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ENGINEERING SERVICES FOR RURAL ROADS
REHABILITATION (ES3R)
CONTRACT NO: EDH-I-00-08-00023

ANNUAL REPORT - YEAR 2

16 December 2015

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

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ROAD REHABILITATION (ES3R)
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ANNUAL REPORT – YEAR 2

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Acronyms

A & E	Architect and Engineer
BOQ	Bills of Quantity
COP	Chief of Party
COR	Contracting Officer Representative
ES3R	Engineering Services for Rural Roads Rehabilitation
ETL	Engineering Team Leader
EVD	Ebola Virus Disease
FED	Food and Enterprise Development
FTF	Feed the Future
FTL	Field Team Leader
F2M	Farm to Market
F2MRR	Farm to Market Rural Roads
GIS	Geographic Information System
GOL	Government of Liberia
LESSP	Liberia Energy Sector Support Project
LMWP	Liberia Municipal Water Project
LOE	Level of Effort
MCA	Multiple Criteria Analysis
MOF	Ministry of Finance
MPEA	Ministry of Planning and Economic Affairs
MPW	Ministry of Public Works
OCA	Organizational Capacity Assessment
PIRS	Performance Indicator Reference Sheet
RE	Resident Engineer

SI	Site Inspector
USAID	United States Agency for International Development
SSF	S. Shawki Fawaz
QAC	Quality Assurance Contractor

ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION (ES3R)

ANNUAL REPORT – YEAR 2

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1. SUMMARY PROJECT DESCRIPTION

1.1 Introduction

The U.S. Agency for International Development’s (USAID) ‘Engineering Services for Rural Roads Rehabilitation (ES3R)’ was awarded to Camp Dresser McKee International (CDM) under the following USAID contract number: EDH-I-00-08-00023 and task order AID-669-TO-13-00002 with current completion date of 31 March 2016.

Liberia’s Farm to Market Rural Roads (F2MRR) activity is allied to the objectives of the Feed the Future (FTF) initiative, which is a U.S. government initiative, which aims to address the root causes of global hunger by sustainably increasing agricultural productivity. F2MRR will provide infrastructure investment in the rehabilitation of rural farm-to-market roads to support the following:

- USAID /Liberia FTF program Food and Enterprise Development (FED),
- Capacity development for routine maintenance systems within the Government of Liberia (GOL),
- Capacity development of Ministry of Public Works (MPW) rural roads engineers and local A & E firms; and
- Development of alternative low volume road pavement pilot projects, standards and design specifications.

1.2 Objectives

Within F2MRR, ES3R will be an implementing mechanism which will undertake the following objectives:

Objective 1:

Provide construction oversight for three (3) local contracts for the rehabilitation of a total of 83.5 kilometers farm-to-market roads in Bong, Lofa, and Nimba counties from 2013 to 2015.

Objective 2:

Produce engineering designs and construction documents for the 450 kilometers farm-to-market roads in Bong, Lofa, Nimba, and Grand Bassa counties to be rehabilitated in 2015 to 2018.

Objective 3:

Training and pre-qualification of five (5) local architect-engineer firms capable of providing oversight for road rehabilitation activities by 2015.

2. YEAR 2 OVERVIEW OF ACTIVITIES

Preamble

This Annual Report is presented in respect of Year 2 of the ES3R project. The report addresses the following items:

- The activities during the year,
- Implementation challenges and issues,
- The progress of Project objectives,
- Key Successes,
- Project targets and achievements,
- Project management plan results against planned indicators; and
- End of year expenditure report.

The Y2 Work Program was presented to USAID by CDM Smith on 20 February 2015.

2.1 Year 2 Activities Summary

A summary of the Project activities which were undertaken, on a monthly basis, from October 2014 to September 2015 inclusive, during Year 2 is included in Annex A of this document.

2.2 Meetings with USAID and Key Stakeholders

Table 2.1 – ES3R Meetings with USAID and MPW

ES3R Meetings with USAID and MPW	
OCTOBER 2014	
Date-2014	Description
6 Oct	USAID COR in design meeting with ES3R
24 Oct	Meeting of CDM, USAID CO and senior staff
24 Oct	USAID COR meeting at Monrovia office to peruse designs
24 Oct	CDM senior staff meet with USAID CO and senior staff of USAID in Washington D.C.
24 Oct	USAID/Liberia COR peruse prelim. draft design package
29 Oct	Meeting with COR – advice of field visits
29 Oct	Meeting with USAID/Liberia
NOVEMBER 2014	
Description	
19 Nov	Meeting with USAID
December 2014	
Description	
5 Dec	Implementing Partners Meeting
12 Dec	MPW Meeting to discuss standard documents
16 Dec	Path forward meeting held with project staff
JANUARY 2015	
Date-2015	Description
Jan 26	Meeting with USAID CO on Work Program Year 2 and strategy to carry out design works in Component 2 of ES3R Project
Jan 27	Meeting with USAID COR at CDM Project Office
FEBRUARY 2015	
Feb 3	Meeting with MPW Deputy Minister for introduction and project information
Feb 5	Weekly Project Review Meeting

