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## EVALUATION

# USAID/Liberia Smallholder Oil Palm Support Project II Final Performance Evaluation

**August 2017**

This publication was produced at the request of the United States Agency for International Development. It was prepared independently by Social Impact, Inc. under the Liberia Strategic Analysis activity.



# **SMALLHOLDER OIL PALM SUPPORT PROJECT (SHOPS II) FINAL PERFORMANCE EVALUATION: FINAL REPORT**

**A USAID/LIBERIA PROJECT TO IMPROVE SMALLHOLDERS'  
LIVELIHOODS THROUGH OIL PALM SECTOR SUPPORT**

AUGUST 2017

Liberia Strategic Analysis Contract No: AID-669-C-16-00002

## **DISCLAIMER**

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

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# ACRONYMS

BFS	USAID Bureau for Food Security
CAC	County Agriculture Coordinator
CARI	Central Agriculture Research Institute
CDCS	Country Development Cooperation Strategy
COP	Chief of Party
CPO	Crude Palm Oil
CNRA	Centre National de Recherche Agricole
DO	Development Objective
FED	Food and Enterprise Development
FFB	Fresh Fruit Bunches
FGD	Focus Group Discussion
FtF	Feed the Future
FY	Fiscal Year
GOL	Government of Liberia
IR	Intermediate Result
KII	Key Informant Interview
LINSOP	Liberian Initiative for Sustainable Oil Palm
LOE	Level of Effort
LSA	Liberia Strategic Analysis
MOA	Ministry of Agriculture
NES	National Export Strategy
OPTWG	Oil Palm Technical Working Group
PD 12/16	SHOPS II Program Description (Revised 12/16)
PACA	Program Associate Cooperative Agreement
PIDS	USAID/Liberia's Performance Indicator Database System
PMP	Performance Management Plan
RAE	Rainforest Agriculture Enterprise
RSPO	Roundtable for Sustainable Palm Oil
SHOPS II	Smallholder Oil Palm Support II
SI	Social Impact, Inc.
SOW	Statement of Work

USAID	United States Agency for International Development
USAID E3	Bureau for Economic Growth, Education, and the Environment
USAID BFS	Bureau for Food Security
USDA	United States Department of Agriculture
VSL	Village Savings and Loan

# EXECUTIVE SUMMARY

## EVALUATION PURPOSE AND EVALUATION QUESTIONS

This performance evaluation provides an independent and in-depth examination of the progress and achievements of the Smallholder Oil Palm Support (SHOPS II) project in Liberia. The specific purpose of the evaluation is to determine the extent to which the intervention achieved the goal of increasing incomes of smallholder oil palm farmers. The evaluation also explores the sustainability of SHOPS II impact. Thus, the evaluation aims to ensure accountability to stakeholders and capture learning to improve effectiveness of future interventions in the smallholder oil palm sector.

Six evaluation questions frame and guide the SHOPS II performance evaluation.

### 1. Outcomes

- To what extent did SHOPS II meet its overall objectives and results? (What was its overall contribution to Country Development Cooperation Strategy (CDCS) Development Objective 2? Was the approach used the most effective way to achieve this?)
- What were unintended outcomes (both positive and negative) as a result of the SHOPS II intervention? What were unexpected challenges and bottlenecks to achieving objectives?
- Did the shared functions and lessons learned of the Implementing Partner from many years of implementation in Liberia and across several donor-funded activities result in improved performance and cost savings?

### 2. Cost Benefit

- After 7 years and \$7 million USD of investment, was *Tenera* the most cost-effective variety, compared to *Dura* or native? Relative to other value chains in Liberia, is oil palm among the most competitive, viable, and environmental to justify USAID to continue investing in the sector?

### 3. Sustainability

- To what extent will livelihoods be sustained after SHOPS II?
- To what extent will farmers be able to continue procuring seeds and propagate seedlings after SHOPS II?

The primary intended users of the SHOPS II performance evaluation are USAID/Liberia, the Government of Liberia (particularly the Ministry of Agriculture (MOA)), and SHOPS II implementing partners ACDI/VOCA and Winrock International. The results are also of interest to other USAID and U.S. Government agency partners currently supporting the oil palm sector of Liberia including the USAID Bureau for Economic Growth, Education, and the Environment (E3), Africa Bureau (USAID/Africa), and Bureau for Food Security (BFS), and the United States Department of Agriculture (USDA). The evaluation may also be useful to secondary users such as other donors and donor-funded programs to inform their future investments and to enhance their coordination with USAID.

## PROJECT BACKGROUND

The Smallholder Oil Palm Support (SHOPS I) project was a three-year program (April 12, 2011 – May 31, 2014) funded by USAID designed to stimulate economic growth, alleviate poverty, and increase food security for Liberia's smallholder palm oil producers. In February 2015, USAID issued Program Associate Cooperative Agreement (PACA) No. AID-669-LA-15-00002, Liberia Smallholder Oil Palm Support II (SHOPS II), to implementing partners ACDI/VOCA and Winrock International to build on SHOPS I. The PACA issued by USAID initially included US\$4.2 million to support the implementation of SHOPS II project activities over three years (Mar. 1, 2015 to Feb. 28, 2018). The overall goal of the project was to stimulate economic growth by increasing incomes among smallholder oil palm producers while reducing

deforestation resulting from smallholder oil palm expansion. The three objectives of the SHOPS II project mirrored those of SHOPS I:

- Increased smallholder oil palm sector productivity and profitability
- Improved smallholder oil palm sector marketing and trade capacity
- Improved smallholder oil palm sector business enabling environment and support functions

The theory of change for SHOPS II holds that to strengthen the palm oil value chain and drive rural economic growth, the project must: increase palm oil production and improve processing; encourage production practices that will increase smallholder productivity; strengthen market linkages to improve smallholder trade capacity; and increase access to credit and improve management skills to enhance an enabling business environment. The project sought to increase incomes of Liberia's smallholder palm oil producers by developing and expanding smallholder oil palm nurseries producing seedlings of high-yielding varieties, and promoting local manufacture and sale of processing machines called Freedom Mills.

Overall, the project initially aimed to offer technical assistance to 6,106 beneficiaries in Bong, Nimba, Lofa, and Grand Bassa counties. Review of targets reduced the number of beneficiaries by nearly 50% and this was attributed to double counting of beneficiaries of training activities and technical assistance. SHOPS II also planned to expand seedling production and manufacturing of oil palm processing equipment into Margibi and Montserrado counties.

In December 2016, a revised SHOPS II Program Description was approved by USAID that included a reduction of \$960,205 from the initial project budget of \$4.2 million, and the life of the project was cut from 36 to 30 months.

## EVALUATION DESIGN, METHODS, AND LIMITATIONS

Given the evaluation's purpose and questions on outcomes, cost benefit and sustainability, LSA elected a theory-based, utilization-focused design. A theory-based approach focuses on in-depth analysis of a program's underlying logic and causal linkages in its theory of change. The approach recognizes that many factors and interactions influence a program's impact and looks to identify the most critical factors for overall success. The evaluation's utilization-focused design intends to ensure that the information generated is useful to USAID and other key users. To operationalize this design, LSA conducted a mixed-methods evaluation using the following methods to collect quantitative and qualitative data:

- **Desk Review:** a literature review was undertaken to gain an understanding of SHOPS II, its progress toward targets, and the smallholder palm oil sector. SHOPS I and SHOPS II background documents, reports, data, as well as data and analyses generated by others working in the sector were reviewed;
- **Key Informant Interviews:** semi-structured key informant interviews (KIIs) were undertaken with 56 respondents (10 women and 46 men) with national and local GOL officials, project beneficiaries, stakeholders, current USAID Mission and SHOPS II staff, and other donors.
- **Focus Group Discussions:** Twenty focus group discussions (FGDs) were conducted that included participants from SHOPS II producer groups, processors, youth, women involved in oil palm and seedling/input suppliers. About 220 individuals participated in FGDs (75 women, 145 men).

While direct observation was not a planned method, the team supplemented KIIs with observation to corroborate information shared during interviews. Examples included visuals of deforestation or market demand of products.

Four weeks were spent in May and June 2017 in Bong, Lofa, and Nimba counties, as well as the greater Monrovia area, to conduct KIIs and FGDs. The KIIs and FGDs sought to provide a deeper understanding

of how and why SHOPS II pursued outcomes and sustainability for its beneficiaries, as well as cost and benefits related to its activities.

Challenges and limitations encountered in the evaluation process included: general data limitations in Liberia in terms of quality and availability; poor road conditions, precluding visits to some project sites; a team member contracted malaria, and was unable to complete their contribution; concerns about confidentiality may have influenced some respondents' answers; and implementer influence on informant selection may have led to overrepresentation of positive perspectives.

## FINDINGS AND CONCLUSIONS

### Outcomes

SHOPS II failed to achieve the targets for all but one of its results and has made limited contributions to the larger objectives. Nevertheless, focusing on Feed the Future (FtF) indicators, the project shows considerable progress on three of the four indicators despite falling short of targets:<sup>1</sup>

- F.4.5.2-23 Value of incremental sales (collected at farm-level) attributed to Feed the Future Implementation (76% of target achieved)
- F.4.5.2-2 Number of hectares under improved technologies or management practices because of USG assistance (11% of target achieved)
- F.4.5.2-7 Number of individuals who have received USG supported short-term agricultural sector productivity or food security training (90% of target achieved)
- F.4.5.2-5 Number of farmers and others who have applied improved technologies or management practices as a result of USG assistance (63% of target achieved)

The SHOPS II approach inspired nurseries to purchase hybrid germinated Tenera oil palm seeds by offering in-kind grants of seeds to nursery operators who purchased a minimum of 1,500 seeds. For every three seeds purchased (pre-paid) by a nursery operator, SHOPS II provided one seed. SHOPS II delivered high quality hybrid germinated Tenera seeds to 45 SHOPS II-supported nursery operators (6 continuing and 39 new nurseries) in the six project counties. 150,000 seedlings were reported in nursery inventories as the 2017 planting season arrived. However, the latest verifiable project reports indicate nurseries have sold only 13,132 seedlings over the course of SHOPS II implementation. The more than 100,000 seedlings that have yet to be planted may result in large amounts of spoiled inventory. SHOPS II plans to intensify planting in July and August 2017 to reduce spoilage.

Under SHOPS I and II, a total of 429 manual and 40 motorized Freedom Mills were sold. Two manufacturers have developed a Freedom Mill prototype for processing Dura palm oil. Interviews with manufacturers of Freedom Mills noted ongoing purchasing interest by producers and processors to the extent that several keep finished stocks on hand for impulse sale opportunities. The cost of manual Freedom Mills has ranged from US\$700 to US\$850, while motorized versions have been priced between US\$2,700 and US\$2,800. However, for many producers the cost of even the manual Freedom Mill remains prohibitive, especially in the absence of available financing.

The majority of nurseries and Freedom Mill manufacturers have reached a level whereby they will continue to flourish with or without continued donor assistance for the next few years, according to KILs with producers and processors. Processing of oil palm using Freedom Mills rather than traditional

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<sup>1</sup> Although SHOPS II was not a FtF-funded project, FtF indicators were used as per the SHOPS II grant award letter, in conformity with the USAID/Liberia Performance Management Plan (Fiscal Year (FY) 2013 – FY 2017).

methods has vertically integrated operations between producers, nursery operators and processors. These integrated entities make up the large majority of SHOPS I and II beneficiaries, according to FGDs, and participants in cooperatives expressed positive outlooks for their future. However, the smallholder palm oil sector may be negatively impacted when large concession operations increase production.

A total of 585 beneficiaries (303 male and 282 female) including oil palm processors, manufacturers, farmers and nursery operators in Bong, Nimba and Lofa counties participated in training workshops on best business practices, marketing and financial recordkeeping intended to improve business management and decision-making skills. SHOPS II staff also offered practical hands-on technical assistance through coaching on setting up and maintaining financial record-keeping tools.

In the Oct. 2015-Sep. 2016 period, SHOPS II conducted trainings with 97 beneficiaries throughout the project's area of influence to avoid deforestation, but there were no reports of monitoring of impacts on forests. KIs and observation in Lofa, Bong and Nimba counties yielded no indications that oil palm planting by SHOPS II beneficiaries is causing deforestation.

Although the project failed to achieve its target for the total number of women supported, interviewed women nursery operators trained by SHOPS II extension staff demonstrated knowledge and success as business operators. In addition, in KIs, SHOPS II staff stated new gender ground was broken when women received training to manufacture Freedom Mills.

In relation to the CDCS Development Objective 2, the project contributed to increased incomes, supported growth of the agricultural sector, and improved sustainable natural resource management. Under SHOPS II, incomes of 629 beneficiaries increased (out of a target of 858), with an average annual net income of \$312 (out of a target of \$346).<sup>2</sup> Smallholder palm oil producers have benefited from increased oil yields and reduced labor as a result of the Freedom Mill technology and other technical assistance provided by SHOPS I and II.<sup>3,4,5</sup>

### **Cost Benefit**

Qualitative cost benefit analysis indicates that Tenera palm oil production is among the most profitable options for smallholders, particularly compared to Dura palm oil. Evidence confirms that palm oil is among the highest priority value chains, along with cocoa, rubber and fish, for Liberia in terms of potential contributions to economic growth and employment (compared to sectors such as rice, cassava, groundnuts, maize and poultry/egg production).

### **Sustainability**

The overarching conclusion reached in the evaluation is that SHOPS II was important in sustaining the achievements of SHOPS I despite the Ebola virus crisis, but achieved a mixed record with respect to overall objectives as seen in tracked indicators. Several factors contributed to a slow start for SHOPS II, including the effects of the Ebola crisis, a review within the USAID/Liberia mission, the brevity of the project exacerbated by early termination and budget reduction, and a change in the Chief of Party (COP) for the project.

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<sup>2</sup> As of March 2017.

<sup>3</sup> Economic Analysis (per Day) Income, Jobs & Revenue Generated from Oil Palm Processing (Mechanical vs. Manual Oil Palm Processing) issued by ACDI-VOCA/Winrock International.

<sup>4</sup> SHOPS II Market Survey Report – April 2016.

<sup>5</sup> SHOPS II FY2016 Annual Report.

There are clear indications that SHOPS I and II contributed to the DO2 with respect to “sustained market-driven economic growth for poverty reduction”. Published reports, interviews and available research data indicate that SHOPS I and II effectively led smallholder oil palm farmers to recognize the value and profitability of planting improved Tenera FI Hybrid seedlings. The concept of encouraging nursery operators to invest in the acquisition of germinated FI seeds and, in turn, distribute Tenera FI Hybrid seedlings to smallholder buyers proved to be a successful project design, a sound business enterprise, and an essential link in the entire smallholder palm oil value chain. A notable area of success was the bold and effective campaign to promote the Freedom Mill technology. In addition, the project conducted an ambitious training and demonstration schedule. During field interviews, virtually every producer either had a Freedom Mill or intended to purchase one.

Due to this intervention, the livelihoods of smallholder palm oil producers improved as evidenced from increase in incomes, increased oil yields and reduced labor requirements as a result of the Freedom Mill technology and other technical assistance provided under SHOPS II.

## **RECOMMENDATIONS**

The overarching recommendation on the basis of the qualitative cost-benefit analysis is that the smallholder oil palm sector should be strongly considered for further support in the future, based on promotion of high-yielding Tenera.

Design and delivery of programs to support the smallholder oil palm sector must explicitly consider this value chain as distinct from the large oil palm concession sector. Specific areas that warrant continued donor support focused on smallholders include improvements in processing equipment and improvements in marketing with a gender focus. Donors should also facilitate potential relationships between the commercial concessionaires and smallholder producers.

USAID should continue support for smallholder oil palm producers, nursery operators and manufacturers of Freedom Mills. USAID and implementing partners should continue to support improvements in Freedom Mill manufacturing, additional source options for improved hybrid oil palm (Tenera) seeds, and research related to oil palm genetics, production technology and processing. Researchers active in Liberia should also investigate opportunities related to Dura oil palm.

The implementer and USAID should extend the services of SHOPS II production staff for 2-3 months beyond the current planned contract termination of August 2017 to assist nursery operators with marketing current inventories and in turn producers with planting seedlings. The SHOPS II implementers and USAID should also extend activities related to the manufacturing and marketing of the Freedom Mill 3 (designed to process Dura fruit).

To improve the business enabling environment, the donor community should seek ways to incentivize commercial lenders to offer loans to agricultural enterprises throughout the palm oil value chain, with a focus on producers, nurseries and Freedom Mill manufacturers.

Future donor support for smallholder oil palm in Liberia should include marketing training specifically targeting women representing the interests of producers in the marketplace. The training should strengthen skills and knowledge leading to a stronger position within the value chain, including broader market options, sales stability and improved returns on investment.

Further donor investment should be accompanied by the design and application of a data collection framework that from the outset seeks to compile the quantitative information required to conduct rigorous cost-benefit analysis and value chain comparisons.

# EVALUATION PURPOSE & QUESTIONS

## EVALUATION PURPOSE

This performance evaluation provides an independent and in-depth examination of the progress and achievements of SHOPS II in Liberia to ensure accountability to stakeholders and learning to improve effectiveness. Six evaluation questions frame and guide the SHOPS II performance evaluation. Within this framework, the evaluation identifies findings, conclusions, and lessons learned from implementation, and offers succinct and actionable recommendations to USAID, the Government of Liberia (GOL), private sector partners, and other stakeholders to improve and sustain the oil palm sector interventions.

The specific purpose of the evaluation is to determine the extent to which the intervention achieved the goal of increasing incomes of smallholder oil palm farmers and to assess the progress of SHOPS II against its targets. The evaluation also intends to explore the sustainability of SHOPS II impact on participants' livelihoods. The evaluation aims to inform the design of future oil palm sector interventions supported by USAID/Liberia and GOL.

## EVALUATION USERS

The primary intended users of the SHOPS II performance evaluation are:

- USAID/Liberia
- Government of Liberia Ministry of Agriculture (MOA)
- SHOPS II implementing partners ACDI/VOCA and Winrock International
- Other USAID and U.S. Government agency partners currently supporting the oil palm sector of Liberia including
  - USAID Bureau for Economic Growth, Education, and the Environment (E3)
  - USAID Africa Bureau (USAID/Africa)
  - USAID Bureau for Food Security (BFS)
  - United States Department of Agriculture (USDA)

The evaluation may also be useful for secondary users such as other donors and donor-funded programs working in Liberia's agricultural sector, to inform their future support to the sector and to enhance their coordination with USAID.

## EVALUATION QUESTIONS

This performance evaluation seeks to answer the following questions put forth by USAID/Liberia:

### I. Outcomes

- To what extent did SHOPS II meet its overall objectives and results?
  - i. What was its overall contribution to CDCS Development Objective 2?
  - ii. Was the approach used the most effective way to achieve this?
- What were unintended outcomes (both positive and negative) as a result of the SHOPS II intervention? What were unexpected challenges and bottlenecks to achieving objectives?
- Did the shared functions and lessons learned of the Implementing Partner from many years of implementation in Liberia and across several donor-funded activities result in improved performance and cost savings?

### 2. Cost Benefit

- After 7 years and \$7 million USD of investment, was *Tenera* the most cost-effective variety, compared to *Dura* or native? Relative to other value chains in Liberia, is oil palm among the most competitive, viable, and environmental to justify USAID to continue investing in the sector?

### **3. Sustainability**

- To what extent will livelihoods be sustained after SHOPS II?
- To what extent will farmers be able to continue procuring seeds and propagate seedlings after SHOPS II?

USAID/Liberia and LSA reviewed and revised these evaluation questions during planning meetings to ensure their scope matched the time and resources available to the evaluation. The wording of the final question under “Sustainability” reflects revisions by USAID/Liberia and LSA to clarify its meaning. The evaluation mainly applied the questions above to the SHOPS II project, during its period of performance from March 2015 to February 2018. However, data from SHOPS I was also considered during its period of performance from April 2011 to May 2014.

# PROJECT BACKGROUND

USAID has supported the smallholder oil palm sector in Liberia for well over a decade including support to the multi-donor Liberia Sustainable Tree Crops Program (STCP).<sup>6</sup> The Smallholder Oil Palm Support (SHOPS I) project was a three-year program (April 12, 2011 – May 31, 2014) funded by USAID designed to stimulate economic growth, alleviate poverty, and increase food security for Liberia's smallholder oil palm producers. At the end of February 2015, USAID issued Program Associate Cooperative Agreement No. AID-669-LA-15-00002 (PACA), Liberia Smallholder Oil Palm Support II (SHOPS II), to implementing partners ACDI/VOCA and Winrock International to expand on the success of SHOPS I.

The PACA focused on environmentally sustainable practices intended to reduce deforestation and land degradation due to smallholder oil palm activities. The PACA issued by USAID initially included US\$4.2 million to support the implementation of SHOPS II project activities over three years (Mar. 1, 2015 to Feb. 28, 2018). Winrock was responsible for activities in component 1 (production) and component 2 (processing). ACDI/VOCA was tasked with overall project administration and implementing activities under component 3 (market access) and component 4 (access to financial services).

