since Liberia doesn't have any law on fertilizer and pesticide. The "domestication" can take a similar process to that of the seed regulation.

Outreach to Promote Executive Order No.64

Executive Order No.64 expired in April 2015. The awareness campaign to promote utilization of EO No.64 has become irrelevant at this time.

The MoA and MoCI are currently working on streamlining the administrative procedures in preparation for an extension of the duty waiver. Press releases and advertisements for Monrovia newspapers and short radio messages will be drafted once EO No.64 is extended.

USAID FED would like to consider working with the Legislature for a more permanent law that provides a whole package of incentives to support growth of agriculture. In the last quarter of FY16, USAID FED will carry out research and possibly one policy forum to discuss agriculture policy incentives.

Subtask 2.1 Access to Financing

USAID FED's FY15 work plan aims to generate US\$751,634 in financing for 8,591 MSMEs, including farmers in its four value chains. As of end of Q3 of FY15, a total of US\$686,019 or 91% of FY15 target has been achieved (Table 64).

Please note that in Q1 and Q2 it was reported that total financing was US\$150,260 and US\$147,897 respectively, however, USAID FED has updated the total reported numbers and these are shown in Table 64. Financing for Q1 was US\$188,731 and US\$ 208,385. Total financing generated in Q3 was US\$288,902. These totals represent financing from VSLA, Central Bank of Liberia (CBL) through NAPEX and from LEAD, a micro-finance institution.

Table 64: Financing generated vs FY15 target

Value Chain	Total Target	Achievement				% of FY15 Target achieved
		Q1	Q2	Q3	YTD	
Rice	\$508,087	\$98,210	\$110,060	\$135,914	\$344,184	68
Cassava	\$128,668	\$47,000	\$50,175	\$74,276	\$171,451	133
Vegetables	\$67,308	\$40,501	\$44,700	\$74,213	\$159,414	237
Goats	\$14,421	\$3,020	\$3,450	\$4,498	\$10,968	76
Ag inputs	\$33,150					0
Total	\$751,634	\$188,731	\$208,385	\$288,902	\$686,018	91

Activity 2.2.1 Village Savings and Loan Expansion

During the quarter, a total of 9,842 USAID farmers actively participated in VSLA programs in Lofa, Nimba, Bong, Grand Bassa, Margibi and Montserrado counties. The 9,842 VSLAs have saved a total amount of USD \$273,735 and have loaned a total of USD \$115,152 to 3,370 members. The total number of active members has increased from 8,085 to 9,842 because other new groups that were formed in April only completed their four weeks or one month share purchase in May (Table 65). VSLA active members are those who purchase shares every week for four consecutive weeks.

Table 65: VSLA Membership

County	Q3 total Active	Number of VSLA groups per county/year			
		FY13	FY14	FY15	Total
Lofa	2180	5	20	50	75
Nimba	2099	5	20	50	75
Bong	1912	5	20	50	75
Grand Bassa	1898	5	20	50	75
Margibi	925	3	9	25	37
Montserrado	828	3	8	25	36
Total	9,842	26	97	250	373

During the reporting period, the 373 VSLA groups (123 old, 250 new) saved a total of US \$273,735 and loaned out US\$115,151 to 3,370 farmers in all six counties (Table 66). The Community Field Officers (CFO) have provided farming as a business and record-keeping training, and nutrition messages to 9,842 VSLA members in the six counties.

Table 66: VSLA Loan Disbursements

County	Q3 total Number of people got VSLA loan	Q3 Total VSLA loan disbursed	Number of Members trained on Agri-business training &

			Nutrition
Lofa	795	\$29,938	2180
Nimba	708	\$28,742	2099
Bong	647	\$21,676	1912
Grand Bassa	573	\$18,656	1898
Margibi	365	\$8,581	925
Montserrado	282	\$7,560	828
Total	3,370	\$115,152	9,842

In quarter three, USAID FED has supported 373 VSLA groups with the membership of 9,842 female farmers. Through their shares purchase investment, the groups have pooled the total amount of US\$273,735 as loan capital for their members to borrow from (Table 67).

Table 67: VSLA Total loan capital pooled in FY15 Q3

County	Q3 monthly VSLA shares purchase investment			Q3 total Shares purchased
	April	May	June	
	shares purchased	shares purchased	shares purchased	
Lofa	\$9,646.12	\$29,546.68	\$31,607.00	\$70,799.80
Nimba	\$11,806.47	\$25,454.69	26,906.90	\$64,168.06
Bong	\$6,532.35	\$20,899.60	21,911.40	\$49,343.35
Grand Bassa	\$5,350.12	\$19,236.70	21,298.30	\$45,885.12
Margibi	\$4,782.00	\$9,170.00	9,724.10	\$23,676.10
Montserrado	\$3,838.00	\$7,865.00	8,159.10	\$19,862.10
Total	41,955	\$112,172.67	119,607	273,735

During the period, the female farmers reported the sales value of US\$44,617.32 (Table 68).

Table 68: Sales of VSLA members (in US\$)

County	Sales (April to June 2015)				
	Rice	Cassava	Vegetable	Goat	Total
Lofa	\$7,805	\$632	\$1,879	\$1,618	\$11,935
Nimba	\$3,971	\$3,100	\$2,363	\$3,306	\$12,740
Bong	\$3,979	\$468	\$2,507	\$512	\$7,467
Grand Bassa	\$748	\$1,802	\$1,155	\$356	\$4,060
Margibi	\$0	\$215	\$1,339	\$0	\$1,555
Montserrado	\$0	\$0	\$6,861	\$0	\$6,861
Total	\$16,503	\$6,217	\$16,104	\$5,792	\$44,617

A total of 107 fulltime employment (FTEs) was generated by hiring 1,089 people who worked for 151 days, giving a total of 27,699 man-days or 107 FTEs (Table 69).

