

ACDI/VOCA

FY 13 Food for Progress LIFE III End of project Performance Evaluation

Evaluation in Six Counties of Liberia

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List of Acronyms

ACDI/VOCA	Agricultural Cooperative Development International and Volunteers in Overseas Cooperative Assistance
ARS	Agriculture Relief Services
CAADP	Comprehensive Africa Agriculture Development Programme
CARI	Central Agriculture Research Institute
CBL	The Central Bank of Liberia
CDA	Cooperative Development Agency
CLI	Catalyst Liberia Incorporated
CNRA	Centre National de Recherche Agronomique
CRIG	Cocoa Research Institute of Ghana
CSTWG	Cocoa Sector Technical Working Group
CWAP	Center for Women Agriculture Program
e-Comsult	Electronic Communication and Consulting Services
FaaB	Farming as a Business
FFS	Farmer Field School
FGD	Focus Group Discussion
GAPs	Good Agriculture practices
GOL	Government of Liberia
GPS	Global Positioning System
ICPM	Integrated Crop and Pest Management
ICRC	International Committee of the Red Cross
IITA	International Institute of Tropical Agriculture
KII	Key informant Interview
LCC	Liberia Cocoa Corporation
LCUNA	Liberia Credit Union National Association
LIFE	Livelihood Improvement of Farming Enterprise
LOP	Life of Project Target
LPMC	Liberia Produce Marketing Corporation
MOA	Ministry of Agriculture
ODK	Open Data Kit
PRD	Planting Replanting and Diversification
RAA	Rural Agriculture Agency
SERE	Special Emergency Relief for the Elderly
STCRSP	Smallholder Tree Crop Revitalisation Support Projects
STCP	Sustainable Tree Crops Programme
STRSP	Sustainable Tree Crop Rehabilitation Support Project
UWSD	United Women For Sustainable Development
USAID	United States Agency for International Development
USDA	United States Department of Agriculture
VADEMCO	Vainga Agriculture Development and Management Consultancy
VSLC/A	Village Saving Loan Club/Association
PMP	Performance Management Plan

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Executive Summary

LIFE III is the final phase of the Livelihood Improvement for Farming Enterprise (LIFE) program, started in 2008. The project was implemented in six cocoa producing counties of Liberia, including Bong, Gbarpolu, Grand Gedeh, Lofa, Nimba and River Gee and involved 13,604 farmers. The USDA funded project empowers smallholder cocoa farmers, farmer organizations, and service providers to improve their livelihoods through increased productivity and quality, and access to key inputs, market knowledge, and market linkages. The project was implemented using the following five component areas:

1. Training: Improved Farm Management Practices
2. Capacity Building: Producer Groups/Cooperatives Trained and Capacitated
3. Financial Services: Facilitate Agricultural Lending
4. Inputs: Develop Agro-dealers
5. Market Access: Improve Market Information

Evaluation objective/purpose: The purpose of this final evaluation is to assess the results achieved, factors responsible for the achievements (or the lack of achievements), and the lessons learned during the implementing of the project. More specifically, the following key areas have been evaluated:

- i. The progress of the project to meet its stated goals and objectives.
- ii. The project design, implementation and achievements, including changes in context and review of assumptions.
- iii. The extent to which the project resources have led to the achievement of the results.
- iv. The sustainability of project outcomes.
- v. Beneficiary rating of project services as stated in the project agreement.
- vi. The degree to which the project fostered systemic change in targeted market systems and the broader Liberian cocoa sector.
- vii. The lessons learned.

e-Consult was contracted by ACIDI/VOCA to conduct a programmatic and result-based evaluation of the LIFE III project and to document lessons learned.

Evaluation design: A non-experimental evaluation design was used to conduct the LIFE III end of project performance evaluation. This design was chosen because it allows the evaluation team to adequately provide answers to the evaluation questions, and to identify the results and effects of the LIFE III project; measuring the project beneficiaries' changes in knowledge, attitude(s), and/or behavior(s) that result from the project.

Evaluation methods: The evaluation team utilized mixed evaluation methods to conduct the evaluation. Both qualitative and quantitative methods were employed by the team because they are complementary and together contribute to understanding the bigger picture. The qualitative methods used in the evaluation include focus group discussions and key informant interviews. The quantitative data was collected through household level survey. In addition to

this primary research, the evaluation team also conducted desk research and employed secondary data sources as a part of the data collection process.

Key findings: The primary findings of the evaluation team can be summarized as follows:

Improved Farm Management

- The project successfully trained a significant number of smallholder cocoa farmers on improved cocoa farm husbandry across the six target counties. Based on the findings from the evaluation, 8,600 farmers were provided training, which amounts to 89% of the Life of Project (LOP) target. It was also found that the majority (76%) were applying at least three of the techniques taught during the training provided by the project.
- Application of the training has more than doubled farmers' average yield. Farmers now earn an average of 256 kg/ha from the baseline value of 108kg/ha.
- Farmers have increased their cultivation areas by an average of 1 hectare, mostly through rehabilitating more of their existing old farms.

Capacity Building of Producer Groups/Cooperatives

- The LIFE III project worked extensively with farmer groups, cooperatives and Village Saving Loan Associations (VSLAs) and thereby increased their functional and operational capacities; through the project, 20 new cooperatives were certificated by the Cooperative Development Agency (CDA). However, some newly certified cooperatives do not have bank accounts at the time of writing this report due to limited bank coverage in Liberia.
- At the national level, CDA and the Liberia Credit Union National Association (LCUNA) now have improved capacity to more effectively serve their members. The LIFE III project trained 19 CDA staff and conducted 90 joint supervision visits with CDA staff to monitor and provide support to cooperatives and VSLAs.

Services: Facilitate Agriculture Lending

- The project facilitated the disbursement of over US\$376,682 to farmer groups. Two cooperatives (Sebehill-2 VSLC & Tokobonbai VSLC) in Lofa received US\$4,400,000.
- The project established market linkages among cocoa sector value chain actors to foster agro inputs pre-financing arrangements between farmer groups and agro-dealers. As a result, 59% of cocoa farmers had access to financial services: either received cash loan or pre-financed inputs.
- Despite these initiatives by the project, access to finance remains a major challenge for farmers, as the amount they received is usually adequate to support only one acre.

Inputs: Develop Agro dealer

- The project worked with agro dealers to provide improved planting materials to farmers. WEINCO, one of the project partners, provided agrochemicals including fertilizers, pesticide, fungicides and other inputs – such as watering cans – to farmers. In addition, Catalyst, Center for Women Agriculture Program (CWAP), Rural Agriculture Agency (RAA) and WEINCO through the facilitation of the project

established commercial nurseries to increase access farmers' access to improved planting materials. However, it was found that many farmers (47%) are establishing their own nurseries. In other words, very few farmers (6%) are purchasing from commercial nurseries.

- The planting materials used in these commercial nurseries came from Côte D'Ivoire and Ghana. The project collaborated with the University of Reading and ARS-USDA to bring high yielding disease resistant cocoa materials and established cocoa seed garden at the Liberia Central Agriculture Research Center.
- Together, the three nurseries produced 2.18 million cocoa seedlings.

Market Access: Improve Market Information

- Farmer used to face difficulty in accessing information on current market price on cocoa. Farmers had limited information of cocoa price. There cocoa stay in the warehouse for long and sold at a low price. The LIFE III intervention has made significant progress for cocoa price information dissemination to farmers. ACDI/VOCA, CDA, cooperative and farmer association provide current market price on cocoa through infomercial activities (Radio, Posters and SMS). LPMC provides monthly cocoa bulletin while ACDI/VOCA in conjunction with CDA ensures dissemination of cocoa information to farmers.
- The main sources of market information on cocoa prices received by farmers come from: Cooperatives-fellow farmers and Radio.
- Farmers are now able to refuse low prices offer by middlemen who might buy their cocoa at a lower price.
- Of the 21 Cooperatives and farmer groups were interviewed, 76% admitted providing updated information on cocoa price. That is Of the LOP target of 12,000 only 9,120 farmers have access to current market price on cocoa. The progress against indicators value to date shows 16,228 farmers who have information on cocoa price. This shows that there were other farmers who were not sponsored by this project but benefited indirectly on cocoa price.
- Forty three commercial nurseries were established by partners. The nurseries produced over a million improved cocoa seedlings.

In response to the findings, the evaluation team recommends the following:

Improve Farm Management

- The FFS methodology is very effective and its use should be continued.
- In order to minimize cheating of farmers at farm gate or in the community, the FFS curricula should include lesson on how to read scales.
- The FFS curricula should emphasize the importance of quality cocoa grades, as quality determines price. Farmers need to understand why they should produce quality cocoa and be able to determine the quality from the moisture content of dried cocoa beans.
- Public-private collaboration which directly improves farm level productivity through knowledge transfer should be strengthened; government and other cocoa sector donors

should incentivize local service providers to take a leading role in this endeavor. As the LIFE III project comes to an end, maintaining the gains and expanding the benefits to more smallholder farmer becomes critical.

- The LIFE III project is very important to farmers' economic empowerment. Therefore, more trainings should be provided to other farmers who did not benefit from the LIFE III project

Capacity Building of Producer Groups/Cooperatives

- That CDA and LCUNA continue to improve the capacity of new farmers group that will help serve their members. Hence forth, continue with the certification process so as to create motivation to farmers

Financial Services: Facilitate Agriculture Lending

- Access to loan and financial services for smallholders remains a challenge and has to be increase. While the project has established linkages between farmers, VSLCs and exporters, the loan or pre-financing value received by farmers is usually minimum – mostly for one acre. The current technology for rehabilitating old farms is labor intensive and expensive.
- While the project has strengthened and promoted farmer groups, there are still functional gaps that need to be addressed. Cooperatives should possess bank accounts and be audited at least annually.
- There were other farmers that did not benefit from the loan; therefore loan should be given to those farmers. This will help them expand their farms to a larger extent.

Inputs: Develop agro dealer

- For farms to be expanded to a larger extent there should be commercial nurseries established at strategy areas that farmers can access in order to buy more seedlings.
- In the absence of ACIDI/VOCA, there should be many establishment of Private-public partnerships to improve the cocoa sector in Liberia
- Parasites and disease remain a challenge. If farmer must continue with their farms then pesticide and fungicide must be available to farmers.
- There should be agriculture packages such as farm treatment or agrochemical to farmers

Market Access: Improve Market Information

- That cocoa farmers will continuous be given the opportunity to get information on cocoa price.
- That Cocoa current market price should be sent to news media (both print media and electronic media) to be aired to the public. If not done farmers cocoa will stay in the warehouse for long thereby leading them to sell it at a lower price.
- That other partners besides LPMC and CDA help to make information available to cocoa farmers.
- That all the Cooperatives and farmers provide cocoa price information to one another.

1.1 Presentation of Project Livelihood Improvement for Farming Enterprises (LIFE III)

1.1.0 Overview of Strategy

The LIFE III project was implemented in six counties (Bong, Gbarpolu, Grand Gedeh, Lofa, Nimba and River Gee) of Liberia between September 2013 and May 2017. The LIFE III project empowered smallholder cocoa farmers, farmer organizations, and developed service providers in these six counties to improve livelihoods through increased productivity, quality, and increased access to key inputs, market knowledge and linkages. The project is the final phase of the LIFE program, which started in February 2008 and concluded with its third phase in May 2017.

The LIFE III program aligns with the Food for Progress Strategic Objective 1– increasing farm level productivity – using ACIDI/VOCA’s signature approaches, Farmer Field Schools and Farming as a Business (FaaB). These trainings are tailored to increase application of new agriculture techniques and technologies, improve crop diversification, and strengthen farm management practices. Even further, they aim to improve farmers’ access to cocoa markets by strengthening their business management capacity, increase the use of postharvest facilities, establish market linkages, and facilitate the dissemination of market information.¹

1.1.1 History and Context of the LIFE Projects

Livelihood Improvement for Farming Enterprise (LIFE) program started in February 2008 and concluded in May 2017. It has been executed in three phases – LIFE I, LIFE II and LIFE III. The LIFE program has been critical to the successful transition from a cocoa sector that for three decades experienced rapid decline to a vibrant sector that has become a key aspect of the Government of Liberia (GOL)’s rural poverty reduction strategy. The strengthened cocoa sector has also stimulated private sector investment along with the formalization and growth of strong farming cooperatives and private sector input providers throughout the cocoa belt of Liberia. Even further, LIFE III has built the capacity of the Central Agriculture Research Institute (CARI) to support the national cocoa breeding program in collaboration with United States Department of Agriculture (USDA)/ Agriculture Relief Services (ARS) Miami and the West Africa Cocoa Breeding group.²

LIFE I

LIFE I, was a US \$ 3.9 million SUCCESS Alliance project funded by the USDA, ran from February 2008 to September 2010 and targeted Bong, Lofa and Nimba counties. The LIFE I program was implemented by ACIDI/VOCA and its main partner International Institute of Tropical Agriculture (IITA) /Sustainable Tree Crops Programme (STCP) with activities in Foya, Kolahun, Quadu Bondi, Voinjama, Sanoyea, Sacleapea, and Zoegeh districts. LIFE I sought to improve the livelihoods of 5,600 farmers by addressing the constraints in the cocoa value chain in Bong, Lofa and Nimba Counties.

¹ ACIDI/VOCA Final Evaluation Request for proposal document

² ACIDI/VOCA Final Evaluation Request for proposal document

LIFE II

LIFE II was a three year (October 2010 to September 2013), approximately US \$ 7 million SUCCESS Alliance project, also funded by the USAID. The main objective of LIFE II was to improve the livelihoods of 10,600 cocoa farmers in Bong, Gbarpolu, Grand Gedeh, Lofa, Nimba and River Gee counties and implemented the following activities:

Farmer Training: training smallholder farmers in cocoa production, crop diversification, pest management, post-harvest handling, marketing and ACIDI/VOCA's signature Farming as a Business curriculum. **Nursery Establishment and Tree Renewal:** supporting the production and distribution of cocoa seedlings through the establishment of nurseries and rehabilitation of cocoa trees.

Improving Access to Capital: promoting improved access to capital for cocoa farmers by fostering development of locally based solutions, training farmers in loan requirements and farmer responsibilities, and providing facilitation with financial institutions.

LIFE III

LIFE III, the final phase of the Livelihood Improvement for Farming Enterprise program was a \$7.4 million USDA-funded project awarded to ACIDI/VOCA. LIFE III ran from October 2013 to May 2017 and covered six of the 15 counties in Liberia: Bong, Gbarpolu, Grand Gedeh, Lofa, Nimba, Lofa, Gbarpolu, Grand Gedeh and River Gee.

LIFE III program aimed at improving livelihood of smallholder cocoa farmers through increase of farm-level productivity and profitability; strengthened capacity of producer groups; facilitating agricultural lending; developing agro dealers and improved access to market information.

The LIFE III program aligns with Food for Progress Strategic Objective 1 by increasing farm level productivity. LIFE Program objectives are also well aligned with the Comprehensive Africa Agriculture Development Programme (CAADP) focused areas of intervention: land and water development; food and nutrition security; competitive value chains and market linkages; and institutional development. It also links together with previous and present sector programs, such as the IFAD and World Bank funded International Institute of Tropical Agriculture (IITA). It also to trains farmers in improved agricultural techniques through FFS and farmer-to-farmer training, provide supplies and inputs to farmers, build a stronger domestic value chain and increase internal processing and marketing of cocoa products.

LIFE III empowered smallholder cocoa farmers, farmer organizations, and service providers to improve their livelihoods through increased productivity and quality, as well as improved access to key inputs, market knowledge, and linkages. The focused objectives of LIFE III were:

- Improve farm management and income diversification capacity.
- Increase the business capacity of the producer organizations.

- Facilitate rural access to financial services.
- Strengthen commercial channels for input supplies.
- Facilitate market access and market information.

1.2 Purpose of the End of Project Performance Evaluation

The main purpose of the evaluation is to design and carry out an End of Project Performance Evaluation, assessing results of the USDA’s LIFE III project through the use of both qualitative and quantitative methods. The purpose of this final evaluation is to provide an assessment of the results achieved, reasons for levels of achievement or non-achievement, and lessons learned from the LIFE III project.³

1.3 Methodology of the Evaluation

e-Consult used both quantitative and qualitative data collection techniques for this evaluation. Employing several different methods was essential for ensuring the quality of the evaluation. The qualitative methods used included a comprehensive desk research which employed secondary data sources, focus group discussions (FGDs) and key informant interviews (KIIs). These were supported by quantitative methods in the form of a household/farmer group survey that focused on outcome indicators.

The evaluation study focused on institutional changes in the capacity of the Liberian cocoa sector, as well as the provision of quality services and changes to behavior, income, and participation in markets at the household or farm level.

e-Consult conducted key informant interviews with the implementation staffs that included key ACDI/VOCA employees and the local implementation partners to identify weaknesses, strengths, and opportunities of LIFE III that could be addressed to improve project management and implementation. Furthermore, e-Consult conducted KIIs with key stakeholders that included the Ministry of Agriculture, Ministry of Commerce, CDA, CARI, District Agriculture Officers (DAOs), agro dealers, farmer organizations, Liberia Produce Marketing Corporation (LPMC), project partners including Catalyst, Cocoa Sector Technical Working Group (CSTWG) members, CWAP, Liberia Cocoa Corporation (LCC), LCUNA, RAA, United Women For Sustainable Development (UWSD), Wienco, and others.,

The evaluation utilized focus group discussions with different groups of project beneficiaries that included two farmer groups in Bong, Nimba, and Lofa Counties as well as with two informal groups in each county. In order to ensure gender sensitivity, the evaluation team made sure that both women and men were interviewed in a significant manner to ensure representativeness of results. In addition, the evaluation teams had mix gender to encourage trust and facilitate the data collection process.