The overall goal of the project was to stimulate economic growth by increasing incomes among smallholder oil palm producers while reducing deforestation resulting from smallholder oil palm expansion. The three objectives of the SHOPS II project mirrored those of SHOPS I:

- Increased smallholder oil palm sector productivity and profitability
- Improved smallholder oil palm sector marketing and trade capacity
- Improved smallholder oil palm sector business enabling environment and support functions

The theory of change for SHOPS II holds that to strengthen the oil palm value chain and drive rural economic growth, the project must: increase palm oil production and improve processing; encourage production practices that will increase smallholder productivity; strengthen market linkages to improve smallholder trade capacity; and increase access to credit and improve management skills to enhance an enabling business environment. The project sought to increase incomes of Liberia's smallholder oil palm producers and processors by developing and expanding smallholder oil palm nurseries.

The anticipated increase of fruit from hybrid trees provided by nurseries would be processed by Freedom Mills versus traditional methods. The project sought to increase the number of Freedom Mill manufacturers and the production of downstream products including crude palm oil (CPO), palm kernel oil (PKO), and palm kernel cakes (PKC). Overall, the project aimed to offer technical assistance to 6,106 beneficiaries in Bong, Nimba, Lofa, and Grand Bassa counties. SHOPS II also expanded seedling production and manufacturing of oil palm processing equipment into Margibi and Montserrado counties.

In December 2016, a revised SHOPS II Program Description was approved by USAID that included a reduction of \$960,205 from the initial project budget of \$4.2 million, and the life of the project was cut from 36 to 30 months.<sup>7</sup> USAID also terminated project activities under Component 4.

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<sup>6</sup> USAID, Evaluation of the Liberia Sustainable Tree Crops Program (STCP), Social Impact, Inc – April 2011.

<sup>7</sup> USAID SHOPS II - B.I Program Description (Revised December 2016) - (PD 12/16).

# EVALUATION METHODS & LIMITATIONS

## EVALUATION DESIGN

This section summarizes evaluation methods and limitations. A complete description of the approach, methods, scope of data collection, data analysis methods, and limitations on access to data encountered is set out in Annex II. Annexes II – IV contain lists of documents reviewed, individuals interviewed and focus groups held. Data collection instruments are provided in Annex III.

Given the evaluation's purpose and questions on outcomes, cost benefit and sustainability, LSA elected a theory-based, utilization-focused design. A theory-based approach focuses on in-depth analysis of a program's underlying logic and causal linkages in its theory of change. The approach recognizes that many factors and interactions influence a program's impact and looks to identify the most critical factors for overall success. The evaluation's utilization-focused design intends to ensure that the information generated is useful to USAID and other key users. The inception report, in-brief, and preliminary findings presentation with USAID/Liberia were used to confirm the purpose of the SHOPS II evaluation and the types of information and insights that will be most useful for decision-making by donors and stakeholders. To operationalize this design, LSA conducted a mixed-methods evaluation. A mixed-methods approach is more likely to reveal unanticipated results than a single method, and provides a deeper understanding of why change is or is not occurring in line with the theory of change.

The following methods were used to collect quantitative and qualitative data for the SHOPS II performance evaluation:

- **Desk Review:** a literature review was undertaken to gain an understanding of SHOPS II, its progress toward targets, and the smallholder oil palm sector. SHOPS I and SHOPS II background documents, reports, data, as well as data and analyses generated by others working in the sector were reviewed. For a full list of the literature reviewed, see Annex 2;
- **Key Informant Interviews:** semi-structured key informant interviews (KIIs) were undertaken with 56 respondents (10 women and 46 men) with national and local GOL officials, project beneficiaries, stakeholders, current USAID Mission and SHOPS II staff, and other donors.
- **Focus Group Discussions:** Twenty focus group discussions (FGDs) were conducted that included participants from SHOPS II producer groups, processors, youth, women involved in oil palm and seedling/input suppliers. About 220 individuals participated in FGDs (75 women, 145 men).

Through KIIs and FGDs, data was collected from 276 respondents (85 women, 191 men).

## FIELD WORK

Four weeks were spent in May and June 2017 in Bong, Lofa, and Nimba counties, as well as the greater Monrovia area, to conduct KIIs and FGDs. The KIIs and FGDs sought to provide a deeper understanding of how and why SHOPS II pursued outcomes and sustainability for its beneficiaries, as well as cost and benefits related to its activities.

## KEY INFORMANT INTERVIEWS

Twenty-six KIIs were conducted with SHOPS II beneficiaries and stakeholders selected for their first-hand knowledge of SHOPS II and the smallholder oil palm sector. These interviews were guided by

semi-structured questionnaires with probes to follow up on key information related to each question (see Annex III: Data Collection Instruments).

Prior to conducting KIIs, discussion questions related to the evaluation question were formulated and a short interview guide prepared, including discussion questions and helpful prompts. Key informants were selected based on conversations with USAID/Liberia and SHOPS II implementing partners. First, key categories were identified from which to draw informants, and then several individuals from each category were selected based on their specialized knowledge, unique perspectives and various points of view. The table below enumerates the number of KIIs conducted with each type of informant (details on these categories are included in Annex II: Evaluation Methods and Limitations).

**Table 1. National Level Key Informants**

<b>Informant Category</b>	<b>Total KIIs Conducted</b>
SHOPS II Staff	7
USAID/Liberia Staff	3
Ministry of Agriculture/Agriculture Coordination Committee	1
Palm Oil Technical Working Group - Concessioners	2
National Farmers Union of Liberia	4
Seedling Importer – Rainforest Agriculture Enterprise (RAE)	1
Donors	2
County Agricultural Office representatives	3
Oil Palm Equipment Manufacturers	6
Oil Palm/Products Traders	6
Freedom Mill Vendors/brokers	3
Other recommended informants <sup>8</sup>	18
<b>TOTAL</b>	<b>56</b>

## **FOCUS GROUP DISCUSSIONS**

FGDs were conducted with a sample of SHOPS II stakeholders and beneficiaries to inform analysis on several of the evaluation questions. A total of 20 FGDs were conducted in Bong, Lofa, and Nimba counties with between six and twelve participants in each group. Working with USAID and the SHOPS II implementing partners, a sampling strategy was applied to generate lists of primary and alternate participants with balance in terms of geographic location, sector involvement, age, and sex. Fourteen FGDs involved both male and female participants. Three FGDs of processor groups involved only male participants, and three FGDs involved only women working in the smallholder oil palm sector or involved as project beneficiaries.

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<sup>8</sup> During KIIs, respondents recommended additional key informants relating to smallholder oil palm in Liberia. At the County level, recommended informants included a soap producer, processor, individual nursery operator, and oil palm trader/farmer. At the National level, recommended informants included individuals from Conservation International (Liberia), Cooperative Development Authority, Sustainable Trade Initiative, Fauna and Flora International, Former Chairman of the Oil Palm Sector Technical Working group under the Agriculture Coordination Committee under the MOA, and an oil palm exporter.

Discussions were organized around a semi-structured focus group guide (see Annex III: Data Collection Instruments) with an intended duration of 45 minutes. Before commencing the discussion, the FGDs opened with an introduction to the purpose of the session, confirmation that participants' identities would be kept anonymous, guidelines to follow, and introduction of the moderator and participants. Table II below lists the respondent groups who participated in focus groups.

**Table II. Focus Group Discussion Respondents**

<b>Informant Category</b>	<b>Ages</b>	<b>Gender</b>	<b>FGD # per County</b>	<b>Total FGDs Conducted</b>
Producer groups	18-70	Mixed	2	6
Processor groups	18-70	Male	1	3
Youth	16-25	Mixed	N/A	2
Women involved in oil palm and/or beneficiary households	18-70	Women	N/A	3
Seedlings/inputs suppliers	18-70	Mixed	2	6
<b>TOTAL</b>			<b>5</b>	<b>20</b>

## **DATA ANALYSIS AND REPORTING**

Taking advantage of the evaluation's mixed-method design, data from one method was used to balance against data from another method. A preliminary findings matrix was used to record preliminary findings and conclusions, and encourage information sharing, testing of hypotheses, and challenging findings and conclusions. Multiple methods were employed to answer each of the evaluation questions.

## **GENDER-SENSITIVE PERSPECTIVE**

Gender mainstreaming in donor development initiatives should promote gender equity and ensure meaningful participation of women in all aspects of the intervention. Consistent with USAID's evaluation policy, and recognizing that effects of integration and the success of the activity might vary across gender, LSA applied a gender perspective to the entire evaluation process. Starting with the desk review, data related to gender-based variances in outcomes were examined and documents with specific attention to gender dynamics in the implementation environment reviewed. The evaluation team was aware of its own gender imbalance, lacking any female members, but ensured gender balance among respondents, especially among producers and household interviewees.

## **SOCIAL-SENSITIVE PERSPECTIVE**

In addition to issues of gender, issues of social demographics in the sampling and data analysis processes were considered, as were how they affected the outcomes of the activity and the evaluation findings. The evaluation placed a focus on project impacts on youth, as well as the overall demographic composition of project beneficiaries.

## LIMITATIONS

Limitations were faced accessing desired sources, respondents and locations for data gathering. In each case, measures were taken to mitigate adverse effects on data quality. A summary of these limitations and mitigation measures is set out in the table below.

<b>Limitations</b>	<b>Mitigation Measures Taken</b>
<b>Limited access to data:</b> Official government statistics on oil palm production, number of oil palm producers, and palm oil exports are spotty and of questionable quality. Incomplete project data also hindered work. Only one annual report for the project was received.	Data sources were diversified to overcome the lack of secondary data from the GOL and SHOPS II, which primarily affected the evaluation’s desk review. Other methods were employed, including FGDs, KIIs and other documents, to compensate with alternative data sources.
<b>Poor road conditions in Lofa County:</b> Poor road conditions in Foyah District of Lofa County prevented travel to project sites in this area.	Alternative sites in accessible areas were visited. This enabled the team to reach target numbers of KIIs and FGDs.
<b>Agri-economist team member contracted malaria:</b> A key team member contracted malaria and was not able to participate in the analysis as had been envisioned.	LSA sought additional technical expertise from consultants and SI technical specialists to complete data analysis and the evaluation report.
<b>Confidentiality of responses:</b> Respondents may have been disinclined to provide candid answers because the team asked for their names.	Introductory explanations were used regarding how information would be used and the protocol for information attributed to specific individuals in the report.
<b>Implementer selected interviewees:</b> Respondents for KIIs and participants for FGDs were selected based partially on recommendations by ACDI/VOCA and Winrock International.	Recommendations for respondents from implementing partners were balanced with those from USAID and its own selection during field work.

# FINDINGS

## I. OUTCOMES

### To what extent did SHOPS II meet its overall objectives and results?

SHOPS II failed to achieve the targets for all but one of its results and has made limited contributions to the larger objectives.

As described in the PACA, the overall objectives of SHOPS II are:

- Increase smallholder oil palm sector productivity and profitability
- Improve smallholder oil palm sector marketing and trade capacity
- Improve smallholder oil palm sector business enabling environment and support functions
- Improve integration of best practices in natural resources management, environmental responsibility, and biodiversity conservation in smallholder oil palm sector.

The last objective was removed from the initial PACA during the project revision, but USAID expressed interest to understand overall progress in this area.

The results for SHOPS II are outlined below based on the latest verified performance indicator data as of June 20, 2017. According to this data, SHOPS II met the target for only one of its performance indicators. Areas of significant underperformance are highlighted in red.

Activity / Indicator	LOP Target	LOP Actual	Performance (%)
4.5.2-23 Value of incremental sales (collected at farm-level) attributed to Feed the Future	\$842,145	\$637,260	76
EG.3.2-1 Number of individuals who have received short-term agricultural sector productivity or food security training	364	329	90
EG.3.2-17: Number of farmers and others who have applied improved technologies or management practices with USG assistance	1,177	739	<b>63</b>
EG.3.2-18 Number of hectares under improved technologies or management practices with USG assistance	813	88	<b>11</b>
SHO1.1 Number of beneficiaries generating increased income as a result of SHOPS II	858	629	73
SHO1.1.1 Number of beneficiaries receiving technical assistance as a result of SHOPS II	2,425	2,415	100
SHO1.1.1.1 Number of nursery operators producing at least 1,500 seedlings/ year	43	41	95
SHO1.1.1.2 Number of Tenera seedlings produced by nurseries and sold to farmers	121,950	13,132	<b>11</b>
SHO1.1.2.1 Number of value addition technologies sold	205	177	86
SHO1.1.2.2 Number of new manufacturers trained	5	3	<b>60</b>
SHO1.1.2.3 Number of demonstrations on palm oil processing technologies conducted	60	59	98

SHOI.2 Dollar value of annual net income <sup>9</sup>	680	312	46
SHOI.2.1.1 Number of clients linked to processors and utilizing freedom mill machines	2,739	2,134	78
SHOI.2.2.1 Number of meetings attended to provide inputs regarding the needs of the smallholder oil palm sector	6	3	50
SHOI.2.2.2 Number of MOA ACC OPTWG meetings attended	6	4	67
SHOI.3.2.1 Number of individuals trained in best business management practices	789	891	113

Focusing in on the FtF indicators from above, three of the four indicators show considerable progress, despite the targets not having been met.

F.4.5.2-23	Value of incremental sales (collected at farm-level) attributed to Feed the Future Implementation (76% of target achieved)
F.4.5.2-2	Number of hectares under improved technologies or management practices because of USG assistance (11% of target achieved) <sup>10</sup>
F.4.5.2-7	Number of individuals who have received USG supported short-term agricultural sector productivity or food security training (90% of target achieved)
F.4.5.2-5	Number of farmers and others who have applied improved technologies or management practices as a result of USG assistance (63% of target achieved)

Together with the Data Quality Assessment conducted in October 2016 and spot checks conducted by the evaluation, performance indicator data as reported via the project are valid. Based on these results, SHOPS II achieved the following contributions to higher level objectives.

**Increase smallholder oil palm sector productivity and profitability.** The project was expected to provide field extension staff to support new nursery operators, with a long-term objective of enabling nursery operators to sustain production and sale of approximately 100,000 seedlings annually after the life of project. To ensure that nursery operators would have access to high quality hybrid germinated Tenera seeds, PD 12/16 directed SHOPS II to support the seed vendor in delivering the prepaid seeds and polybags to nursery operators. A KII with the seed vendor, Rainforest Agriculture Enterprise (RAE), verified that SHOPS II made deliveries to nursery operators, specifically 45 SHOPS II-supported nursery operators (6 continuing and 39 new nurseries) in the six project counties.<sup>11</sup> As the 2017 planting season arrived, nurseries held reported inventories of about 150,000 seedlings. However, as indicated in the table above, only 13,132 seedlings have been sold by nurseries over the course of SHOPS II implementation. This suggests a severe bottleneck in the nursery-to-producer link in the value chain, attributable largely to the dearth of agricultural credit available to smallholders in Liberia as indicated in

<sup>9</sup> As per definition in the SHOPS II Performance Indicator Tracking Table, "This indicator measures the value of annual net income generated by direct beneficiaries (manufacturers, nursery operators, processors, palm oil farmers) through sales of products (Freedom Mill, Palm Oil, Palm Kernel Nut, Palm Kernel Oil and Palm Kernel Cake). Dollar value of net income for this indicator is the average net income per direct beneficiary. Net income is calculated as the difference of the revenue/gross income from the total production and other related costs." Incremental income attributable to the intervention is a more robust indicator, covered as FtF indicator F.4.5.2-23.

<sup>10</sup> The limited number of hectares under improved practices reflects the limited sales of improved variety oil palm seedlings. As discussed below, this is largely attributable to lack of access to credit, and possibly also to mismatch between timing of data collection and seasonality of planting such that the final planting season under the project period is not reflected.

<sup>11</sup> USAID Smallholder Oil Palm Support II (SHOPS II Program), October 1, 2015 – September 30, 2016 Report.

multiple FGDs and KIs. An additional factor contributing to the limited sales volume is that the figures stem from before the key planting months in 2017 (July and August).

Under SHOPS I and II, a total of 429 manual and 40 motorized Freedom Mills were sold. Of these, 189 manual units and 19 motorized units were sold under SHOPS II. These technologies at least double the yield of oil from fruit, a clear boost in productivity and profitability. In addition to ongoing manufacture and sales of the proven mechanized Freedom Mill processing technology for Tenera palm fruit, two manufacturers have developed a Freedom Mill prototype for processing Dura palm oil. Respondents indicated great anticipation as to market potential for this new technology. However, further work is needed to conduct extensive field trials and progress towards commercialization.

**Improve smallholder oil palm sector marketing and trade capacity.** In 2016, the SHOPS II marketing unit conducted three major business-related training workshops with a focus on “best business practices, marketing and financial recordkeeping intended to improve business management and decision-making skills.” SHOPS II staff also offered practical hands-on technical assistance through training on establishing and maintaining financial record-keeping.<sup>12</sup> A total of 585 beneficiaries (303 male and 282 female) including oil palm processors, manufacturers, farmers and nursery operators in Bong, Nimba and Lofa counties participated. The evaluation did not determine the extent to which and how this training has been put to use. SHOPS II also provided training to traders and participants engaged within oil palm trade centers throughout the intervention area.

Reports state that SHOPS II initiated the development of a national oil palm trade network.<sup>13</sup> However, in KIs with SHOPS II staff, no project action was identified relating to this item. Apart from attendance at two meetings, no evidence was found that SHOPS II provided technical support through the Oil Palm Technical Working Group (OPTWG), the Liberian Initiative for Sustainable Oil Palm (LINSOP), or the Oil Palm Development Fund financed by oil palm concession companies.

To enhance marketing through more detailed and frequent reporting on a broad range of oil palm commodities, SHOPS II conducted a Smallholder Oil Palm Subsector Market Survey in 2016. Late in the SHOPS II project the marketing staff began collecting prices of oil palm products from 23 major oil palm locations in the project areas. These data are intended to inform the general public, and were shared at the Bong County Agricultural Trade Fair and also with the Oil Palm Technical Working Group.<sup>14</sup>

The PACA instructed “SHOPS II [to] closely collaborate with the MOA”. The project appears to have communicated well with county-level MOA officials, but less so at the ministry level. During interviews with senior MOA officials, complaints were voiced about lack of communication from SHOPS II to the MOA. However, the desk review of project documents suggested an effort to collaborate with the MOA through trade fairs and natural resource management initiatives.<sup>15</sup> During interviews, MOA county extension staff praised the SHOPS II work on smallholder value chains.

**Improve smallholder oil palm sector business enabling environment and support functions.** SHOPS I used an in-kind grant program to introduce Hybrid F1 oil palm seedlings to smallholders in the

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<sup>12</sup> Ibid

<sup>13</sup> USAID, Smallholder Oil Palm Support II (SHOPS II Program), October 1, 2015 – September 30, 2016 Report.

<sup>14</sup> USAID Liberia Smallholder Oil Palm Support II (SHOPS II) Program - Q2 FY17 Report.

<sup>15</sup> Yarkpazuo Z. Kolva , CoP USAID/Smallholder Oil Palm Project Support (SHOPS II) - January 26, 2017.

intervention area.<sup>16</sup> SHOPS I reports indicate the activity accomplished its targets for distributing seedlings to smallholders. A significant new feature within the SHOPS II PD 12/16 inspired nurseries to purchase Hybrid germinated Tenera oil palm seeds by offering in-kind grants of seeds to nursery operators who purchased a minimum of 1,500 seeds. For every three seeds purchased (pre-paid) by a nursery operator, SHOPS II provided one seed as an in-kind grant. Eligibility criteria for the in-kind grants included:

- The ability to invest at least 75% of the cost of seeds and polybags.
- Ability to contribute to long-term investment to meet demand for seedlings by farmers.
- Possession of appropriate land, water, and access.
- A location that was not in or around primary or secondary forest.
- Demonstrated desire to continue production over a 5-10 year period.
- A willingness to sell at least 55% of seedlings to local community members.

Selected beneficiaries were expected to have a strong individual or institutional reputation in the surrounding community. Nursery operators signed a Memorandum of Understanding reflecting these requirements.<sup>17</sup>

**Improve integration of best practices in natural resources management, environmental responsibility, and biodiversity conservation in smallholder oil palm sector.** This objective required monitoring land use as related to planting of Tenera seedlings by smallholders and to prevent deforestation due to planting of Tenera seedlings. For example, in Oct. 2015-Sep. 2016 period, SHOPS II conducted training for 97 beneficiaries throughout the project area to avoid deforestation, but there were no reports of monitoring of impacts on forests.<sup>18</sup> KIs and observation in Lofa, Bong and Nimba counties yielded no indications that oil palm planting by SHOPS II beneficiaries is causing deforestation. Within the area of intervention, there are extensive areas of brush-covered land previously utilized for crop production. These present a much easier opportunity for smallholders to plant seedlings than do forest areas.<sup>19</sup> In addition, community forestry initiatives in the intervention area have promoted maintenance of primary forest on community lands.<sup>20,21</sup> Growing awareness of community forestry among local villages encourages planting of Tenera oil palm in areas other than primary forest.

#### ***What was its overall contribution to CDCS Development Objective 2?***

Based on reported data, KIs, and FGDs, the project contributed to CDCS Development Objective 2 (DO2) in the following ways: increased incomes, supported growth of the agricultural sector, and improved sustainable natural resource management.