Table 69: Number of Fulltime Employment (FTEs) Generated

Fulltime Employment			
Number of people work	Number days worked	Man-days	Number of FTE
April+May+June	April+May+June	April+May+June	April+May+June
177	31	5487	21
212	37	7844	30
171	14	2394	9
185	20	3700	14
194	21	4074	16
150	28	4200	16
1,089	151	27,699	107

Activity 2.1.2 Pilot Micro-Credit Union with VSLAs

USAID FED met with Microlead to discuss the establishment of legal and physical structures of the 5-VSLA groups in Nimba County. Microlead is a project focused on revitalizing agricultural micro-credit unions in Liberia. Microlead will train micro credit union volunteers and staff from the five already formed groups in Nimba County. USAID FED expects this training to take place in quarter four.

Activity 2.1.3 Extension of Micro-Finance to Farmers and Entrepreneurs

During the reporting period, USAID FED and LEAD have identified the number of individual farmers in the four VCs to access loans as follows: rice 2,789, vegetable 1,794, cassava 1,005 and goat 548. LEAD has already provided a total loan of US\$166,882 to 119 farmers, rice US\$89,164 to 438 farmers, cassava US\$14,325 to 137 farmers and vegetable US\$63,393 to 544 farmers. No loans are planned to be disbursed to the Goat Value Chain.

Pilot Mobile Money for Disbursement and Collection

USAID FED is interested in piloting lending using ICT. However, LEAD informed USAID that the mobile money system can only work for loan repayments to LEAD. Clients receiving loans from LEAD have to sign a loan agreement before proceeding. Therefore, disbursing loans to clients through mobile money is not feasible right now.

Activity 2.1.4 Business Training and Mentorship to Access Finance

Under this activity, USAID FED plans on working with IBEX to conduct capacity building sessions which aim to build farmers' understanding of loan policy. USAID FED expects to implement this activity in quarter four.

Activity 2.1.5 Embedded Financing

During the reporting period, LEAD, a Micro Finance Institution (MFI) in Liberia, committed to provide US\$60,000 to USAID FED farmers through embedded financing. LEAD will conduct due diligence and provide needed farming materials to farmers in the four VCs; rice, cassava, vegetable and goat. This will be done in Lofa, Nimba, Bong, Grand Bassa, Margibi and Montserrado counties.

During the reporting period, USAID FED and LEAD worked on an assessment plan to recruit farmers in need of farming materials. The identified farmers will be trained by LEAD and provided with farming materials.

LEAD will enter into contracts with USAID FED farmers regarding the farming materials required. LEAD will also provide the materials.

Subtask 2.2: Access to Business Development Support (BDS) Services and Enterprise Service Centers

Five LNGOs: Liberia Initiatives for Development Services (LIDS), Jacob F. Tomei Enterprise Center, LEAD Inc., Community Youth Network Program (CYNP) and Top Consulting, Inc. (TCI) were pre-selected in Quarter 2 of FY15 for engagement as Business Service Providers. USAID FED conducted a workshop for these LNGOs on April 1, 2015 at the USAID FED Offices in Monrovia to allow each USAID FED technical Lead along the four value chains to provide an orientation on USAID FED’s intervention in each of the value chains, including a brief description of the challenges and constraints USAID FED is trying to address (Table 70).

Table 70: BSP & FED’s Orientation Workshop Participants’ Breakdown

Name of BSP Management Team and USAID FED’s Technical Team	Responsible Counties	Participants		Total
		Male	Female	
LEAD	Nimba	2		2
LIDS	Bong	2		2
Community Youth Network Program	Grand Bassa	1	1	2
Jacob F. Tomei Enterprise Center	Lofa	2		2
Top Consulting Inc.	Montserrado/Margibi	2		2
USAID FED Technical Team from C-1&2	Montserrado	10	3	13
Total		19	4	23

These LNGOs also participated in business planning workshops of USAID FED’s beneficiary enterprises. From April 6 to 8, 2015, the USAID FED Business Development Services Team conducted a two-day workshop with cassava nurseries farmers and cassava processors in Grand Bassa County in Buchanan City. CYNP participated in this workshop (Table 71). The purpose of the workshop was to help the cassava nursery operators and cassava processors understand how to



Figure 20: USAID FED COP delivering BSP training in Monrovia, Liberia.

operate their businesses in a profitable manner. The workshop provided the pre-selected LNGO the chance to understand how USAID FED's beneficiary-MSMEs operate their businesses and to obtain a baseline on their level of profitability.

Table 71: Cassava nurseries operators, processors and farmers, BSP & USAID FED Extension agent workshop participants

Name of BSP Management Team and USAID FED's Technical Team	Responsible Counties	Participants		Total
		Male	Female	
Cassava Processors, Nurseries operators and farmers	Grand Bassa	13	1	14
CYNP representative	Grand Bassa	1	1	2
FED Cassava Extension officers	Grand Bassa	2	0	2
Total		16	2	18

USAID FED conducted a two-day Rice Business Hub Business Planning Workshop from April 15 to April 16, 2015 in Voinjama City, Lofa County. The participants included nine members of three USAID FED-supported Rice Business Hubs, a private rice mill owner, three staff from the Jacob F. Tomei Enterprise Center and USAID FED extension Officer (Table 72).