1.4 Targeted Population

The evaluation targeted small holder cocoa farmers – both beneficiaries and non-beneficiaries – as well as farmer organizations and developed services providers to improve livelihood

³ ACDI/VOCA Final Evaluation Request for proposal document

through increased productivity, quality and increased access to key inputs market knowledge and linkages. The evaluation also focused on partners, stakeholders, other beneficiaries, local authorities and central government and ACDI/VOCA project staffs.

1.5 Sample Size Calculation

In order to conduct the study, the sample size took into consideration the sample proportion, the Z-statistic for a two-tailed test at the 95% confidence limit, the standard error, and the design effect of the sample. Hence, the appropriate formula for the computation of the sample size is stated as:

$$n = DEFF^2 \times \frac{Z^2_{\alpha/2} P(1 - P)}{SE^2}$$

Where the $Z^2_{\alpha/2}$ is equivalent to 1.962. The sample proportion, P , is estimated at 20% or 0.20. The standard error (SE) of the study is assume to be 5% or 0.05; while the design effect for a multistage sample is taken to be 1.5 since an increase is assumed in the sampling error due to the use of a rather complex but less statistically significant design. The design effect of 1.5 also assumes that the true sample variance is larger than the variance if a simple random sample were to be used.

Hence, the sample size for the household/farmer group survey is calculated as:

$$n = 1.5^2 \times \frac{1.96^2 \cdot 0.25(1 - 0.25)}{0.05^2}$$

$$n = 1.5^2 \times \frac{0.7203}{0.0025}$$

$$n = 1.5^2 \times 288.12$$

$$n = 648.27$$

$$n \approx 648$$

1.6 Sample Selection

Quantitative Survey

The sample selection procedure was approached using a stratified sampling procedure while taking into consideration the specifications of each component. The above table shows the various strata of the sample that were covered during the course of the evaluation. The selection criteria was be based on their participation in the Farmers Field Schools. Both project beneficiaries and non-beneficiaries were targeted in each county, with special emphasis placed on selecting the respondents based upon gender balance. This phase is mainly intended to evaluate the project objective relative to the Components of the project. The below table represents the respondent category and number of respondents interviewed in each county.

Distribution of respondents by county

Respondent category	Bong		Gbarpolu		Grand Gedeh		Lofa		Nimba		River Gee		Total	
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%
Smallholder Cocoa Farmer-beneficiary	72	14%	86	17%	96	19%	81	16%	29	6%	55	11%	419	81%
Village Savings and Loan Associations	9	2%	3	1%	6	1%	5	1%	3	1%	6	1%	32	6%
Farmers Group or Cooperative	3	1%	2	0%	6	1%	3	1%	2	0.00%	5	1	21	4%
Smallholder Cocoa Farmer-non-beneficiary	13	3%	7	1%	13	3%	8	2%	---	---	---	---	41	8%
Agro dealers	1	0.20%	1	0.20%	0	0.00%	0	0.00%	---	---	---	---	2	0.40%
Grand Total	98	19%	99	19%	121	23%	97	19%	34	7%	66	13%	515	100%

The discrepancy between the calculated sample size and the actual interviewed was due to the absence of some respondents (both smallholder and organizations) in the communities visited during the evaluation. Despite the deliberate efforts from evaluators to find and interview target respondents, the evaluation team did not succeed in finding all the targeted respondents for interview. The team could not replace absent respondents who benefited from the project with those who did not benefit; thus increasing non-response rate to 20%. However, as presented in the table above, over 450 farmers were interviewed; which is an adequate sample representation.

1.7 Data collection and analysis

The total of 10 evaluators that included a cocoa expert, a statistician, a monitoring and evaluation specialist and an open data kit (ODK) expert were trained on research methods, techniques and ethics. The evaluation tools were pilot tested using tablets and question sheets. After the testing of the evaluation tools, adjustments were made where necessary to ensure easy handling and understanding of the tools by all team members. All evaluators were trained on how to use the database on the tablets.

The data analysis had revealed positive changes relative to each component of the project. Both the qualitative and the quantitative data collected was compiled, inputted, synthesized and interpreted. After compiling the various data sets and secondary data files, complex cross-tabulations were constructed through the custom table mechanism in the SPSS 20.0 software used for statistical analysis. However, the data was analyzed in the ODK and later transferred to SPSS 20.0. The result from the analysis using SPSS captured simple statistics showing frequencies distribution, charts, tables and graphs. The FGD and the KII data were analyzed using data analysis templates. The data collected by the evaluation team was sent to the ODK data analyst for daily analysis in order to avoid wasting time. The data was disaggregated by counties, sex, and project versus control areas.

2.1 Evaluation Findings

After careful analysis of all the data collected from the six counties, the evaluation findings are presented below.

2.1.1 Training: Improved Farm management

Many cocoa farms in West Africa are old (over 40 years) and have low yields due to the age of trees as well as other factors such as poor maintenance practices. This is especially true in Liberia, where many farms were abandoned during the civil war. Rehabilitation, or bringing existing trees into better production, involves under-brushing, pruning of cocoa trees, reducing too much shade and removing all diseased and pest-infected pods and mistletoe.⁴

The documents reviewed verify that 6,822 farmers received Farmer Field School training during LIFE III. This target was achieved through two phases of 117 FFS across the project location.

The project accomplished 9,362 hectares to improved cocoa husbandry techniques against the LOP target of 8,000. Farmer associations claimed better understanding and adaption of husbandry techniques as well as utilizing the traditional group “kuu” labour systems enabling farmers to individually clear and rehabilitate on average one hectare per member. Against the LOP target of 10,000 the project trained 10,249 individuals in income diversification activities. More women have participated especially with reference to community rice, cassava and vegetable gardening farming as well as livestock management as opposed to males, who dominate involvement in the household head cocoa farm development. A key informant interview was conducted with the business manager of Kwakerseh Cocoa Cooperative in Saclepea, Nimba County to ascertain if the members of the cooperative received training in income diversification from ACDI/VOCA. The interview revealed that the members of the cooperative received trainings in the following areas: financial management, equity investment, FaaB, management, planning, crop diversification, black pod removal and warehouse management.⁵ According to an informant, “these training or techniques are used to improve the livelihood of farmers and increase the income generation of farmers.” This was also authenticated in Grand Gedeh with interview conducted with the Chairman of Bilibo Farmer Cooperative that these trainings were also conducted in the Bilibo Farmer Cooperative⁶. In order to validate the information on training provided by ACDI/VOCA, the evaluators interviewed ACDI/VOCA’s project staff and it was confirmed that cocoa farmers applied improved farm management techniques learned from the Farmer Field School. These included observing the planting distance 3m by 3m, underbrushing, removal of unwanted trees, black pod removal, pruning and so on.⁷

As a result of the LIFE III intervention in improved crop husbandry training and postharvest management practices, farmer beneficiaries’ yield increased above the LOP project target of 210 kg/ha to 330Kg/ha This resulted from rehabilitation and revitalization of old farms. The document review showed that 11,459 against the LOP of 9,000 farmers are applying improved farm management techniques. The interview conducted with farmers in the field showed that 6,840 farmers applying improved farm management against the LOP target of

⁴ STCP Evaluation Report

⁵ Key informant interview of Kwakerseh farmer Cooperative (Zarwolo Konah) in Saclepea, Nimba County

⁶ Key informant interview with George Toitay, Chairman from Bilibo Cooperative in Grand Gedeh

⁷ Key informant interview with ACDI/VOCA Project Staff Mr. William S. Menzee

9000. One Tarpeleseh cooperative member from Bunadin started with 8 trees of cocoa and after the resultant increase in pod number and yield has rehabilitated to four hectares. He is proud that he now has a sustained and stable livelihood.

As for FaaB trainings, 12,046 farmers received trainings against the LOP target of 10,000 whereas the data collected from the field showed 8,600 farmers against the LOP target of 10,000 received training in FaaB. Some farmer beneficiaries claimed they can now manage their farms, keep records, and plan production and budget expenditure. When a question was posed concerning FaaB practice, the Business Manager of Kwakerseh Cocoa Cooperative said that farmers received training in FaaB. “Now farmers are trained how to manage their farms, how to keep record, how to plan and make budget. FaaB helps to give good quality of cocoa produce. With this concept or training, the livelihoods of farmers are improved”⁸ The County Agricultural Officer in Grand Gedeh said that the LIFE project has been very good in supporting farmers’ capacities. In this light, ACDI/VOCA has been working in Consultation with the county officials. He concluded by saying “I want for the ACDI/VOCA project to continue to help our farmers”

Six Farmer Field days were held across the six counties project areas. A key informant interview with the Business Manager of Kwakerseh Cocoa Farmer Cooperative and the Chairman of the Bilibo Cocoa Farmer Cooperative revealed that their members have been participating in the farmer field day in Saclepea and were trained to train others on how to use fertilizers, pruning, farm rehabilitation, post-harvest, fermentation process, drying and storage, nurseries preparation, making cocoa butter, cocoa tea country soap, as well as how to peg farm and farm management⁹.

Key informant interview with CARI on the receptiveness of farmers to improve planting materials within their proximity, here what the key informants had to explain:

- ✓ Cocoa Farmers are now changing from the traditional farming method to the modern improved farming methods learned from the workshops and FFS in their communities.
- ✓ Out of 100 farmers being trained in cocoa production, at least 90 are applying the techniques learned on their farms, which is encouraging for our farmers.
- ✓ Some cocoa farmers are involved in Farming as a Business, VSLA, etc¹⁰.

The Farmer Field School (FFS) Model

The main vehicle used in all the three phases of the LIFE Program to improve farm management at the smallholder farmer level was the Farmer Field School model. In this

⁸ Key informant interview with Kwakerseh Cocoa Cooperative

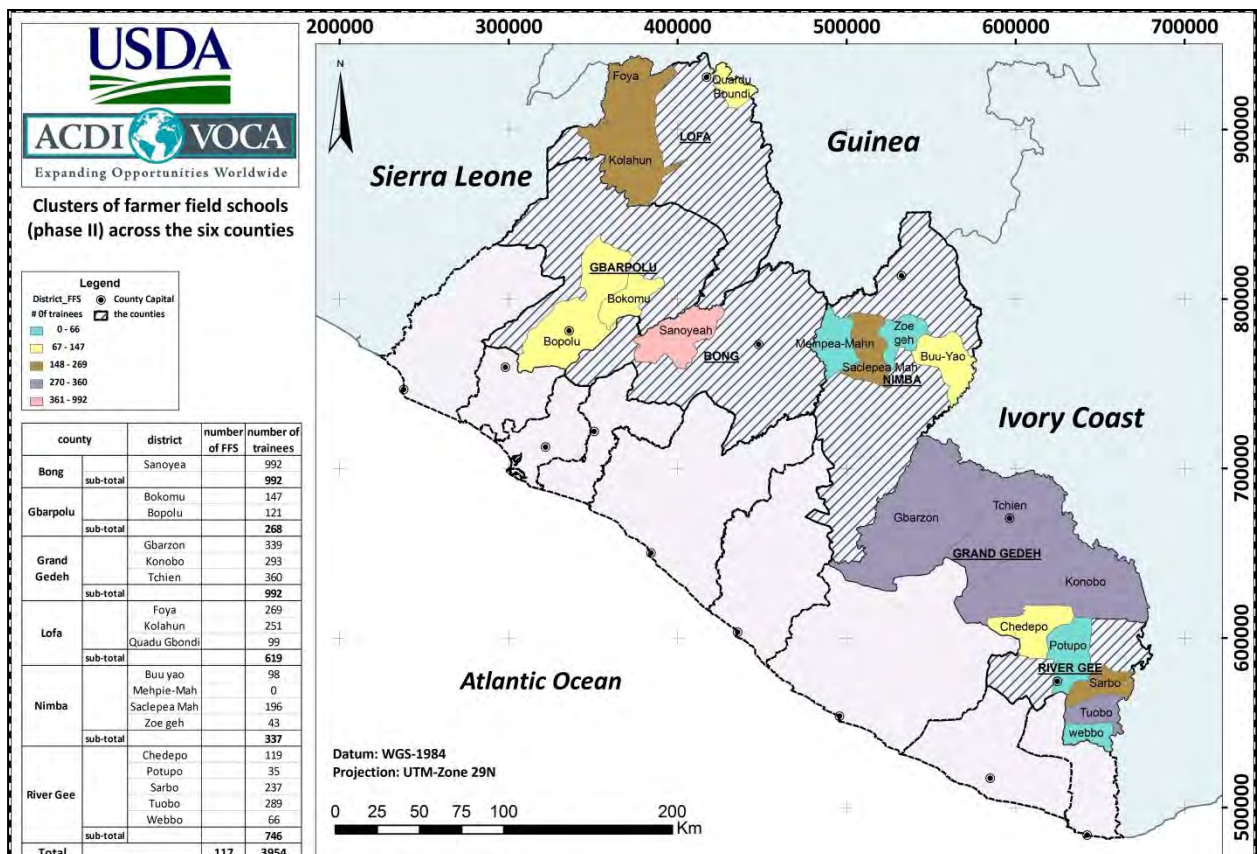
⁹ Key informant interview (Farmer Organization) with Business Manager from Kwakerseh Cocoa Cooperative (Nimba County) and KII with Farmer organization in Grand Gedeh County with a representative from Bilibo Cooperative.

¹⁰ Victor Vorh, Charles King Jr, David P. Tokpah and Denise S. Karway: Tree Crop Division, CARI, Bong County

model, a set of skills and knowledge related to good agricultural practices were transferred to farmers using 7 to 9 months long Integrated Crop and Pest Management (ICPM) Curriculum.

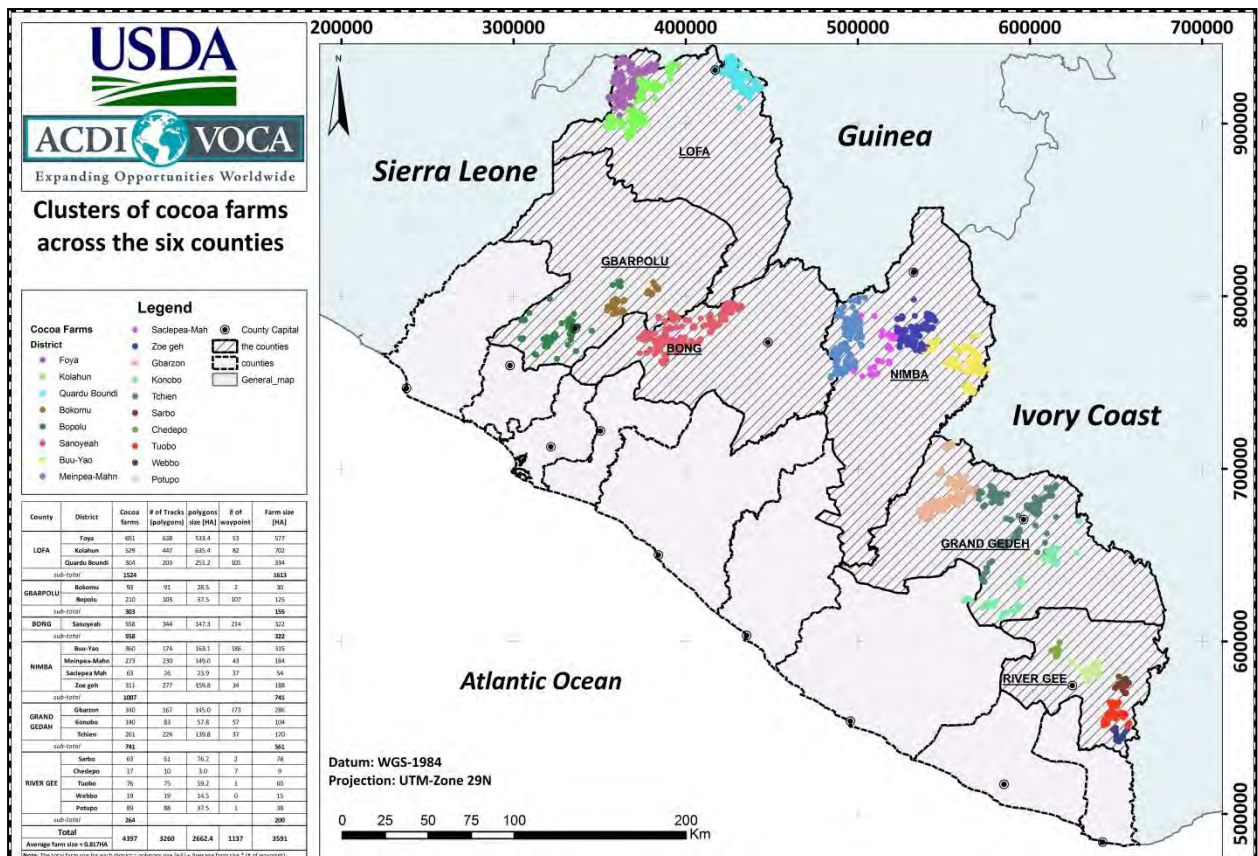
The schools are community-based. A member of the community – usually a farmer – is trained to facilitate sessions, and s/he is responsible for providing guidance and support to farmers attending the school. This approach ensures that farmer support continues over the life of the school, as well as facilitates the community ownership of the activity. For a farmer to be selected to participate in the training s/he must initially have an existing cocoa farm. The ICPM curriculum is heavy on rehabilitation or rejuvenation of aged/old farms. Thus, endowing farmers with the capacity to economically and sustainably increase their production from their existing farms is an integral component of the ICPM. Good Agriculture Practices (GAP) for sustainable cocoa production form the principal approach for utilizing the rehabilitating old farms. The main activities include under-brushing of cocoa farms, pruning (shade management and pest/disease removal or farm sanitation). These activities lead to reduced moisture, pests and diseases in the farm, and thereby lead to increased production. The LIFE III program through its implementing partners¹¹ successfully conducted the project target of 117 FFS in the six counties.