The table below summarizes indicator data relevant to the DO2 monitoring framework:<sup>22</sup>

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<sup>16</sup> USAID SHOPS I FINAL REPORT, April 12, 2011 – May 31, 2014.

<sup>17</sup> USAID SHOPS II Performance Monitoring and Evaluation Plan, March 2017.

<sup>18</sup> USAID Smallholder Oil Palm Support II (SHOPS II Program) October 1, 2015 – September 30, 2016.

<sup>19</sup> RoL – MOA, Comprehensive Assessment of The Agriculture Sector in Liberia (CAAS-Lib) 2007.

<sup>20</sup> USAID GROW, Oil Palm Market System Analysis, October 2013.

<sup>21</sup> USAID Incentivizing No-Deforestation Palm Oil Production in Liberia and the Democratic Republic of Congo, February 2015.

<sup>22</sup> USAID/Liberia. 2016. Performance Management Plan (FY 2013 – FY2017).

<b>DO2: Sustained, Market-Driven Economic Growth to Reduce Poverty</b>	
<b>Result</b>	<b>Indicators/Comments</b>
<b>DO2: Sustained, Market-Driven Economic Growth to Reduce Poverty</b>	629 individuals with an average of \$312 in annual net incomes under SHOPS II, but prevalence of poverty not measured directly; hypothesize that enhanced productivity increased disposable income and reduced prevalence of poverty (illustratively confirmed finding). <sup>23</sup>
<b>IR 2.1: Food Security Enhanced</b>	Not measured directly under SHOPS II; hypothesize that increased incomes positively impact food security (unconfirmed finding).
Sub-IR 2.1.1: Nutrition enhanced	Not measured directly under SHOPS II; hypothesize that increased incomes positively impact nutrition (unconfirmed finding).
Sub-IR 2.1.2: Agricultural sector growth supported	Palm oil yields increased through promotion of high-yielding Tenera seedlings, and improved processing technology (Freedom Mills): 329 individuals trained; 739 individuals applied improved technology; Value of incremental sales attributed to activity implementation (FTF 4.5.2.23) increased by \$637,260 under SHOPS II.
<b>IR 2.2: Natural Resources Managed Sustainably</b>	SHOPS II did not measure number of hectares in areas of biological significance or natural resources showing improved biophysical conditions. SHOPS II did not directly pursue rules or regulations.
Sub-IR 2.2.1: Forest management systems improved	88 hectares, 11% of target, of biological significance and/or natural resources under improved natural resource management as a result of USG assistance. <sup>24</sup> Key species not monitored.
Sub-IR 2.2.2: Sustainable forest-based enterprises strengthened	41 nurseries producing at least 1,500 high-yielding oil palm seedlings per year.
<b>IR 2.3: Enabling Environment Supports Private Enterprise Growth</b>	SHOPS II did not examine number of beneficiaries with improved energy services or kilometers of rural roads maintained by GOL/private sector. SHOPS II did not pursue laws and policies to support private enterprise growth.
Sub-IR 2.3.1: Infrastructure improved and maintained	Not pertinent to SHOPS II.
Sub-IR 2.3.2: Improved economic policies implemented	Not pertinent to SHOPS II.

Due to this intervention, the key objective-level indicator of DO2 is improved through increased incomes. Under SHOPS II, incomes of 629 beneficiaries increased (out of a target of 858), with an average annual net income of \$312 (out of a target of \$346). Smallholder oil palm producers have

<sup>23</sup> FGDs prompted: “In your opinion, what has been the biggest benefit of SHOPS II to you?” Illustrative examples include using the new or additional income to finance school fees, build houses, increase farm size, and purchase equipment (such as Freedom Mills).

<sup>24</sup> As indicated previously, the number of hectares may have increased soon after the evaluation, as July and August are key planting months.

benefited from increased oil yields and reduced labor as a result of the Freedom Mill technology and other technical assistance provided by SHOPS I and II.<sup>25,26,27</sup>

While not specifically mentioned as part of SHOPS II Intermediate Results, several aspects of SHOPS I and II contribute to DO2:

- As described in the Cost Benefit section, production and marketing of Tenera palm oil is among the most profitable options for smallholders, relevant to poverty reduction.
- During SHOPS I, over US\$7.7 million of income was generated amongst smallholders as a result of project interventions with beneficiaries which contributed to poverty reduction.<sup>28, 29</sup>
- Primary activities of both SHOPS projects, improved Hybrid F1 Seedlings and mechanized processing, contributed to DO2 by focusing on smallholder productivity and increased technology.
- Both SHOPS I and SHOPS II advanced credit access and new markets by training cooperatives and Freedom Mill manufacturers as formal entities, according to FGDs with producers, processors, and input suppliers. SHOPS II addressed the lack of technical and managerial knowledge and skills of Liberia's private sector by supporting nursery operators and Freedom Mill manufacturers, resulting in viable businesses supplying essential inputs and technology for the oil palm value chain.
- DO2 places considerable focus on forestry and environment in Liberia. SHOPS II trained smallholders on the importance of maintaining forests and proper land management.

In addition to DO2, the CDCS references the smallholder oil palm value chain and its role in encouraging women's involvement:<sup>30</sup>

*The Mission's FtF program, as well as our Title II programs, will give women equitable access to new agricultural technologies such as improved oil palm and rice seeds, and foster their participation in farmer field schools that teach the appropriate use of these technologies.*

KIIs and FGDs with female beneficiaries and women working in the sector indicated that women-owned businesses were encouraged through both SHOPS projects. Many of the nursery operations developed under SHOPS I and II are owned by women who were trained by the project in operational skills, technical skills, and business management. SHOPS II conducted a gender assessment early in its period of performance.<sup>31</sup> The assessment recommended that SHOPS II encourage and stimulate participation of women in cooperatives. However, the SHOPS II Year 1 Annual Workplan did not include specific activities responding to this recommendation.<sup>32</sup> The Year 2 Annual Workplan and Annual report did highlight enhancing the position of women in cooperatives and other organizations related to

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<sup>25</sup> Economic Analysis (per Day) Income, Jobs & Revenue Generated from Oil Palm Processing (Mechanical vs. Manual Oil Palm Processing) issued by ACDI-VOCA/WINROCK International.

<sup>26</sup> SHOPS II Market Survey Report – April 2016.

<sup>27</sup> SHOPS II FY2016 Annual Report.

<sup>28</sup> USAID SHOPS I Final Report (April 12, 2011 – May 31, 2014).

<sup>29</sup> As the bulk of anticipated increase in incomes under SHOPS II is expected from planting of hybrid seedlings, and commercially viable production does not begin until several seasons after planting, full impact on incomes may not be seen for some years.

<sup>30</sup> USAID/Liberia CDCS 2013-2017.

<sup>31</sup> USAID Gender Assessment – Smallholder Oil Palm Support II (SHOPS II), July 2015.

<sup>32</sup> USAID SMALLHOLDER OIL PALM SUPPORT II (SHOPS II) PROGRAM, Year One Work Plan March 1, 2015- February 29, 2016.

smallholder oil palm, and related training activities.<sup>33</sup> KIIIs with female oil palm traders and FGDs with women working in the sector indicated that several hundred women were actively involved in cooperatives and other stakeholder organizations supported by SHOPS I and II, where they pooled their resources and coordinated inputs for oil palm production. Progress reports and indicator data in USAID/Liberia's PIDS indicated encouraging results in relation to training and empowering women in nursery operations. Although the project failed to achieve its target for the total number of women supported, interviewed women nursery operators trained by SHOPS II extension staff demonstrated knowledge and success as business operators.<sup>34</sup> In addition, in KIIIs, SHOPS II staff felt new gender ground was broken when women received training to manufacture Freedom Mills.

### **Was the approach used the most effective way to achieve this?**

The approach used in SHOPS II operationalized recommendations for further donor intervention presented in the SHOPS I Final Report. As emphasized in GOL and donor development strategies, a focus on smallholder oil palm producers is one of the most effective ways to address rural livelihoods in Liberia.<sup>35</sup> As informed by the experience of SHOPS I, the principal constraints to smallholder productivity included obstacles in accessing high-yielding varieties and reliance on inefficient oil extraction methods, such that the project focused on nurseries and seedling supplies, and on improved processing technology.

### **What were unintended outcomes (both positive and negative) as a result of the SHOPS II intervention?**

SHOPS II expected it could reach initial production objectives without incentives. Unfortunately, this resulted in low participation rates.<sup>36</sup> The revised PD 12/16 introduced an in-kind grant program that enabled the achievement of seedling production targets. However, over 100,000 seedlings have yet to be planted near the end of the project which may result in large amounts of spoiled inventory.<sup>37</sup>

The desk review also suggested that by shifting palm oil processing from traditional methods to use of 469 Freedom Mills, SHOPS I and II reduced menial work for women in the palm oil sector.<sup>38</sup> This was confirmed in FGDs, such as the discussion with Foyah Rural Women's organization in which participants emphasized labor savings and productivity and income increases achieved through mechanized processing. In a FGD with the Nimene Women's Group of nursery operators and farmers, participants expressed a strong desire to obtain a Freedom Mill, and no concern about potential labor impacts. Thus, it appears that to-date productivity enhancements from the shift in processing methods are increasing productivity and income without displacing labor.

Women dominate the marketing of both Tenera and Dura palm oil.<sup>39</sup> However, an unintended outcome of SHOPS I and II was the failure to enhance the capabilities of women who represent the interests of producers, according to FGDs of producers and processors. The governing of palm oil marketing in

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<sup>33</sup> USAID Smallholder Oil Palm Support II (SHOPS II Program), October 1, 2015 – September 30, 2016 Report.

<sup>34</sup> USAID, Liberia Smallholder Oil Palm Support II (SHOPS II) Program, Q1 FY17.

<sup>35</sup> Atkinson, P. 2015. *Consulting Study 17: Palm Oil in Liberia: Missed Opportunities and Second Changes*. The High Carbon Stock Science Study; GOL. 2014. *National Export Strategy: Oil Palm Export Strategy 2014-2018*; GOL. (no date). *Food and Agriculture Policy and Strategy: "From Subsistence to Sufficiency"*; GROW. 2013. *Oil Palm Market System Analysis*; USAID/EAT. 2015. *Liberia Market Study for Selected Agricultural Products*.

<sup>36</sup> USAID, Liberia Smallholder Oil Palm Support II (SHOPS II) Program, Q2 FY16 Report.

<sup>37</sup> USAID, Smallholder Oil Palm Support II (SHOPS II) PROGRAM FY 2017, Quarter 2 Report.

<sup>38</sup> USAID, Smallholder Oil Palm Support Program (SHOPS) II YEAR I QUARTER 2.

<sup>39</sup> USAID, Small Holders Oil Palm Value Chain Market Analysis Report, August 2015.

Liberia was left under the control of a very well-organized group known as the “Gobachop Women” who dominate the wholesale market levels for Tenera and Dura oil.<sup>40</sup>

### **What were unexpected challenges and bottlenecks to achieving objectives?**

Several factors contributed to a slow start for SHOPS II, including the effects of the Ebola crisis, USAID/Liberia mission review, and a change in COP. In the wake of the Ebola crisis, with respect to the business enabling environment and support functions, commercial financing opportunities for all agricultural business activities in Liberia are extremely limited and for many smallholders non-existent.<sup>41</sup> SHOPS I achieved progress in the area of business enabling environment and support functions with particular success in helping beneficiaries obtain financing for nurseries and Freedom Mill manufacturing operations.<sup>42</sup> Unfortunately, many of the SHOPS I beneficiaries who acquired loans were unable to repay due to the Ebola crisis.<sup>43</sup> As a result, SHOPS II found lending institutions to be either unable or unwilling to lend to SHOPS II beneficiaries. At the end of Year 2 of the project, efforts to seek conventional financing for beneficiaries were discontinued.<sup>44</sup> Instead, efforts to assist beneficiaries to acquire financing focused on Village Savings and Loan (VSL) organizations, which show potential, but have not yet resulted in conclusive sources of loans.

### **Did the shared functions and lessons learned of the Implementing Partner from many years of implementation in Liberia and across several donor-funded activities result in improved performance and cost savings?**

There is little evidence that shared functions and lessons learned resulted in improved performance or cost savings. SHOPS II implementing partners ACDI/VOCA and Winrock International have a long intervention history related to smallholder oil palm in Liberia going back at least a decade when both were engaged in the Liberia Sustainable Tree Crops Program (STCP). According to the final evaluation of STCP, there existed little if any coordination between these two implementers during the approximately five years each were involved with the STCP.<sup>45</sup> Prior to STCP ending in 2011, SHOPS I was launched with ACDI/VOCA and Winrock partnered as implementers of this new project. During SHOPS I, although ACDI/VOCA was the prime implementer, Winrock provided leadership, administration, technology and technical implementation. The final report for SHOPS I demonstrated success, falling only slightly short of meeting one project indicator for private sector investment.<sup>46</sup>

Under SHOPS II, roles were reversed with ACDI/VOCA in the lead role, responsible for project design and implementation concepts. Implementation staff in the field and overall objectives largely transitioned from SHOPS I to SHOPS II. In KILs, USAID and the implementing partners stated this continuity led them to expect prompt results. However, during interviews with beneficiaries involved with both SHOPS I and SHOPS II, there was general praise for SHOPS I and frequent criticism of SHOPS II. In addition, quarterly reports during the initial year of the project evidenced a lethargic start, especially with respect to production as the development of nurseries fell short of annual targets.<sup>47</sup> The SHOPS II target for the second year of the project was for nurseries to sell 22,500 seedlings, but midway through

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<sup>40</sup> USAID, Liberia Market Study for Selected Agricultural Products, January 2015.

<sup>41</sup> USAID Office of Food for Peace Food Security Desk Review for Liberia, 2016–2020.

<sup>42</sup> USAID, Smallholder Oil Palm Support (SHOPS) Program Final Report, June 2014.

<sup>43</sup> USAID, Smallholder Oil Palm Support II (SHOPS II) Program, FY 2016 ANNUAL REPORT.

<sup>44</sup> USAID, Smallholder Oil Palm Support II (SHOPS II) Program, FY 2017 Quarter 2.

<sup>45</sup> USAID, Evaluation of the Liberia Sustainable Tree Crops Program (STCP) – Social Impact, Inc., April 2011.

<sup>46</sup> USAID, Smallholder Oil Palm Support (SHOPS) Program Final Report, June 2014.

<sup>47</sup> USAID, Liberia Smallholder Oil Palm Support II (SHOPS II) Program, Q4 FY15.

the project, nursery beneficiaries of SHOPS II had not sold any.<sup>48</sup> Under PD 12/16, the implementers adopted a grant program to incentivize hybrid seedling purchases. By requiring investment by beneficiaries as a grant condition, and providing training and extension assistance, SHOPS II increased nursery production of hybrid Tenera seedlings and progressed toward its related performance target.

Winrock introduced Freedom Mills during STCP, but did not have notable success in marketing this processing technology.<sup>49</sup> Under SHOPS I, the Freedom Mill caught on with producers and processors, and the project surpassed sales targets.<sup>50</sup> In KIIs, SHOPS II staff responsible for processing stated they benefited from Winrock's earlier experience. They worked at improving the skills of established Freedom Mill manufacturers, trained new manufacturers, conducted 60 training sessions, and required manufacturers to keep records after providing training in record keeping. With the assistance of a FtF volunteer, SHOPS II also facilitated the design of a Freedom Mill prototype suitable for processing Dura oil palm.<sup>51</sup>

Project documents from STCP show that women largely managed the marketing of palm oil. However, neither SHOPS I nor II used that knowledge to provide training to women with respect to improving the market position of smallholder palm oil producers, according to FGDs with female beneficiaries.

## 2. COST BENEFIT

### **After 7 years and \$7 million USD of investment, was Tenera the most cost effective variety, compared to Dura or native? Relative to other value chains in Liberia, is oil palm among the most competitive, viable, and environmental to justify USAID to continue investing in the sector?**

As noted by Barcelos et al. (2015), "Oil palm cultivation is one of the most profitable land uses in the humid tropics," and "Oil palm (*Elaeis guineensis*, Jacq.) is by far the most productive oil crop and alone is capable to fulfill the large and growing world demand for vegetable oils that is estimated to reach 240 million tons by 2050 ..."<sup>52</sup> Thus there is a strong *a priori* rationale for focusing on oil palm as a smallholder development strategy. In the 1970s, the Government of Liberia made a strategic decision to promote palm oil as an export product, leading to establishment of plantations in the northern, north-eastern, north-western, and south-eastern parts of the country. These plantations all concentrated on the higher-yielding Tenera variety.<sup>53</sup>

Dura and Pisifera are the two varieties of palm native to Liberia. Dura grows in wild groves in forests and village gardens, typically in clusters resulting from natural seed dispersal. Dura palm oil traditionally has been a primary ingredient in West African cuisine. Tenera is the leading oil palm hybrid between the two naturally occurring Dura and Pisifera varieties. The oil yielding capacity of Tenera is significantly higher than either Dura or Pisifera (most Pisifera is sterile and produces no fruit and therefore no oil), but the primary uses of Tenera oil products are industrial, such as soap manufacturing, rather than

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<sup>48</sup> USAID, Liberia Smallholder Oil Palm Support II (SHOPS II) Program, Q2 FY16.

<sup>49</sup> USAID, Smallholder Oil Palm Support (SHOPS) Program Final Report, June 2014.

<sup>50</sup> USAID, Smallholder Oil Palm Support (SHOPS) Program Final Report, June 2014.

<sup>51</sup> USAID, Liberia Smallholder Oil Palm Support II (SHOPS II) Program, Q2 FY17.

<sup>52</sup> Barcelos, E., Rios, S. de A., Cunha, R. N. V., Lopes, R., Motoike, S. Y., Babychuk, E., ... Kushnir, S. 2015. "Oil palm natural diversity and the potential for yield improvement." *Frontiers in Plant Science*, 6, 190. <http://doi.org/10.3389/fpls.2015.00190>.

<sup>53</sup> Up to 20 oil palm plantations were established during this period, ranging in size from less than 200 ha to 4,400 ha, with approximately 27,000 ha planted out of a potential allocated area of around 50,000 ha. Many operated as cooperatives by smallholder farmers. (Atkinson 2015).

direct consumption. USAID/EAT (2015) reports that among smallholders in Liberia, there are an estimated 60 - 80,000 hectares under Tenera production and about 20,000 hectares under Dura.<sup>54</sup>

GROW (2013) notes an assessment conducted by IFC in 2008 that characterized conditions in Liberia as essentially optimal for oil palm, with occasional but insignificant moisture deficits, good soil fertility and structure (that could be augmented by fertilizer) and adequate sunshine.<sup>55</sup> Moreover, Liberia enjoys superior water availability compared to neighboring countries. However, this same assessment found that the preponderance of smallholder Tenera exploitation involved remnant plantations from the 1970s and 1980s with trees over 20 years old, well beyond their peak productive age;<sup>56</sup> overgrown (above 8 meters in height); and spaced below the optimal density of 145 trees per hectare. As a consequence, the yield of Fresh Fruit Bunches (FFB) was down to around 6-10 tons per hectare per year, significantly below the potential of 18-20 tons per year in well-maintained plantations. The yield gap despite favorable conditions provides further rationale for a project designed around technical support to smallholders. An estimated 125,000 to 300,000 new Tenera seedlings are needed per year for replacement of old trees and for new smallholder plantings.<sup>57</sup> Constrained supply of hybrid seedlings remains a persistent challenge.

Farmers and oil palm sellers noted during FGDs that Dura production and processing methods have not changed since the early days of palm oil production in Liberia. There is very little management or maintenance of tree stock, or planning for sustainable yields. The FFBs are brought down, boiled, washed, mashed, mechanically filtered, and finally the oil is manually skimmed. This process is characterized by inefficiency and losses to spoilage and adulteration. 50% or more of the crop is wasted during harvest, and a further 35% during processing. This completely manual system also results in a short shelf life as well as rapid build-up of free fatty acids.

Labor is the largest variable cost component of palm oil production. Oil palm husbandry is labor intensive and although some steps can be semi-mechanized (such as weeding, fertilizer application and transporting the FFB) most maintenance and harvesting is done by hand and not amenable to mechanization. Oil palm cultivation requires a global average of five workers per hectare. Labor productivity is around 50% lower in West Africa than in Southeast Asia for a number of practical, historical, social and cultural reasons, indicating potential areas for investment in improved smallholder production. GROW (2013) notes that production from Dura trees is more labor intensive (for example, because the trees grow much taller than Tenera trees, such that harvesting of FFBs is both more time-consuming and more dangerous), signaling another advantage of the hybrid over the indigenous species.

That said, labor requirements differ for the two species. The Dura tree propagates itself naturally and produces fruit which can be harvested about 8 months out of the year. Dura often is tended in locations where seedlings have grown from seeds dispersed by natural mechanisms, requiring no inputs or maintenance. People sometimes may remove weeds and brush from the base of young trees to help seedlings grow. After outplanting of Tenera, farmers must perform proper maintenance such as weeding, protection of seedlings from animals and pests, and planting of leguminous cover crops to prevent erosion and fix nitrogen in the soil. The intensive labor required to start up a Tenera plantation is a substantially different endeavor, particularly during the first few years of seedling cultivation.