Table 72: Rice Business Hubs Managements and, BSP & FED Extension Agent workshop participants

Name of BSP Management Team and USAID FED's Technical Team	Responsible Counties	Participants		Total
		Male	Female	
Voinjama Rice Business Hub	Lofa	3		3
David Simon Town Rice Business Hub	Lofa	3		3
Foyah Rice Business Hub	Lofa	3	1	4
Individual Rice Business Hub	Lofa	1		1
Jacob F. Tomei Enterprise Center	Lofa	3		3
FED Extension Officer	Lofa	1		1
Total		14	1	15

On April 22, 2015, the five LNGOs were contracted by USAID FED as Business Services Providers (BSPs) to provide business support services to USAID FED beneficiaries within the six counties along the four value chains. The following are the county assignments for the five BSPs:

1. Nimba: Liberia Entrepreneur Asset Development (LEAD),
2. Montserrado/Margibi: Top Consulting Inc. (TCi),
3. Lofa: Jacob F. Tomei Enterprise Center (JFTEC),
4. Grand Bassa: Community Youth Network Program (CYNP),

5. Bong:

Liberia Initiative Development Services (LIDS)

After the execution of the contracts, the BSP's recruited in May their extension officers under the supervision of the Master Business Development Support P (Right and Rice Foundation). A total of 72 persons were contracted by the BSPs to serve as Extension Officers and 699 as Village Agents.

In May and June, Training of Trainers (TOT) sessions on business skills development were conducted in the six counties. A total of 771 Extension Officers and 699 Village Agents participated in the TOT workshops (Table 73).

Table 73: BSPs TOT Training Participants

Name of Business Service Provider (BSP)	Responsible County(ies)	Extension Officers		Village/s Agents		Total
		Male	Female	Male	Female	
LEAD	Nimba	8	4	174	26	
LIDS	Bong	8	4	108	17	
CYNP	Grand Bassa	10	2	110	14	
JFTEC	Lofa	10	2	90	36	
TCi	Mont/Margibi	17	7	87	37	
Total		55	17	569	130	771

The Extension Officers and the Village Agents of the BSPs are providing training and helping enterprises in USAID FED's value chains in establishing and formalizing their businesses and/or organizations.

A total of 16,696 MSMEs including farmers have been provided with business training and coaching by USAID FED and its BSPs year-to-date (Table 74).

Table 74: BSP's Training and coaching farmers and MSMEs workshop breakdown

Business Service Provider	County(ies)	Target # MSMEs	# MSMEs served	Balance
LEAD	Nimba	6539	6539	0
LIDS	Bong	4411	2399	2012
CYNP	Grand Bassa	3225	3117	108
JFTEC	Lofa	3369	3369	0
TCi	Montserrado/Margibi	3225	1272	1953
Total of All		20,769	16,696	4,073

Since they were contracted, the BSPs have drafted ten business plan templates. The financial projection modellings of Payee, Doumpa and Boweh Rice Business Hubs located in Nimba County and Garmue and Bong Mines in Bong County have been drafted with USAID FED's help.

Facilitating Registration of Farmers and Other MSMEs in the Rural Areas

On June 8, 2015, USAID FED met with the Registrar of Liberia Business Registry's Mr. Abu Kamara to clarify the categories by which MSMEs in agriculture, including farmers, can get formalized. The Registrar advised that small farmers can register as petty traders. Since they are very small, they will not pay any tax, but they will pay for the registration. Registration of petty traders is handled by the Department of Small Business Administration

(DSBA). The Liberia Business Registry (LBR) deals with SMEs, who get a Tax Identification Number (TIN) when they register.

USAID FED informed the Registrar of the project's plan to set up five one-stop shops for business development support services, which will be called Enterprise Service Centers (ESCs). These ESCs will have a mandate to help MSMEs in agriculture register as businesses. They can allocate a desk for the LBR where its staff can hold office to register businesses. The LBR can come on a monthly basis or as deemed necessary. The Registrar expressed interest in this idea since it aligns with their plan to set-up satellite offices up-country. A follow up discussion will be done in Quarter 4 to put more details into the concept.

Lessons Learned During the Field Visit:

- Farming groups highly appreciate the business development support services component of the USAID FED program.
- Most farming groups are showing high interest in getting registered as formal business.

Constraints during activity achievement:

- The BSPs experienced difficulty in recruiting qualified and well-educated youth as Village Agents for Business Service Provision.
- Cultural practices especially "Sandi and Poro society" meetings that were halted as a result of the Ebola crisis have resumed and are causing serious delays in program implementation.

Success Story:

During May 2015, USAID FED Business Development Services (BSP) Team facilitated the registration of SELMA AGRICULTURE DEVELOPMENT COOPERATION with the Liberian Business Registry in Monrovia, Liberia.