Feb 13	Participation of the Y2 Work Plan for USAID FED meeting
Feb 27	Presentation-meeting of Year 2 Work Plan including cost estimates
	MARCH 2015
Date-2015	Description
6 March	Meeting with A&E Firms Directors for preparatory discussion for the on-job training
9 March	Project Review Meeting with attendance of Pretoria Office staff, ETL and COP
12 March	Workshop meeting No. 1 by TRG and ES3R staff
17 March	Workshop meeting No. 2 on Leadership and Management by TRG and ES3R staff for E&E Firm owners
23 March	Meeting with A&E Firms Directors for mobilization plan for the on-job training
	APRIL 2015
April 14	Site inspection and progress meeting with Westwood Co., USAID COR, MPW local RE and ES3R team in Bong County
April 14	Internal meeting in Nimba to discuss the progress for the remaining design of 36 box culverts for all the extension in 388km
April 20	Meeting the MPW Minister Moore on Capacity Building to Five A&E Firms information and, the supply to ES3R of MPW Feeder Road Engineers
April 23	Meeting with MPW, Minister W. Gyudi Moore on PQM2 and planning for future MPW Road Maintenance
April 23	Meeting on project progress, inputs for PQM2 and Client Audit
April 27	PQM2 Workshop meeting at Mamba Hotel, Monrovia with USAID and MPW
April 27	Meeting on project progress and inputs for PQM2 and Client Audit
	MAY 2015

May 7	Meeting/ Site Inspection for substantial completion of three road links, Lofa County
May 12	Meeting with MPW Deputy Minister Jackson Paye on project issues information and discussion of application of MPW ES3R Engineers to the Project.
May 21	Meeting with MPW, Deputy Minister Jackson Paye and his staff for project issues and ES3R Environmental Specialist wrap-up of visit to sites
May 22	Weekly Meeting with USAID COR for project and environmental compliance issues
JUNE 2015	
June 5	Internal Meeting with ES3R REs and distribution of temporary Organization Chart and Roles & Responsibilities
June 1, 8, 15, 22 & 29	Weekly coordination meetings
Jun 25	Weekly project review meeting
JULY 2015	
July 12	Meeting with MPW Deputy Minister Jackson Paye on road design at Nimba County
Jul 16	Project site meeting
July 1 thru 2	Monthly site inspection and progress meetings in the Counties
AUGUST 2015	
August 4	Quarterly Rural Infrastructure Meeting with MPW and other stakeholders
SEPTEMBER 2015	
Sep 7, 14, 21 & 28, 2015	Submittal of weekly updates
Sep 18	Meeting with all the ES3R field and project office staff on anti-corruption and bribery in Bong County
Sep 18	Meeting at Bong County on road, culverts and bridge design with FTLs and Acting ETL
Sep 24	Meeting with USAID COR for bridge design status

Sep 30	ES3R Internal meeting with field and project office staff for standardization in Bid Documents when design is submitted to USAID
Sep 30	Courtesy visit - meeting of the ES3R Project Office of the new USAID Mission Director

2.3 Field Visits

Numerous and continuous visits to all Project road link sites were made during Year 2 by ES3R key staff from the three teams working in Bong, Nimba and Lofa, and from Monrovia project office for the monthly field visits by COP and/or ETL to review construction works being carried out by construction contractors. Field visits details are shown in Annex B of this report.

2.4 Project Deliverables

Project deliverables which were required to be submitted under the Contract are listed in Section F3 of the Task Order. The due dates for the deliverables were originally specified as ‘days after award’ or after end of month / quarter. This was subsequently changed by the issuance of Contract Modification 01 which was executed on 21 October 2013, by which the reports and documents were indicated for delivery on specified dates.

The actual dates for project deliverable submittals within the Year 2 are included in a listing of project deliverables in Annex C of this report.

2.5 Project Correspondence

The list of correspondence, excluding those for submission of project deliverables, is included in Annex D.