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<sup>54</sup> USAID/EAT. 2015. *Liberia Market Study for Selected Agricultural Products*.

<sup>55</sup> GROW. 2013. *Oil Palm Market System Analysis*.

<sup>56</sup> As noted in the National Oil Palm Export Strategy, oil palms may live up to 200 years, but their commercial value rapidly drops after about 30 years.

<sup>57</sup> USAID/EAT. 2015. *Liberia Market Study for Selected Agricultural Products*.

The thickness of the shell surrounding the kernel is the major determinant of oil content; compared to Dura, Tenera bunches have 30% more mesocarp and thus 30% greater oil content. Tenera yields substantially more fruit and therefore more palm oil and palm kernel oil than does Dura. Although the cost of establishment and maintenance of the Tenera plantation is considerably higher than for Dura, which is essentially cost-free, much higher yields mean that economic returns per tree and per hectare result in greater net income. The table below indicates key differences between the two varieties.

### Comparison of *Dura* and *Tenera* Oil Palm Varieties

	<i>Dura</i>	<i>Tenera</i>
Cost per seedling	\$0.00	\$4.00
Trees per hectare	50-75	140-150
Cost of planting materials per hectare	\$0.00	\$600
Average number of years to first harvest	7	4 <sup>58</sup>
Average yield (FFB/ha)	2 MT	11 MT <sup>59</sup>
FFB palm oil content	8-12.5%	25-27%
Yield (crude palm oil / ha)	.2 - .4 MT (59 – 119 gallons)	2.8 MT (831 gallons)
Yield (palm kernel oil / ha)	.001 - .025 MT (.9 – 7 gallons)	.2 MT (57 gallons)
Average price, crude palm oil (per gallon)	\$4.30	\$2.40
Average price, palm kernel palm oil (per gallon)	\$5.35	\$5.35
Value of crude palm oil (per hectare)	\$254 - \$512	\$1,994
Value of palm kernel oil (per hectare)	\$5 - \$37	\$305

Table adapted from Bishop and Drobia (2011).<sup>60</sup>

Based on prices and stylized production parameters in the table above, the net annual return to production of palm oil is likely to be at least three times greater from Tenera systems. FGDs and KIIIs confirmed the significant advantage of Tenera over Dura in terms of physical productivity and profitability.<sup>61</sup> The table does not reflect labor costs, but a difference on the order of \$1,000 per hectare in revenue would accommodate as many as 200 extra days of labor for production for Tenera, assuming a generous prevailing daily wage rate of \$5 – well more than the actual difference in labor requirements under the two systems.<sup>62</sup> The striking difference between the two varieties indicates that the cost-benefit ratio of Tenera-based production is highly favorable compared to that of Dura. Fluctuations in palm oil prices over time will affect the size of this differential, but the enormous advantage in physical productivity (yield) of Tenera ensures that its significant economic advantage will persist.

<sup>58</sup> From GROW (2013): “The optimal replanting age for Tenera is generally around 25-26 years, and Tenera palms generally start producing FFB in their 4<sup>th</sup> year at around 20-22% of their peak yield (3-5t/ha), peaking in their 9<sup>th</sup> or 10<sup>th</sup> year and declining slowly thereafter.

<sup>59</sup> Pre-war *Tenera* plantations yielded on the order of 16 MT/ha (GROW 2013). “Malaysian yields are the highest overall, averaging around 22 MT FFB/y with Indonesia around the norm of 18 MT FFB/y, and Cote d'Ivoire around 14 MT FFB/y. Accurate data for Liberia is not forthcoming but the large growers estimate that yields of 18+ MT FFB/ha is obtainable ...” (GROW 2013).

<sup>60</sup> Bishop, C. and A. Drobia. 2011. “Comparison of two varieties of African oil palm in Liberia: Tenera and Dura.” Winrock International.

<sup>61</sup> Prices in Table 2 prevailed in 2010. In March of 2014, price for *Tenera* CPO was slightly higher at \$2.58, while *Dura*, though still higher than *Tenera*, was significantly lower at \$2.98. Seasonal and year-on-year price variation is considerable, but at 2014 prices net returns widened the margin in favor of *Tenera* even more.

<sup>62</sup> Compensation rates mentioned in the final evaluation report of SHOPS I are less than half this assumed wage.

With respect to processing, Bishop (2014) summarizes oil yields obtained with mechanized mills compared to those achieved through manual processing methods.<sup>63</sup> Without mills, people surveyed obtained an average of 8.8 gallons of oil per drum of palm fruits processed. Use of mills increased the average yield to 14.9 gallons, representing a 70% increase in extraction efficiency. FGDs and KIIs confirmed this finding, indicating that mills yielded more or less double the amount of oil compared to manual processing. As mills are designed to process Tenera fruit, this increase in extraction efficiency further reinforces the conclusion that cost-benefit considerations strongly favor Tenera over Dura oil palm systems.

## Value Chains

Based on literature reviews, Liberia enjoys distinct competitive advantages in palm oil, with near optimal growing conditions in large areas of relatively under-developed land close to ports. In addition, Liberia is located near large markets (Nigeria and the EU), and is developing the sector at a time when demand is rising steadily but supply from elsewhere in the world faces land constraints.<sup>64</sup> Moreover, the broad-based national push for certified sustainable palm oil (CSPO) production, if successful, will place Liberia in an advantageous position with respect to demand segments committed to purchasing from sustainable sources.

For smallholders, the production of palm kernel oil and cake offers a profitable value-added agro-processing opportunity. By using palm kernels, smallholder oil palm producers will expand their cash-generating product range, and the oil extraction process also produces a low-cost by-product that is much needed in Liberia's livestock and aquaculture sectors (USAID/EAT 2015).

According to Atkinson (2015), the potential contribution to national employment also is significant. Oil palm being one of the fastest growing sectors in the country, it offers employment for an estimated additional 30,000 to 40,000 workers between now and 2030. Planned oil palm development on the order of 500,000 hectares could provide an estimated 90,000 direct and indirect jobs and support 30,000 out-grower or small-holder families, with significant multiplier effects.<sup>65</sup>

The factors above identify palm oil as a priority value chain in Liberia. This priority is confirmed by a range of analyses conducted by and for USAID, other bi- and multi-lateral agencies, Liberia's Ministries of Agriculture, Finance and Development Planning, and Commerce and Industry, and the National Investment Commission. Existing GOL strategies for economic development and job creation also have prioritized these value chains, including the National Export Strategy, the Investment Promotion Strategy, and the Economic Stabilization and Recovery Plan. The high potential of tree crops such as palm oil was also identified in the Comprehensive Assessment of the Agricultural Sector carried out by the Ministry of Agriculture, the World Bank, IFAD and FAO (2007). These are effectively synthesized in Said (2015), as summarized below.<sup>66</sup>

Said (2015) notes that since the conclusion of the civil conflict, the GOL and her partners have invested in support for a wide range of value chains. This broad approach yielded efforts that have been diluted and impacted only a few aspects of the value chain for any particular product. Neglect of parts of any

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<sup>63</sup> Bishop, C. 2014. *Smallholder Oil Palm Support (SHOPS) Final Impact Evaluation*. Submitted to USAID.

<sup>64</sup> However, according to FGDs and KIIs palm oil produced in the project area is principally destined for the Monrovia market.

<sup>65</sup> Atkinson, P. 2015. *Consulting Study 17: Palm Oil in Liberia: Missed Opportunities and Second Changes*. The High Carbon Stock Science Study.

<sup>66</sup> Said, J. 2015. "Economic Diversification, Job Creation and Inclusive Growth: Why Liberia should focus on the development of the rubber, oil palm, cocoa and fish value chains."

given value chain typically renders investments in other parts far less effective. Therefore, development strategy in Liberia must focus on comprehensively addressing a small number of priority value chains. The value chains identified as priorities in Said (2015) are rubber, oil palm, cocoa and fish/aquaculture. The main reason is the overwhelming evidence provided by research conducted in this area over the past 3 years by the key economic ministries, agencies and development partners:

1. **Ministry of Commerce and Industry and International Trade Center:** In 2014 Liberia's National Export Strategy (NES) was launched. The executive summary states that *'Liberia's NES Team used the following criteria to select priority NES sectors [cocoa, rubber, oil palm and fish]:*
  - *Sectors that are labor-intensive*
  - *Sectors that produce products with a stable or increasing international demand*
  - *Sectors that are aligned with the existing strategic policy priorities of Liberia*
  - *Sectors with potential spillover effects to improve competitiveness throughout Liberia's economy*
  - *Sectors with high potential for value addition*
  - *Sectors with the potential for attracting domestic and foreign investment.*
2. **Ministry of Finance and Development Planning and USAID:** In 2011 as part of the Liberia Growth Corridor Project, USAID conducted a study to compare economic efficiency of cocoa, palm oil and rice. ... It concluded that cocoa and palm oil *'have much lower DRC (domestic resource costs) results than rice, suggesting that while rice production is a good use of domestic resource, cocoa and palm oil are a much more efficient use of the country's limited resources.'* ...
3. **SIDA, via GROW Project:** The Grow Project, which seeks to reduce poverty through the development of value chains and markets in agriculture, has identified oil palm, rubber, cocoa, aquaculture and horticulture as its priority sectors.
4. **National Investment Commission, IFC and Dalberg:** In 2012 NIC and IFC commissioned Dalberg to develop an investment promotion strategy. It identified priority sectors. These are those in Tier I [tree crops, fruit and vegetable processing, fishery, and transport]. Staple food (i.e. rice) does not feature in Tier I because the assessment concluded the Liberia lacks the capability and readiness to succeed in the sector.

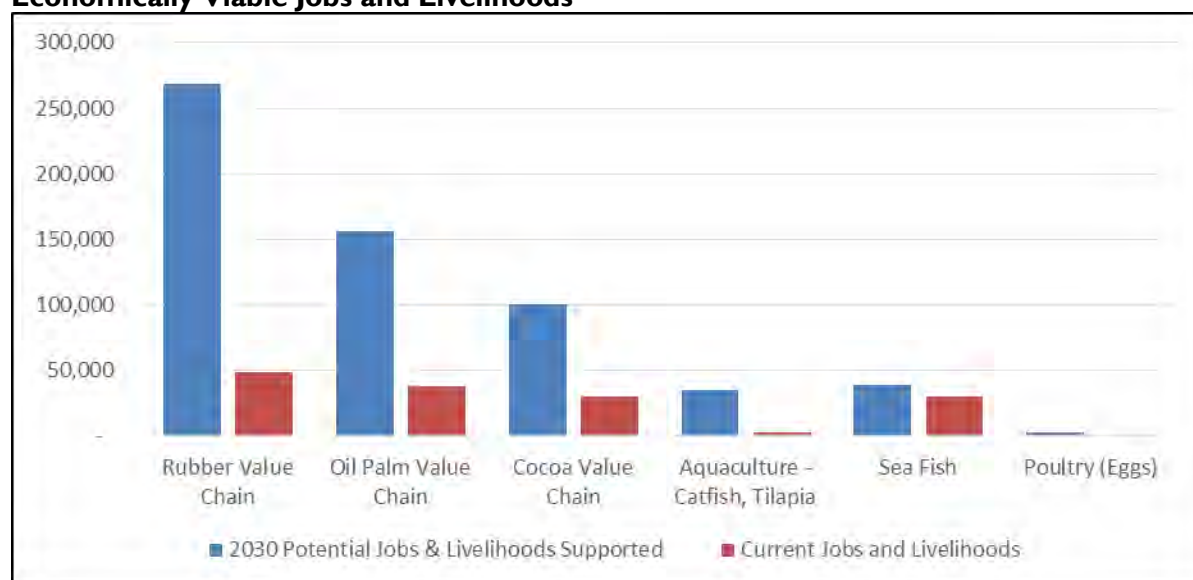
A host of economic reasons motivate the prioritization of rubber, oil palm, cocoa and fish/aquaculture. As already noted for oil palm, Liberia enjoys significant comparative advantages in these products, indicated by the fact that the private sector already is investing in these sectors and able to compete in regional and global markets. For example, a farmer in one KII reported converting land under coffee cultivation to oil palm production in response to better market opportunities. Current private sector interest also signals acceptable levels of risk. They offer large potential for agro-processing, exports and downstream product manufacturing – such as cooking oil, soap, biofuel, and animal feed in the case of palm oil. While government support is important, these sectors require relatively lower investment of government's limited time, management and financial resources to yield results. Each of these sectors offers significant potential employment creation; collectively up to 450,000 additional jobs by 2030. They also offer spillover benefits that can help strengthen other value chains such as rice, cassava, horticulture and livestock. Finally, investment in these value chains offers the quickest path to diversifying the Liberian economy and reducing dependence on mining. The table below presents the relative market size of various value chains, both current and projected in 2030. The figure that follows shows estimated potential job creation.

### Estimates of Value Chain Potential in 2030

	Current market size (2015)	Potential market size (2030)
Crude Palm Oil	\$53,241,800	\$392,850,000
Palm oil products (e.g. soaps, cooking oil, animal feed, etc.)	\$0	\$103,152,518
Block rubber for TSR tires	\$162,540,000	\$331,578,947
Value added rubber, rubber products	\$0	\$248,000,000
Cocoa	\$26,375,000	\$142,536,086
Aquaculture	\$3,000,000	\$232,960,000

Source: Said (2015), who cites estimates by author based on National Export Strategy, Value Chain Reports, Sector Reports (E.g. Rubber Master Plan), Production Data from FAOSTAT, Trade Data from TRADEMAP and Production to Jobs ratios from various countries for various products. Forecasts based on various indicators of market potential such as land availability, population growth and ability to compete in global market.

### Economically Viable Jobs and Livelihoods



Source: Said (2015), who cites estimates by author based on National Export Strategy, Value Chain Reports, Sector Reports (E.g. Rubber Master Plan), Production Data from FAOSTAT, Trade Data from TRADEMAP and Production to Jobs ratios from various countries for various products. Forecasts based on various indicators of market potential such as land availability, population growth and ability to compete in global market.

Thus, evidence confirms that palm oil is among the highest priority value chains for Liberia in terms of potential contributions to economic growth and employment. With respect to social considerations, emphasis on support for the smallholder sector can help counteract risks identified in the commercial plantation segment of the oil palm sector.<sup>67</sup>

With respect to environmental impact and sustainability, although threats to forests and biodiversity posed by commercial oil palm plantations have generated substantial literature, available documentation on this topic is silent on the smallholder sector and comparison of different value chains. As smallholder

<sup>67</sup> Atkinson, P. 2015. *Consulting Study 17: Palm Oil in Liberia: Missed Opportunities and Second Changes*. The High Carbon Stock Science Study.

models typically accommodate mixed production systems and intercropping with other food crops (especially nitrogen-fixing legumes), the downsides of large-scale monoculture systems are mitigated. Project emphasis on replacing Dura trees and Tenera trees past their productive lifespans with new Tenera seedlings mitigates the threat of deforestation to some degree. In the final evaluation of SHOPS I, Bishop (2014) observed that the introduction of Tenera seedlings was contributing to land cover change by replacing old trees and secondary growth, but that the impact was limited given the small size of areas used for planting Tenera compared to land available for cultivation.<sup>68</sup> Therefore, although Tenera does involve active intervention in land cover (compared to Dura which is allowed to propagate naturally), the actual impact of the smallholder sector on forest will be negligible for the foreseeable future. Waste disposal around processing centers is an issue, but project experience suggests that training and awareness investments can quickly result in improved management.<sup>69</sup>

### 3. SUSTAINABILITY

#### **To what extent will livelihoods be sustained after SHOPS II?**

As noted, Tenera oil palm is a financially advantageous option for producers within the project geography. This contributes to the sustainability of livelihoods after SHOPS II. SHOPS I and II have resulted in well-established nurseries as well as successful Freedom Mill garages. The majority of nurseries and Freedom Mills are able to continue operating with or without continued donor assistance, according to KIIs with producers and processors. Processing of oil palm using Freedom Mills rather than traditional methods has vertically integrated operations between producers, nursery operators and processors. These integrated entities make up the large majority of SHOPS I and II beneficiaries, according to FGDs, and participants in cooperatives expressed positive outlooks for their future. However, there is a risk that the smallholder oil palm sector will be negatively impacted when large concession operations increase production levels.

The Final Report for SHOPS I in 2014 reported the following project highlights contributing to sustainability in the smallholder oil palm supply chain:<sup>70</sup>

- Increased income of project beneficiaries in excess of US\$7.7 million.
- Over 300 small businesses had invested over US\$ 3.7 million in capital.
- More than 3,800 seasonal and year around employment opportunities had been created.
- A total of 43 viable nursery operations were established.
- Six manufacturers were producing Manual and Motorized Freedom Mills, Palm Kernel Crackers, Palm Kernel Separators and Palm Kernel Expellers.

With nurseries profiting via sales of Hybrid F1 oil palm seedlings, Freedom Mill manufacturers experiencing steady demand for equipment, producers finding profit in oil palm sales and thousands of young Tenera oil palm trees in the ground, the SHOPS I Final Report suggested that long term sustainability appeared promising for decades to come.<sup>71</sup> Unfortunately, the Ebola epidemic occurred and negatively affected the smallholder oil palm value chain, according to KIIs with various producer groups, individuals, and other oil palm value chain actors. As the Ebola crisis abated in 2015, SHOPS II was launched and helped to maintain gains created through SHOPS I.

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<sup>68</sup> Bishop, C. 2014. *Smallholder Oil Palm Support (SHOPS) Final Impact Evaluation*. Submitted to USAID.

<sup>69</sup> ACDI/VOCA. 2014. *Smallholder Oil Palm Support (SHOPS) Final Report*. Submitted to USAID.

<sup>70</sup> SHOPS I Final Report (April 12, 2011 – May 31, 2014).

<sup>71</sup> SHOPS I Final Report (April 12, 2011 – May 31, 2014).

In a KII, one of the major oil palm concessionaire executives provided information concerning the experience of his firm which offered insight on the challenges of smallholder oil palm producers after the Ebola crisis. Lack of proper tree management during the crisis dramatically set back anticipated tree growth and production, with recovery years away. Trees now 7 years old should yield about 13 MT/H per year, but actual yields post Ebola were 3.5 MT/H. This concessionaire is part of a well-financed global firm; FGDs with producers found that, unlike the concessionaire, smallholders had few financial resources to manage their young oil palm trees during or after the Ebola crisis, implying an even more dramatic impact on output than experienced by the large concessionaires.

Despite the setback from Ebola, as SHOPS II implementation began almost all of the SHOPS I Freedom Mill manufacturers were still in business, and 24% of the SHOPS I nurseries began working with SHOPS II.<sup>72</sup> Although interviews with producers revealed substantial personal tragedy and financial hardship during the period between SHOPS I and SHOPS II, producer organizations generally had survived. Interviews indicate that enthusiasm for the Tenera oil palm business remains strong at all levels of the value chain. Interviews with beneficiaries revealed:

- Nurseries reported strong demand for Hybrid FI Seedlings (though credit constraints hampered actual sales).
- Manufacturers of Freedom Mills typically are stocking inventory, convinced sales will occur.
- Producers are generally satisfied with market demand and prices received.

Interviews with nursery operators developed under SHOPS II suggest that the majority will continue in business with or without external donor intervention. The typical nursery is not just in the nursery business, but generally also functions as producer and/or processor. In FGDs, producers typically expressed strong interest in continuing to expand plantings of Tenera FI seedlings “for their children”. In addition, observation and interviews in local and regional markets as well as the Red Light Market in Monrovia, and with oil depot operators, all verified strong demand for Tenera palm oil.

SHOPS I and II have assisted smallholder producers in understanding the economic value of the oil palm sector. Interviewed cooperative members reported plans to replace their rubber plantations with oil palm farms. According to producers interviewed, it is much easier to plant and maintain an oil palm farm planted with Tenera FI Hybrid compared to coffee, cocoa or rubber.

***A farmer Focus Group Discussion in Lofa indicated that a seed of an improved FI Tenera variety is like a “check” waiting to be cashed anytime.***

For smallholders with little financial reserve, the multi-year wait for an oil palm tree to bear sufficient fruit for commercial activity presents a challenge. To mitigate the lack of revenue while producers wait for Tenera oil palm seedlings to begin bearing fruit, the SHOPS II project design encourages and trains producers to intercrop with revenue-generating crops of short duration, as well as legumes that enhance soil fertility.<sup>73</sup> Revenue from the sale of vegetables such as pepper, bitter balls, okra, and eggplant can pay for upkeep of oil palm trees and cover household needs. Integration of oil palm and animal husbandry offers another livelihood option promoted by SHOPS II.<sup>74</sup> In Lofa County’s Foya

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<sup>72</sup> SHOPS II FY2016 Annual Report.

<sup>73</sup> Smallholder Oil Palm Support II (SHOPS II) Project Year Two Work Plan, March 2016.

<sup>74</sup> Smallholder Oil Palm Support II (SHOPS II) Project Year Two Work Plan, March 2016.