Sub Task 2.3: Women Participation in Agribusiness

Women-owned Business Incubation Program

In Q1 FY15, a total of 103 women entrepreneurs graduated from the USAID FED Leadership and Business Incubation for Women Entrepreneurs Training Program. The training program included sessions on leadership, effective communication, effective negotiation, public speaking, strategic planning, basic record keeping and basic business registration. During Q2 FY15, the Women-owned Enterprise Development Specialist (WEDS), Donna Rosa, arrived in Monrovia to set up a business incubation/mentoring program for 25 Liberian women-owned businesses. 27 candidates were chosen from a pool of over 50 candidates including those who participated in leadership training, and from VSLAs and the value chains. The goal is to facilitate growth, improve efficiency and effectiveness, and increase profitability of these women-owned micro-enterprises.

The WEDS conducted three business plan workshops for participants in the Women-owned Enterprise Business Incubation Program.



Figure 21: Business planning meeting with Willing Women Initiative, Totota, Bong County

All participants completed business plan templates for their organizations or businesses. The plans are being reviewed and entered into electronic format. Baseline data was collected on all participants, and data on control groups is being compiled.

In June, USAID FED held individual leadership teams of the 26 selected businesses. The objective of the meeting was to fill in missing information on the business plan templates, clarify and verify key points, and ensure management consensus on the content of each plan.

Component Three: Build Local Technical and Managerial Human Resource Capability

Activity 3.1.1 Roll out NDA curriculum in the first semester of the 2014-15 academic year:

During the reporting period, USAID FED began its assessment of the roll-out of the National Diploma in Agriculture (NDA) program at the Centers of Excellence beginning with Nimba and Grand Bassa Community Colleges. One-on-one discussions were held with instructors and students regarding the delivery of the NDA program, including the methodologies for students' practical lessons with selected farms and industries. The assessment of the program will help determine the effectiveness of the curriculum and instructors' delivery and practical exercises, while outlining areas for improvement.

CoE Enrollment:

Table 75: Agricultural Department & NDA student enrollment

Center Of Excellence	Male	Female	Total
Grand Bassa Community College	149	85	234
Nimba County Community College	82	60	142
Lofa County Community College	167	45	212
Booker Washington Institute NDA	40	7	47
BWI Regular and AVTP	131	46	177
Grand Total	569	243	812

Table 76: Institution enrollment data reflecting total number of students per institution excluding the Agriculture Department

Center Of Excellence	Male	Female	Total
Grand Bassa Community College	535	471	1006
Nimba County Community College	303	145	448
Lofa County Community College	400	155	555
Booker Washington Institute	To be updated	To be updated	To be updated
Grand Total	1,238	771	2,009

Instructors

Table 77: LCCC NDA instructors

#	NDA Instructors	Course Title
1.	Alfred S. Kpadebah	NDA 111 Principles of Animal Production
2.	Mr. Kolubah B. Akoi	NDA 112 Communication in English I
3.	Mr. Kollie Y. Harris	NDA 114 Principles of Crop Production NDA 117 Introduction to Farm Woodland Management
4.	Mr. Joseph Nyuma	NDA 115 Practical Math/Problem solving I
5.	Mr. Moore	NDA 116 Computer Application I
6.	Mr. Paul L. S. Nabieu	NDA 118 Introduction to Soil Science

Table 78: GBCC NDA instructors

#	NDA Instructors	Course Title
1.	Mr. Jeremiah M. Swinteh	NDA 111 Principles of Animal Production
2.	Mr. Raymond P. Fangawa	NDA 112 Communication in English I
3.	Mr. Benjamin M. Davis	NDA 114 Principles of Crop Production
4.	Mr. Martin Sancho	NDA 115 Practical Math/Problem solving I
5.	Mr. Jestino B. Oweh	NDA 116 Computer Application I
6.	Mr. George G. Williams	NDA 117 Introduction to Farm Woodland Management
7.	Mr. Morris B. Zorbah	NDA 118 Introduction to Soil Science

Table 79: NCCC NDA instructors

#	NDA Instructors	Course Title
1.	Justin G. Luo	Currently teaching in the Associate degree program
2.	Terry N. Dologbay	Currently teaching in the Associate degree program
3.	Nathan S. Gono	Currently teaching in the Associate degree program
4.	Solomon Queetee	Currently teaching in the Associate degree program
5.	Samuel N. Wu	Currently teaching in the Associate degree program
6.	Nya P. Yelegon	Currently teaching in the Associate degree program
7.	Paul Lamin Sakpa Nabieu	Currently teaching in the Associate degree program

Table 79 shows that the NDA program has not been rolled out at NCCC. The administration stated that its academic school year was already in progress when the NDA program was launched. The NCCC administration plans to work with USAID FED to conduct promotional activities to encourage students to enroll in the NDA program, which will officially begin during the second semester.

Table 80: BWI NDA instructors

#	NDA Instructors	Course Title
1.	Jacob Swee	NDA 111 Principles of Animal Production
2.	J. Diameno Chea	NDA 112 Communication in English I
3.	Sylvester Y. Gbarshar	NDA 114 Principles of Crop Production
4.	Carlton Jaurey	NDA 115 Practical Math/Problem solving I
5.	Nelson B. McGill	NDA 116 Computer Application I
6.	J. William Barrolle	NDA 117 Introduction to Farm Woodland Management
7.	Justin J. Kollie	NDA 118 Introduction to Soil Science

Activity 3.1.2 Practical exercises incorporated in the lesson plans:

During May 2015, stakeholder's workshops were held at both the Paynesbury Campus of GBCC, and at Booker Washington (BWI). The workshops were intended to finalize MoUs between farm owners and these institutions for the purpose of allowing the NDA students to use the farms for the practical exercises of the program.