Map1 below shows the clusters of farmer field schools (phase II) across the six counties

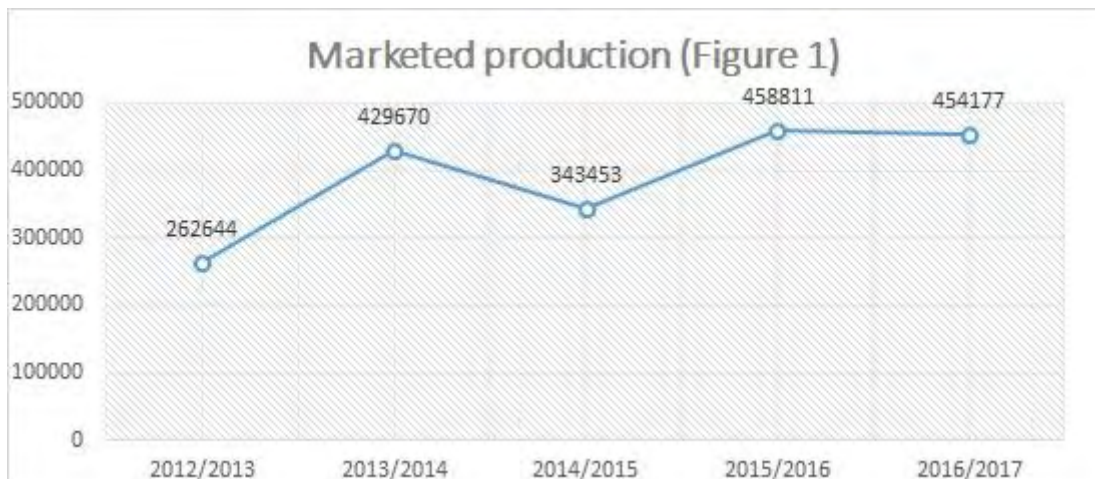


¹¹ The FFS component of the LIFE III program was subcontracted to eight local partners in the six counties

Map2 below shows the clusters of cocoa farms across the six counties



The FFS model is popular and has been demonstrated to be successful; however, the design does not have room for expansion. Each community, regardless of the number of cocoa farmers, benefits only once from the school and each school can take an average of 30 farmers. Some community members who wanted to participate in the school could not do so, and almost all non-beneficiaries interviewed indicated their desire to attend the school. The increase in the adoption GAPs learned at FFS, farm yields have increased as the volumes marketed from the beneficiary groups has grown. The below Figure 1 illustrates the volume of cocoa being sold per year.



Number of farmers receiving training under LIFE III

Through the FFSs, a significant number of farmers received training through the LIFE III supported partners on Improved Farm Management Techniques. Farmers indicated that they acquired skills and knowledge on rehabilitating their old farms. Key informant interviews revealed that ACDI/VOCA provided the following training to farmers: Financial management, equity investment training, FaaB, management training, planning training, crop diversification, farmers' field days and financial management.

The below table presents the changes in the indicator value over the life of the project:

Indicator of interest	Baseline value	Mid-term evaluation	Life of Project (LOP) target	Final evaluation value
Number of farmers receiving training under LIFE III	0	35% (4,480)	100% (12,800)	89% (11,392)

A review of the mid-term evaluation report revealed that the project made improvement from its baseline value; by successfully graduating over 4,497 FFS participants, and this trend continued throughout the life of the project. It was found that female participation in the training has improved, as 27% of interviewed farmers who received training were females. The evaluation team requested and was given access to the LIFE III training database, which was used to triangulate and validate information in the project reports. The evaluation team found consistency in the different sources and concludes that LIFE III project to a large extent met its set target. The evaluation team found that the key trainings facilitated at the farmer level are FFS, FaaB and cocoa byproduct production.

Number of cocoa farmers applying improved farm management techniques

The evaluation team conducted site observation visits on respondent farms to confirm whether farmers who had access to improved farm management training are also practicing on their farms the skills and knowledge they acquired from the training. A majority of the farmers trained at FFS were found to be using some aspects of their training on their farms during both mid-level and final evaluations. Many farmers can further more explain how to carry out these practices. It was found that access to usage ratio has greatly improved from their baseline values for some aspects of the training. Key informant interviews conducted with ACDI/VOCA project staff in the six counties revealed that farmers are applying improved farm management techniques. Farmers know more about their farms, including how to plan farming and increase production. Rehabilitation was identified as a problem¹² before the LIFE project; the intervention by LIFE III significantly reduced the problem.¹³ Even further, the RAA Executive Director in Lofa County admitted that RAA was trained by ACDI/VOCA as a prerequisite to benefit from the LIFE III project. Through the empowerment of ACDI/VOCA, RAA followed up on farmers making sure seedlings are well nurtured and taken care of and that they applied the training they received during FFS in

¹² ***Key informant interviews of project staff in Bong and Lofa counties,***

¹³ ***Key informant interviews of project staff in Bong and Lofa counties, project staff in Grand Gedeh, Nimba and River Gee counties.***

practice. He said RAA was taught to rehabilitate selected cocoa farms. As a result, LIFE III has much improved the situation with the Liberian cocoa sector.

The below table presents the changes in the indicator value over the life of the project:

Indicator of interest	Baseline value	Mid-term evaluation	LOP target	Final evaluation value
Number of cocoa farmers applying improved farm management techniques	0% (0)	66% (5,900)	100% (9,000)	76% ¹⁴ (6,840)

When asked, a large proportion of interviewed farmers said they have mastered and are very conversant with implementing under-brushing, pruning, shade management and disease management activities. The majority (89%) of Beneficiary farmers who applied the methods taught in the FFS experienced huge increased in their cocoa yield the following year.

However, most farmers did not implement all the techniques presented in the field school on the same scale. This is understandable, because each technique requires different level of inputs and investment on the part of the farmer.

GAP	Baseline value	Final evaluation	+/-
Underbrushing	67%	98%	31%
Pruning	22%	70%	48%
Shade management	28%	61%	33%
Disease management	24%	32%	8%
Fertilizer application	1%	28%	27%

It was found that application of post-harvest management techniques (fermentation and improved drying, which are directly responsible for production of good quality cocoa) is uncommon amongst farmers.

The evaluation team discovered that the utilization of agrochemicals amongst smallholder cocoa farmers remains limited. While it is commendable that the LIFE III project increased the number of farmers using fertilizer from 1% at baseline to 28% at end of project, overall utilization is still low. The use of insecticides and fungicides is even lower. It was found that most farmers who did not use agrochemical on their farms could not afford them.

Overall, the evaluation team found that majority of the farmers who participated in the LIFE III training program have solid understanding of the necessary GAP for rehabilitation of old farms. The project made huge progress in increasing the number of farmers (76 out of every 100) who have now adopted a minimum of three of the five recommended techniques.

Key informant interviews conducted show that farmers are applying improved farm management techniques. According to the management of Kwakeseh Cocoa Cooperative,

¹⁴ An average of farmers who are applying at least three of the recommended improved cocoa husbandry techniques. The three aspects for this report are: under-brushing, pruning and shade management.

farmers are currently practicing what the project taught them on how to maintain their farms, do pruning, farm rehabilitation de-shading and other techniques.

“We appreciate mostly the trainings. Our farms were small; because of the intervention of ACDI/VOCA our farms are now big”. Kwakeseh Cocoa Cooperative – Nimba County

It was also confirmed through other data collection techniques that the vast majority of the farmers are utilizing the training. Both key informant interviews and focus group discussions held with cooperatives and community members all corroborate high utilization rate of training amongst farmers.

Number of farmers receiving training in Farming as a Business (FaaB) principles

Keeping accurate information on farming activities amongst smallholder farmers is usually a limited practice. This can in part be attributed to the low capacity of smallholders to by themselves set up and operate an improved farm management system that encompasses recordkeeping on financial transaction: revenues, expenses, budgeting and work planning, amongst others. This limited capacity is obvious, as it was found that the highest education obtained by over 90% of the farmers interviewed is secondary education.

Indicator of interest	Baseline value	Mid-term evaluation	LOP target	Final evaluation value
Number of farmers receiving training in Farming as a Business principles	0	28% (2,780)	100% (10,000)	86% (8,600)

While the FaaB training targeted all the FFS training participants, only one person was selected to keep record for each group. The selected person is usually more literate and can record farming activities of the group. The LIFE III program made huge progress toward improving farmers’ capacity towards improved farm management practices. Central to the FaaB principles is record keeping on farming activities. Proper planning and timely deployment of limited resources for production are important principles presented in the FaaB sessions. These sessions were conducted by LIFE III staff; unlike the FFS sessions which were subcontracted to the project partners including Agriculture Relief Services (ARS), Catalyst, CWAP, LCC, RAA, SERE, Vainga Agriculture Development and Management Consultancy (VADEMCO) and WIENCO. The project provided the necessary supplies needed – such as ledgers, calculators, and ink pens – to FaaB training beneficiaries in order to enable them to begin keeping record on their farming activities.

While a large proportion of the farmers had access to training in FaaB principles, the utilization rate was found to be lower. Of farmers who said they received FaaB training, the evaluation requested to inspect their ledgers. Evaluation team found that only 42% of farmers who had access to the FaaB training implemented at least four of the recommended principles. FaaB principals are very important to help farmers understand their seasonal investment and revenues. It is also very important for the sector as it will engender a system

of accurate documentation on production investment and associated revenue generation at the smallholder level. Currently, most of the information gathered from farmers regarding production and revenues is extracted from memory, which often results in unreliable information.

The FaaB implementation is mostly centered on the individual selected to manage the record keeping activities for a particular farmer group. The effective implementation of the FaaB principles therefore also hinges on the commitment of the selected individual, who is usually a farmer. Unless there is an incentive for this individual to continue this function, there is a risk that her/his commitment may fade. Also, it is unlikely that this individual will keep record on each group member farming activities; and even if an attempt is made to do so, s/he will most likely rely on what information each group member provides. Hence, through the implementation of the FaaB principles, farmers groups can generate accurate information on their production investment and returns; however, such accuracy may be absent at the individual farmer level.

Key informant interviews with ACDI/VOCA project staff revealed that the following trainings were provided to farmers: Financial management, equity investment training, FaaB, management training, planning training, crop diversification, farmers’ field days and financial management.

Number of individuals trained in income diversification activities

The LIFE III Program also trained beneficiary farmers to diversify their sources of income. This activity focuses on training farmers on vegetable gardening and livestock management. Vegetable production can empower and smallholder producers’ income of through their high values. Vegetables can also contribute to food and nutritional security as they contain essential micronutrients and confer other essential health benefits.

Indicator of interest	Baseline value	Mid-term evaluation	LOP target	Final evaluation value
<i>Number of individuals trained in income diversification activities</i>	0	38% (3,840)	100% (10,000)	98% (9,800)

Nearly all the farmers said they were trained in diversifying their income through vegetable gardening and livestock management activities. It was found that 60% were engaged in vegetable production while a third of farmers are engaged in livestock management. It was also found that farmers are diversifying in different crops: 43% produced pepper, 32% produced bitterball, 30% corn and 12% okra. However, fewer farmers are diversifying their production into more high value and exotic vegetables as only 4% produced tomatoes and cabbage respectively. Together, farmers generated over L\$2.3million from vegetable production last season – an average of L\$5,600 per farmer.

A large proportion of farmers (30%) also diversify into livestock management activities. Farmers who engage in Livestock are mostly raising goat-51%, chicken 49%, sheep 24% and pig 4%. Together, farmers who diversify into livestock earned over L\$1.4million dollars from the recent sales of livestock.

Overall, diversification is a significant factor explaining differences in the level and variability of farmers’ income. Key benefits of diversification are both economic and social. The economic benefits include seasonal stabilization of farmers’ income to meet other basic household livelihood needs such as paying children’s school fees and other related expenses; household subsistence, food and nutrition needs; and a reduction of risk of overall farm returns by investing into a mixture of activities whose net returns have a low or negative correlation. One social and community level economic benefit is the seasonal employment for casual farm workers.

Number of hectares subject to improved cocoa husbandry techniques

In addition to rehabilitating old cocoa farm, LIFE III project also worked with farmers to expand their cocoa cultivation areas. This involves bringing hectares of existing farms under improved agricultural practices and expansion through new area planting. Farmers were also trained at FFSs on Planting Replanting and Diversification (PRD) Techniques. They acquired skills and knowledge on identifying the right type of soil, nursery establishment and planting methods, amongst other skills needed to expand production into new areas.

Indicator of interest	Baseline value	Mid-term evaluation	LOP target	Final evaluation value
<i>Number of hectares subject to improved cocoa husbandry techniques</i>	0	15% 1,211	100% (8,000)	59% (4,720)

GPS devices were used by the project partners contracted to conduct the FFS training to measure and demarcate farmers’ plots. This made it possible to accurately measure farm size and areas subjected to the project’s recommended improvement practices. It was found that the majority (51%) of farmers expanded their cultivation under improved farm management by 0.4 to 0.8 hectares. Another 37% expanded their improved cultivation area by 1.2 to 1.6 hectares; while 5% of farmers expanded their improved cultivation area by 2 to 2.4 hectares.

Through support to its associated agro dealers and service providers, 1.3 million improved cocoa seedlings were produced and sold through commercial nurseries. The objectives of supporting private sector agro service providers in commercial nurseries establishment was to increase the availability and project beneficiaries’ access to improved cocoa planting materials at a reasonable cost. It was however found that 6% of farmers bought improved cocoa planting materials from commercial nurseries. One explanation is the large proportion of farmers who are implementing nurseries established on their farms. Farmers told evaluators that they usually use cocoa from their existing farms to construct their nurseries. The evaluation team will attempt to assess the project records to again cross-check the

progress documented by the project as it relates to farmers purchasing improved planting materials from commercial nurseries.

Through the project, it was found that over 4,000 additional hectares were cultivated using improved farm management techniques. Albeit below its LOP target, it should be noted that the LOP target of 8,000 hectares was likely too ambitious considering the labor dynamics at the household level and other social factors affecting production. Implementing improved farm management practices requires intensive labor, which is mostly limited at the household level as production area gets larger. Farmers have tried to mitigate this situation through labor rotation and communal farming systems, but such approaches cannot suffice for all farmers. Older farmers willing to pay for work, have experienced labor shortages that have negatively affected their ability to expand their production area. Another factor is land availability for expansion through planting of new areas.

Number of demonstration sites established

The LIFE III project supported farmer groups to diversify their income by engaging in vegetable and crops production as well as livestock managements. For crop diversification, the project was required to establish 190 vegetable production demonstration sites in the six counties. The project provided support to farmers through groups' membership. Each farmer group received kits¹⁵ to establish demonstration sites which were used to exhibit improved vegetable and other crops production. Farmers were then expected to replicate what was learnt at the demonstration sites on their individual gardens or farms.

Indicator of interest	Baseline value	Mid-term evaluation	LOP target	Final evaluation value
<i>Number of demonstration sites established</i>	0	98% (187)	100% (190)	100% (190)

The evaluation team found that a large proportion of project beneficiaries are aware that demonstration sites have been established in their communities. The project worked with thirty farmer groups in the six counties. These included 24 cooperatives and six farmers groups. Each demonstration site was established in location accessible to farmers in nearby communities. On average six demonstration sites were established per farmer group.

Kilogram of cocoa harvested per hectare

Farmers were asked to give the range of their last season cocoa harvest. It was found that 79% of project beneficiaries experienced increases in their last season cocoa harvest – an increase they attributed to the LIFE III project. The increase ranges from 100kgs to 200 kg – 20%, 300 kg – 400 kg – 49%, and 500 kg to 600 kg – 26%.

¹⁵ Included wheel barrow, watering can, spraying can, shovel, seeds amongst others.

Indicator of interest	Baseline value	Mid-term evaluation	LOP target	Final evaluation value
<i>Kilogram of cocoa harvested per hectare</i>	180 kg	204 kg	210 kg	330 kg

The project has exceeded its target of 210 kg/ha cocoa harvested by beneficiaries. Farmers are now getting more cocoa from their farms than before they started applying the training. Farmers acknowledged that by implementing the training contents, their production has been impacted positively. Because the use of chemicals such as insecticides and fungicides is very limited among farmers, the positive impact being experience by farmers in their cocoa yield can be attributed to improved agriculture practices and farm management.

Number of farmer field days held

Farmers' field days are held at the county level to bring together sector stakeholders in order to showcase products, ideas engendered by projects and their beneficiaries. The LIFE III project in collaboration with various county Agriculture Coordinators, organized and conducted six farmers' field days, one each in the six counties. Farmer groups are usually represented by selected members. A group can have up to 30 members attending the field days.

Indicator of interest	Baseline value	Mid-term evaluation	LOP target	Final evaluation value
<i>Number of farmer field days held</i>	0	6	6	6

Other NGOs working in the agriculture sector also attend the event to display the products of their work in the sector. Agro dealers and commercial nursery owners also come to the event to promote their products. Some of the products displayed by farmers include soap made from cocoa byproducts, cocoa oil, and cocoa powder.