District, an interviewed farmer group linked pig farming to oil palm production by using by-products such as kernels, palm oil cakes, chaff and other waste products from oil processing as animal feed.

Freedom Mills have reduced menial work, increased productivity and created job opportunities for youth. Under SHOPS I and II, a total of 429 manual and 40 motorized Freedom Mills were sold. Interviews with Freedom Mill manufacturers noted ongoing purchasing interest by producers and processors such that several keep finished stocks on hand for impulse sale opportunities. The cost of manual Freedom Mills has ranged from US\$700 to US\$850, while motorized versions have been priced between US\$2,700 and US\$2,800. However, for many producers the cost of even the manual Freedom Mill remains prohibitive, especially in the absence of available financing. The lack of available financing in the post-Ebola period was a point of concern for all parties interviewed in rural as well as urban areas. During the second half of the project SHOPS II provided training to Village Savings and Loan (VSL) participants on providing financing to oil palm value chain actors, particularly nursery operators.

An additional and very serious longer-term issue for smallholder oil palm will be when the large concessionaires come on line with mature production. A World Bank concept note indicates that annual production of palm oil in Liberia reached 42,000 MT in 2011.<sup>75</sup> However, the same document states that there is a potential of 1.5 million MT of palm oil production in Liberia as the large concessionaires and affiliated out-growers come into production within the next 5-7 years. Although it does not examine impact of such expanded production on prices or other market conditions, the note emphasizes the potential creation of 81,000 jobs and beneficial income impacts for 30,000 smallholders. However, while the primary objective of the large concessionaires is to serve the global marketplace, some of this production will also be destined for local and regional markets in competition with smallholder producers in the SHOPS I and II intervention areas. The production from these large technically sophisticated operations will offer refined oil palm with definitive specifications, unlike the material produced via a Freedom Mill.

### **To what extent will farmers be able to continue procuring seeds and propagate seedlings after SHOPS II?**

SHOPS II has stimulated viable nursery enterprises such that farmers should be able to continue procuring seeds and propagating seedlings, but sales of seedlings have been limited. Lack of access to credit may be constraining farmer's ability to purchase seedlings. As for supplies to nurseries, SHOPS I sourced Hybrid Fi Tenera germinated oil palm seeds from two importers.<sup>76</sup> Interviews with nursery operators who worked with SHOPS I and SHOPS II recalled timeliness and strong performance of seeds acquired during SHOPS I. Unfortunately, the same nursery operators expressed disappointment about the performance of SHOPS II with respect to timeliness of seed deliveries.

SHOPS II utilized a single importer to acquire seeds, who also had been a supplier to SHOPS I.<sup>77</sup> Interviews with nursery operators, SHOPS II staff and the importer RAE revealed multiple factors leading to delayed deliveries of Hybrid FI germinated oil palm seeds. During an interview with RAE, one issue raised relating to late deliveries of seed was organizational changes at the source, the Centre National de Recherche Agricole (CNRA) in the Ivory Coast. In addition, high demand for Hybrid FI seeds resulted in the vendor being unable to bring in the quantity of pre-germinated seeds demanded (and prepaid) by nursery operators, forcing SHOPS II to receive and distribute seeds in partial

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<sup>75</sup> World Bank, Concept Note and Plan of Action Oil Palm Sector Development, April 2015.

<sup>76</sup> SHOPS I Final Report (April 12, 2011, May 31, 2014).

<sup>77</sup> Smallholder Oil Palm Support II (SHOPS II) Project Year Two Work Plan, March 2016.

shipments. According to SHOPS II and USAID staff interviews, organizational changes and untimely decision-making within both USAID and project implementers may have contributed to the delays in seed deliveries to nurseries. Finally, road conditions in Lofa County are a perennially seasonal issue.

Under SHOPS I, Hybrid FI Seed distribution typically took place via a generous in-kind matching grant program with most nurseries required to purchase 1000 seeds (\$0.70-0.80/each) and in turn receive the same quantity free of charge.<sup>78</sup> Per the procedures established under SHOPS II, with limited exceptions, nursery operators were required to purchase a minimum of 1500 pre-germinated seeds with polybags at a price of US\$ 0.87. Late in the project (December 2016) an in-kind grants program was established by SHOPS II whereby a purchase of 1500 germinated seeds would result in an additional 500 seeds received free of charge. In KIIs and FGDs, operators expressed intentions to continue importing seedlings; however, given early project experience, nurseries may be less inclined to purchase seedlings after the incentives under the project end.

Interviews indicate that nurseries invest a year of management to produce marketable seedlings sold at a price in the range of US\$3.00-5.00. A part of the revenue from these sales is reportedly used to acquire more pre-germinated seeds for next nursery establishment and seedlings sale.

Interviews with major oil palm concessionaires and published reports highlighted the substantial nursery operations required to support their planting schedules, resulting in significant losses when planting schedules were disrupted due to failure of anticipated land acquisitions.<sup>79</sup> Global firms produce millions of seedlings each year using sophisticated methods. Several years ago, one of these major companies was 'stuck' with 700,000 seedlings, and currently another has nearly a million seedlings with no home. This may point to alternative sources of seedlings for nurseries, warranting exploration of potential relationships with the large-scale commercial sector.

The SHOPS II grants program stimulated seedling purchasing activity amongst the 41 approved SHOPS II nursery operators. Although not verified, 150,000 seedlings were reported in nursery inventories as the 2017 planting season arrived. However, the latest verifiable project reports indicate only 13,132 seedlings have been sold by nurseries over the course of SHOPS II implementation.

Lack of financing is a challenge for all agriculture in Liberia, but in the case of oil palm nurseries in the post-Ebola era, with the exception of modest assistance from several VSLs, there is no conventional financing available for this promising and profitable link in the smallholder oil palm value chain.

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<sup>78</sup> SHOPS I Final Report (April 12, 2011, May 31, 2014).

<sup>79</sup> USAID/Liberia's Constraints Analysis, September 2013.

# CONCLUSIONS

## I. OUTCOMES

### **To what extent did SHOPS II meet its overall objectives and results?**

This evaluation concluded that SHOPS II helped sustain the achievements of SHOPS I in the context of the Ebola virus crisis, but achieved a mixed record with respect to its overall objectives. However, many of the project targets have not been met.<sup>80</sup> The post-Ebola period, leadership changes, the brevity of the project, and reduced funding have negatively impacted the project results. A notable area of success was the bold and effective campaign to promote the Freedom Mill technology. Most producers either had a Freedom Mill or intended to purchase one. In addition, the project conducted an ambitious training and demonstration schedule.<sup>81</sup>

SHOPS I and II implementation failed to capitalize on the opportunity to expand marketing opportunities to greater groups of women. However, SHOPS II technical training and business training received under the business enabling environment and support component of the project helped women achieve success. Although conventional lending was not available during SHOPS II, good business practice training was delivered to beneficiaries, who found it useful according to SHOPS II M&E results and interviews with beneficiaries.

### ***What was its overall contribution to CDCS Development Objective 2?***

There are clear indications that SHOPS I and II contributed to aspects of DO2. SHOPS I and II increased incomes, supported growth of the agricultural sector, and improved sustainable natural resource management. In addition, the project led smallholder oil palm farmers to recognize the value and profitability of planting improved Tenera FI Hybrid seedlings.<sup>82,83</sup> The concept of encouraging nursery operators to invest in the acquisition of germinated FI seeds and, in turn, distribute Tenera FI Hybrid seedlings to smallholder buyers proved to be a successful project design, a sound business enterprise, and an essential link in the smallholder oil palm value chain.

### ***Was the approach used the most effective way to achieve this?***

With the positive results of SHOPS I as a base, and the clear need for continued donor support as reported at the conclusion of SHOPS I, the SHOPS II approach was logical.<sup>84</sup> However, both SHOPS I and II were designed with a focus on production and yields. The decision to concentrate support on Tenera oil palm was not based on market analysis beyond comparing production and yields of Tenera and Dura varieties. An underlying misconception that smallholders expelling Tenera palm oil could participate in the global marketplace persisted during the entire intervention period. Dura palm oil was only evaluated from the perspective of return on investment via marketing on a regional basis.

As SHOPS I and II evolved, there was often confusion among government, donors and implementers regarding the dynamics of providing assistance to smallholders. For example, PD 12/16 notes: “Based on existing oil palm yields, Liberia has the potential to produce approximately 8,000 MT of palm kernel oil

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<sup>80</sup> Smallholders Oil Palm Support II Program (SHOPS II) PIDS Data June 20, 2017.

<sup>81</sup> Liberia Smallholder Oil Palm Support II (SHOPS II) Program, Q2 FY17 Report, April 2017.

<sup>82</sup> Smallholders Oil Palm Support II Program (SHOPS II) PIDS Data June 20, 2017.

<sup>83</sup> SHOPS I Final Report (April 12, 2011 – May 31, 2014).

<sup>84</sup> Ibid

annually with a gross value of approximately \$9 million.”<sup>85</sup> This statement has little to do with the 4,000 smallholder producers in the SHOPS II intervention area, but refers to large concessionaire production for the global market.<sup>86</sup> The global market for palm oil requires consistent and specific product characteristics that cannot be met with Freedom Mills.<sup>87,88</sup> The crude palm oil produced by SHOPS II beneficiaries is not relevant to the global market, but is significant in the regional market where there is strong demand for Tenera palm oil.

The Tenera palm oil value chain continues to be a viable opportunity for the smallholders targeted by this intervention, as well as for the nursery operators and Freedom Mill garages. Donors and Government should support efforts to integrate smallholders into the global value chain, in addition to production of crude palm oil sold mainly in local markets. As long as smallholder producers of Tenera palm oil cannot meet global product specifications, market options will be limited and diminish over time as large concessions and associated out-growers increase output. Treating smallholder and concession palm oil as the same value chain is inappropriate and can lead to ineffective and inefficient interventions.

### **What were unintended outcomes (both positive and negative) as a result of the SHOPS II intervention?**

Without further assistance from SHOPS II production extension staff to assist with marketing and planting, the current inventory of Tenera seedlings owned by nursery operators presents considerable financial risk to SHOPS II beneficiaries, particularly to the 24 new nurseries. Planting of the entire inventory may be problematic due to the limited time of the planting season and without the assistance of SHOPS II extension staff. The early termination of the SHOPS II project with respect to processing may put at risk the development of the new Freedom Mill 3 designed to process Dura oil palm seeds, which remains in the prototype stage awaiting field trials and commercialization.

### **What were unexpected challenges and bottlenecks to achieving objectives?**

There were numerous extenuating circumstances which impacted the implementation of SHOPS II. The fact that the project began during the Ebola outbreak meant that interpersonal interactions had to be conducted with caution. The change in COP during the project also set back implementation. Unanticipated adjustments to funding required work plan amendments, particularly adjustment of the production grants program to which beneficiaries had become accustomed under SHOPS I. Unanticipated delays in acquiring germinated Hybrid Tenera Seeds also impacted production of seedlings by nursery operators. These factors combined to result in dissatisfaction among many beneficiaries as reflected in KIs and FGDs.

### **Did the shared functions and lessons learned of the Implementing Partner from many years of implementation in Liberia and across several donor-funded activities result in improved performance and cost savings?**

Frequent personnel changes prevented ACIDI/VOCA and Winrock from fully benefiting from a history of shared functions and lessons learned from a decade of smallholder oil palm interventions. The two implementers had several years of experience working jointly on palm oil in the same part of the country. Plus, the beneficiaries and objectives remained consistent from SHOPS I to SHOPS II.

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<sup>85</sup> International Trade Center “Liberia Oil Palm Export Strategy 2012, Draft Copy.”

<sup>86</sup> USAID, Associate Cooperative Agreement No. AID-669-LA-15-00002; Liberia Smallholder Oil Palm Support II (SHOPS II) Project.

<sup>87</sup> International standards for palm oil - [link.springer.com/article/10.1007/BF03027632](http://link.springer.com/article/10.1007/BF03027632).

<sup>88</sup> RSPO supply chain Guide - <https://www.rspo.org/publications/download/9f8396266c462ee>.

Therefore, the implementers should have been able to benefit from their shared experience of implementing SHOPS I as well as earlier knowledge gained within STCP. However, turnover in the home office of both implementers contributed to a lack of project historical knowledge among decision makers. The most visible application of a lesson learned was the addition of the in-kind grant program to stimulate seedling purchases by nurseries, resulting in a notable improvement in performance.

## 2. COST BENEFIT

### **After 7 years and \$7 million USD of investment, was *Tenera* the most cost-effective variety, compared to *Dura* or native? Relative to other value chains in Liberia, is oil palm among the most competitive, viable, and environmental to justify USAID to continue investing in the sector?**

Given that old *Tenera* plantations established over three decades ago are well past their productive prime but nevertheless still in use by smallholders, it seems clear that this product remains economically viable. Revitalization of the sector through investment in new seedlings and more efficient processing technology therefore can be expected to generate substantial benefits. Compared to oil yield from *Dura*, *Tenera* offers enormous productivity advantages and is better suited for available mechanized extraction technology. Together with rubber, cocoa and aquaculture, high-yielding *Tenera* palm oil production has been identified as a priority value chain for Liberia due to comparative advantage, feasibility, potential for value-added processing into downstream products, and spillover benefits for other value chains. In sum, USAID, the GOL and other partners can invest with confidence in supporting the palm oil sector as a leading contributor to future growth and employment in the country. The sector clearly merits continued investment from USAID and other sources of support, though there is a strong argument that such investment will have the greatest impact if oil palm is one of a small number of sectors to which the GOL and her partners dedicate a concerted focus.

Much attention with respect to oil palm in Liberia has focused on the commercial plantation sector. The potential of out-growers and smallholders remains underdeveloped, suggesting that the SHOPS II project represents a strategic investment in a producer segment with significant potential positive impact.<sup>89</sup> However, the full impact of this investment also is influenced by the larger challenges facing agricultural development in Liberia, which include those related to physical infrastructure (notably roads and ports to transport product to market); land tenure; land use planning, including environmental considerations; availability of affordable agricultural inputs; access to timely market information; and access to credit.

Of these challenges, the issue of availability of market information is particularly pertinent to cost-benefit analysis and value chain comparisons.<sup>90</sup> As long as this remains the case, absent a significant investment in data collection, analyses necessary will remain qualitative and speculative in nature. Fortunately, with respect to questions concerning the relative merits of *Tenera* versus *Dura*, and palm oil versus other value chains, the conclusions from such analyses are sufficiently clear to justify investments to support the sector.

## 3. SUSTAINABILITY

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<sup>89</sup> Atkinson, P. 2015. *Consulting Study 17: Palm Oil in Liberia: Missed Opportunities and Second Changes*. The High Carbon Stock Science Study.

<sup>90</sup> USAID/EAT. 2015. *Liberia Market Study for Selected Agricultural Products*.

### **To what extent will livelihoods be sustained after SHOPS II?**

The smallholder oil palm value chain will be sustainable for the next several years with or without continued donor intervention. Tenera oil palm is the most profitable crop smallholders can produce in the six counties where SHOPS I & II intervened. However, in the absence of GOL support and commercial financing, it is not clear that the necessary value chain improvements will occur organically without guidance and financial support from donors.

The challenge for the entire smallholder oil palm value chain will be the substantial production volumes entering the regional market when the large concessions begin to produce. Unless smallholders within the SHOPS I and II area of intervention can establish an enduring customer base, production from the large concessionaires will dominate the regional market. Without the development of a consumer preference for smallholder Tenera palm oil, the opportunity for Liberian smallholders to participate in regional sales will be limited. To join the regional marketplace, smallholders must become able to produce refined palm oil or to supply processing firms. Without continued donor assistance, it may not be possible for producers, nurseries and Freedom Mill garages to continue to evolve and become sufficiently structured and organized to compete in regional markets.

A fundamental concern relating to smallholder oil palm in Liberia is the complete lack of oil palm research within the nation. This issue is particularly evident with respect to production of high quality Hybrid FI Germinated Seeds, which at this point must be imported. The lack of research on oil palm in Liberia will constrain smallholders in the coming years. Particular research needs include oil palm genetics, post-harvest management, processing and marketing.

Despite the above-mentioned constraints, the crop diversification advanced by SHOPS II will reinforce sustainability. Crop diversification provides a steady source of income for family sustenance, and while oil palm seedlings are maturing, a form of insurance against crop failure.

### **To what extent will farmers be able to continue procuring seeds and propagate seedlings after SHOPS II?**

The majority of nursery operators will continue in business with or without external donor intervention. The likely level of success of these nurseries without further support is an open question. Most operators are not only in the nursery business but are generally also producers and/or processors, mitigating the very limited sales volumes achieved to date. Nevertheless, all observations, interviews and data references reviewed during the field visits suggest continued and strong demand for Hybrid FI Seedlings. The large commercial concessions maintain their own facilities to develop improved Hybrid FI seeds. SHOPS I and II implementers did not explore this potential avenue for acquiring either germinated seeds or seedlings.

# RECOMMENDATIONS

## I. OUTCOMES

### **To what extent did SHOPS II meet its overall objectives and results?**

In future, the MOA, GOL, USAID and other partners should design and deliver assistance to the smallholder oil palm sector recognizing that smallholders and large oil palm concessionaires constitute distinct and separate value chains. Tailoring donor assistance to the needs of smallholders will help ensure they receive the support necessary to overcome challenges in producer, processing, and marketing. Specific areas that warrant continued donor support focused on smallholders include improvements in processing equipment and improvements in marketing with a gender focus.

### **What was its overall contribution to CDCS Development Objective 2? Was the approach used the most effective way to achieve this?**

Although the CDCS and DO2 focus on value chains other than smallholder oil palm, USAID should continue support for smallholder oil palm producers, nurseries and Freedom Mill manufacturers.

Development projects should be market based. The CDCS expressed an interest in environmentally friendly forest related enterprises. USAID should share lessons learned from SHOPS I and SHOPS II with current donor-funded projects related to private sector development and forest enterprise. Programming and work plans of current and future interventions in the counties targeted by the CDCS will have greater success by building on the work of SHOPS II. USAID and implementing partners should support continued improvements in Freedom Mill manufacturing, additional sources for hybrid oil palm seeds, and continued research related to oil palm genetics, production technology and processing. Furthermore, researchers active in Liberia should investigate opportunities related to Dura oil palm.

According to MOA reports, overall GOL policies give little consideration to oil palm in the counties where SHOPS I & II have intervened.<sup>91</sup> These documents indicate the focus of the GOL as related to oil palm is on the large oil palm concessionaires, with some attention to the smallholder out-grower concept near the concessions. GOL policies lump all oil palm activities as one.<sup>92</sup> However, market analyses by USAID and reports by SHOPS II recognize smallholder oil palm as an entirely separate value chain.<sup>93</sup> Therefore an approach focused on smallholders is the most effective way to advance DO2.

### **What were unintended outcomes (both positive and negative) as a result of the SHOPS II intervention?**

In light of the early closure of the project, 6 months earlier than originally planned, the implementer and USAID should extend the services of SHOPS II production staff for 2-3 months beyond the current planned contract termination of July 2017 to assist nursery operators with marketing current inventories and in turn producers with planting seedlings.<sup>94</sup> Otherwise, the current inventories may not be planted as intended, which will undermine the overall investment to date. The SHOPS II implementers and USAID should also extend activities related to manufacture of and training related to Freedom Mill 3, to ensure contained uptake of technology that increases the incomes of smallholders.

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<sup>91</sup> GOL, Ministry of Agriculture, 2014 Annual Report.

<sup>92</sup> Ibid

<sup>93</sup> USAID GROW - Oil Palm Market System Analysis, October 2013.

<sup>94</sup> Interview with ACDI/VOCA Project Management June 12, 2017.

### **What were unexpected challenges and bottlenecks to achieving objectives?**

USAID should design future interventions in smallholder oil palm sector with a period of performance of at least five years to ensure beneficiaries make sustainable improvements in their livelihoods. Despite the Ebola-related hiatus between SHOPS I and SHOPS II, USAID invested in SHOPS I and II, as well as the earlier oil palm investment via SCTP, amounting to more than a decade of investment in Tenera oil palm. Despite this extended support by USAID, the budgetary necessity to close SHOPS II ahead of schedule will negatively impact beneficiaries. USAID and the implementing partners should continue to consider a no cost extension to SHOPS II to mitigate the risk to beneficiaries by amending the early closing of SHOPS II to at least provide continued assistance to vulnerable nursery operators and ensure the completion of Freedom Mill 3.

### **Did the shared functions and lessons learned of the Implementing Partner from many years of implementation in Liberia and across several donor-funded activities result in improved performance and cost savings?**

USAID should reinforce its institutional memory of lessons learned from SHOPS I and SHOPS II through knowledge sharing events with the implementing partners and other stakeholders. The USAID/Liberia Knowledge Management Portal provides an effective platform for dissemination. USAID and other donors should continue support for SHOPS II beneficiaries in post-harvest management, processing and market development. USAID-funded activities should enhance their coordination in the area targeted by USAID interventions as well as other donors operating in that area to avoid duplicating efforts.