Below is a list of the farms that signed MoU's with GBCC and BWI to allow the NDA students to use their farms for practical exercises.

GBCC:

1. Grangee Town Goat Cluster
2. Joyce Kolvah Vegetable & Cassava Farm
3. Fortsville Vegetable Farming Group.

BWI:

1. E. Musu Tuah-Younn Multipurpose Farm
2. Gborfilla Farming Group
3. United Farmers' Cluster
4. J. Kpardeh Akoi Farming Group
5. Allen yancy Onion Farm



Figure 22: Madame Joyce Korvah, owner, Joyce Kolvah Vegetable & Cassava Farm and Dr. Levi Zangai, GBCC President signing a MoU for the practical exercise program of the NDA.

On May 16, 2015, the NDA animal production class launched its first practical session. Mr. Alfred S. Kpadebah Instructor of Principles of Animal Production (NDA 111) and the Dean of Agriculture Department, Mr. Paul L. S. Nabieu, headed the team. Practical classes have also been conducted in other classes including Introduction to Soil Science (NDA 118), Computer Application (NDA 114), and Introduction to Farm Woodland Management (NDA117).

Practical field work also began during this quarter at the Centers of Excellence (CoE). Freshmen students pursuing the National Diploma in Agriculture at the Nimba County Community College started practical exercises applying what they learned in the classroom. The NDA students planted local varieties of groundnut and cowpea on 0.1ha of land using improved agriculture methods, including planting in rows to enable plant population calculation as opposed to the traditional broadcasting method.

Power Tiller Training begins at the Centers of Excellence

USAID FED organized power tiller operation and maintenance training of trainers (ToT) for agro technicians and instructors at the four Centers of Excellence. The five-day training was held May 12-17, 2015 at the Nimba County Community College campus, followed by the Lofa County Community College and Booker Washington Institute, and it was facilitated by USAID FED Agro-Technician, Charles Flomo (Table 81).

Upon completion of the capacity-building training workshop, participants are expected to be able to operate the power tiller to plow land for rice, vegetable, root and tuber planting, as well as provide services to surrounding community farmers for income generation and maintenance of the equipment.



Figure 23: USAID FED Agro-Technician (Right) in session with trainees during power tiller training, LCCC



Figure 24: Trainee operating Power Tiller at LCCC

Table 81: Power tiller trainees

Number	Participants Name	CoE	Gender
			M
1	Terry Dologbay	NCCC	M
2	Urey Kokah		M
3	Jasper Gaye		M
4	Cassian Marelue		M
5	Kollie Harris	LCCC	M
6	Mohammed Sesay		M
7	Boa Olamu		M
8	Jenneh Seakel		F
9	John K. Kollie	BWI	M
10	James K. Darwola		M
11	Jimmy Yarkpawolo		M
12	Francis Momolu		M
13	Terry Dologbay		M

Activity 3.1.3 Develop syllabi and lesson plans for Year Two of the NDA

USAID FED will hold workshop between July 12 and 24, 2015 to complete the year two syllabi and lesson plans for the National Diploma in Agriculture. The new Component Three Lead, Dr. Sam Duo, who was hired in May 2015, will facilitate the workshop. USAID FED's Component 3 Team used the month of June to prepare for the workshop. Qualified instructors from the University of Liberia, Cuttington University, experts from the Ministry of Agriculture and instructors from the four CoEs have been invited to participate in the development of the Year 2 syllabi and lesson plans.

Activity 3.1.4 Develop internship programs with industry players and finalization of MoUs

During the month of May, USAID FED held discussions with the Nimba County Community College Administration regarding the establishment of internship opportunities with key industrial players for NDA students. On May 22, 2015 during its Career Day Fair, the NCCC administration discussed its internship program with key stakeholders, and encouraged their participation in the internship program. An internship meeting was later held in June 2015, and the NCCC, in consultation with other stakeholders, intends to launch the internship program in October, 2015.

In June 2015, consultative meetings were held at both the LCCC and NCCC campuses. The meetings were intended to engage key industrial players to possibly recruit students as interns. The internship program is intended to expose the agriculture students in the NDA program to practical experience before graduation.

At the consultative meetings in both LCCC and NCCC, industrial representatives and the CoEs jointly developed the selection criteria, and the CoEs selected a vetting committee for the selection of interns from each CoE. A Memorandum of Understanding (MoU) was also drafted by the CoEs and circulated to all industrial representatives for their input. The official launching of the internship program in Lofa County is slated for September 24, 2015, and in Nimba County for October 22, 2015. Representatives from the below institutions made commitments to support the internship program.

In Lofa County, the below industrial key players attended:

1. Voinjama District Cooperative Society
2. Africa Development Corps
3. Rural Agriculture Alternative
4. MOA/IFAD STCRSP

In Grand Bassa County, the below industrial key players attended:

1. Liberia Agriculture Company
2. LIBRNCO

In Nimba County, the below industrial key players attended:

1. CoCopa Rubber plantation
2. Liberia Christian College/LICC
3. Gbedin/Dokodan Farmers' Cooperative

NCCC has already posted 12 interns out of 28 at the Agriculture Services and at Winrock International as part of the internship program.

Activity 3.2.1 Establish Performance Management System (PMS) at the CoEs

In April 2015, an advertisement was placed in local newspapers for the recruitment of a Performance Management Specialist (PMS). However, USAID FED did not receive any applications for this position. The Component Three Lead and Team or an STTA will facilitate of the establishment of a PMS at the CoEs in August/September 2015.