It was found that 87% of farmers interviewed by evaluators attended farmer field days. These events expose farmers to other actors in the sector and enable them to interact with others who may be interested in their products.

2.1.2 Capacity Building: Producer groups/Cooperatives

The LIFE III project successfully completed capacity enhancement training for several stakeholders both in the public sector and private sectors. The training targeted capacity gaps that was necessary for these organizations to effectively perform their tasks.

Number of CDA field staff completing capacity building training farmers organization outreach, assessment and support

The LIFE III project worked extensively with the Cooperative Development Agency (CDA). The training was geared towards strengthening the capacity of the relevant staff at the agency to be able to do their work more effectively. Key competency and skills

transferred to the CDA staff included, but were not limited to, group mobilization and formation, audit and advocacy to strengthen cooperative development.

Indicator of interest	Baseline value	Mid-term evaluation	LOP target	Final evaluation value
<i>Number of CDA field staff completing capacity building training farmers organization outreach, assessment and support</i>	0	106% (19)	100% (18)	106% (19)

The project exceeded its target of training and strengthening the capacity of the CDA. It was found by the evaluation team that these training are being of great help to the agency as it is now utilizing the knowledge to train and monitor cooperatives and other groups. The training of VSLA members was a joint collaboration between CDA and LCUNA.

Number of farmers implementing pilot grants to groups for artisanal processing capacity to produce byproducts from sub grade cocoa

The number of farmers implementing pilot grants to groups for artisanal processing capacity to produce bi-products from subgrade cocoa is 156 against the LOP target of 150 farmers.

Indicator of interest	Baseline value	Mid-term evaluation	LOP target	Final evaluation value
Number of farmers implementing pilot grants to groups for artisanal processing capacity to produce byproducts from sub grade cocoa	0	0% (0)	100% (150)	104% (156)

It was found during the evaluation that 156 farmers in Bong, Lofa and Nimba Counties were trained in producing products from sub-grade cocoa. Some of the byproducts include cocoa powder, chocolate and cocoa oil.

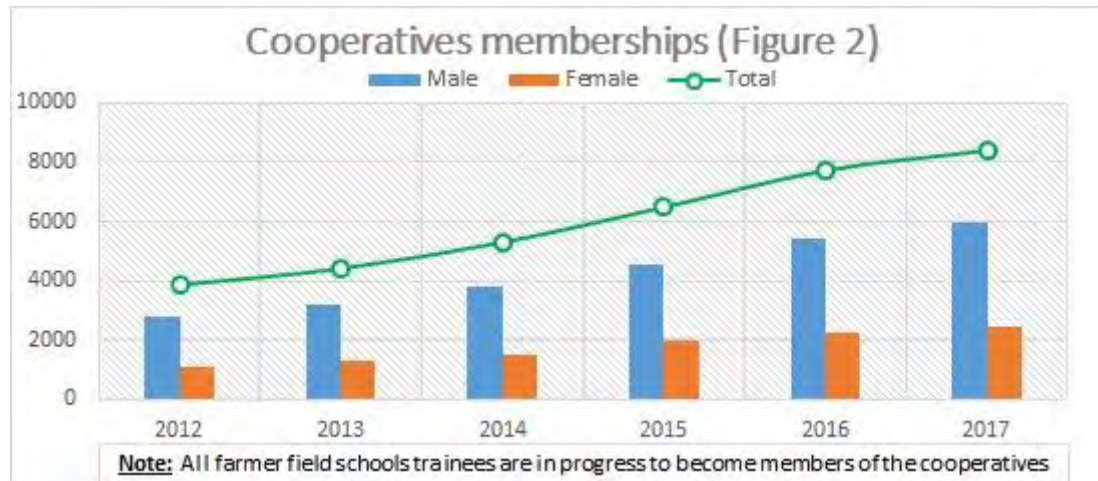
Number of members of project-sponsored farmer associations established under the three phases of LIFE (LIFE I, II & III)

Indicator of interest	Baseline value	Mid-term evaluation	LOP target	Final evaluation value
Number of members of project-sponsored farmer associations established under the three phases of LIFE	40% (4,782)	50% (6,022)	100% (12,000)	103% (12,337)

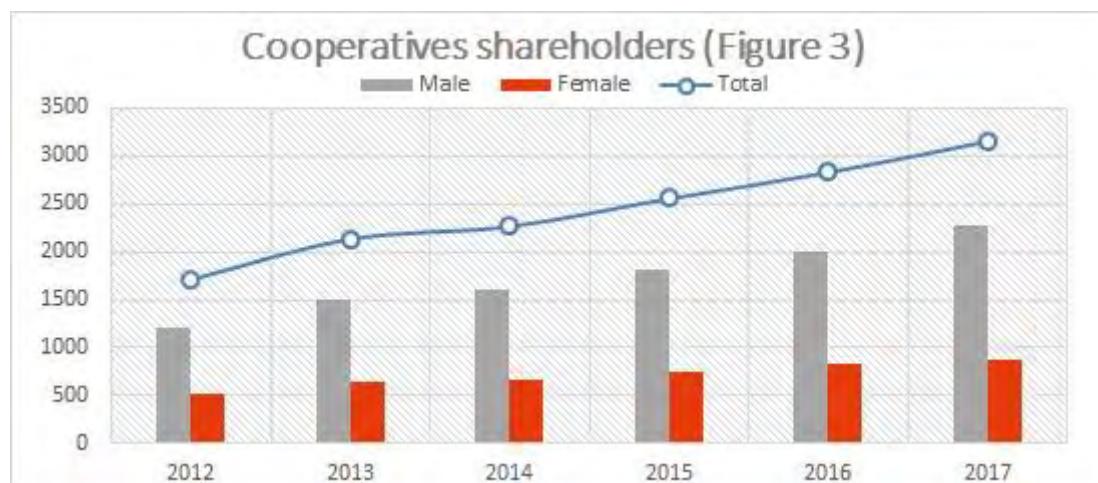
The 3 phases of the LIFE project organized, trained and transformed 30 farmers' associations into cooperatives. As indicated in the above table, the total membership of these cooperatives is 12,337, exceeding the LOP target. It was found that the membership of

these farmer organizations have grown over the life of the LIFE project by over 7,000 from the baseline value.

The below figure 1 showed the trend at which membership groups over the project period.



It was disclosed during the evaluation that the cooperatives shareholders are over 3,000 while membership of the cooperatives continued to group to over 7,000 from the baseline value. Figure 3 displayed the cooperative shareholders.



Certification of new cooperatives by CDA

The LIFE III project played an instrumental role in helping the certification of farmer groups into cooperatives. After strengthening and observing farmer groups, the CDA certificated 19 new cooperatives. Before a farmer group is elevated or promoted to a cooperative status, it must first meet several criteria outlined by the CDA. One such criterion is the increase in membership to a minimum of 300. From discussion with these certificated organizations through KII evaluators, it was found that their membership services have improved.

Number of leadership of producer groups received training

Indicator of interest	Baseline value	Mid-term evaluation	LOP target	Final evaluation value
Number of leadership of producer groups received training	0% (0)	108% (129)	100% (120)	174% (209)

As a direct result from the training it received as a part of the LIFE III project, the CDA was endowed to conduct training for cooperative leaderships. During the project a total of 209 farmer groups and cooperatives as well as VSLA leaders were trained by the CDA and LCUNA. This training focused on financial management and effective membership service provision. It was found by evaluators that the project far exceeded its LOP targets as was found in the final evaluation. It seems that this LOP target was low in relation to the level of effort applied; except if key assumptions and circumstances that informed the setting of this LOP target change during the implementation of the project.

Joint supervisions with CDA to producer groups

Part of the capacity building activities for the CDA involved planning and conducting joint supervision visits to various farmer groups and VSLAs. The joint visits allowed staff from the CDA who went along with LIFE project staff to be directly trained and mentored. Joint supervision visits allowed understanding what to supervise and how to provide support to those supervised. During discussions with the CDA, it was found that a total of 90 joint monitoring visits to producer groups, trained farmer organizations and certificated cooperatives and transformed VSLA into credit unions were conducted.

The LIFE III project has trained and empowered 19 Cooperative Development Agency (CDA) field staffs against the LOP target of 18. This has significantly increased CDA ability to get involved in farmer group formation and their subsequent training. The training geared towards group mobilization and formation, good governance, financial management, loan management and administration, record keeping, and audit and advocacy to strengthen cooperative development. Key informant interviews conducted with CDA was discovered that CDA was empowered to the extent that it participated in 90 joint monitoring field visits to producer groups, trained farmer organizations and certificated cooperatives and transformed VSLA into credit unions. The training of VSLA members is a joint collaboration between CDA and LCUNA.

ACDI/VOCA played a leading role in the drafting of LCUNA by-laws and constitution as well as the institution of its board and management team. LCUNA is responsible for affiliation of financial association (VSLAs and credit unions) with APEX body NAPEX and financial lending institutions. before CDA certificated VSLA as Credit Union, LCUNA as affiliation body of all credit unions provided training in the following:

LCUNA concept of credit union; good credit union governance, financial management, loan management/administration, and financial record keeping.¹⁶ The key informant interviews of

¹⁶ LCUNA Organization profile.

CDA staff conducted by the evaluation team revealed that CDA conducted 90 joint supervision visits with ACDI/VOCA, trained 129 producer groups in leadership, certificated 24 new cooperatives and transformed 20 VSLAs into credit unions.

When the evaluators interviewed Harries Wennie from CDA (Department of Gender, Youth Promotion & Program Development) about the village saving loan association and farmer association he explained that “CDA is the government arm responsible to certificate all saving and loan associations and farmer associations into credit unions and farmer cooperatives. CDA works in organizing groups, training in organizational administration, governance, financial management and accountability, and record keeping. Farmers who are member of the VSLA can get loan from their own VSLA. Only members can guarantee each other for loan. Nonmembers are not allowed to get loan. According to CDA requirements farmer saving group should obtain the minimum of 15 members; LCUNA, who is the regulatory body of credit unions say minimum 100 members: CBL says before they license any credit union for loan, their minimum membership should be 300 shareholders. CDA trains credit unions in good governance, loan management & administration, financial management, record keeping, etc.”¹⁷

The role of CDA in the cocoa sector includes organization development, human resource development, providing training for cooperative development, and pre-cooperative development.

Requirement for cooperative and credit union registration

- ✓ Membership (15 and above)
- ✓ Leadership structure
- ✓ By-law & constitution
- ✓ Business plan
- ✓ Office space
- ✓ At least one bank account
- ✓ Signboard

Summary of ACDI/VOCA Sponsored Cocoa Farmers Cooperatives per County certified by CDA

No:	County	Farmers Cooperatives per county	Membership up date		
			Male	Female	Total
1.	Grand Gedeh	4	283	60	343
2.	River Gee	2	112	45	157
3.	Lofa	7	2740	948	3688
4.	Bong	3	312	133	445
5.	Nimba	4	901	111	1012
56.	Gbarpolu	4	384	179	563
Total		24	4732	1476	6208

¹⁷ Mr. Harries Wennie, Cooperative Development Authority (CDA), Monrovia

ACDI/VCOA-LIFE project started working with Tarpeleseh Farmer Cooperative in Bunadin Town, Nimba County in 2008, and organized them as a farmer association. ACDI/VOCA 4 components work with Tarpeleseh Cooperative in transforming them into Cooperative in Farming Business Organization (FBO Facilitator), Crop Diversification (CD Facilitator), Farming as a Business (FaaB Facilitator) and Access to Finance (A2F Facilitator). The membership cooperative capacity is built in FBO, CD, FaaB and A2F. A/V provided joint training for the Cooperative management team in Saclepea, Nimba County in the following areas¹⁸:

- ✓ Financial Management
- ✓ Good Governance
- ✓ Equity Investment training by a volunteer
- ✓ Loan management/administration, etc.
- ✓ The present membership is 685

Marketing strategy by the Cooperative

- ✓ Members bulk cocoa in the warehouse.
- ✓ Buyer come to the coop headquarter to negotiate price.
- ✓ Buyer provides per-finance to management.
- ✓ The Cooperative provides TOT training to cluster members' heads.
- ✓ Improving strategy for members not to sell to middle buyers.
- ✓ Posting LPMC cocoa farm gate monthly price at the Cooperative Office and in cluster communities.

Financial Services

- ✓ There are 2 Credit Unions and 1 VSLA in three clusters communities of the Cooperative.
- ✓ The Credit Unions have by-law & Constitution
- ✓ Interest rate is 10%
- ✓ Petty Cash (PC) interest rate 5%.
- ✓ Total cash loan L\$186,000.00
- ✓ Total interest earn L\$1,860.00
- ✓ Total shareholder 96 persons.
- ✓ Amount per-share L\$5,000.00per-member and L\$250.00 for monthly saving per-member. Member can save more depending on his/her income.

Relationship with CDA & LCUNA

- ✓ Good relationship
- ✓ LCUNA provided CBL loan requirement for Credit Union.

Sector Development

¹⁸ KII with Tarpeleseh Farmers' Cooperative, Credit Union, VSLA: Bunadin, Nimba

- ✓ Continue the training in VSLA, Credit Union, Farmer Association and Cooperative development in other communities that did not receive the training.
- ✓ Tarpeleseh is continuing the development of Cooperative in other communities beyond their Cooperative.

The number of farmers implementing pilot grants to groups for artisanal processing capacity to produce byproducts from sub grade cocoa is 150 against the LOP target of 150 farmers. The revision of the documents showed that 12,692 members of project-sponsored farmer associations were established under the three phases of LIFE against 12,000 LOP target.

In order to balance information, the evaluation team conducted a focus group discussion (FGD) with the Kwapaigeh Cocoa Farmer Cooperative about the history of the LIFE Project in Bong County. The discussants revealed that ACIDI/VOCA came to Gbonota, Sanoyea in 2008 where the LIFE project was introduced to farmers. According to the group, ACIDI/VOCA organized 30 farmers along with followers, but the first project wasn't successful. They came back in 2009 and this time it was successful.¹⁹ In the same vein, the evaluation team moved to Quardu Masini Cocoa Farmer Cooperative, Quardu Gboni, Voinjama district, Lofa County and was told that ACIDI/VOCA came to Lofa in 2010 and established a cooperative of cocoa farms owners. ACIDI/VOCA introduced some training and explained the importance of adding value to cocoa and going to the Farmer Field School, as well as seeing farming as a business.²⁰

Focus group discussion with Sebehill Cocoa Farmer Cooperative, Kolahun district, Lofa County revealed that ACIDI/VOCA arrived to Kolahun through the STCRP after the International Committee of the Red Cross (ICRC) left. A few farmers were selected by ACIDI/VOCA to go to Voinjama for training, and later additional 30 persons were trained in cocoa farming, as well as provided seedlings. According to the group, before the training they did not know anything about how to improve their cocoa farms, which is something the intervention by ACIDI/VOCA has subsequently changed.²¹

Quakulepelly Cocoa Farmer Cooperative, in Molowamu Town, and Bokomu District in Gbarpolu County said ACIDI/VOCA started its activities in Bokomu in October 2008. The project also included farming as a business. The project was able to train farmers on how to keep records. ACIDI/VOCA intervention had helped small cocoa farmers learned about under brushing, de-shading, farm management and pruning.²² Additionally, the project has provided access to finance, leadership training and cross diversification. It was observed during the Focus Group discussion that Cooperative members were so happy for haven been trained by ACIDI/VOCA. They expressed their desire that ACIDI/VOCA should continue with the LIFEIII Project.

¹⁹ **FGD with the Kwapaigeh Cocoa Farmer Cooperative in Bong County**

²⁰ FGD with Quardu Masini Cocoa Farmer Cooperative, Quardu Gboni, Voinjama Distrist, Lofa County

²¹ FGD with Sebehill Cocoa Farmer Cooperative, Kolahun District, Lofa County

²² FGD with Quakulekpeley Cocoa Farmer Cooperative, Molowamu Town, and Bokomu District in Gbarpolu county

2.1.3. Services: Facilitate Agricultural Lending

Access to loan and other financial services from financial institutions is virtually absent for smallholder producers in Liberia. This has limited farmers' ability to acquire adequate and quality production inputs, such as improved planting materials and agrochemicals. The LIFE III project sought to improve this situation by increasing farmers' access to loan and other financial services by linking farmers' groups to other actors in the cocoa value chain. The project used a market system development strategy by supporting and working with relevant market actors (for instance agro dealers, service providers, government agencies, membership organizations) by establishing and strengthening commercial relationships between former groups and produce buyers and exporters.

Indicator of interest	Baseline value	Mid-term evaluation	LOP target	Final evaluation value
<i>Cocoa farmers accessing financial services</i>	0	49% (2,450)	100% (5,000)	59% (2,950)

Produce buyers essentially pay in advance to farmer groups (mostly cooperatives) for an agreed quantity of cocoa. The farmer group then uses the fund received to purchase the necessary volume of cocoa from its members. Such relationship is common between exporters and farmer groups. Most exporters release funding for cocoa purchase during the harvesting season and do not necessarily pre-finance production. The farmer groups become middle men or aggregators for the exporters. While such arrangements ensure a ready market for available cocoa, they do not provide support to farmers who need to pre-finance their production.

Accordingly, the LIFE III project facilitated the establishment of relationships among value chain actors. Through these linkages, thirty established farmer groups received loan funding from financial institutions and other market actors.

However, it was found that while farmer groups received loans from the CBA and other market actors, they are mostly using the funds to invest in produce purchasing than extending loans to their members. Evaluators found that only 59% of farmers received cash loans or input pre-financing from farmer groups and other market actors.