## **2. COST BENEFIT**

### **After 7 years and \$7 million USD of investment, was Tenera the most cost-effective variety, compared to Dura or native? Relative to other value chains in Liberia, is oil palm among the most competitive, viable, and environmental to justify USAID to continue investing in the sector?**

The overarching recommendation on the basis of the qualitative cost-benefit analysis is that donors should strongly consider the smallholder oil palm sector for further support, based on promotion of high-yielding Tenera, assuming that project design will incorporate lessons generated in this report. Acknowledging that design of effective projects with measurable impacts is particularly difficult in the Liberian context, the economics of smallholder cultivation and processing of Tenera are highly favorable, both at the local farm level and from a national agricultural policy perspective.

A second recommendation is that further donor investment be accompanied by design and application of a data collection framework that from the outset compiles the quantitative information required to conduct rigorous cost-benefit analysis and value chain comparisons. Structuring the desired analyses at the outset, and then collecting the data needed for these analyses over the course of implementation, will generate more concrete results than analysis designed on the basis of available information at the end of the project. Aside from project evaluation, this will also generate the robust information required to inform private sector investment in palm oil in Liberia.

### 3. SUSTAINABILITY

#### **To what extent will livelihoods be sustained after SHOPS II?**

USAID and the implementers of SHOPS II should negotiate a project extension specific to launching the Freedom Mill 3 machine as a market-ready tool and to support marketing and planting of seedlings currently sitting as inventory in the SHOPS II approved nurseries.<sup>95</sup>

USAID, MOA and other donors should consider interventions to support Dura oil palm tied to Tenera oil palm to create efficiencies, reduce menial labor for women, and create opportunities for youth. Opportunities for future interventions may include the utilization of post-harvest and processing technologies to open new market opportunities unique to smallholder capabilities and advantages.

Support to the Central Agriculture Research Institute (CARI) should be expanded via donor grants and private sector involvement and investment, including a focus on improvements in oil palm genetics.

The GOL and donors need to address the overall lack of agricultural credit in Liberia. Although the VSLs play an important role, the active involvement of commercial banks as lenders, providing reasonable interest rates, is a necessity for a growing smallholder sector in agriculture and agribusiness. To improve the business enabling environment, the donor community supporting smallholder agriculture in Liberia should seek ways to incentivize commercial lenders to offer loans to agricultural enterprises at all levels within the oil palm value chain, with a focus on producers, nurseries and Freedom Mill manufacturers.

Future donor support for smallholder oil palm in Liberia should include marketing training specifically targeting women representing the interests of producers in the marketplace. The training should emphasize skills and knowledge leading to a stronger position within the value chain, including broader market options, sales stability and improved returns on investment.

#### **To what extent will farmers be able to continue procuring seeds and propagate seedlings after SHOPS II?**

MOA extension personnel should follow up on SHOPS II by promoting Hybrid F1 seedlings. USAID and other donors should diversify the suppliers of the F1 Tenera hybrid variety seedlings. The principal prerequisite for continued development of the smallholder oil palm sector is the sustained availability of improved pre-germinated F1 hybrid variety seeds, for propagation of viable seedlings for field planting. To ensure the continuous supply of seedlings, there must be multiple sources of Hybrid F1 seed. RAE will likely continue to supply the nurseries developed by SHOPS I and II, but there are risks to dependence on a single supplier. Donor interventions are encouraged to develop alternative sources from which producers could acquire Hybrid F1 seedlings. Other potential importers of Hybrid F1 Seed should be encouraged to conduct business with smallholder oil palm entities.

Although the major concession operations have no vested financial interest in oil palm production in the counties where SHOPS I and II have intervened, there are ways to generate interest among the concessionaires in assisting inland smallholder producers. One way is to emphasize the good will that would be generated, and the resulting positive public relations and public perception. Donors should integrate relationship-building strategies between the commercial concessionaires and smallholder producers in future activity design.

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<sup>95</sup> Liberia Smallholder Oil Palm Support II (SHOPS II) Program, Q2 FY17 Report.

# ANNEXES

## ANNEX I: EVALUATION STATEMENT OF WORK

### SCOPE OF WORK END OF PROJECT PERFORMANCE EVALUATION OF THE SMALLHOLDER OIL PALM SUPPORT (SHOPS II) PROJECT

#### BACKGROUND INFORMATION

##### Activity Identification Information

1. Activity Name:	Smallholder Oil Palm Support (SHOPS II) Project
2. Award Number:	AID-669-LA-15-00002
3. Award Dates:	March 1, 2015 – August 31, 2017
4. Funding:	\$3,239,799
5. Implementer:	ACDI-VOCA
7. AOR:	Mulbah S. Jackollie
8. Geographic Focus:	Bong, Lofa, Nimba, Margibi, and Grand Bassa

##### Background and Development Context

The SHOPS II is a three-year USAID funded project implemented in Bong, Nimba, Lofa, Margibi, and Grand Bassa Counties. The implementation of the USD 3.239 million project started in March 2015. The project is a follow on to the SHOPS I and both are based on the theory of change that strengthening the smallholder oil palm sector will reduce rural poverty, improve nutritional status via increases in products available for consumption and increase in income available for food purchase, stimulate private sector investment in the agriculture sector and lead to increased export earnings. SHOPS II is supporting the expansion of the two components of SHOPS I: 1) Manufacturing of oil palm processors; and 2) production and sale of high yielding oil palm Tenera variety seedling from the Ivory Coast to smallholder farmers.

The specific goal of the activity is to improve the livelihoods of beneficiaries through income generation from oil palm production, processing and marketing while creating jobs from manufacturing of processing equipment. SHOPS II also integrates environmentally sustainable practices to reduce deforestation and land degradation from smallholder oil palm rehabilitation activities. The Rainforest Agriculture Enterprise (RAE) is a local vendor contracted by SHOPS II to import FI Generation *Tenera* oil palm seedlings from the Ivory Coast for propagation by nursery operators. SHOPS II has been working very closely with the Ministry of Agriculture (MoA) through County Agriculture Coordinators and various technical working groups to support the rehabilitation of smallholder oil palm farms to create sustainable livelihoods for smallholder farmers.

##### Goal and Objective

SHOPS II goal is to continue strengthening Liberia's smallholder oil palm sector to contribute to agricultural growth, reduce rural poverty, and reduce deforestation resulting from smallholder oil palm expansion. The specific objectives are:

- I. To increase the productivity and profitability of the smallholder oil palm sector

2. To improve oil palm marketing and trade capacity
3. To improve the business enabling environment and support functions
4. To strengthen Liberia's National Interpretation of the Roundtable on Sustainable Palm Oil and its participation in the Tropical Forest Alliance 2020
5. To integrate best practices in natural resources management, environmental responsibility, and biodiversity conservation in smallholder oil palm rehabilitation activities

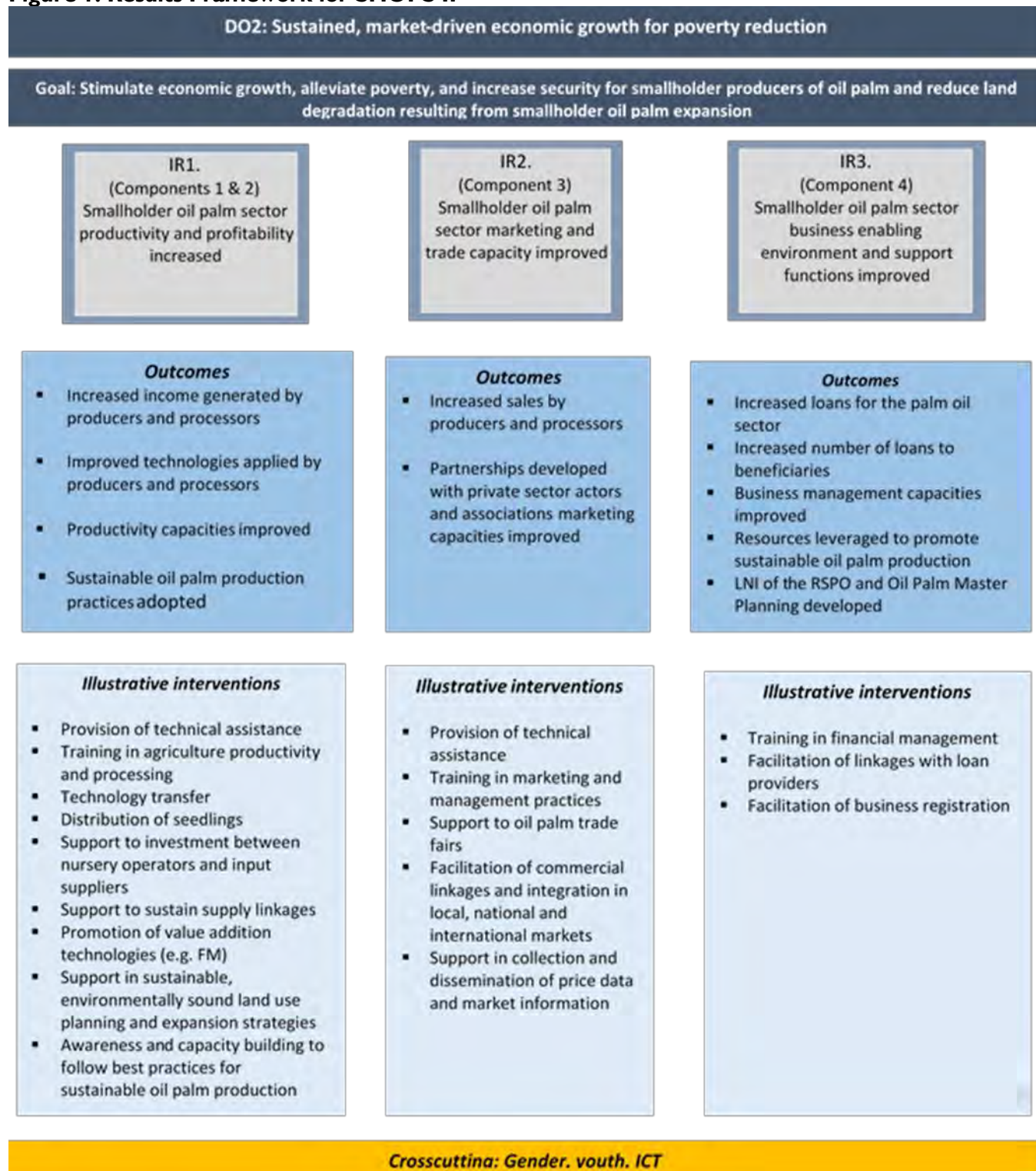
### **Intended Results**

SHOPS II uses an all-inclusive strategy that incorporates women and youth, while also partnering with the Government of Liberia/MOA and other development partners to improve the livelihood of rural Liberians and to contribute to achievement of food security in Liberia. Its intended results are:

- Improved livelihood of smallholder oil palm farmers through increased income from production, processing and marketing;
- Improved business enabling environment for oil palm production and marketing
- Localized the manufacturing of oil palm processors to increase farmer access to processing equipment
- Improved natural resources management practices in smallholders' oil palm rehabilitation activities

The results framework below shows the expected results of this activity and their relationship with the four intermediate results of the Country Development and Cooperation Strategy (CDCS) for USAID/Liberia.

**Figure I. Results Framework for SHOPS II**



To link the SHOPS II results framework to the overall USAID/Liberia objectives, refer to the USAID Liberia results framework in Appendix I.

## Approach and Implementation

SHOPS II implementation approach is based on four components listed below: **1. Production** – To provide support to 45 new and old nursery operators to propagate 183,000 Tenera seedlings for sale to farmer groups to rehabilitate 1,100 hectares of land. **2. Processing** – To provide further technical and business support to five local workshops that were supported under SHOPS I to manufacture oil palm processing equipment including Freedom Mills (oil palm processing machine produced and sold in Liberia), palm kernel crackers, and separators. **3. Marketing** – To provide market information to the smallholder farmers by collecting quarterly Crude Palm Oil (CPO) price data and commercialization of palm kernel cake as animal feed. **4. Business enabling environment and support functions** – To provide support to smallholder farmers to access finance to invest in their businesses and to manage natural resources sustainably.

## EVALUATION PURPOSE

The purpose of the evaluation is to assess if Smallholder Oil Palm Support (SHOPS II) interventions achieved the goal of increasing incomes of smallholder oil palm farmers, progress on the achievement of activity targets, what lasting effects the activity will likely have on food security and livelihood of beneficiaries, and to generate information that can be used by USAID/Liberia and the Government of Liberia to inform future assistance to the smallholder oil palm sector. The evaluation will be conducted by the USAID/Liberia Contractor, Liberia Strategic Analysis (LSA) in Bong, Lofa and Nimba Counties in Liberia from May to July 2017. Though a smaller activity compared to other Mission funded activities, this evaluation is critical to educating not only USAID but also the broader constituents on efforts to improve the livelihood of rural Liberians, create jobs and reduce hunger and poverty. The scope of this evaluation will encompass all the key activities that contribute to the achievement of SHOPS II's overall goal and objectives. Data-based evidence in support of the evaluation findings will be essential.

## Audiences and Intended Users

The primary stakeholders to benefit from the findings of the end of activity evaluation include:

- USAID/Liberia;
- Government of Liberia - Ministry of Agriculture;
- The SHOPS II program implementing partners and team;
- Other USAID and U.S. Government agency partners currently supporting the oil palm sector of Liberia including:
  - USAID Bureau for Economic Growth, and the Environment (E3);
  - USAID Africa Bureau (USAID/Africa);
  - USAID Bureau for Food Security (BFS)
  - USDA

## EVALUATION QUESTIONS

The evaluation will focus on answering the following questions. The contractor must prepare responses to the questions based on the evidence collected as part of this evaluation.

### I. Outcomes

- To what extent did SHOPS II meet its overall objectives and results?
  - i. What was its overall contribution to CDCS Development Objective 2?
  - ii. Was the approach used the most effective way to achieve this?
- What were unintended outcomes (both positive and negative) as a result of the SHOPS II intervention? What were unexpected challenges and bottlenecks to achieving objectives?

- Did the shared functions and lessons learned of the Implementing Partner from many years of implementation in Liberia and across several donor-funded activities result in improved performance and cost savings?
2. Cost Benefit
    - After 7 years and \$7 million USD of investment, was *Tenera* the most cost-effective variety, compared to *Dura* or native? Relative to other value chains in Liberia, is oil palm among the most competitive, viable, and environmental to justify USAID to continue investing in the sector?
  3. Sustainability
    - To what extent will livelihoods be sustained after SHOPS II?
    - Given the import ceiling, to what extent will farmers be able to continue procuring seeds and propagate seedlings after SHOPS II?

The analysis and findings regarding each of the evaluation questions should be followed by specific, tailored, realistic and actionable recommendations aimed at improving outcomes for USG investments.

## EVALUATION DESIGN AND METHODOLOGY

This evaluation is intended to answer three questions presented above (3.0). The suggested approach to be used to answer these questions will focus on, but not be limited to, the following: desk study, key informant interviews, site visits, and consultations with relevant stakeholders. Other applicable qualitative methods are also welcomed as appropriate. LSA will use a team comprised of independent consultants, with possible additional support from the AOR at USAID to examine the performance of SHOPS II activities from start of the agreement through the evaluation period. USAID/Liberia is also interested in recommendations on possible strategies for enhancing performance of future USAID assistance to the oil palm sector. LSA is expected to work with USAID and SHOPS II to plan and implement the proposed evaluation. USAID/Liberia and the full evaluation team will remain involved with design, planning, and logistics, but the consultants are expected to provide overall leadership and direction, and exercise a degree of autonomy, as well as have the final responsibility for conducting the evaluation and evaluation deliverables.

### Data Collection and Analysis Methods

Data requirements, collection methods, and required analyses will be determined collaboratively with USAID/Liberia under the direction of LSA based on the guidelines in ADS 203. Details on final datasets, collection methods (including interview questions and key informants to be interviewed), and analytical framework(s) will be approved by USAID/Liberia as part of the initial work plan approval. Data are to be disaggregated by sex if and where necessary.

As summarized below, the data collection and analysis process will comprise three phases described below.

- **Desk study:** The evaluation team must review existing documents and information listed in section 4.2 below, and work with USAID/Liberia to acquire additional documents and information as needed, and prioritize primary data collection where gaps remain. The evaluation team will draw on the Knowledge Management Portal to review all relevant existing research in the oil palm sector related to Liberia.
- **Consultations:** To gain an illustrative sample, USAID/Liberia expects the evaluation team to meet in-person or hold telephone calls with at least 15 key stakeholders total in the three counties and Monrovia to obtain responses for evaluation question as may be necessary. These may include but are not limited to MOA staff, community people with stake in the oil palm sector, technical working group members, local authorities as well as other development partners.

- **Interviews and focus group discussions:** The evaluation team must conduct 10 in-person interviews and 5 focus group discussions in each of the three counties with project implementing partners, collaborating partners, project beneficiaries, and others listed among the key stakeholders to allow for a range of perspectives and give depth to the evaluation.

### **Existing Documents for Review**

A variety of project-related documents, including but not limited to the following, will be available and provided by USAID to the contractor upon award:

- SHOPS II Award and Statements of Work
- SHOPS II Annual work plans (2015, 2016)
- SHOPS II Monitoring and Evaluation Plans
- SHOPS II quarterly and annual reports
- Performance Indicator Database System data
- Data Quality Assessment Reports
- Modified program descriptions
- USAID/Liberia CDCS and PMP
- Gender Assessment for the USAID/Liberia CDCS
- SHOPS I Midterm Evaluation Report
- SHOPS I and II assessments and studies
- World Bank Food Security Assessment
- Other related national sectoral studies, data and reports

The evaluation team should also refer to the Knowledge Management Portal to identify additional reports and studies to support the evaluation.

## **DELIVERABLES AND TIMELINE**

### **Evaluation deliverables include:**

1. Evaluation Team Planning Meetings
2. Inbrief with USAID/Liberia, GOL and Implementing Partners
3. Inception Report with work plan and data collection instruments
4. Debrief with USAID/Liberia, GOL and Implementing Partners
  - Present the major findings from the evaluation to USAID/Liberia and partners through a PowerPoint (or similar) presentation. The debriefing will cover initial findings, conclusions and preliminary recommendations.
5. Original data and data sets -- Copies of secondary quantitative data sets, transcripts of interviews and focus groups, and notes from direct observations. Quantitative data sets should be submitted to the DDL, per Agency policy.
6. Draft Evaluation Report - A draft report should be submitted to Liberia Strategic Analysis (LSA) for review, and LSA must submit the draft report to USAID/Liberia within three weeks after the in-country work is conducted. The written report should clearly describe findings, conclusions, and recommendations and conform to USAID requirements outlined below. USAID will provide comments on the draft report within five working days of submission. As agreed upon during planning meetings, LSA will also submit the draft report to the GOL for its comments and shared with the Implementing Partner for an opportunity to disclose a statement of difference, if applicable.
7. Final Report - The Team will submit a final report that incorporates the GOL's and Mission's comments and suggestions no later than ten days after final, written comments on the team's draft report have been submitted by all parties.
8. Learning Event – Liberia Strategic Analysis will facilitate a learning event one to two months after the report has been finalized to engage USAID/Liberia and stakeholders in the utilization of recommendations. This will be combined with an After-Action Review, prescribed as good learning

practice per ADS 201, to support USAID in the incorporation of recommendations into work plans, project or activity design, and the next Country Development Coordination Strategy.

**The draft evaluation report should meet the following criteria:**

- The report should be in line with USAID Evaluation Policy (see Criteria to Ensure the Quality of the Evaluation Report) and USAID Secretariat Style guide.
- The report should be no longer than 30 pages, excluding executive summary, table of contents, and annexes.
- The report should include a 3-5-page Executive Summary highlighting findings and recommendations.
- The report should represent a thoughtful and well-organized effort to objectively respond to the evaluation questions.
- The report shall address all evaluation questions included in the SOW.
- Evaluation methodology shall be explained in detail and all tools used in conducting the evaluation such as questionnaires, checklists and discussion guides shall be included in an Annex in the final report.
- A modified statement of work shall be included in an Annex in the final report. All modifications to the statement of work, whether in technical requirements, evaluation questions, evaluation team composition, methodology, or timeline need to be agreed upon in writing by USAID/LIBERIA/EG.
- Limitations to the evaluation shall be disclosed in the report, with particular attention to the limitations associated with the evaluation methodology (selection bias, recall bias, etc.).
- Evaluation findings should be specific, concise and supported by strong quantitative or qualitative evidence.
- Recommendations should be action-oriented, practical, specific, and evidence-based.
- The final report should be edited and formatted.
- Liberia Strategic Analysis must submit the final evaluation to the Development Experience Clearinghouse.

The report will be submitted electronically. The final report will be edited/formatted by the contractor and provided to USAID/Liberia five working days after the Mission has reviewed the content and approved the final revised version of the report. The final evaluation report must be 508 compliant and comply with the USAID Evaluation Policy: <http://www.usaid.gov/sites/default/files/documents/1868/USAIDEvaluationPolicy.pdf>

**Timeline**

The evaluation should follow the timeline for producing deliverables outlined in the Gantt chart below.