Activity 3.2.2 Instructors trained on effective delivery of the NDA

In May, USAID FED conducted a follow-up skills gap assessment of CoE instructors. The results of the assessment will be used to determine the training needs of the instructors for effective delivery of the NDA curriculum.

The NDA curriculum, which was officially launched in March 2015, has seven courses to be taught in the first semester. These courses include the following:

- Principles of Animal Production
- Communication in English
- Principles of Crop Production
- Practical Math/Problem Solving
- Computer Applications I
- Introduction to Farm Woodland Management
- Introduction to Soil Science

Skills needed by CoE Instructor to Ensure Effective Delivery of the NDA Curriculum

From the capacity assessment of 25 instructors (see Tables 82 and 83), the following was noted:



Figure 25: Industrial players at NCCC Consultative Meeting

- English, Mathematics and Computer Science instructors have adequate knowledge and skills to ensure effective delivery, and they answered “not applicable” regarding a deficient topic area in the syllabi and lesson plans (see Table 4).
- However, the need for upgrading skills in newly developed computer software should be encouraged by the CoEs. Additionally, instructors should be encouraged to use free online computer courses, such as Allison’s training, to upgrade their computer skills.
- Regarding courses in agriculture, instructors in soil science, crop production, animal production and farm woodland management showed weaknesses in comprehension and indicated capacity strengthening needs in specialized skills across all four CoEs (see Table 83). For example, capacity strengthening areas in soil science include soil textural class analysis in the field and laboratory, soil profile analysis, soil pH, soil nutrient analysis, classification based on soil order and soil bulk density determination.

Table 82: Number of Instructors that Participated in Capacity Assessment

Centers of Excellence	Number of Instructors
BWI	7
GBCCC	7
LCCC	5
NCCC	6
Total	25

Table 83: Skills Needed for NDA Instructional Staff*

Skills Gap	Number of Instructors	Percent
Skills Not Applicable: (English, Computer & Mathematics Instructors)	9	36.0
Soil Science: Soil texture, pH, soil nutrients, soil profile analysis, soil classification based on soil order and soil bulk density (field and laboratory analysis)	4	16.0
Crop Production: Fertilizer requirement for plant, calculation and application; pesticide calculation, irrigation practices, and field layout.	4	16.0
Animal Production: Disease diagnosis and treatment; reproduction-cross breeding and feed calculation	4	16.0
Farm Woodland Management: Identification and selection of economic tree species and nursery establishment of economic tree species.	4	16.0
Total	25	100.0

*BWI, GBCC, LCCC, NCCC staff.

Basic Computer Literacy Skills Needed by the NDA Instructors

A total of 19 instructors out of 25 have skills in Microsoft World (Table 84). Approximately half of the instructors assessed have no knowledge and skills in Microsoft Excel and PowerPoint. Only 14 out of 25 instructors are knowledgeable in internet use.

Table 84: NDA Instructor Knowledge and Skills Levels (Basic Computer Operation)

Computer	Not Knowledgeable	Fairly Knowledgeable	Knowledgeable	Total Number of Instructors
Microsoft Word	4	2	19	25
Microsoft PowerPoint	14	1	10	25
Excel	14	4	7	25
Internet Use	7	4	14	25

Table 85: NDA Instructor Knowledge and Skills Levels (Basic Computer Operation)

Date	Location	Number of Participants
May 5-7	Bong County	9 (including 1 from Lofa)
May 12-14	Monrovia	6 (from Montserrado/Margibi)
May 19-21	Nimba County	12 (representing 11 businesses)
Total participants		27 representing 26 businesses

USAID FED will hire consultants in quarter four to carry out the necessary knowledge and skills upgrading of instructors in the four CoEs.

Activity 3.2.3 Exposure visit to vocational education institutions in the ECOWAS region:

USAID FED continues to follow up with the CoEs to submit their action plans to implement the lessons learned from the study tour in Ghana. A final deadline for the submission of the plans has been set for July 31, 2015. As of end of June, only LCCC had submitted its action plan.

A major objective of the exposure visit to Ghana in February was to come up with a plan on how the institutions can operate in a sustainable manner. This plan should be based on the lessons they learned from the experiences of the institutions in Ghana who have a long history of providing vocational education in agriculture. Some ideas include establishing farm enterprises at each CoE that are profitable and support the enhancement of practical learning for the agriculture students. Other areas that should be included in the action plan are proper management of the institution, innovative practical learning methodologies, and innovative ways of compensating instructors to motivate active engagement with students and the institution.

Activity 3.3.1 Establishment of standardized agricultural science labs, which include soil testing and other laboratory procedures, and training of instructors and technicians:

In April, the multi-purpose science laboratory renovation works commenced at the four Centers of Excellence (CoE). The firms have already commenced the construction of the water towers and generator rooms. The Centers of Excellence Administrations are working closely with the construction firms and Global Construction Mechanical Company (GCMC) supervisors to ensure that work is progressing in accordance with the work plan. USAID FED has contracted GCMC to provide supervision for



Figure 26: USAID FED supplied science laboratory equipment during the reporting period

the projects, and it will submit regular reports on progress and achievements until the science labs are completed.

The three firms were issued “Notices to Proceed” upon submission of requirements under deliverable #1 of the contract.