There are actors who play dual roles in the cocoa sector. For example, agro-input dealers serve both as cocoa produce buyers and exporters. These actors are more inclined to pre-finance production through farmer groups but also at the individual farmer level. Through this modality, these actors stand to increase the sales of their inputs and to also have access to large volume of cocoa. On the other hand, farmers access to improved production inputs increases. This modality seems to be a win-win situation for the farmers and market actors. However, one challenge to this modality is the often limited embedded extension advice provided to farmers by these market actors. In some cases this has led to farmers misapplying the inputs. This has then resulted in poor impact on production, making it difficult for farmers

to pay back in cocoa or cash. There is also a risk to production pre-financers in cases where farmers sell their produce to other buyers, instead of the pre-financier.

Total value of loans disbursed to farmers’ associations by financial institutions (US\$)

The Central Bank of Liberia (CBL) is the chief financial institution in the country. The bank provided loan to two farmer groups based in Lofa in an amount of US\$ 400 US\$2,200,000 per group. The term of the loan is three years, and comes with an annual 7% interest rate. The receiving farmer groups were organized and strengthened to cooperatives and credit unions. Farmers also confirmed that they received cash loan from their VSLCs. Evaluators found that farmers received L\$142,480 from VSLCs. The following is a quote from one of the LIFE III supported VSLC in relation to pre-financing its members.

“Our credit union is a well-functioning cooperative. We are going to maintain the gains we have made, and intend to raise money to provide pre-financing loans.”²³

Indicator of interest	Baseline value	Mid-term evaluation	LOP target	Final evaluation value
<i>Total value of loans disbursed to farmer associations by financial institutions.</i>	0	98% (\$490,156)	100% (\$500,000)	75% (\$376,682)

Other market actors, such as agro dealer and produce buyers, provided another L\$100,000 to farmer groups in either cash or through pre-financing inputs. The LIFE III project played a major facilitative role in establishing and strengthening relationships within the cocoa value chain. However, these actors are also considered financial institutions. Therefore, the value of all loans and pre-financing provided to farmer groups are captured in the value of the indicator. It should be noted that the project did success in establishing and strengthening relationships between actors in the cocoa value chain.

The evaluation team inspected a copy of a check written by the CBL to the Sebehill Farmer Cooperative. Farmers who benefited from VSLCs loan informed evaluators accordingly. The evaluation team found huge difference between the values reported by project against this indicator. After discussing with the COP of LIFE III, and reviewed of previously unavailable information, the evaluation team found that M&E records for two years (2013 and 2014) were missing during the time of the evaluation. It was therefore impossible for the evaluation team to verify the amount reported from the midterm evaluation.

It is likely that over US\$500,000 was disbursed to farmer organizations through the LIFE III project, given that the midterm value for the indicators achieved 98% of the LOP target. However, the evaluation team was able to validate records of 75% achievement.

²³ Zuoquardo Cocoa Farmers Cooperative, Nimba County

Value chain arrangement for the sale of cocoa in a given season

Through the linkages of the cocoa value chain actors facilitated by the project, the evaluators found that a total of 30 farmer groups had arrangements with produce buying actors in the sector that allowed groups to receive financing for production and repay in cocoa during the harvesting seasons of the project. Evaluators found that, in a given season, value chain arrangements were established between cooperatives/farmer organizations and cocoa buyers. These arrangements involved pre-financing of production through the provision of cash or inputs by buyers/exporters. In return, farmers/cooperative sell their cocoa to financiers. It was also found that some of the project partners are also exporters who have pre-financing arrangements with farmers for the sales/purchase of cocoa; thus making easier for farmers to access high quality inputs and market.

Number of Village Savings and Loan Clubs/Associations (VSLCs) certified as Credit Unions

Access to finance from formal financial institutions such as banks and micro-finance institutions is very scant in the cocoa sector. During the evaluation it was discovered through discussions with LIFE III project staff that VSLCs did not implement lessons learnt during the implementation of LIFE II. Despite the attempts of the LIFE II project to convene a meeting in which banks and financial institutions were made to understand the business opportunity in lending to farmer groups, response in term of action from these institutions was absent.

Indicator of interest	Baseline value	Mid-term evaluation	LOP target	Final evaluation value
<i>Number of Village Savings and Loan Clubs</i>	0	40% (8)	100% (20)	100% (20)

To mitigate this situation the LIFE III project decided to organize local informal financial institutions (susu saving clubs) and strengthen their management capacity to better serve their members' needs. The intention was to increase the efficiency and transparency of these clubs. With strengthened management capacity, these clubs could increase their membership portfolio, and simultaneously increase their revenue generation capacity. Through the VSLCs, the LIFE III project was able to organize and use local resources at the community level to alleviate the lack of finance. This finding was substantiated by a KII with LCUNA, which informed evaluators that the Village Saving and Loan Association is a community-based financial cooperative. Each VSLC/A has a membership of at least 15 and at most 30. Members elect the officials of their VSLC/A. The VSLC/A's disburse all deposits to their members and other qualified applicants at the end of each fiscal year. This was also confirmed by LCUNA that members receive loans through VSLC/As with interest charged. Interested members make their loan requests to the body, which then discusses the request and considers the amount requested and the deposit of the members.

The evaluation revealed that 38 village saving loan association went under assessment, twenty of which were transformed into credit unions. Credit unions generate on average USD10,000

per year from shares and membership dues, which can be utilized as seed money for lending and investing. Thirty established farmer groups received loans amounting to US\$376,682 to be paid back in three years. Two such farmer groups from Lofa benefited from CBL US\$4,400 Loan each while other financial institution such as agro dealer, macro finance institutions, and produce buyers provided the balance financing. These are value chain activities prioritized by the LIFE III project. The village saving and loan and facilitating value-chain financing including pre-financing partnerships between associations and buyers and input-credit mechanisms with agro dealers form one focus point of the LIFE project.

The number of village savings and loans associations/clubs certified as credit unions is twenty while the value-chain financing arrangements for the sale of cocoa in a given season (though not cumulative) is thirty.

A key informant interview held with LCUNA disclosed that a village saving and loan Club (VSLC) is a community-based financial cooperative with 15-30 members who elect their officials. It disburses all deposits at the end of a fiscal year. When asked about how a farmer can receive a loan, the LCUNA Managing Director and Deputy answered that members get loans through the VSLC with interest added. Members interested in loans submit their request to the body, and the body discusses the request, and especially considering the amount requested and the deposit of the members. The Managing Director lamented the process. He said for farmer to join a credit union, he/she has to express interest to become member of the VSLC. He further stressed that for farmer saving groups to be certificated as a credit union, the requirements are as follows:

- Obtain at least 100 members.
- Have leadership in place.
- Own office space, signed board and an active bank account.
- Single share value for credit union members is L\$5,000.00 and monthly saving/due pay per member is L\$2,500.00. Members can however deposit according to their financial strength.
- The L\$5,000.0 pay as a share is not divided among members at the end of the year, but members receive dividend on their shares including their savings and interest on saving.

There is a deadline and fees set for registration. New members are orientated to the VSLA culture and by-laws of the VSLC is provided to members. It was found out that LCUNA is a regulatory body to the credit union. LCUNA provides financial management training to credit unions.²⁴ The difference between VSLC and Credit Union is the membership. Three to four VSLC make one credit union and must have 15-30 in each VSLC while Credit Union members begin from 100-500. Credit Union has Board Members and Management Team and other committee members unlike VSLC.

²⁴ Key Informant Interviews of LCUNA Managing Director and Deputy Managing Director.

2.1.4 Inputs: Develop agro dealers

The LIFE III project expanded its support to other cocoa sector actors. The assistance to agro dealers focused on how these important market actors can provide solutions to challenges faced by smallholder cocoa farmers. The project positioned agro dealers to be able to provide improved seed, side grafting and commercial cocoa nurseries to these smallholders.

Indicator of interest	Baseline value	Mid-term evaluation	LOP target	Final evaluation value
<i>Local businesses or associations providing new agricultural packages</i>	0	40% (8)	100% (8)	113% (9)

This approach can lead to sustainable systemic transformation whereby markets actors can see the financial incentives to continue providing services to farmers in the communities at affordable prices, as this allows expansion of their customer base. The evaluation found that the LIFE III project identified and partnered with eight private sector and community-based organizations in order to provide inputs and services to farmers. The following table presents the project partners:

No.	Partner	Activity during LIFE III	Location
1	Center for Women Agriculture Program (CWAP)	Conducted FFS sessions and Nursery	Nimba, Grand Gedeh
2	Catalyst Liberia Incorporated (CLI)	Conducted FFS sessions and Nursery	Bong, Grand Gedeh. River Gee.
3	Rural Agriculture Agency (RAA)	Conducted FFS sessions and Nursery	Lofa
4	Special Emergency Relief for the Elderly (SERE)	Conducted FFS sessions	Nimba
5	Liberia Cocoa Corporation (LCC)	Conducted FFS sessions	Lofa
6	WIENCO Liberia Limited	Conducted FFS sessions	Montserrado, Bong.
7	Vainga Agriculture Development and Management Consultancy (VADEMCO)	Conducted FFS sessions and Nursery	Montserrado, Gbarpolu.
8	Agriculture Relief Services (ARS)	Conducted FFS sessions	Nimba

New or improved kinds of planting material and cocoa-specific-fertilizer, pesticides or fungicides available to farmers

The LIFE III project through its partners has made significant progress in exposing smallholder cocoa farmers not only to improved cocoa husbandry practices, but also increased exposure to high quality productive inputs. Evaluators found that one of the

partners of the project WIENCO is also specialized in agrochemical importation and sales. As discovered during the evaluation, the chemicals brought in and given to farmers by WIENCO are approved or recommended by international bodies including the Cocoa Research Institute of Ghana (CRIG) and the Central Agriculture Research Institute (CARI).

It was found that WIENCO provides cocoa specific agrochemicals and other inputs in a package for one acre. The package includes fertilizer, pesticide, fungicide and spraying can. The following table presents the improved and new planting materials made accessible to the project beneficiaries by partners (WIENCO and CWAP)

Insecticides	Herbicides	Fungicides	Fumigants	Supplement	Seed Treatment
Confidor 200SL	Lumax 537.5	Ridomil gold plus 66	Phostoxin	Cropmax	Apron star 42WS
Karate 5EC	Touchdown 360SL	Nordox super 75WG			

As already indicated above, it was discovered that CWAP and other partners who constructed commercial nurseries provided smallholder farmers with improved and new cocoa planting materials. Through the facilitation of the LIFE III project farmers are now accessing specialized inputs packages to increase their productivity.

Cocoa seedlings distributed or sold to farmers as a result of the project

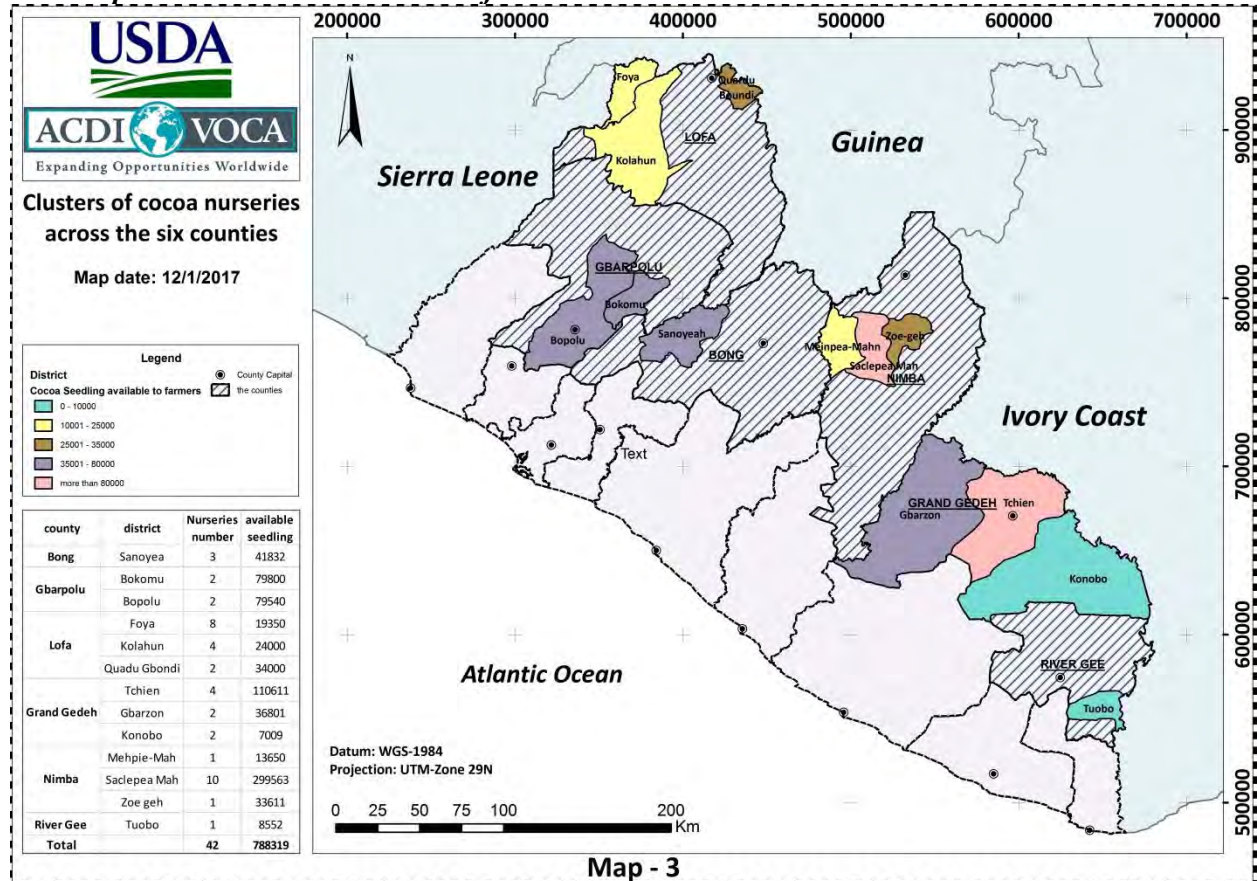
Four of the project partners established 43 commercial nurseries in the six project counties. All in all, these nurseries produced a total of 2.18 million improved cocoa seedlings.

Indicator of interest	Baseline value	Mid-term evaluation	LOP target	Final evaluation value
<i>Cocoa seedlings distributed or sold to farmers as a result of the project</i>	0	17% (200,000)	100% (1,200,000)	182% (2,180,000)

These nurseries were established to increase the availability and accessibility of improved cocoa planting materials to farmers at affordable prices (L\$25). But as was later discovered, the partners could also sell to non-project benefiting farmers. Thus, few wealthy farmers can purchase most of the seedlings. While the evaluators found that over a million improved cocoa seedlings were produced, they did not find the disaggregated records to determine how many seedlings were distributed or sold to the project beneficiaries. During interviews with individual farmers, very few respondents admitted obtaining improved cocoa seedlings from commercial nurseries. However, it was found that over 45% of farmers established their own cocoa nurseries using cocoa beans obtained from their own farms. This, in part, can explain the low purchase or non-purchasing of seedlings from the commercial nurseries. The mid-term evaluation report also documents a very limited progress towards this target. It should be noted that the project took an important step toward sustainable production of improved

cocoa planting material in Liberia through the facilitation of the establishment of the cocoa seed garden at CARI. The availability of seedlings enabled famers to expand their farm size and thus their future income.

The Map below shows the clusters of cocoa nurseries across the six counties



The LIFE project had the following targets for input and supplies availability and dissemination to beneficiaries:

- Local businesses or associations providing new agricultural packages.
- New or improved kinds of planting material.
- Cocoa specific fertilizer pesticides or fungicides available to farmers.
- Number of public-private partnership formed a result of USDA assistance.
- Cocoa seedling distributed or sold to farmers as a result of the project activities.

Businesses selected to provide the above services were

- Center for Women Agriculture Program (CWAP)-Saclepea, Nimba County
- Catalyst Liberia Incorporated (CLI)- Gbarngba, Bong County
- Rural Agriculture Agency (RAA)-Voinjama, Lofa County
- Special Emergency Relief for the Elderly (SERE)- Saclepea, Nimba County
- Liberia Cocoa Corporation (LCC)-Voinjama, Lofa County
- Wienco Liberia Limited (WLL) – Monrovia, Montserrado County
- Vainga Agriculture Development and Management Consultancy (VADEMCO)- Monrovia, Montserrado County

- Agriculture Relief Services (ARS) Saniquellie, Nimba County

2.1.5 Market Access: Improved Market information

Commodity price information is very important as it contributes to transparent transactions between suppliers and buyers. Especially in rural areas farmers have limited access to market information, and mostly rely on what prices produce buyers offer. Some efforts have already been made to address this situation through the project collaboration with and support to national agencies including ACIDI/VOCA, CDA and to cooperative and farmer associations through infomercial activities (local radio stations which employ various vernacular, as well as posters and SMS). The LPMC provides monthly cocoa bulletin updates while ACIDI/VOCA in conjunction with CDA ensures their dissemination to farming public. During the key level interviews it was confirmed that Tarpeleseh provides cocoa price information to farmers while LCUNA does not provide information.²⁵

Cocoa Nurseries established that provide improved, reasonably priced planting material available to smallholder farmers

The LIFE III project worked with four of its partners to establish commercial nurseries to produced 2.18 million improved cocoa seedlings. The planting materials used to establish these nurseries are exotic and improved materials. The evaluation team found that CWAP – one of the project’s partners – obtained materials for the nurseries from CARI. These materials were brought into Liberia through a collaborative effort of the LIFE III project and the University of Reading in the United Kingdom. CWAP has established a budwood garden where it now multiplies these improved varieties. CWAP also used material from Ghana and Côte d’Ivoire, as did other partners.