### Performance Evaluation Gantt Chart

Activity	# of days	Week 1-2	Week 3-5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14	Week 15
USAID shares final SOW with LSA	1												
LSA publishes call for CVs	14												
LSA recruits and onboards team members	21												
Desk Review	5												
Team travels to Liberia	1												
Team planning meeting - internal	1												
Submit draft Inception Report to USAID	1												
Planning Meetings with USAID and IP/GOL	1.5												
Inbrief with USAID and IP/GOL	1												
Prepare for field work	2.5												
Submit final Inception Report to USAID	2.5												
Field Work	20												
Preliminary analysis	1												
Debrief with USAID and IP/GOL	1												
Travel from Liberia	1												
Analysis and report drafting	9												
LSA quality control and revisions	5												
LSA submits Draft Report to USAID	5												
USAID, IP, and GOL review the draft report	5												
Evaluation team incorporates comments and feedback	5												
LSA quality control	5												
LSA submits Final Report to USAID	5												
LSA facilitates Learning Event with USAID, IP, and stakeholders	1												
Prep work by Team Leader and national consultant	1												

## TEAM COMPOSITION

The evaluation will be led by a Team Leader designated by LSA and preferably supported by two Subject Matter Specialists and one Evaluation Specialist.

The **Team Leader** will be responsible for the overall implementation of the evaluation and ensuring that all expected tasks and deliverables are achieved on time and of high quality. S/he must have at least ten years' professional experience in evaluation management and qualitative data collection and analysis. The candidate must have extensive experience and expertise in private sector development and value chain strengthening, preferably in West Africa. Knowledge of working with USAID rules, regulations, and procedures, particularly USAID's evaluation policy and requirements of economic growth programs, are highly desirable. The candidate must have a proven track record supervising teams in the field and producing high quality and concise reports in English. S/he will oversee the overall drafting of the evaluation framework, including methodology determinations; organization of calendar/travel/meetings; assign responsibilities for interviews, data collection, analysis process, and report writing.

The **Agricultural Economist** will support the Team Leader in the implementation of the evaluation. S/he should have at least five years' professional experience in agricultural value chain development. S/he must have demonstrated analytical skills in estimating costs and return of investment related to the production and distribution of goods and services in agriculture industry. The candidate should have a sound knowledge of different varieties of oil palm and their application in West Africa. Analysis will include budgets, costing by outputs, and sector report data. The candidate must have exceptional organizational, analytical, writing and presentation skills. Knowledge of USAID rules, regulations, and procedures in this sector is highly desirable. S/he will contribute to the overall drafting of the evaluation framework and participate in the desk study, interviews, and other data collection; and analyze the data with input from team members and USAID/Liberia to draft the evaluation report.

The **Agro-Livelihood Expert** will be the sectoral specialist with experience and knowledge about the Liberian context, particularly on livelihood development and production, processing, marketing, and business enabling environments in the agriculture sector. Ideally, the candidate will have experience in the oil palm sector and knowledge of different varieties in West Africa. S/he should have at least five years' professional experience in designing and/or evaluating agricultural projects, preferably through USAID. Some experience managing or implementing research programs is preferable. The incumbent must be able to conduct interviews and focus group discussions and analyze the resulting data. Strong American English language speaking and writing skills are also essential.

The **Evaluation Specialist** will provide additional technical support to the evaluation team as well as administrative and logistical support as necessary to carry out the evaluation. S/he should have strong English speaking and writing skills, at least a university-level degree, and a minimum of five years of technical knowledge and experience in a relevant field (e.g., project management, project evaluation, business management). S/he will be responsible for assisting in coordinating the desk study, interviews, and other data collection, and providing overall administrative and logistical support including meeting arrangements for the team. The Evaluation Specialist, working closely with the SHOPS II Agreement Officer's Representative (AOR), will provide overall strategic direction and guidance throughout the evaluation process, including the development of the work plan, any data collection tools, and the evaluation report outline, approach, and content. This role will be filled by the LSA M&E Specialist for Economic Growth.

## LOGISTICS AND LEVEL OF EFFORT

The evaluation team is anticipated to visit and conduct field consultations and data collection visits in three counties where SHOPS II has activities in - Bong, Nimba and Lofa. USAID and the SHOPS II program can assist in providing contact information. The evaluation team is responsible for making its own meeting and logistical arrangements including hotel, air travel, and local transportation arrangements.

Evaluation team members are authorized and expected to work a six-day week. Travel over weekends may be necessary. Work should commence as soon as practicable, but no later than May 2017. For planning purposes, contractors should be aware of Liberian and US holidays during the evaluation time frame.

The evaluation should follow the illustrative schedule and level of effort given below.

<b>Task/Deliverable</b>	<b>Estimated time (Days)</b>
Review background documents & preparatory work (offshore): Draft work plan submitted to USAID/Liberia	<b>5 int'l / 3 nat'l</b>
Travel to Liberia-expatriate team members	<b>2</b>
Team Planning Meetings in Monrovia with implementing partners and USAID	<b>2</b>
In-brief with USAID/Liberia and prepare for field work	<b>4</b>
Field work: Data collection and On-Going Data Analysis	<b>20 (including field travel)</b>
Analysis and report drafting	<b>10 int'l / 7 nat'l</b>
Presentation and debrief with GOL, USAID/Liberia and IPs by Evaluation Team	<b>1</b>
LSA performs quality assurance check and edits draft report	<b>4</b>
LSA submits draft report to USAID/Liberia, IP, and GOL	<b>1</b>
USAID and IP provide comments on draft report	<b>5</b>
Evaluation Team Leader revises draft report to incorporate comments and submit final report	<b>5 TL / 1 int'l team member</b>
LSA performs quality assurance check and submits final report	<b>5</b>
LSA facilitates learning event	<b>1 TL / 2 nat'l</b>
Total time required	<b>65</b>
Working days Team Leader (including international travel)	<b>50</b>
Working days international team member (including international travel)	<b>45</b>
Working days local team members	<b>39</b>

# ANNEX II: EVALUATION METHODS AND LIMITATIONS

## OVERALL METHODOLOGY

To operationalize the evaluate design, LSA opted to conduct a mixed-methods evaluation of SHOPS II. A mixed-method evaluation integrates two or more evaluation methods in the evaluation process, usually drawing on both quantitative and qualitative data. Incorporating multiple methods into a single evaluation results in a stronger, more complete evaluation and increases confidence in the validity and reliability of the results. A mixed-methods approach is more likely to reveal unanticipated results than a single method, and provides a deeper understanding of why change is or is not occurring in line with the theory of change.

## EVALUATION SCHEDULE

The team conducted the evaluation based on the following schedule:

<b>Week 1</b>	Background review of key documents related to SHOPS II and Inception Report
<b>Weeks 2 – 6</b>	Field work gathering qualitative data from key respondents in three counties, to gain a deeper understanding of the implementing environment
<b>Weeks 7 – 9</b>	Data analysis and report drafting, including presentation of initial findings
<b>Weeks 10 – 12</b>	Report review and finalization

## DESK REVIEW

During the first week of the evaluation, the team conducted a thorough desk review of background documents related to SHOPS I and II. A full list of the documents reviewed is available in Annex II: Evaluation Methods and Limitations. The desk review provided qualitative and quantitative data for the evaluation team to utilize. The team identified the relevant publications, assessed their findings and conclusions, summarized the evidence that applied to the SHOPS II performance evaluation, and applied it to address the evaluation questions.

The team reviewed a prioritized list of non-project documents identified in collaboration with USAID/Liberia and through other meetings. The evaluation team also used the USAID/Liberia Knowledge Management Portal to review relevant existing research in the oil palm sector related to Liberia. In addition to providing information on the project and explicit and implicit linkages underlying SHOPS II's theory of change, the desk review also allowed the team to identify and select interviewees and sites, draft data collection protocols and instruments, and develop a thorough understanding of the country context.

The documents reviewed included:

- SHOPS II Award and Statements of Work
- SHOPS II Annual work plans (2015, 2016)
- SHOPS II Monitoring and Evaluation Plans
- SHOPS II quarterly and annual reports
- SHOPS II Revised Monitoring and Evaluation Plans

- SHOPS II List of Beneficiaries
- SHOPS II Market Survey Report
- Performance Indicator Database System data
- Data Quality Assessment Reports
- Modified program descriptions
- USAID/Liberia CDCS and PMP
- Gender Assessment for the USAID/Liberia CDCS
- SHOPS I Midterm Evaluation Report
- SHOPS I and II assessments and studies
- SHOPS I Final Report
- SHOPS I Tenera and Dura study report
- World Bank Food Security Assessment
- Relevant reports from other donor agencies
- Relevant GoL policy documents and technical reports

For the cost benefit analysis and value chain assessment (Question 2 of the evaluation), the following sources were particularly relevant:

- ACDI/VOCA. 2015. *Small Holders Oil Palm Value Chain Market Analysis Report*. SHOPS II Program.
- Atkinson, P. 2015. *Consulting Study 17: Palm Oil in Liberia: Missed Opportunities and Second Changes*. The High Carbon Stock Science Study.
- Barcelos, E., Rios, S. de A., Cunha, R. N. V., Lopes, R., Motoike, S. Y., Babiychuk, E., ... Kushnir, S. 2015. "Oil palm natural diversity and the potential for yield improvement." *Frontiers in Plant Science*, 6, 190. <http://doi.org/10.3389/fpls.2015.00190>
- Bishop, C. and A. Drobia. 2011. "Comparison of two varieties of African oil palm in Liberia: Tenera and Dura." Winrock International.
- Bishop, C. 2014. *Smallholder Oil Palm Support (SHOPS) Final Impact Evaluation*.
- Fricke, D. 2010. *Liberia Sustainable Palm Oil Field Visit: Report and Recommendations*. Flora and Fauna International.
- GROW. 2013. *Oil Palm Market System Analysis*.
- GOL. (no date). *National Export Strategy: Oil Palm Export Strategy 2014-2018*. Government of Liberia/International Trade Centre.
- MOA. (no date). *Food and Agriculture Policy and Strategy*. Ministry of Agriculture, Government of Liberia.
- Murphy, E., K. Erickson and M. Tubman. 2016. *USAID Office of Food for Peace Food Security Desk Review for Liberia, 2016–2020*. Washington, DC: FHI 360/FANTA.
- RSPO. 2012. *Study on the Restoration Cost and Returns from Oil Palm Industry*.
- Said, J. 2015. "Economic Diversification, Job Creation and Inclusive Growth: Why Liberia should focus on the development of the rubber, oil palm, cocoa and fish value chains."
- Said, J. 2015. *A Renewed Economic Vision for Liberia (discussion draft)*. Powerpoint presentation.
- USAID. 2011. *Liberia Growth Corridor Project: Domestic Resource Cost Analysis Report*.
- USAID/EAT. 2015. *Liberia Market Study for Selected Agricultural Products*.
- WWF/FMO/CDC. 2012. *Profitability and Sustainability in Palm Oil Production*.

### **Field Work**

After the background review phase, the team spent four weeks in the field conducting KIIs, FGDs and collecting qualitative data to gain a deeper understanding of SHOPS II performance and experiences of its direct beneficiaries, and stakeholders.

### **Key Informant Interviews**

The evaluation team conducted a wide range of Key Informant Interviews (KIIs) with SHOPS II beneficiaries and stakeholders. These interviews were guided by semi-structured interview protocols that identified the evaluation questions that needed to be answered through the interview and identified

probes to follow up on information related to questions (see Annex III: Data Collection Instruments, for a copy of the interview guides). The table below enumerates the number of KIIs targeted and conducted with each type of stakeholder group.

While conducting the interviews, the team worked to establish a rapport with the key informants, explaining the purpose of the interview and providing assurances of confidentiality. Questions were sequenced and phrased carefully to elicit detailed information and maintain a neutral attitude. The interviewer used probing techniques to encourage informants to explain the reasoning behind their conclusions and recommendations.

**Table 1. National Level Key Informants**

<b>Informant Category</b>	<b>Total # of KIIs Targeted</b>
SHOPS II Staff	7
USAID/Liberia Staff	3
Ministry of Agriculture/Agriculture Coordination Committee	1
Palm Oil Technical Working Group - Concessioners	2
National Farmers Union of Liberia	1
Seedling Importer – Rainforest Agriculture Enterprise (RAE)	1
Donors	2
Other recommended informants	6
<b>TOTAL</b>	<b>26</b>

<b>Informant Category</b>	<b>KII per County</b>	<b>Total KII Targeted</b>
County Agricultural Office representatives	1	3
Oil Palm Equipment Manufacturers	2	6
Oil Palm/Products Traders	2	6
Freedom Mill Vendors/brokers	1	3
Other Recommended Informants	4	12
<b>TOTAL</b>	<b>10</b>	<b>30</b>

### **Focus Group Discussions**

The evaluation team also conducted focus group discussions (FGDs) with select groups of SHOPS II stakeholders focusing on one or many of the evaluation questions.

Fourteen FGDs involved both male and female participants. Three FGDs of processor groups involved only male participants, and three FGDs involved only women working in the smallholder oil palm sector or involved as project beneficiaries. Some homogenous FGDs were facilitated to create a more comfortable environment to encourage discussion. Heterogenous focus groups were conducted to introduce a wider range of positions and find more diverse answers to key questions.

The evaluation team conducted participant outreach through SHOPS II implementing partner staff. Participants were first contacted by phone one or two days prior to the FGD and then in person to remind and confirm their participation. Alternates were selected for primary participants who were unavailable at the scheduled date and time.

These discussions were organized around a semi-structured focus group guide (see Annex III: Data Collection Instruments, for a copy of the focus group guides) with an intended duration of 45 minutes. Before commencing the discussion, the FGDs opened with an introduction to the purpose of the session, confirmation that participants' identities would be kept anonymous, guidelines to follow, and introduction of the moderator and participants. Table III below lists the respondent groups who participated in focus groups, along with target and actual sample sizes per respondent category.

**Table III. Focus Group Discussion Respondents**

<b>Informant Category</b>	<b>Ages</b>	<b>Gender</b>	<b>FGD # per County</b>	<b>Total FGDs Targeted</b>
Producer groups	18-70	Mixed	2	6
Processor groups	18-70	Male	1	3
Youth	16-25	Mixed	N/A	2
Women involved in Oil Palm and/or beneficiary households	18-70	Women	N/A	3
Seedlings/inputs suppliers	18-70	Mixed	1	6
<b>TOTAL</b>			<b>4</b>	<b>20</b>

### **Data Analysis and Reporting**

Data collected during KIIs and FGDs were captured in note form, typed up, and circulated to other team members for additional inputs. These data were analyzed by the team using an inductive approach, gathering all of the data before engaging in a day-long group discussion held to identify and debate amongst the evaluation team members the themes and patterns identified within the data. This process informed development of key findings, conclusions and recommendations that make up the bulk of this report.

The evaluation team analyzed the notes from the desk review and transcripts from the KIIs and FGDs to develop findings, conclusions and recommendations for the evaluation report. For the desk review, team members made notations of data from narrative reports that applied to the evaluation questions, collated it according to a preliminary findings matrix, and included useful findings in the evaluation report. Reviewers also transcribed quantitative data from reporting tables into Microsoft Excel for further aggregation and analysis before including related findings in the evaluation report.

Transcripts with descriptors and summary sheets were developed in Microsoft Word that reduced the information to manageable themes, issues and recommendations following each KII and FGD. Descriptive codes of key themes and concepts related to the evaluation questions were applied to the summary sheets to systematically record data and identify pertinent information and meaningful quotes. The data was reviewed, calculating the frequency at which key themes and concepts appeared according to descriptors, and highlighting underlying relationships and trends.

Taking advantage of the evaluation's mixed-method design, the evaluation team considered findings from the desk review, KIIs, and FGDs, using data from one method to balance against data from another method. A preliminary findings matrix was used to record preliminary findings and conclusions and encourage information sharing, testing of hypotheses, and challenging findings and conclusions by team members. Multiple methods were employed to answer each of the evaluation questions.

### **Cost Benefit Analyses**

To answer Evaluation Question 2, the evaluation team reviewed primary and secondary data collection on the i) the performance of Tenera, Dura and local Oil Palm varieties; ii) data collection of inputs and costs/gross margin, as well as domestic and foreign trade regulations, logistics and marketing costs. The

project documents, trade and investment assessments and other relevant studies was reviewed to derive the needed data and information that complimented and vetted through KII and FGDs.

### **Gender-Sensitive Perspective**

Gender mainstreaming in donor development initiatives should ensure gender equality and promote equity in access to all aspects of the intervention for meaningful participation of women in the development process to support economic growth. Consistent with USAID’s evaluation policy, and recognizing that effects of integration and the success of the activity might vary across gender, LSA applied a gender perspective to the entire evaluation process. Starting with the desk review, data related to gender-based variances in outcomes was examined, and documents reviewed with a gender-sensitive lens to inform a better understanding of gender dynamics in the implementation environment. The evaluation team was aware of its own gender imbalance ensured a gender balance among respondents, especially among producers and their household interviewees.

The evaluation strived to bring out and record gender based issues as related to project results and outcomes; addressing women participation and access to project benefits. The project objectives were intended to improve the oil palm sector and subsequently improve income generation the capacity of its beneficiaries, especially women. However, per the desk review of project documents that was available to the evaluation team; women inclusion or the number of women participating across the project areas and activities appears to be relatively lower as compared to their male counterparts.

### **Social-sensitive Perspective**

In addition to issues of gender, the evaluation team considered issues of social demographics in the sampling and data analysis processes, and how they affected the outcomes of the activity and/or the evaluation findings. The evaluation team placed a particular focus on youth as related to the impact of the SHOPS II evaluation. Attention was also focused on the social demographics composition of the beneficiaries as affected by the outcome of the project.

### **DATA LIMITATIONS**

<b>Limitations</b>	<b>Mitigation Measures Taken</b>
<b>Limited access to data:</b> Official government statistics on oil palm production, number of oil palm producers, and palm oil exports are spotty and of questionable quality. Incomplete project data also hindered work. Only one annual report for the project was received.	Data sources were diversified to overcome the lack of secondary data from the GOL and SHOPS II, which primarily affected the evaluation’s desk review. Other methods were employed, including FGDs, KIIs and other documents, to compensate with alternative data sources.
<b>Poor road conditions in Lofa County:</b> Poor road conditions in Foyah District of Lofa County prevented travel to project sites in this area.	Alternative sites in accessible areas were visited. This enabled the team to reach target numbers of KIIs and FGDs.
<b>Agri-economist team member contracted malaria:</b> A key team member contracted malaria and was not able to participate in the analysis as had been envisioned.	LSA sought additional technical expertise from consultants and SI technical specialists to complete data analysis and the evaluation report.
<b>Confidentiality of responses:</b> Respondents may have been disinclined to provide candid answers because the team asked for their names.	Introductory explanations were used regarding how information would be used and the protocol for information attributed to specific individuals in the report.
<b>Implementer selected interviewees:</b> Respondents for KIIs and participants for FGDs were selected based partially on recommendations by ACIDI/VOCA and Winrock International.	Recommendations for respondents from implementing partners were balanced with those from USAID and its own selection during field work.

# ANNEX III: DATA COLLECTION INSTRUMENTS

## Smallholder Oil Palm Support II Project(SHOPSII) End of Project Performance Evaluation

### Key Informant Interview / MOA and County Agriculture Coordinators (CAC)

<b>Date of Interview:</b>	<b>Interviewee Name, Title:</b>	
<b>Project Component:</b>	<b>Time Start:</b>	<b>Time End:</b>
<b>Interviewer(s):</b>	<b>Location</b>	
<b>Category of Interviewee:</b>	<b>Age Group:</b>	
<b>No. of Interviewees</b> _____ <b>M</b> _____ <b>F</b> _____		

**Introduction:** Good morning/afternoon and thank you for taking the time to speak with us today. As mentioned during our interview request, we are working with USAID/Liberia as external evaluators to conduct an independent end of project performance evaluation of the Smallholder Oil Palm Support II Project (SHOPS II). The evaluation is expected to: (i) analyze the overall the project’s progress; (ii) identify lessons learned related to the project’s achievements and constraints; and (iii) make recommendations on the way forward.

Our team has had the opportunity to review some background documents to get a better sense of the design and implementation of the project. However, these documents can only tell us so much. We would like to speak with you today to hear about your experience and in your own words; this will help us better understand how the project is viewed and felt from the perspective of its beneficiaries. If you agree to participate, this discussion will last approximately 1 hour.

#### Confidentiality Protocol

- We will collect information on individuals’ names, organizations, and positions. A list of key informants will be made available as an annex to the final evaluation report, but those names and positions will not be associated to any specific finding or statement in the report. However, please keep in mind that while responses will be kept confidential, if you contribute something that only you or your office could comment on, that may then be recognizable.
- We may include quotes from respondents in the evaluation report, but will not link individual names, organizations, or personally identifiable information to those quotes, unless express written consent is granted by the respondent. Should the team desire to use a quote, photograph, or identifiable information in the report, the evaluators will contact the respondent(s) for permission to do so.
- All data gathered will be used for the sole purposes of this evaluation, and will not be shared with other audiences or used for any other purpose. However, if at any time, you do not feel comfortable answering a question, please let us know and we will simply go on to the next question. To ensure all useful information are captured for analysis; with your permission, I would be recording this interview.
- Your participation in this interview is voluntary and you will not be receiving any compensation for your time.
- Should you have additional questions about this interview, please contact the Ms. Carla Trippe of Social Impact on +231888 106151 or [ctrippe@socialimpact.com](mailto:ctrippe@socialimpact.com).