- Unique Business Corporation (UBC) – BWI & NCCC
- VECO Construction Consultancy Incorporated - GBCC
- Seek Engineering & Consultant (SEACON) Inc. - LCCC

Construction of the laboratory facilities in all four CoEs commenced in May, and is expected to be completed in July.

Activity 3.3.2 Library facilitates upgraded, outfitted and maintained

Additional textbooks have been identified for use during the development of the year 2 syllabi and lesson plans (Table 86). USAID FED is procuring these textbooks in quarter four.

Table 86: Additional textbooks for year 2 of the NDA

Course No.	Course Description
NDA 231	Pasture and Forage Production
NDA 234	Leadership
NDA237	Farm Soil Management
NDA 242	Genetics and Breeding

Activity 3.3.3 Establishment of computer labs at the CoEs

In accordance with the USAID FED FY15 work plan, USAID FED will further assist the CoEs with the establishment of internet connectivity utilizing sustainability plans developed by the CoEs.

In April, USAID issued an RFP and a vendor was selected to provide the internet services. Novafone was selected to provide internet services for the four CoEs for a total of US\$84,360 for a period of one year. During the reporting period, Novafone completed the internet installation process at the four CoEs. Free testing will continue through July 10, 2015.

There are two purposes for providing internet services to the CoEs: 1) to provide online learning resources and 2) as source of income through fee-based internet access services to the community, students, and instructors. Internet access will be provided to the computer labs, libraries, Career, Resource and Internship Centers, as well as the departments of agriculture, business, administration, and other departments.

Activity 3.4.1 Develop and implement three-year strategic plan including priority enterprises to be established at the CoEs:

USAID FED will carry out the strategic planning with the CoEs in the fourth quarter of FY15.



Figure 27: Rice being loaded and sold at LCCC.

Support the establishment of two to three feasible enterprises with business and marketing plans

LCCC & NCCC Agri-enterprises

In May, Lofa County Community College (LCCC) sold 51 bags of seed rice (50 kg) at US\$20 per bag to the MoA. The rice was harvested from the Community College demo farms. According to the Dean of Agriculture, Mr. Paul Nabieu, the money generated from the sale of this rice will be invested in the redevelopment of the lowland rice enterprise.



Figure 28: The NDA students at GBCC in Big Joe Town conducting their practical exercises at the farm.

LCCC has completed the brushing of the 3.7 ha of lowland demonstration farm for rice production, which includes the peripheral bonds, inter-bonds, and floodways. Students of the Nimba County Community College (NCCC) Agriculture Department under the close supervision of the department coordinator completed the spraying of the lowland rice demonstration site with herbicides as part of the students' practical exercises. The spraying activities of the lowland rice demonstration site is expected to reduce the number of unwanted plants (weeds) in the swamp area to give way for the reconstruction of the broken inter bonds, peripheral and floodway of the 2.5 ha of lowland rice fields. The 2.5 ha of lowland rice field is intended for students to gain hands-on training in lowland rice production.

Grand Bassa Community College

During the reporting period, the USAID FED Vocational Agriculture Education Specialist and Vocational Agriculture Education Officer assigned to GBCC visited the GBCC Vegetable Enterprise site in Big Joe Town, where digging of the soil and laying out of beds for the pepper and bitter ball seedlings to be transplanted from the nursery began.

Also during the month of May, GBCC received 100 bags (50kg/bag) of compost procured by USAID FED from the Booker Washington Institute (BWI). At a cost of US\$15.00 per bag, BWI earned US\$1,500.00 for the 100 bags of compost. Application of the compost is ongoing at both the GBCC main campus demonstration site and the enterprise center site.

Activity 3.4.2 Build capacity and provide technical assistance support to the CoEs' business departments

This activity will be carried out in the last quarter of FY15.

Activity 3.4.3 Improvement of Financial and Organizational Systems

This activity will be carried out in the last quarter of FY15.

Activity 3.5.1 Establishment of advisory committee to provide checks and balances to CoE management

This activity will be carried out in the last quarter of FY15.

Other Activities at the CoE's

During the early part of April, the Grand Bassa Community College (GBCC) started relocating to its new campus facility in Paynesberry, Buchanan, Grand Bassa County. The Agriculture, T-VET and the Health Science departments moved to the new campus and began classes. Students initially faced higher transportation costs to the new facility to attend classes. Another challenge faced by the institution is the need for office furniture and

equipment to set up offices at the new facility. Under the work plan, USAID FED began procurement of computers, office desks, chairs, projectors, internet facilities and other items for all four CoEs. These items will be used to set up the computer rooms, science labs, libraries and other relevant areas in support of the new National Diploma in Agriculture program.

The office of the Academic Career Counseling at NCCC organized a one-day Agriculture Career Workshop on April 16, 2015 on the main campus of the college. The USAID FED Sr. Vocational Agriculture Education Officer spoke to over 155 agriculture students enrolled in both the NDA Program and the regular diploma program on the topic of “The importance of studying agriculture and opportunities within the field of agriculture.” The USAID FED Sr. VAEO urged students to look at the career as a money-making career, and not as subsistence farming.