Indicator of interest	Baseline value	Mid-term evaluation	LOP target	Final evaluation value
<i>Cocoa nurseries established that provide improved, reasonably priced planting material available to smallholder farmers</i>	0	93% (37)	100% (40)	108% (43)

The partners that established cocoa nurseries include Catalyst, RAA and VADEMCO. Across the six counties, the evaluation team found that 43 commercial nurseries were established by the partners. These nurseries produced over a million improved cocoa seedlings.

Number of cocoa farmer associations that regularly provide updated market information to their members

All the cooperatives and farmer groups that were interviewed by the evaluation team acknowledged that they provide regular updates to their members on the current price of cocoa. The evaluation team interviewed a total of 21 cooperatives and farmer groups. One

²⁵ Key Informant Interviews of LCUNA Managing Director and Deputy Managing Director

cooperative even provided radios to its members in order to improve their prospects of receiving the newest cocoa price information through radio. The LIFE III project collaborated with the national radio station ELBC which has a wide range of coverage in order to disseminate this information.

Number of farmers who are able to access current price for cocoa

The evaluation teams also asked farmers whether they are aware of the current market price for cocoa and where do they receive price information from.

Indicator of interest	Baseline value	Mid-term evaluation	LOP target	Final evaluation value
<i>Number of farmers who are able to access current prices for cocoa</i>	0	50% (6,022)	100% (12,000)	76% (9,120)

It was found that the majority of project beneficiaries receive regular information on the market price of cocoa. The main sources of information on cocoa prices receive by farmers comes from: cooperatives – 79%, fellow farmers – 43% and radio – 21%. Most cooperatives display the current price of cocoa at their warehouses. It was found that farmers are benefiting from this information dissemination effort, as they are now able to refuse low prices offer by middlemen who might try to offer them lower than market prices.

Cocoa price information is provided by LPMC, CDA, and ACIDI/VOCA to cooperative and farmer Association through local radios (various vernacular) posters and phone media. “We are partnering with Liberia Produce and Marketing Corporation (LPMC) to make sure regular cocoa prices on local radio stations both in English and local dialect. We also provide radios to farmers as well”²⁶. According to a CDA representative interviewed, farmers get updated information on cocoa price through LPMC.

A key informant interview confirmed that LPMC releases updated cocoa price every month. Copies are share with CDA county staff, who deliver the information to all cocoa farmer groups. The cocoa price is also announced through the community radio stations in the various local languages.²⁷

3.1 Future of the Cocoa Sector

The evaluation team interview with CARI, Ministry of Agriculture, CWAP, CDA, LCUNA Local Government Official, and LPMC on its relationship with cocoa subsector highlights the following responses concerning the cocoa sector:

- ✓ CARI involvement in the cocoa subsector started in 2014.
- ✓ ACIDI/VOCA assisted CARI to establish her cocoa seed garden and budwood nursery in 2014 and 2015, 2 cocoa garden blocks were established.

²⁶ key informant interview (k ii) Project Staff - Nimba, grand Gedeh and Rivergee Counties

²⁷ Cooperative Development Authority (CDA), Monrovia

- ✓ CARI staff provided technical facilitation for ACDI/VOCA and other cocoa sector partners workshops in cocoa production management.
- ✓ CARI provided bud wood and grafting materials to the ACDI/VOCA supported private seed garden and nurseries establishments²⁸.
- ✓ The Ministry of Agriculture is not prepared to take over the sectorial leadership of the cocoa subsector. The relationship between the MOA and the cocoa sector working group is good. MOA chairs the cocoa sector working group and the group meets regularly.
- ✓ ACDI/VOCA LIFE project have been supporting the cocoa subsector working group since its establishment and served as the secretariat. Now that the ACDI/VOCA LIFE project has ended, MOA anticipates that other actors in the cocoa sector working group to take over the secretariat.
- ✓ The actors in the cocoa sector are working in every part of the Country to build smallholders cocoa farmer's capacity into the modern improved farming system. As a result of training received from Farmer Field Schools provided by through ACDI/VOCA LIFE project and other actors in the sector, cocoa farmers are now producing grade one cocoa instead of FAQ.
- ✓ The LIFE Project has made some significant impacts within the cocoa sector of Liberia, such as smallholder farms rehabilitation, input use, farmer group formation, FFS for smallholder farmers, improved cocoa processing, etc. Cocoa farmers in Liberia are now producing grade one cocoa due to the ACDI/VOCA LIFE project.
- ✓ The LIFE project has collaborated with MOA, CDA and LCUNA to establish 24 Cocoa farmer cooperatives and 20 cocoa farmers saving and credit unions in the six project locations.
- ✓ The project signed a fixed obligation grant with eight local Argo-institutions to manage training sessions at 117 farmer field's school across the six project Counties.
- ✓ The LIFE project play significant role in the establishment of the cocoa sector working group.
- ✓ LIFE III project has facilitated the establishment of more than 40 private-sector cocoa nurseries development around the six project counties for farmers to have easy access to improved cocoa seedling to their farms. LIFE III cocoa nurseries also helped sustain the production of hybrid cocoa seedling in Liberia. LIFE III has facilitated the establishment of seed garden at the Central Agriculture Research Institute (CARI) in Suakoko, Bong County, and the CWAP seed garden in Saclepea, Nimba County.
- ✓ National cocoa strategy has been signed but implementation has not been easy. The LACRA act is still in process, awaiting approval by the National Legislator²⁹.

²⁸ Tree Crop Division, CARI, Bong County

²⁹ Sector Coordinator of the Ministry of Agriculture and Chairman of the Cocoa Sector Working Group; CDA Department of Gender, Youth Promotion and Program Department; Members of Tree Crop Department of CARI in Bong County, Ministry of Agriculture County Coordinator in Nimba County; Manager of CWAP in Saclepea, Nimba County; Tarpeleseh Farmer Cooperative in Nimba County; Town Elder, Women Elders representatives of the Credit Union; Business Manager of the Cooperative and Credit Manager of the Credit Union

4.1 Relevance

The key changes the LIFE III project introduced at the national level were transforming the ideas of farmers on the management of their cocoa. Before the intervention of ACIDI/VOCA, farmers did not know the basic techniques, such as husbandry techniques, proper harvesting processing and grading, group formation, farming as a business, income generation and drying. Because of the intervention, farmers have rehabilitated in excess of the projected 0.4 hectares up to 2.6 hectares. In addition, farm productivity has increased from below 180 kg per hectare to above 250 kg per hectare.

At the national level the LIFE III project made significant contribution to the national cocoa sector development. LIFE III

1. Developed the capacity of CDA field staffs
2. Empowered CDA to do joint monitoring with ACIDI/VOCA.
3. Facilitated CDA to do farmer group formation, training, certification into cooperative and transformation of VSLA into credit unions.
4. Was a major facilitator in the formation of the Cocoa Sector Technical Working Group (CSTWG), including the secretariat.
5. Empowered the LCUNA in the formation of their office, board and management Team.
6. Created linkages among agro dealers/services providers, produce buyers, farmer groups and cooperatives.
7. Built the capacity of CARI in establishing two demonstration nursery sites.

To authenticate the information about CARI relationship with ACIDI/VOCA, the plans for CARI to improve the planting materials and technologies availability locally include:

- ✓ The establishment of central seed garden and smaller nurseries in other counties.
- ✓ Controlling black pod through local methods.
- ✓ Using integrated permanent trees such as mahogany, *Terminalia Ivorensis*, and *superba* in the establishment of new cocoa plantations.

Way forward

- ✓ Continue rehabilitation of cocoa farms.
- ✓ Continue the pruning method on the aging cocoa farms, etc.
- ✓ Establish new hybrid nurseries and pursue the development of clones.

Some improved planting materials available at CARI and community nurseries due to their disease resistance, wide adaptability to soil types, drought tolerance, early fruiting and high pod rates include

- MA-12
- ICS-1
- RB-49
- MAN-C77.³⁰

³⁰ Tree Crop Division, CARI, Bong County

Cross checking with respondents showed that ACIDI/VOCA project successfully achieved all of its project goals and objectives. However, there is need to extend the project success to non-recipients outside the project scope. When evaluators asked the project staff if there were other cocoa sector areas that the LIFE III project did not address, the staff response was that all of the cocoa sector areas were addressed by the LIFE III project.

The most positive intervention of the LIFE project has to do with the establishment of the Farmer Field Schools across the project locations in the six counties (Bong, Lofa, Gbarpolo, Nimba, Grand Gedeh and Rivergee). These Farmer Field Schools brought about changes in farmers' attitudes towards cocoa as an income generating crop. The changes are apparent in the way farmers adapted the implementation of good crop husbandry and management of their cocoa farms, as it was found that 76% of farmers who received training are utilizing the techniques and methodologies taught at the FFS on their farms. The introduction of Farming as a Business to the beneficiaries of the project is also a positive intervention because it has built the capacity of farmers in that community: in the LIFE III intervention areas, farming groups are active in community gardening and livestock production. Another positive change is farmer group formation, as farmers work together as opposed to working alone. According to the Assistant Registrar of CDA, ACIDI/VOCA provided 30% of seed to start and assisted farmers in FaaB. This enabled farmers to see farming not just as a tradition but as a business for improved livelihood and sustainability.

The focused group discussion with Kwapaigeh Cocoa Farmer Cooperative revealed that eight Farmer Field Schools were opened in sSnoyea in 2009 with three technicians: Lavalitabolo, a FaaB technician, James Sengbe, a crop diversification technician, and Amos Kerkula, farmer organizer. The selection was based on the organization and readiness to improve cocoa farming methods. The key changes the LIFE III project brought included changing farmer groups to cooperatives, adding value to cocoa by producing cocoa-related products, using farming as a business and treating cocoa with respect and value.³¹

Another innovative intervention of the project was to build the capacity of farmer groups and VSLCs to obtain CDA certification, which increased their chances of accessing loan from financial institutions such as Central Bank, Commercial Bank, Micro Finance Institution and Agro dealers and producer group. Access to finance has been a major challenge for farmers and farmer groups. The rationale for farmer groups getting loan was to improve their production capacity and empower them thereby making them self-sustainable. Through the LIFE III finance intervention two farmer groups were able to receive loan of US\$4,400 from the Central Bank of Liberia in 2015. When asked about VSLCs and credit unions, Thomas Malike, the Assistant Registrar of CDA, answered that a village saving loan association is about saving in order to help farmers. Farmers' association is a group of farmers coming together to organize themselves for better productivity. The CDA works closely with ACIDI/VOCA to help cooperatives that were formed as a result of the LIFE III project. CDA also helped in organizing village saving loan a Club that was later turned in to credit union. It is possible for farmers to get loans through the VSLC depending on the structure and

³¹ Focused group discussion with Kwapaigeh Cooperative, Gbonota, Sanoyea, Bong County.

arrangement. In order to be a part of a credit union its requirements must first be met and all necessary fees paid.³² The relevance of the credit Union include the following:

- ✓ CDA collaborated with ACIDI/VOCA LIFE project to train and certify 24 farmer associations as farmer cooperatives and 20 farmer saving groups as credit unions in Bong, Gbarpolu, Grand Gedeh, Lofa, Nimba and River Gee Counties.
- ✓ A total of 44 farmer groups were certified by CDA through the ACIDI/VOCA LIFE project.
- ✓ ACIDI/VOCA, CDA and LCUNA trained a total of 1,958 VSLC members (1766 men, 192 women) in rural finance.
- ✓ 50 million L\$ has been generated by the twenty credit unions established in the project communities.
- ✓ ACIDI/VOCA introduced a Warehouse Receipt System for cocoa farmer groups to help them bulk their cocoa and sell it together. Group bulking for sale is a positive tool for engaging the market.
- ✓ Cocoa farmer cooperative members are working together to improve the productivity of their farms.

The evaluators found that the technologies mostly adopted were rehabilitation (de-shading, pruning, disease control), post-harvest techniques (fermentation, solar drying, beans cutting and grading). Factors that had influence on the adoption rate were the increase in productivity and the improvement in cocoa quality to Grade quality.

Through the income diversification scheme as well as from the formation of VSLA and transformation into credit unions women's participation increased in total project intervention activities compared to their mere involvement in cooperatives that are male dominant. A key informant interview with Thomas Malike, Assistant Registrar of CDA admitted that the LIFE III project also involved women's groups. ACIDI/VOCA helped farmers and especially women in the field of cocoa production by providing knowledge, building capacity and encouraging women to actively get involved alongside their male counterparts. ACIDI/VOCA has encouraged the equal participation of both genders in the program.³³

Randall T. Mulbah from Kwapaigeh Cocoa Farmer Cooperative in Bong County expressed in a focus group discussion said that the changes brought by the project include the development of farmer groups to cooperatives, adding value to cocoa by producing cocoa related products, using farm as a business and treating cocoa with care. The most positive intervention in terms of behavior change is the better way farmers currently treat cocoa, as they are now profiting more from their farms. Connected to this, farmers used to sell their produce individually, but can now sell in bulk for more profit.³⁴

In order to understand the relevance of the impact of the LIFE III project, the evaluation posed questions to the Kwapaigeh Cooperative, Gbonota, Sanoyea, Bong County about the

³² Assistant Registrar CDA, Bong County

³³ Key informant interview of Assistant Registrar, CDA, Bong County.

³⁴ Focus group discussion with Kwapaigeh Cooperative, Gbonota, Sanoyea, Bong County.

situation before and after the project when it comes to cocoa production. The following results were offered by the discussants.

Before

Farmers picked cocoa raw and put on sun
Farmers did not know about bulking
Less planting and production
No plan for farming

Now

Farmers know about fermentation
Farmes do bulking
More planting and production
Proper planning of farming

The evaluators also questioned the ways the discussants are going to sustain the gains made. The majority of the group members said the gains will be sustained by continuing to apply everything taught during the project in order to continue to improve on what has been acquired.

4.2 Effectiveness

There has been no delay in ACDI/VOCA support since the commencement of the LIFE III project. ACDI/VOCA gave the farmers what was promised in order to improve their livelihood in a timely manner. Currently, the farmers are applying the techniques provided by ACDI/VOCA. To the extent, ACDI/VOCA empowered Center for Women in Agriculture Program to open commercial nurseries in Saclepea, Flumpa and Karnwee with affordable seedling prices for farmers. This strategy was to improve the production and farms side across the six counties. Farms that were small are now big. Since the intervention of ACDI/VOCA, farmers can now carry on good farming practices, that include but not limited to fermentation, dry their cocoa and store it, some understand the basket system where farmers pass through the cooperative to sell their cocoa, some farmer know how to make nurseries for themselves and some know the planting process and farm management.

The evaluators asked representative of the farmers across the six counties on who they attribute the success or result to and why? “The result of our success can be attributed to ACDI/VOCA because we never had training on how to improve our cocoa farming and how to improve our income generation until ACDI/VOCA intervention. With this intervention, we have learned a lot from ACDI/VOCA”³⁵. According to the respondents, their livelihood conditions were very low due to the lack of empowerment prior to the project. Up to date, the project has brought significant changes in the lives of smallholder cocoa farmers, farmer organizations and developed service providers. Women’s participation in farm activities has increased, thereby improving their income and ability to support their families. The project has also made meaningful contributions even to non-beneficiaries, as they are able to learn from the beneficiaries on farm management methods and techniques.

The Farmer Field School was very effective in that it took farmers from the traditional cocoa farming system of little care and attention and low yield to the improved management and

³⁵ The statement was said by all the Cooperative and farmers interviewed across the 6 Counties. Farmers were very happy for the intervention of ACDI/VOCA and pray that ACDI/VOCA Project Continues. They all attributed the result of their success to ACDI/VOCA

value chain system that involves good husbandry and post-harvest practices that resulted in increased productivity.

The Farming as a Business was effectively adopted by participating community groups. The summer garden production calendar was the most utilized technique. Because of the low literacy rate record keeping and budgeting were difficult to utilize.

Farmers were able to improve their productivity because of the training provided by ACDI/VOCA. As a result of the training and input and market linkages provided by the project, farmers were able to diversify, grow and market more nutritious crops. This improved their income sources and livelihood.

Community facilitators were effective in getting individual farmers to adopt improved agriculture technologies because the community related to them easily and there was an effective communication in their local vernacular.

The grant to agro dealers was very effective in facilitating the service provision through the establishment of Farmer Field School and cocoa nurseries. Training was very effective, especially when it came to establishing and caring for nurseries. However, the effectiveness of seedlings (removal from nurseries by farmers) can be improved by providing the farmers improved clones in order to allow them to establish their own nurseries. Establishing national seed gardens could make improved clones available, accessible and affordable to cocoa small holder farmers. According to ACDI/VOCA project staff from Gbarpolu and Lofa, the establishment of nurseries has been helpful to farmers. Farmers were trained to bring up their cocoa the right way. The establishment of nurseries plays a major part in the project to enhance farmers' farming activities. Farmers' production has increased, to a large extent over the years during which farmers are going into their own nurseries.³⁶

The establishment of nurseries in the project areas has been helpful to the farmers, as this has helped them access improved cocoa seedlings in their communities. The cost of cocoa seedlings at the nurseries is affordable for more farmers, which encourages many cocoa farmers to increase their cocoa farms every planting season.³⁷

The focus group discussion with Kwapaigeh Cooperative, Gbonota, Sanoyea, Bong County revealed that the most commonly adopted technology is debarking and turning palm wine into a chemical used to getting rid of diseases and fermentation. The most positive influence on the adoption rate is the use of fermentation, which allows producing of high or grade A cocoa. The farming methods were very effective because the Farmer Field School was utilized in order to help farmers produce good cocoa and improve farming activities.