2.6 ES3R Team

For field-based activities, the team has been operating from the bases of three county capitals from which construction oversight and design works are carried out. Each field team is composed of a Field Team Leader (FTL), a Resident Engineer and an site Inspector. The teams are based in Voinjama, Lofa; Gbranga, Bong; and Ganta, Nimba.

2.7 Project Challenges and Constraints

This section includes the Year-2 challenges – their impact on project implementation and operations – along with mitigation measures undertaken by ES3R.

2.7.1 Contractor Capabilities

During this reporting period and from inception, the Quality Assurance that falls on the ES3R responsibility had the expectation that appointed construction contractors would have a reasonable degree of competence in the disciplines required by their contract. As a result of the ongoing site inspections, it was confirmed that contractors' staff generally lacked the skills required to carry out reporting and/or design interventions which were initial requirements of the contracts, thus placing an over-reliance on QAC staff for major support in these elements. Consequently, construction oversight by the Inspectors had to be significantly supplemented with more time and effort, than originally estimated, by senior ES3R field staff to better ensure that quality compliance was achieved.

2.7.2 Availability and Quality of Fuel

The lack of diesel fuel, particularly in Lofa County continued to be a great challenge. During the rainy season, diesel fuel was found to be mixed with water which caused severe damage to the four field vehicles which resulted in costly and lengthy repairs. The vehicle

assigned to Nimba County spent over four months in the mechanical workshop for repairs due to lack of the required spare parts in the market. The transportation logistics crisis was resolved by the CDM Smith HO management by realigning budget resources for the temporary rental of vehicles, which avoided further delays or a stoppage of the project activities.

2.7.3 EVD Crisis in Liberia

The continuing EVD crisis slowed the field works in the first and second quarter of year 2, as personnel/activities were centralized in Monrovia pending the completion of health assessments.

On Feb 13, 2015, the field work outside Monrovia was restarted after completion of the Health Assessments which resulted in a positive determination of reduced risk for field-based teams.

2.7.4 Design of Bridgeworks

The design of the roads (under Objective #2) assumed a certain number of hydraulic drainage structures of limited capacity enabling the water flow under the road way. However, in the course of carrying out the field surveys in preparation for the design of roads, 14 locations were identified where more substantive structures were required. This changed condition caused a delay in the works to enable the identification of appropriate technical resources for scoping, study and design of these additional/larger infrastructure works that were not included in the original contractual Scope of Works; these additional works were captured within a modification to the Task Order.

The proposal to add a bridge design team was accepted by USAID/Liberia, however, these additional works required a modification to the schedule (and cost) for road design deliveries.

On August 1, 2015, the bridge design team leader was mobilized to Monrovia from the USA to conduct the preliminary bridge field survey and integrate the team with the addition of a geotechnical engineer. This team was also augmented by a hydrology engineer, in addition to the topographic survey team that had previously participated in the road topo surveys.

2.7.5 Existing MPW Contract Documentation

The original USAID/Liberia solicitation provided the following Ministry of Public Works (MPW) standard technical documents:

- Feeder Road Design Manual
- Technical Specifications for Feeder Roads
- Typical Design Drawings

This documentation was quite important for establishing design criteria to be utilized by the project for both the construction oversight (Objective 1) and design (Objective 2). It was ES3R's expectation that these documents, with appropriate amendments, could be used for the Farm to Market road contract documentation. However, upon more detailed review during implementation, it was determined that the existing documents should be considered as guideline documents - as an indication of "minimum" standards, and not entirely sufficient to serve as design criteria in their existing form. As a consequence, the CDM Smith team undertook the additional scope work to augment and upgrade these guidance documents for the project works and to serve as more appropriate roadway design guidance documents for this and future works.

3. PROGRESS ON PROJECT OBJECTIVES

3.1 Objective 1: Construction Oversight

3.1.1 Overview of Works

Contracts were awarded to three local contractors in January 2014 to construct a total of 85 km of Farm-to-Market roads in Bong, Lofa and Nimba Counties. The contractors encountered delays towards the end of Year 1, largely due to the EVD. By the end of Year 1, the physical progress was between 34-39% completed compared to the anticipated full project completion ending on September 30.

During project year 2, there was improved progress in execution of the works as the impact of EVD diminished. The contracts were modified and an additional 75 km of road construction were awarded. Two contractor contracts were modified in April 2015 while the third one was modified in May 2015. The original scope of work for all three contracts was substantially completed by end of October 2015. Table 3.1 (below) provides a summary of the contracts.