Once again, thank you for taking the time to speak with us today. Do you have any questions for us before we get started?

Verbal consent given? Yes/No \_\_\_\_\_

## **Smallholder Oil Palm Support II Project(SHOPSII) End of Project Performance Evaluation**

### **A. Key Informant Interview / MOA and County Agriculture Coordinators (CAC)**

This questionnaire will be administered to key informants identified among MOA Departments, SHOPS II staff, USAID and CAC in Bong, Nimba and Lofa

#### **Knowledge of the project, its objectives, and its activities**

1. Have you heard of the Smallholder Oil Palm Support II Project (SHOPS II)? Have the project's objectives been explained to you? By whom? When? How frequently do you work with SHOPS II?
2. Did you also work with the SHOPS I project? If so, can you note any differences with the SHOPS II approach versus other interventions?
3. Can you tell us how SHOPS II has directly supported the MoA's post-Ebola recovery priorities as outlined in the Liberia Agriculture Transformation Agenda Plan? Please provide specific examples.
4. How involved have you been with the project's activities? (Probe: little, somewhat, very)? Did you participate in identifying priorities identified, scheduling activities, etc. Have there been any challenges in this prioritization and implementation process?
5. Can you please list the most important activities you have been involved with? (probe: try to identify three)?

#### **Appreciation of the project's assistance to the Ministry**

6. Do you consider introduction of Tenera FI seedlings have been important? What was your involvement in the activity? (probe: design and/or delivery, participation only, etc.) How would you assess the content (probe: relevance/usefulness) and timeliness (probe: scheduling/integration) of the activity?
7. Do you consider Freedom Mill (F.M.) manufacturing to have been important? What was your involvement in the activity? (probe: design and/or delivery, participation only, etc.) How would you assess the content (probe: relevance/usefulness) and timeliness (probe: scheduling/integration) of the activity?
8. Are you aware of any other activities that SHOPS II is doing and do you consider it to have been important? What was your involvement in the activity? (probe: design and/or delivery, participation only, etc.) How would you assess the content (probe: relevance/usefulness) and timeliness (probe: scheduling/integration) of the activity?

#### **Utilization of the project's assistance**

9. Did you receive any specific materials related to the activity? (probe: ask to see them and note titles) Have you been able to use your new knowledge and materials to improve your performance? How?
10. What were some of the noticeable impacts in:
  - Operations
  - Efficiency
  - Effectiveness

for your unit or team or staff? Please provide details.

#### **Assessment of the project's influence**

11. What have been the stronger and weaker aspects of the assistance you have received? Given your experience with the project, do you have suggestions for improving its performance?

12. On a scale from 1-10, one being not satisfied at all and 10 being extremely satisfied, overall, how satisfied with the SHOPS II support to the Ministry (individual units, technical working groups, other coordination efforts, etc.? Please justify your response.
13. Relative to other value chains in Liberia, is oil palm among the most competitive, viable, and environmental for smallholders to continue supporting in the sector?
14. To what extent did SHOPS II meet its overall objectives and results

**Future Priorities**

15. Do you have any recommendations for future USAID support to the Ministry of Agriculture in the oil palm sector?

**Smallholder Oil Palm Support II Project(SHOPSII) End of Project Performance Evaluation**

**B. Key Informant Interview / SHOPS II Key Beneficiaries Informants**

**(Freedom Mill (F.M.) Manufacturers and Vendors)**

Note: This questionnaire will be administered to key informants in SHOPS II-targeted counties (Lofa, Nimba and Bong)

**Knowledge of the project, its objectives, and its activities**

- I. Have you heard of the Smallholder Oil Palm Support II Project (SHOPS II)? Have the project's objectives been explained to you? By whom? When?

**Assessment of the project's objectives and activities**

1. What activities are you aware of the SHOPS II works on?
2. Are these activities unique to SHOPS II or are their others also working in the same area?
3. What are the three most important activities you have implemented with SHOPS II's assistance since SHOPS II project start-up?
4. After two years of implementation, do you think the project's current objectives and activities remain relevant? What changes in the environment may have or might affect their relevance?

**Appreciation of the project's assistance**

5. What motivated you to take up this line of business (manufacturing or processing)?
6. Has SHOPS II helped you in anyway in starting this business or continuing this business? If yes, please briefly tell us about it.
7. Has the support you have received from SHOPS II helpful? How?
8. Anybody else is also supporting you beside SHOPS II in manufacturing Freedom Mills.
9. Among the support received from SHOPS II – What would you have liked the project to do differently that would have better helped you.

**Utilization of the project's assistance**

10. In your opinion, what has been the biggest benefit (i.e., technical area of most added value) of SHOPS II to you?
11. Have you experienced changes in customers because of SHOPS II intervention?

**Business functions and sustainability**

12. How many F. M. have you manufactured so far? And what type (manual, motorized, kernel, etc)
13. Do you sell, rent or both? At what price and terms?
14. Who are your customers? From how far do they come?
15. How do you decide how many F. M. to manufacture in a year? Tell us about your future plans / anticipations.

16. What is your main constraint in manufacturing F. M.? And how do you tackle it?
17. Besides manufacturing F. M. what else do you manufacture in this garage? What other business or trade are you engaged in, if any?
18. How has manufacturing of F. M. changed your business?
19. How many employees do you have? Do they have sufficient work?
20. Has anyone trained you or your employee in business management or mill manufacturing? If yes, what kind of training?
21. Are the parts and raw material necessary to manufacture Freedom Mills available locally?
22. What are the major concerns of your F.M. buyers / renters?
23. How often do F.M. break down? What are the major week points/areas in mills? How difficult is repair?
24. In terms of income and profit how do F.M. compare with other work you do at the garage?

#### **Assessment of the project's influence**

25. In your opinion, has the project met its objectives? Please give specific examples of why or why not? What have been the critical factors that allowed for successful accomplishment of objectives? What were some of the challenges (probe: SHOPS II project management, etc.)?
26. Given your experience with the project, do you have suggestions for modifying the project's priorities and/or improving its performance?

#### **Future Priorities**

27. Do you have any recommendations for future support to the oil palm industry?

#### **Smallholder Oil Palm Support II Project(SHOPSII) End of Project Performance Evaluation**

### **C. Key Informant and/or Focus Group discussion guide/questions**

#### **SHOPS II Beneficiaries - Nursery Operators and farmers**

##### **Assessment of the project's objectives and activities**

1. Are you aware of the Smallholder Oil Palm Support II Project (SHOPS II) project and its objectives? Have SHOPS II field staff ever come to see you in your office/farm/nursery/processing plant? If so, how often?
2. How do you see the support provided by the field staff? (probe: frequency of support visits, time spent during each visit, quality of technical support to facilitate the implementation)
3. In your opinion, what are SHOPS II most useful areas of technical support to farmers/nursery operators/processors? Do you think SHOPS II provides a unique contribution to farmers/nursery operators/processors? If so, can you explain?
4. Given that seedlings are imported, How do you plan to procure Tenera F1 seedlings after SHOPS II?
5. Will there be any change in the way you operate after SHOPS II? If so, how? Who else within your sector is benefiting from this project? How?

##### **Appreciation of the project's assistance**

6. What motivated you to take up this line of business (Tenera F1 seedlings)?

7. Has SHOPS II helped you in anyway in starting your business or continuing to remain in business? If yes, please briefly tell us about it.
8. Has the support you have received from SHOPS II been helpful? How?
9. Is there anyone else supporting you beside SHOPS II to help you maintain your nursery / production?
10. Among the support received from SHOPS II – What would you have liked the project to do differently that would have better helped you.

### **Utilization of the project's assistance**

11. In your opinion, what has been the biggest benefit (i.e., technical area of most added value) of SHOPS II to you?
12. How long have you been connected to SHOPS II project?
13. Have you experienced clientele changes because of SHOPS II intervention?

### **Business functions and sustainability**

14. How many seedlings have you produced / (planted) and sold them so far? And what type of seedlings (F1 or F2)
15. Do you sell seedlings for cash or credit? At what price and terms?
16. What do you know about the benefit of F1 seedlings compared to F2 or existing Old Tenera and Dura Palm?
17. Who are your customers? Where are they from?
18. How do you decide how many seedlings to produce in a year? Tell us about your future plans / anticipations.
19. What is your main constraint with Tenera F1 seedlings? How do you tackle it?
20. Besides Tenera seedlings what else do you produce in your nursery? Are you engaged in other business or trade?
21. How has selling Tenera seedlings changed your business?
22. How many employees do you have? Do they have sufficient work?
23. Have you or your employees been trained in business or nursery management or seedling handling? If so, what kind?
24. Please tell us how do you procure F1 seedlings? From whom? At what price and terms?
25. What are the major concern of your client farmers / seedling buyers?
26. What is the major problem or challenge in your nursery business? How do you address these issues?
27. In terms of income and profit how does Tenera Seedling business compare with other profit centers within the nursery?
28. Please tell us about your transaction and business relation with the Seedling importer? Are there any issues?
29. Tell us about the demand for the Tenera F1 seedlings.
30. Has any of Tenera F1 seedlings you have sold started fruiting?
31. If you wanted to expand your operation what would you need?

### **Assessment of the project's influence**

32. Given your experience with the project, do you have suggestions for modifying the project's priorities and/or improving project performance?

### **Future Priorities**

33. Do you have any recommendations for future support to the oil palm industry?

**(Note: For farmers change Nursery to Farm and seedling to Plant / fruit bunch as appropriate)**

## **Smallholder Oil Palm Support II Project(SHOPSII) End of Project Performance Evaluation**

### **Key Informant and/or Focus Group discussion guide/questions SHOPS II Beneficiaries – Processors / Freedom Mill(F.M.) operators**

#### **Assessment of the project's objectives and activities**

1. Are you aware of the Smallholder Oil Palm Support II Project (SHOPS II) project and its objectives? Have SHOPS II field staff ever come to see you in your office/farm/nursery/processing plant? If so, how often?
2. How do you see the support provided by the field staff? (probe: frequency of support visits, time spent during each visit, quality of technical support to facilitate the implementation)
3. In your opinion, what are SHOPS II most useful areas of technical support to farmers/nursery operators/processors? Do you think SHOPS II provides a unique contribution to farmers/nursery operators/processors? If so, can you explain?
4. Will there be any change in the way you operate after SHOPS II? And how?
5. Who else within your sector that are enjoying the benefits of this project? How is it benefiting them?

#### **Appreciation of the project's assistance**

6. What motivated you to take up this line of business (processing)?
7. Has SHOPS II helped you in anyway in starting your business or continuing in this business? If yes, briefly tell us how.
8. Has the support you have received from SHOPS II helpful? If so, how?
9. Is there anyone else supporting you beside SHOPS II in your oil palm processing business?
10. Among the support received from SHOPS II – What would you have liked the project to do differently that would have better helped you.

#### **Utilization of the project's assistance**

11. In your opinion, what has been the biggest benefit (i.e., technical area of most added value) of SHOPS II to you?
12. How long have you been connected to SHOPS II project?
13. Have you experienced changes in your customers because of the SHOPS II intervention?

### **Business functions and sustainability**

14. How many processors /F.M. do you have / operate? And what type of F.M. (manual, motorized, kernel)
15. Do you sell your services for cash or credit? At what price and terms?
16. What is the benefit of using the F.M.? Who benefits and how?
17. Who are your customers? How far away do they come? How do they contact you?
18. How do you decide which communities / farmers you are going to serve in any season? Tell us about your future plans / anticipations.
19. What is your main constraint in processing? And how do you tackle it?
20. Besides processing Tenera fruit what else do you process with the F.M.?
21. Besides the operation of F.M.? What other business or trade are you engaged in, if any?
22. How long have you been involved with Oil Palm sector?
23. How has introduction of F. M. changed your business?
24. How many employees do you have? Do they have sufficient work?
25. Has anyone trained you or your employee in business management or mills operation and maintenance? If yes, what kind of training?
26. Please tell us how do you procure the F.M.? From whom? At what price and terms?
27. What are the major concerns of your client farmers / oil buyers?
28. What is the major problem or challenge in processing / operating F.M.? How do you address the problem?
29. In terms of income and profit how does processing / F.M. operation business compare with other work you do in the nursery?
30. Please tell us about your transaction and business relation with the F.M. manufactures or vendors? Are there any issues.
31. Tell us about the demand of your services. How many days in a year are these mills operational?
32. Is your F.M. also used to process Dura palm fruits? How often?
33. Are there issues with processing Dura Palm fruits with the F.M.?
34. How much oil did you process using the F.M. last season? For how many days? And in what areas / villages.
35. If you were interested in expanding your operation, what would you need?

### **Assessment of the project's influence**

36. Given your experience with the project, do you have suggestions for modifying the project's priorities and/or improving its performance?

### **Future Priorities**

Do you have any recommendations for future support to the Oil Palm industry?

# ANNEX IV: SOURCES OF INFORMATION

Key Informant Interviews – SHOPS II Beneficiaries and Stakeholders	
Affiliated Group	Type of Respondent
<b>USAID</b>	Current USAID/Liberia Economic Growth Office staffs
Lofa County	Nursery Operators, Producers & Processors
	Oil Palm Traders
	Freedom Mill Manufacturers
	Freedom Mill Vendors
	Freedom Mill Operators
	County Agriculture Coordinator/MOA
Nimba County	Nursery Operators, Producers & Processors
	Oil Palm Traders
	Oil Palm Seed Vendors
	Freedom Mill Manufacturers
	Freedom Mill Vendors
	Freedom Mill Operators
	County Agriculture Coordinator/MOA
Bong County	Nursery Operators, Producers & Processors
	Oil Palm Traders
	Freedom Mill Manufacturers
	Freedom Mill Vendors
	Freedom Mill Operators
	County Agriculture Coordinator/MOA
Montserrado County	Oil Palm Traders
<b>MOA Central Office</b>	Deputy Minister/Planning & Development
	Oil Palm Focal Person
<b>SHOPS II Staff</b>	M & E Specialist
	Technical Manufacturer Trainer
	Oil Palm Processing Agents
	Oil Palm Nursery Agents
	Chief of Party
	Market Development Specialist
<b>Other Partners</b>	Oil Palm Sector Technical Working Group Member
	Deputy Chief of Party/Forest for Environment Sustainability (FIFES)
	FIFES/Private Sector Advisor


	Country Coordinator /Sustainable Trade Initiative (IDH)
	Fasama Agriculture &Trading Corporation
	Project Coordinator/STCRSP
	Planning, Monitoring Officer/STCRSP
	Program Manager/Flora & Fauna International (FFI)
	Swedish International Development Agency(SIDA) Representative
	Team Leader – GROW Liberia
	Senior Intervention Manager – GROW Liberia
	Sr. Agricultural Specialist – WORLD BANK GROUP Liberia
	Chief of Party – Life III Project
	Environmental Policy Director – Conservation International Liberia
	Acting Chief of Party - LADA
	Country Head/ Equatorial Palm Oil (EPO)
	Representative of Sime Darby

Focus Group Discussions	County	Membership	Sex	
			Male	Female
Gorlu Farmers Multi-Purpose Cooperative	Lofa	75	60	15
BIUWONDO OIL PALM FARMERS UNION	Lofa	145	80	65
Association of Progressive Farmers	Lofa	15	8	7
Youth United For Development	Lofa	35	30	5
Foya Rural Women Structure	Lofa	50	0	50
VODWOPEDE Soap Making & oil Palm Farmers Group	Lofa	50	15	35
<b>Sub-Total for Lofa County</b>		<b>370</b>	<b>193</b>	<b>177</b>
Bong County Oil Field /Gogbachop Market	Montserrado	150	-	150
Lofa Oil Field/Gogbachop Market	Montserrado	60	10	50
Farmers Union Network	Montserrado	4	4	1
<b>Sub-Total Montserrado County</b>		<b>215</b>	<b>14</b>	<b>201</b>
United Women for Sustainable Development	Bong	34	4	30
Nimene Women Nursery Operator/Farming Group	Bong	15	6	9
PANFAMCOS	Bong	500	390	110
Gbarnga Oil Depot Women	Bong	25	2	23
KPAFAMCOS	Bong	209	190	19
<b>Sub-Total For Bong County</b>		<b>783</b>	<b>592</b>	<b>191</b>
Tudin Youth Development	Nimba	52	32	20
Gbelay Geh Oil Palm Farmers Cooperatives	Nimba	181	110	71
<b>Sub-Total for Nimba County</b>		<b>233</b>	<b>142</b>	<b>91</b>
<b>Grand Total</b>		<b>1,601</b>	<b>927</b>	<b>674</b>

# ANNEX V: DISCLOSURE OF CONFLICT OF INTEREST


<b>Name</b>	Surendra Bhatta
<b>Title</b>	
<b>Organization</b>	Social Impact
<b>Evaluation Position?</b>	<input type="checkbox"/> Team Leader <input checked="" type="checkbox"/> Team member
<b>Evaluation Award Number (contract or other instrument)</b>	Liberia Development Conference Anthology Review
<b>USAID Project(s) Evaluated (Include project name(s), implementer name(s) and award number(s), if applicable)</b>	Liberia Development Conference Anthology Review
<b>I have real or potential conflicts of interest to disclose.</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>If yes answered above, I disclose the following facts:</b> <i>Real or potential conflicts of interest may include, but are not limited to:</i> <ol style="list-style-type: none"> <li>1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated.</li> <li>2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation.</li> <li>3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project.</li> <li>4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated.</li> <li>5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated.</li> <li>6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation.</li> </ol>	I worked as sr. agribusiness advisor for USAID/Liberia's Economic growth office through personal service contract (PSC) for 18 months (from April 2012 to October 2013).

I certify (1) that I have completed this disclosure form fully and to the best of my ability and (2) that I will update this disclosure form promptly if relevant circumstances change. If I gain access to proprietary information of other companies, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

<b>Signature</b>	
<b>Date</b>	March 26, 2017

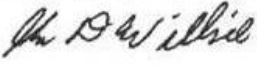
<b>Name</b>	Eduard T. Niesten
<b>Title</b>	Associate (consultant)
<b>Organization</b>	Social Impact
<b>Evaluation Position?</b>	<input type="checkbox"/> Team Leader <input checked="" type="checkbox"/> Team member
<b>Evaluation Award Number</b> (contract or other instrument)	
<b>USAID Project(s) Evaluated</b> (include project name(s), implementer name(s) and award number(s), if applicable)	Smallholder Oil Palm Support (SHOPS II) Project
<b>I have real or potential conflicts of interest to disclose.</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>If yes answered above, I disclose the following facts:</b> <i>Real or potential conflicts of interest may include, but are not limited to:</i> <ol style="list-style-type: none"> <li>1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated.</li> <li>2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation.</li> <li>3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project.</li> <li>4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated.</li> <li>5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated.</li> <li>6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation.</li> </ol>	

I certify (1) that I have completed this disclosure form fully and to the best of my ability and (2) that I will update this disclosure form promptly if relevant circumstances change. If I gain access to proprietary information of other companies, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

<b>Signature</b>	
<b>Date</b>	July 12, 2017

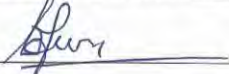
<b>Title</b>	Self-employed
<b>Organization</b>	Self-employed
<b>Evaluation Position?</b>	<input checked="" type="checkbox"/> Team Leader <input type="checkbox"/> Team member
<b>Evaluation Award Number (contract or other instrument)</b>	AID-669-LA-15-00002
<b>USAID Project(s) Evaluated (include project name(s), implementer name(s) and award number(s), if applicable)</b>	<b>Smallholder Oil Palm Support (Shops II) Project, Liberia</b>
<b>I have real or potential conflicts of interest to disclose.</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>If yes answered above, I disclose the following facts:</b> <i>Real or potential conflicts of interest may include, but are not limited to:</i> <ol style="list-style-type: none"> <li>1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated.</li> <li>2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation.</li> <li>3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project.</li> <li>4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated.</li> <li>5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated.</li> <li>6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation.</li> </ol>	

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<b>Signature</b>	
<b>Date</b>	4/26/2017

Name	David S. Wainnah, Sr.
Title	Agro-Livelihood Expert
Organization	Social Impact
Evaluation Position?	<input type="checkbox"/> Team Leader <input checked="" type="checkbox"/> Team member
Evaluation Award Number (contract or other instrument)	AID-669-C-16-00002
USAID Project(s) Evaluated (Include project name(s), implementer name(s) and award number(s), if applicable)	Smallholder Oil Palm Support (SHOPS) Project
I have real or potential conflicts of interest to disclose.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>If yes answered above, I disclose the following facts:</b> <i>Real or potential conflicts of interest may include, but are not limited to:</i> <ol style="list-style-type: none"> <li>1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated.</li> <li>2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation.</li> <li>3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project.</li> <li>4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated.</li> <li>5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated.</li> <li>6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation.</li> </ol>	

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Signature	
Date	May 2, 2017

U.S. Agency for International Development - Liberia  
502 Benson Street  
Monrovia, Liberia