In the Kwapaigeh Cooperative the Farmer Field School that used a community facilitator was very effective. The working relationship between farmers and facilitators was cordial to the

³⁶ Key informant interviews of project staff in Bong and Lofa Counties, and project staff in Grand Gedeh, Nimba and River Gee Counties.

³⁷ Key informant interview of project staff.

extent that facilitators went on farmers' farm on a daily basis to check on farmers and to see whether they were applying what they were being taught. The provision of agricultural training, inputs and market linkages was effective in promoting diversification and growing more nutritious crop. This effectiveness led to selling more products while also being able to do other farming alongside cocoa.³⁸

The evaluation team also captured the effectiveness of the LIFE III project in a focus group discussion with Quardu Masini Cocoa Farmer Cooperative, Quardu Gboni, Voinjama District, Lofa County. This FGD showed that the LIFE III project changes came through the Farmer Field School, which showed farmers the steps of growing cocoa, as well as farm management. The most positive intervention of the LIFE III project was the way it transformed farmers' attitudes towards cocoa farming. Farmers are utilizing the trainings and making more profit from cocoa than before, when they did not have knowledge of cocoa farming.³⁹

A third focus group discussion with Quakulekpeley Cocoa Farmer Cooperative, Molowamu Town, Bokomu District in Gbarpolu County revealed that the key changes the project incurred included the move from farmer groups to cooperatives, adding value to cocoa by producing cocoa related products, using farm as a business and treating cocoa with respect and value. The project made farmers aware of the important of cocoa in improving their lives.⁴⁰

A cross-session interview with Bukayma Cocoa Farmers' cooperative, Tumuquelleh, Bopolu District in Gbarpolu County showed that the Life III project promoted farmer groups in different ways. Before the project farmers did not manage cocoa because they never knew its value, and hence did not appreciate it. ACIDI/VOCA taught the cooperative planting methods that included de-barking of trees and using fermentation. These methods helped farmers to reduce camp pit very well from farm to farm. Aside from this agricultural training provided, farmers were linked to buyers.⁴¹

4.3 Overall impact of the LIFE I- LIFE III

A good practice is that ACIDI/VOCA was able to train farmers on how to manage and maintain their farms. Also, it was positive that farmers are empowered to take care of their families through the improved farm management and financial management practices gained because of the LIFE III project. LIFE III has furthermore contributed to increasing household income and education of beneficiaries. Additionally, there has been a considerable change regarding the fertilizers, pruning, farm rehabilitation, post-harvest, fermentation process, drying and storage, preparation of nurseries, pegging, FaaB and farm management.

³⁸ Focus group discussion with Kwapaigeh Cooperative, Gbonota, Sanoyea, Bong County.

³⁹ Focus group discussion with Quardu Masini Cocoa Farmer Cooperative, Quardu Gboni, Voinjama District, Lofa County.

⁴⁰ Focus group discussion with Quakulekpeley Cocoa Farmer Cooperative, Molowamu Town, Bokomu District, Gbarpolu County.

⁴¹ Focus group discussion with Bukayma Cocoa Farmers' Cooperative, Tumuquelleh, Bopolu District, Gbarpolu County.

Thanks to the intervention of ACDI/VOCA,

- Farmers can now carry on good farm practices.
- Some farmers are able to carry on fermentation, dry their cocoa and store it.
- Some farmers understand the basket system, where farmers pass through the cooperative to sell their cocoa.
- Some farmers know how to make nurseries for themselves and some farmers know the planting process.
- Farmers have decided to continue working together and to continue putting into practice what ACDI/VOCA taught them.
- Farmers believe that they are already trained and can use their skills to improve the cocoa sector.
- Farmers are trained to access information and technology through their mobile phones and radio.
- Small farm owners are expanding their farms, and have knowledge in adding value to cocoa.

Before ACDI/VOCA Life III project cocoa farmers were not producing much cocoa due to lack of modern knowledge and skills, as well as the lack of hard breed cocoa seeds. ACDI/VOCA taught farmers about the establishment of nurseries, under-brushing, pruning, de-shading, disease management and weeding, among others. The LIFE III project brought significant changes in the cocoa sector of which the key cocoa sector stakeholders continue practicing. For example, ACDI/VOCA has empowered CDA to work with farmers. Even further, it has managed to empower LCUNA and plays a pivotal role in the creation of CSTWG and its secretariat. The Evaluation interviewed a staff member from ACDI/VOCA and he said “Due to ACDI/VOCA LIFE project Liberia cocoa sub sector has recognized worldwide through linkages with foreign production companies, which include the World Trade Organization, etc.”⁴² The evaluation team validated the information with Sebehill Cocoa Farmer Cooperative in Lofa County and found out that it had been linked with Foreign Cocoa Production Company.

Proof of improved practices or behavior that can be linked to the LIFE III project approaches showed that graduates from the Farmer Field Schools are applying the improved cocoa farmer management techniques such as nursery management, planting distance of three by three meters, removing of unwanted trees and black pod, improved harvesting techniques and good fragmentation practices and management of dry cocoa beans. It is clear from the focused group discussion conducted with the Quardu Masini Cocoa Farmer Cooperative, Quardu Gboni, Voinjama district and Sebehill Cocoa Farmer Cooperative, Kolahun District, both located in Lofa County, that the methods taught by LIFE III have promoted behavior change as farmers are utilizing trainings from the farmer field days and that the community

⁴² Key informant interview with Behneveleh Jones, Project Staff, ACDI/VOCA

facilitators strategy was effective as the facilitators went on farmers' farms on a daily basis to check whether farmers were applying the trainings they were taught.⁴³

The Farming as a Business training has been very significant in impacting many cocoa farmers' livelihood in observant of seasonal planting calendar, record keeping and improved farmer management practices.

The establishment of village saving associations across the project counties had proved vibrant. The training of VSLA members and officials in saving and credit have built the saving and loan portfolio for community members in accessing loan from the VSLA.

The project signed a fixed obligation grant with eight local agro dealers to manage the training sessions at 117 Farmer Field Schools across the six project counties and out of eight local agro dealers, four signed grant to manage the commercial nurseries across the counties. It was made known that ACDI/VOCA worked with selected farmers across the six counties. The total farmers worked with across the six counties included 13,604. The information was validated by interviewing Cooperatives and partners and was authenticated. RAA works in two circles in farming field school⁴⁴.

The LIFE III project has facilitated the establishment of more than 40 private-sector cocoa nurseries in the six project counties, which aim to ease farmers' access to improved cocoa seedlings.

LIFE III cocoa nurseries also helped sustain the production of hybrid cocoa seedling in Liberia.

LIFE III has facilitated the establishment of seed garden at the Central Agriculture Research Institute (CARI) in Suakoko, Bong County, and the CWAP seed garden in Saclepea, Nimba County.⁴⁵

LIFE III project trained cocoa farmers in quality control and warehouse management for farmers to bulk their cocoa and to sell it together. The project trained farmers to produce first grade cocoa.

The project also provided a fixed grant to CWAP in order to conduct Farmer Field School and commercial cocoa nurseries in Nimba and Grand Gedeh Counties. CWAP was trained by ACDI/VOCA-LIFE III project as a local partner to provide services in these two counties. Basically, CWAP was trained to carry on the following activities in LIFE III recipient communities:

- Conducting Farmer Field Schools (a total of 45 sessions were conducted in Grand Gedeh and Nimba Counties: Phase-I included 20 FFS sessions and phase-2 25 FFS Sessions. There were between 30 and 45 participants per sessions, with an average of 35).
- Establishing commercial nurseries.
- Grading procedures and warehouse processing.

⁴³ Focused group discussions with Quardu Masini Cocoa Farmer Cooperative, Quardu Gboni, Voinjama District, Lofa County and Sebehill Cocoa Farmer Cooperative, Kolahun District, Lofa County.

⁴⁴ Key informant interview of Executive Director of RAA in Lofa County.

⁴⁵ Key informant interview of Sector Coordinator, Ministry of Agriculture

- Training farmers on how to produce first grade cocoa.
- Removing undesirable trees, leaving only desirable trees with economics value to the farmers.

Lesson learned in FFS

- Helping farmers to understand cocoa nursery preparation;
- The use of technical agro-input and monitoring agro-input use;
- Monitoring flowering, pod protection and pod count;
- Yield determination and yield projection;

Cocoa farmers are benefiting from what they were taught to do by ACDI/VOCA. They are utilizing the knowledge on their farms in order to increase their production, first harvest after two years provided a high yield of 2 to 3 tons per hectares per year. The average pod count per tree lies at 74, with beans count ranging from 45-50 per pod.

The LIFE III project was useful, because the project helped to improve the capacity of cocoa farmers in producing first grade cocoa, as well as to help with quality control management that improved the livelihood of cocoa farmers.

A focus group discussion conducted in Cooperatives across the 6 counties showed that evidence of improved practices or behavior change was due to the LIFE III project: methods taught in the project have led to improved production. Farmers' capacities have been built and they are now applying improved farm management techniques.

Services provided to farmers include monitoring and providing them with regular training in modern cocoa farming as well as helping them boost output. Cocoa farmer stakeholders also make sure that activities are timely implemented in order to achieve the required objectives.⁴⁶

“The most positive intervention in terms of behavior change is the way we treat or behave towards cocoa. Now is better and more profiting than the way we treated it before, we acted careless towards our produce. Before we were not practicing the right method due to ignorance but now we know how to treat our produce. Also, we used to sell individually but now we do bulk selling and get more profit”.

4.4 Sustainability

“We as farmers agreed and tax ourselves L\$2,500 for three months during this cocoa season. Proceeds received will be deposited into an account and be used to improve the cooperative.”⁴⁷ Farmers have gained husbandry techniques, have learnt about value chain addition, as well as about development of nurseries and cocoa planting. Based on these trainings farmers say that they can sustainably manage their own farms, even though they are requesting that cooperatives should be empowered financially to buy their cocoa. Besides

⁴⁶ FGD with Cooperatives across the six counties; Also Key informant interview with project partners

⁴⁷ Key informant interview Cocoa Cooperatives across the six counties.

FFS, some farmers made their own nurseries under ACDI/VOCA and applying the same on their farms. The cocoa production will be sustained based on the knowledge of the farmers on improved farm management. The evaluation revealed that majority of the farmers has improved farm management skills. This will therefore make cocoa production sustainable. The capacities of local agro dealers have been strengthened to continue the management of commercial nurseries in the community where farmers can access necessary information and technologies at the end of the project.

However, the national cocoa strategy has been signed. The strategy implementation has not been easy. The LACRA act is still in process, awaiting approval by the national legislators.⁴⁸ Even though this national strategy has been signed, it needs to be reviewed within the next 3-5 years to take into consideration the needs and changes in the sector. The evaluators conducted key informant interview with the District Agriculture Officer, Voinjama District, Lofa County, and the County Agricultural Coordinator, Gbarpolu County said that “The government has done a bit far in the cocoa sector. Thanks to ACDI/VOCA for providing training and linking farmers to buyers, things are doing pretty good in the cocoa sector in Lofa County. The relationship between the farmers and Ministry of Agriculture (MOA) are good in terms of monitoring, providing subsidies, training, etc. The relationship between the MOA and the cocoa sector working group is very cordial, because of this the sector has improved over the years due to the cordial working relationship in terms of monitoring and capacity building. MOA is working with stakeholders to ensure that local technology is available all year round. The project is part of ACDI/VOCA plan to help improve the cocoa sector by training and building the capacity of cocoa farmers and linking them to buyers both locally and internationally, also providing high breed cocoa for planting.”⁴⁹

Regarding the sustainability of the cocoa sector, the evaluation team conducted key informant interview with the Sector Coordinator on the extent GoL is taking towards the sectorial leadership for the development and promotion of the cocoa subsector. The Sector Coordinator and Tree Crop Division in CARI lamented that the Government is not prepared to take over the sectorial leadership of the cocoa subsector for the fact that the national Cocoa strategy for the establishment of LACRA document has not been signed. The relationship between the MOA and the cocoa sector working group is good. MOA chairs the cocoa sector working group and the group meets regularly. ACDI/VOCA’s LIFE project has supported the cocoa subsector working group since its establishment and served as the secretariat. Now that the ACDI/VOCA LIFE project has ended, MOA anticipates that other actors in the cocoa sector working group to take over the secretariat. The actors in the cocoa sector are working in every part of Liberia to build smallholder cocoa farmers’ capacity into the modern improved farming system. As a result of training received from Farmer Field Schools provided through ACDI/VOCA LIFE III project and other actors in the sector, cocoa farmers are now producing grade one cocoa instead of FAQ. “We at the MOA have known and associated with the ACDI/VOCA LIFE I, II and III projects from 2008 to the end of the LIFE Project in

⁴⁸ Key informant interview of Sector Coordinator, Ministry of Agriculture.

⁴⁹ Key informant interview of District Agriculture Officer, Voinjama District, Lofa County.

April 2017. The LIFE Project has made some significant impacts within the cocoa sector of Liberia, such as smallholder farms rehabilitation, input use, farmer group formation, FFS for smallholder farmers, improved cocoa processing, etc. Cocoa farmers in Liberia are now producing grade one cocoa due to the ACDI/VOCA LIFE project. The LIFE project has collaborated with MOA, CDA and LCUNA to establish 24 Cocoa farmer cooperatives and 20 cocoa farmers saving and credit unions in the six project locations. The project signed a fixed obligation grant with eight local agro-institutions to manage training sessions at 186 farmer field’s school across the six project counties. The LIFE project has played a significant role in the establishment of the cocoa sector working group.”⁵⁰

4.5 Lessons Learned

The formation of 24 cocoa farmer cooperatives and 20 farmer saving and credit unions, facilitation of Farmer Field Schools and commercial nurseries by partners across the project counties are the most significant results of the LIFE projects, which will continue to inform future cocoa sector activities in Liberia and possibly the region.

4.6 Cross –Cutting Factors

Farmer level training messages continue to encourage expansion into protected areas, because cooperatives leaders are using the lesson learned into unreached project communities to mobilize members in VSLA and farmer association formation.

Males dominated the membership of the farmer cooperatives from the outset. Because of the underrepresentation and underparticipation of women and youth in the cooperatives, ACDI/VOCA raised concerns about whether the cooperatives were benefiting females and youth members. The concept of gender mainstreaming continues to pose challenges: understanding gender issues and mainstreaming them is essential for effective and balanced development in Liberia. However, the Farmer Field School records show that 37% of the FFS trainees were women, while 63% were men.

Training Participation Disaggregated by Area and sex

No.	Areas of Training	# Female	# Male	Total
1	Business and Financial Skills	2	16	18
2	CDA Capacity Building	4	15	19
3	Leadership and Governance – LeGo	12	110	122
4	Loan Management and Administration -CBO	75	144	219
5	Farming as a Business –FaaB	379	734	1113
6	Crop Diversification	654	859	1513
7	Farmer Field Schools	1482	2472	3954
8	Artisanal training in processing cocoa and cocoa by-products	150	0	150
	Total	1126	1878	3059

⁵⁰ Key informant interview of Michael Titoe, Sector Coordinator, Ministry of Agriculture.

4.7 Project Gaps/Challenge

The evaluation study with respondents revealed that the main challenge still faced concerns the lack of money for cooperatives to buy farmers' cocoa. Farmers end up carrying their cocoa to mid-level cocoa buyers on lower price. The main challenge that farmers face concerns the fact that some of them do not understand the formation of the cooperative, and as a result go to middle buyers to sell their cocoa.

In addition, the cooperatives do not have money to buy cocoa, thereby leading farmers to sell their cocoa at a lower price to middle buyers. Another major challenge remains the bad road conditions which make it difficult for buyers to reach farmers and the lack of fertilizers and solar dryers.

The want of funding opportunities for cooperatives and credit unions is also very alarming. This especially concerns farmers when the farming season is about to start. The issue of cocoa pricing is very important, but cooperatives often sell Cocoa at a very low price despite the high grid of cocoa produced. Even further, the limited access to buyers can lead to cocoa to decrease in its quality and sometimes make it spoil as it stays in the warehouse too long and sold at a low price. Farmers experience this as very discouraging. Parasites and disease too remain a challenge as long as pesticide and fungicide are not available to farmers. The LIFE III project was very useful to farmers because they have been able to acquire knowledge in adding value to cocoa, and as a result are now expanding their farms. This is also evident from the increasing demand of nurseries within communities. The size of these nurseries too has grown, in some cases almost doubled.

5.1 Key findings

Based on the analysis of both qualitative and quantitative data, the evaluation team offers the following key findings regarding the LIFE III project:

Training: Improved Farm Management

- The project successfully trained a significant number of smallholder cocoa farmers on improved cocoa farm husbandry across the six target counties. Based on the findings from the evaluation, 8,600 (89%) of the project's target farmers received training in Farmer Field Schools. It was also found that more than three fourths (76%) of the participating farmers were applying at least three of the techniques taught in these schools.
- Application of the training has more than doubled farmers' average yield. Farmers now produce an average of 256 kg/ha from the baseline value of 180 kg/ha, which must be considered an impressive increase.
- Farmers have increased their cultivation areas by an average of one hectare, mostly through rehabilitating more of their existing old farms.

Capacity Building of Producer Groups/Cooperatives

- The LIFE III project worked extensively with farmer groups, cooperatives and VSLAs and thereby built capacities. The project also resulted in 20 new cooperatives

receiving certificate from CDA. However, some newly certified cooperatives did not have banks accounts at the time of evaluation.