Component Four: Cross-Cutting Activities

Task 4.1: Communications/Knowledge Management

USAID FED Media Stories

USAID FED was in ten media reports during April 2015:

1. Liberia's first Industrial Rice Processing Facility Launched (Daily Observer, News, Inquirer, Women Voices, ELBC and blog.usaid.gov)
2. USAID FED hands over technical equipment to boost Ministry of Agriculture Monitoring and Evaluation System (Microscope, Inquirer)
3. President Sirleaf Urges IFC to Empower Liberians (Daily Observer)
4. Rebuilding Liberia as Ebola Cases-Decline (blog.usaid.gov)

USAID FED was in five media reports during May 2015:

1. Liberia Business Incubator Cassava Processing Facility Inaugurated (Daily Observer)
2. USAID FED launches Liberia Business Incubator (Inquirer)
3. US commits to Liberia transformation (Women Voices)
4. USAID FED GOL to Inaugurate Cassava Processing Facility (Liberia News Agency)
5. USAID FED COP Agnes Luz on UNMIL Radio, Coffee Break Show to discuss Liberia Business Incubator

On June 3, 2015 USAID FED conducted a roundtable conference with the media to discuss what the FED project is about, its accomplishments, ongoing and upcoming activities, and future plans. The following media institutions participated in the event.

1. Daily Observer
2. Inquirer
3. Women Voices
4. Heritage
5. Truth FM
6. IN Profile Daily
7. Microscope
8. Analyst
9. UNMIL Radio
10. Success Forum
11. Liberian News Agency
12. GNN
13. United Methodist Radio
14. Insight
15. Public Agenda
16. Independent
17. West African Pilot
18. Focus
19. Success Forum

- 20. Radio Five
- 21. Front Page Africa

More than, five newspapers printed articles about USAID FED, and four radio stations aired the roundtable discussions. Four online articles about the FED project including from the Government website, Liberia News Agency (LINA) were published electronically following the press roundtable event. Below are some of the links to these articles:

1. <http://www.micatliberia.com/index.php/blog/item/3792-usaid-fed-develops-new-agriculture-curriculum-for-partner-institutions-in-liberia.html>
2. <http://www.micatliberia.com/index.php/blog/item/3782-usaid-fed-calls-for-change-of-mindset-of-farmers.html>
3. <http://www.publicagendanews.com/?p=3009>
4. <http://www.gnnliberia.com/articles/2015/06/04/usaid-fed-develops-new-agriculture-curriculum-partner-institutions-liberia>
5. <http://www.micatliberia.com/index.php/blog/item/3765-usaid-fed-program-targets-96-000-farmers.html>

Task 4.2: Environmental Compliance

A one day site monitoring visit was carried out by the Environmental Assistant along with the USAID FED Senior Engineer on April 17, 2015. The visit was primarily aimed at monitoring the de-roofing of asbestos materials from the building that is to serve the CoE’s Science Laboratory at the Booker Washington Institute in Kakata, Margibi County.

USAID FED received reports from the local EPA Department in Margibi County that due to staffing issues within the EPA, the designated authority to sign the permit requested by BWI had not been appointed at the time of the request. However, the local EPA Department should ensure that they carry out due monitoring and supervision of the demolition and disposal process in line with EPA Guidelines. The activity was carried out by the subcontractor with direct supervision and monitoring by the local EPA office. USAID FED also monitored this activity to ensure compliance with the project’s Field Operations Manual and USAID environmental regulations. This demolition and the disposal process of asbestos was successfully completed on April 17, 2015.



Figure 29: Asbestos being removed at BWI for the newly renovated science labs.

In addition to promoting sound environmental management as a key aspect of improved, sustainable agricultural production, USAID FED must also enhance monitoring to ensure that farming activities are in compliance with GoL and USAID regulations.

As such, all USAID FED interventions must operate within the project environmental compliance framework, most importantly the Initial Environmental Examination (IEE) and the Environmental Mitigation and Monitoring Plan (EMMP).



Figure 30: Payecea town lowland rice ditch being constructed.

The routine monthly monitoring of sites across the four value chains is part of measures put in place to ensure that best practices are observed by farmers when conducting their activities. This routine inspection enhances compliance and verifies the knowledge of farmers on pollution control, soil and water use, application of fertilizers, and implementation of best practices.

The Environmental Monitoring Assistant and Grand Bassa County Manager conducted site visits to several lowland rice, vegetable, goat shelters, and water well sites. The main purpose of the visit was to ensure that USAID FED's activities are compliant with its EMMP.

Sites visited over the period included three lowland rice sites; Payecea, Gio, and David Town lowland rice sites. From the supervision conducted so far on those sites, land preparation activities are ongoing and conforms to the Environmental Guidelines on Small Scale Activities in Africa (EGSSA). Water is available through out the year, which makes it possible for farmers to conduct double cropping. Personal protective equipments are available to farmers to ensure safety while carry out their farming activities. Drainage construction is ongoing and all sites are previously used sites which complies with USAID and government's regulation regarding deforestation. Farmers are complying with USAID-FED's EMMP while conducting their activities.

Blaygbah and Neorpeh goat sites were also monitored. Regular veterinary attention is given to livestock to ensure they are healthy. Manure from livestock are regularly cleaned from the sites to avoid odor and flies. Water well construction at the sites is almost completed, which will provide safe drinking water for both residence and livestock. Newcess was another site that was monitored in quarter three. Newcess is a vegetable site. It was noted that it effectively and safely uses water resources for irrigation purposes. The farm site is appropriately drained to avoid unwanted standing water. The site has been cleared of weeds and vegetation, which shows that the farmers are maintaining a clean surrounding to minimize pest incidence and avoid chemical spraying. This is one of the best practices in environmental conservation.

All environmental files across the four counties are updated on a regular basis.