- At the national level, CDA and LCUNA have improved capacity to more effectively serve their members. The project trained 19 CDA staff and conducted 90 joint supervision visits along with CDA staff to monitor and provide support to cooperatives and VSLCs.

Financial Services: Facilitate Agriculture Lending

- The project LOP target amounted to US\$500,000. Two cooperatives in Lofa received US\$4,400 while other farmers received over US\$16,284 through VSLCs. Out of 5,000 farmers, 4,152 farmers received loan. The total amount of 376,682 was disbursed to farmers as loan but could be more than this amount if 2013 and 2014 records are found
- The project established market linkages among actors within the cocoa sector value chain to foster inputs and pre-financing arrangements between farmer groups and agro dealers. As a result, 59% of cocoa farmers have access to financial services, either received cash loans or pre-financed inputs.
- Despite these initiatives by the project, access to finance remains a major challenge for farmers, as the financing they receive is typically enough to support only one acre.

Inputs: Develop agro dealer

- The project worked with agro dealers to provide improved planting materials to farmers. WEINCO, one of the project partners, provided agrochemicals including fertilizers, pesticide, fungicides and other inputs such as watering cans to farmers. In addition, Catalyst, CWAP, RAA and WEINCO established commercial nurseries to increase access farmers' access to improved planting materials through the facilitation of the project. However, it was found that almost half of the farmers (47%) are establishing their own nurseries. As a result, very few farmers purchase seedlings from commercial nurseries.
- The planting materials used in these commercial nurseries came from Côte d'Ivoire, Ghana and the University of Reading, United Kingdom. This collaboration with the University of Reading enabled the acquiring of high yielding disease resistant cocoa materials and the establishment of a cocoa seed garden at the Liberia Central Agriculture Research Institute.
- All in all, the three nurseries produced over 1.3 million cocoa seedlings.

Market Access: Improve Market Information

- Farmer used to face difficulty in accessing information on current market price on cocoa. Farmers had limited information of cocoa price. Their cocoa stay in the warehouse for long and sold at a low price. The LIFE III intervention has made significant progress for cocoa price information dissemination to farmers. ACDI/VOCA, CDA, cooperative and farmer association provide current market price on cocoa through infomercial activities (Radio, Posters and SMS). LPMC provides

monthly cocoa bulletin while ACDI/VOCA in conjunction with CDA ensures dissemination of cocoa information to farmers.

- The main sources of market information on cocoa prices received by farmers come from: Cooperatives-fellow farmers and Radio.
- Farmers are now able to refuse low prices offer by middlemen who might buy their cocoa at a lower price.
- Of the 21 Cooperatives and farmer groups were interviewed, 76% admitted providing updated information on cocoa price. That is Of the LOP target of 12,000 only 9,120 farmers have access to current market price on cocoa. The progress against indicators value to date shows 16,228 farmers who have information on cocoa price. This shows that there were other farmers who were not sponsored by this project but benefited indirectly on cocoa price.
- Forty three commercial nurseries were established by partners. The nurseries produced over a million improved cocoa seedlings.

6.1 Summary

The Livelihood Improvement for Farming Enterprises (LIFE) program that began in February 2008 and ended in May 2017, was a three-phase project funded by the USDA. Its overall aim was empowering smallholder cocoa farmers, farmer organizations and service providers to improve their livelihoods through increased productivity and quality of cocoa, and access to key inputs, market knowledge and linkages within the cocoa sector value chain.

The LIFE project has successfully contributed to the transformation of the Liberian cocoa sector from the state of rapid decline to a vibrant sector that has stimulated private sector investment. This has been established through the formalization and growth of strong farming cooperatives and private sector input providers throughout the six counties of the cocoa belt in Liberia.

LIFE phase I project, costing US\$ 3.9 million, ran from February 2008 to September 2010 and targeted Bong, Lofa and Nimba counties, and had 5600 farmer beneficiaries.

LIFE phase II, costing US\$ 7 million, ran from October 2010 to September 2013, and targeted Bong, Gbarpolu, Grand Gedeh, Lofa, Nimba and River Gee counties, and had 10,600 farmer beneficiaries.

The final LIFE III phase, costing US\$9.1 million, ran from October 2013 to May 2017, and covered the same six counties as the preceding LIFE phase II – Bong, Gbarpolu, Grand Gedeh, Lofa, Nimba, Gbarpolu, Grand Gedeh and River Gee counties.

A baseline survey initiated in 2014 provided pre-intervention values for indicators defined in the projects' PMP with contextual information. New and revised indicators were recommended and subsequently LOP targets were revised, against which the LIFE III end of project is being evaluated.

LIFE III focused objectives were:

Improve farm management and income diversification capacity
Increase the business capacity of the producer organizations
Facilitate rural access to financial services
Strengthen commercial channels for input supplies
Facilitate market access and market information

The evaluation captured qualitative and quantitative data. The evaluation targeted smallholder cocoa farmer beneficiaries and non-beneficiaries, farmer organizations, agro dealers and developed service providers to improve livelihood through increased productivity, quality and increased access to key inputs market knowledge and linkages. The evaluation also focused on partners, stakeholders, other beneficiaries, local authorities and central government and ACDI/VOCA project staff.

The purpose of this final evaluation was to provide an assessment of the results achieved, reasons for levels of achievement or non-achievement, and lessons learned from the LIFE III project.

An assessment of the progress of the project to meet its stated goals and objectives are as follows.

- i.** Assessment of project design, implementation and achievements, including changes in context and review of assumptions.
- ii.** Assessment of the extent to which the project resources have led to achieve the results.
- iii.** Assessment of the effectiveness of the activities undertaken and produced outcomes to meet the project objectives and goal.
- iv.** Assessment of sustainability of project outcomes.
- v.** Assessment of beneficiary rating of project services as stated in the project agreement.
- vi.** Degree to which the project fostered systemic change in targeted market systems and the broader Liberian cocoa sector.
- vii.** Document lessons learned

The LIFE III project through its Farmer Field Schools effectively trained beneficiary farmer groups (farmer associations and cooperatives) in good crop husbandry and post-harvest management techniques, which have succeeded in increasing cocoa productivity and quality. Project beneficiary farmers successfully adapted rehabilitated techniques and upscale targeted rehabilitation area from one acre to 0.8 hectares per participant. Post-harvest fermentation, solar drying and cross cutting contributed significantly to improving cocoa quality from FAQ to first grade.

Sub-contracting FFS training and establishment of cocoa nurseries has develop a cadre of eight service providers within the cocoa sector that can be relied upon to disseminate these technologies and techniques to other non-beneficiary farmers. Nursery development within

participating communities has significantly contributed to establishment of new cocoa farms with new and improved planting materials, as well as bringing new entrants into the cocoa sector.

LIFE III assistance to CARI and CWAP to establish seed gardens to improved clones and the affiliation with University of Reading in the United Kingdom, CRIG in Ghana, CNFA in Côte d'Ivoire, and USDA, the United States, for improved clones is a good start for Liberia to initiate a viable cocoa breeding program and seed gardens in the country.

ACDI/VOCA has been a strong pillar in the establishment of the Cocoa Sector Technical Working Group (CSTWG), providing the secretariat, building the institutional and technical capacities of the CDA and LCUNA, supporting the formation of farmer associations and VSLA's and their certification as cooperatives or their transformation into credit unions.

LIFE III saw the formation of more than 37 farmer associations, certification of 24 cooperatives and the transformation of 20 VSLAs into credit unions. The evaluation found that cooperatives are now capable of mobilizing farmer groups in clusters, training them in FFS, organizing them into VSLAs as well as working with them to upgrade them into credit unions. This is a fundamental basis for local fund generation through membership dues and shares, as well as positioning farmer groups for financial loans.

The LIFE III FaaB training was another intervention that produced positive results: it has formed and built the capacity of farmers into community farming groups that are active in community gardening and livestock production. Even further, it has also contributed to positive farm labor approach as formed farmer groups now work together in "kuus" as opposed to individual farmers working alone. This group workforce transcends into VSLAs and cooperatives. The evaluation found that even though the FaaB concepts of budget and record keeping was difficult to implement at the individual farmer level due to the low literacy rate of the farmers, they quickly adopted the concept of planning, especially for the summer vegetable gardening program.

Income diversification schemes as well as the formation of VSLA and transformation into credit unions significantly increased women's participation in the project intervention activities.

The evaluation further revealed that ACDI/VOCA LIFE III, in coordination and collaboration with LPMC, CDA and rural broadcasting systems, provides monthly update on cocoa price information to cooperatives and farmer associations through local radios (in various vernacular), posters and phone media. Some cooperatives asserted that they also provide radios to farmers to enhance accessing price information, especially in areas outside mobile phone network coverage.

A focal point for the LIFE project was facilitating value-chain pre-financing partnerships between associations and buyers, as well as input-credit mechanisms with agro dealers. The evaluation also revealed that 4152 LIFE III project farmers benefited from financial institutions loan portfolios amounting to US\$376,682 with a repayment period of three years.

Two such farmer groups from Lofa benefited from CBL US\$4,400 loan while other financial institution such as commercial banks, agro dealers and produce buyers provided the rest of the total amount.

156 farmers also benefited from pilot grants for artisanal processing of cocoa by-products from sub grade cocoa.

7.1 Conclusion

Economic growth and development of farmers in Liberia can best be achieved by increasing the knowledge of farmers on improved techniques and technologies that promote the application of improved cocoa husbandry techniques, subsequent increase in productivity and improved management systems. The research team evaluated the LIFE project intervention logic and intrinsic contribution to the cocoa sector development. The Evaluation shows that ACIDI/VOCA LIFE III project contributed immensely to the development of Liberian cocoa sector by building farmers' capacity on FFS, FaaB and capacity building in cocoa byproduct production. Majority of the farmers during KIIs and FGDs agreed and admitted that their capacity has been built by ACIDI/VOCA. The evaluation revealed that farmers are applying improved farm management techniques and that their livelihood conditions have been improved. Key informant interviews with partners confirmed that they have been empowered through ACIDI/VOCA and that they in turn work to help strengthen farmers. The evaluation team concludes that despite some shortcomings of the LIFE III project implemented, the economic empowerment of smallholder cocoa farmers, farmer organizations/cooperatives and developed service providers was to a larger extent successful. The shortcoming shows that parasites and disease remain a challenge. If farmer must continue with their farms then pesticide and fungicide must be available to farmers. It was found out that 2013 and 2014 records were not uploaded on the SharePoint. ACIDI/VOCA may have spent over US\$500,000 if the missing records were scrutinized. Only the record review showed that the total of US\$376,682 loan was given to 4,152 farmers against the LOP target of 5,000 farmers. In essence, 848 farmers did not benefit from the loan. The mid-term amount spent is 490,156. Final evaluation amount should not have been less. It is advisable that records keeping should be taken seriously in future project.

ACIDI/VOCA had sponsored 13,604 farmers associations against the LOP target of 12,800 farmers. This showed that there were other farmers who benefited from the LIFE III project though were not planned for. It is also revealed that 16,228 against the LOP target of 12,000 farmers had current information on cocoa price. Analytically, the LIFE III project has benefited and empowered many farmers outside of its plan.

The most positive intervention of the LIFE III project has to do with the establishment of the Farmer Field Schools across the project locations in the six counties (Bong, Gbarpolo, Grand Gedeh, Lofa, , Nimba and River Gee). The Farmer Field Schools brought about changes in farmers' attitudes towards cocoa as an income generating crop. As a result, they adopted the implementation of good crop husbandry and management of their cocoa farms, as it was

found that 76% of farmers who received training are utilizing the techniques and methodology taught at the Farmer Field Schools on their farms. The introduction of FaaB to the project beneficiaries is also a positive intervention because it has built the capacity of farmers in that community. Farming groups are furthermore active in community gardening and livestock production in the LIFE III intervention areas. Another positive change is farmer group formation, as farmers increasingly work together as opposed to working alone. ACDI/VOCA provided finance to Catalyst, CWAP and RAA for the establishment of commercial nurseries. The nurseries has produced 2,180,000 seedlings against the LOP target of 1,200,000 seedlings. This has assisted farmers in Farming as a Business, thus enabling farmers to see farming not just as a tradition but as a business for improved livelihood and sustainability.

Farmers are able to improve their productivity because of the training provided by ACDI/VOCA. As the result of the training and the established input and market linkages, farmers were able to diversify, grow and market more nutritious crops. As a result, they were able to improve their income sources and livelihoods. Because communities related to them easily and because they were able to communicate in local vernacular, community facilitators were effective in getting individual farmers to adopt improved agriculture technologies. The grant to agro dealers was very effective in facilitating the service provision through the establishment of Farmer Field Schools and cocoa nurseries. The Farmer Field School training was very effective, especially regarding the establishment and care of nurseries. The evaluation also revealed that the Government of Liberia is not ready to take over the cocoa sector of Liberia.

All in all, the LIFE project was relevant, effective and efficient. The project has enjoyed great impact. The livelihood of farmers has been improved. Farmers can now manage their farms. Sustainability remains a serious concern because of the lack of capacity of the Government of Liberia to step in.

8.1 General Recommendations

Based on the KIIs and FGDs the following are recommendations provided by respondents

1. That ACDI/VOCA project should continue, and especially focus on rehabilitation and access to finance.
2. That ACDI/VOCA should be able to share plan or scope of operation with other organizations that are involved in cocoa farming so that they will continue and improve the practice of teaching farmers during the LIFE projects.
3. That Farmer Field Schools and assistance to cooperatives should continue, especially to those to those farmers who did not benefit from the project.
4. That ACDI/VOCA should set a system that even after the LIFE III project; farmers will be able to access information, technology and training through other stakeholders.

5. That cooperatives be empowered financially to buy farmers' cocoa.
6. That there should be additional and continuous training provided and chemicals given to farmers to stop diseases from killing the cocoa.
7. That Government should help fix the bad road situation and that NGO's should move in and help with fertilizers, solar dryers and other tools so that farmers will be able to increase production and generate more money from cocoa farming.
8. That Grants or loan should be made available to farmers who did not benefit to help them expand their farms.
9. That more trainings and capacity buildings should be provided to farmers to help them increase the value of their produce.
10. That access to buyers should be available so that there can be competition which will help farmers get a fair price for their cocoa.
11. That there should be pre-financing opportunities for farmers at the start of the farming season for under brushing purposes.
12. That there should be value addition to help farmers generate more income.
13. Future projects should replicate LIFE III project because it is useful to cocoa farmers' livelihood.
14. That cocoa nursery establishment should be continued.
15. That Farming as a Business (FaaB) training programs should continue.
16. That local market development by rehabilitating or constructing farm to market roads should be promoted.
17. That the development of rural access to finance should continue.
18. That project should be implemented in other counties besides the six counties.
19. That lessons learned from LIFE III project should be the basis for any program addressing the cocoa sector in Liberia.
20. That project field staffs should be familiar with project activities.
21. Government of Liberia has to take over after project activities have ended in the community.
22. Government of Liberia needs to take over the leadership of the cocoa sector.
23. Government of Liberia should look at the development of farming cooperative and farming association and provide technical assistance for its members.

8.2 Specific Recommendations

Improve Farm Management

- The FFS methodology is very effective and its use should be continued.
- In order to minimize cheating of farmers at farm gate or in the community, the FFS curricula should include lesson on how to read scales.

- The FFS curricula should emphasize the importance of quality cocoa grades, as quality determines price. Farmers need to understand why they should produce quality cocoa and be able to determine the quality from the moisture content of dried cocoa beans.
- Public-private collaboration which directly improves farm level productivity through knowledge transfer should be strengthened; government and other cocoa sector donors should incentivize local service providers to take a leading role in this endeavor. As the LIFE III project comes to an end, maintaining the gains and expanding the benefits to more smallholder farmer becomes critical.
- The LIFE III project is very important to farmers' economic empowerment. Therefore, more trainings should be provided to other farmers who did not benefit from the LIFE III project

Capacity Building of Producer Groups/Cooperatives

- That CDA and LCUNA continue to improve the capacity of new farmers group that will help serve their members. Hence forth, continue with the certification process so as to create motivation to farmers

Financial Services: Facilitate Agriculture Lending

- Access to loan and financial services for smallholders remains a challenge and has to be increase. While the project has established linkages between farmers, VSLCs and exporters, the loan or pre-financing value received by farmers is usually minimum – mostly for one acre. The current technology for rehabilitating old farms is labor intensive and expensive.
- While the project has strengthened and promoted farmer groups, there are still functional gaps that need to be addressed. Cooperatives should possess bank accounts and be audited at least annually.
- There were other farmers that did not benefit from the loan; therefore loan should be given to those farmers. This will help them expand their farms to a larger extent.

Inputs: Develop agro dealer

- For farms to be expanded to a larger extent there should be commercial nurseries established at strategy areas that farmers can access in order to buy more seedlings.
- In the absence of ACDI/VOCA, there should be many establishment of Private-public partnerships to improve the cocoa sector in Liberia
- Parasites and disease remain a challenge. If farmer must continue with their farms then pesticide and fungicide must be available to farmers.
- There should be agriculture packages such as farm treatment or agrochemical to farmers

Market Access: Improve Market Information

- That cocoa farmers will continuous be given the opportunity to get information on cocoa price.

- That Cocoa current market price should be sent to news media (both print media and electronic media) to be aired to the public. If not done farmers cocoa will stay in the warehouse for long thereby leading them to sell it at a lower price.
- That other partners besides LPMC and CDA help to make information available to cocoa farmers.
- That all the Cooperatives and farmers provide cocoa price information to one another.

Appendices