Table 3.1: Status of ES3R Works Contracts

Description	Westwood Corp: BONG	SSF: LOFA	21 st Century: NIMBA
Original scope			
Contract award date	22 Jan 2014	27 Jan 2014	22 Jan 2014
Contract period	16 months	16 months	16 months
Maintenance and defects liability period	8 months	8 months	8 months
Extension of time due to EVD	-	3 months	-
Planned completion period	22 May 2015	27 Aug 2015	22 May 2015
Actual completion	Aug 2015		
Modification			
Contract award date	7 April 2015	26 May 2015	7 April 2015
Contract period	12 months	12 months	12 months

Maintenance and defects liability period	8 months	8 months	8 months
Planned completion period	6 April 2016	25 May 2016	6 July 2016
Overall physical progress	39%	15%	15%
Financial Progress			
Contract Value, Original scope	\$1,895,141.86	\$592,384	\$843,228.25
Additional scope	<u>\$1,861,722.41</u>	<u>\$973,851.35</u>	<u>\$2,183,507</u>
Total	\$3,756,864.27	<u>1,566,235.35</u>	\$3,026,286
Value of works certified as of Nov 2015 – Original	\$1,837,030	\$578,706	\$824,080
Value of works certified as of Nov 2015 – Modification	\$732,688	\$146,810	\$333,820

3.1.2 Bong County Works

The contractor, Westwood Corp. Inc., was awarded a contract on 22 January, 2014 and a modification (additional scope) on 7 April, 2015 for construction of three roads totaling 49.6 km under the original scope (Phase I) and two roads totaling 31.6 km under the modification scope. The works under Phase I were substantially completed in August 2015 and placed under maintenance while execution of Phase II works was on-going at the time of this report.

Phase I road links

Tolomai - Leleh – Palala	29.9 Km
Gbenequelleh – Janyea	10.5 Km
Gbenequelleh - Duita to Molly Town	9.2 Km
Total	49.6 Km

Phase II road links

Taylorta - Marlonta to Yandewoin	14.1 Km
Gbondoi - Gbarnla Road	17.5 Km
Total	31.6 Km

3.1.3 Lofa County Works

The contractor, S. Shawki Fawaz (SSF), was awarded a contract on 27 January, 2014 and a modification (additional scope) on 26 May, 2015 for construction of three roads totaling 13.6 km under the original scope (Phase I) and one road of 15 km under the additional scope (Phase II). The works under Phase I were substantially completed on July 2015 The Phase II works are on-going with a progress at 15% on September 2015.

The Phase I road links

Barkedu-Jamulor-Moibadu	8.3 km
Bitijama	3.6 km
Galamai	1.7 km
Total	13.6 km

Phase II road links

John's Town-Bulor	15.0 km
Total	15.0 Km

3.1.4 Nimba County Works

The contractor, 21st Century, was awarded a contract on 22 January, 2014 and a modification (additional scope) on 7 April, 2015. The original scope (Phase I) entailed construction of three roads totaling 21.5 km which was substantially completed. The scope under the modification (Phase II) covers two roads of totaling 27.9 km and progress of works was at 15% by end of September 2015

The Phase I road links is shown below.

Bahn-Payee-Zuoplay	14.9 Km
Dwonwea-Zoe Lappa	4.1 Km
Duanpea	2.5 Km
Total	21.5 Km

Phase II road links.

Gogein-Zuaplay junction – Doumpa-Zuaplay	22.1 Km
Gaopa-Garwompa	5.8 Km
Total	27.9 Km

3.2 Objective 2: Design and Contract Documents

3.2.1 Prioritization of Road Links

Over 600 km of roads targeted for improvement were proposed for rapid assessment by FED in collaboration with the USAID COR. In addition, other roads were identified by personnel in the counties, along with USAID/Liberia implementing partners, which resulted in a total of approximately 1,000km for review and validation. The ES3R Project scope included designs for a total of 450 km of roads to be improved.

A selection tool based on a Multi Criteria Analysis (MCA) was used to rank and prioritize the project roads. A simplified version of Integrated Rural Access Planning was considered most appropriate to the Liberian setting and project context. It was used because of its simplicity, transparency and ability to take into account the social benefits.

The tool uses a combination of benefit/cost ('cost effectiveness') and multi criteria analysis. The population served was used as a proxy for benefits and required road improvements as the cost. While a multi-criteria analysis was used to assess and quantify the impact of existing socio economic infrastructure and the project prime objective of serving FED projects.

Through these prioritization methodologies, the 450 km of roadway to be designed under the project were identified.

3.2.2 Field Surveys

The entire prioritized road links in the four counties were surveyed and appropriate data collected to enable the designs. A total of 392.4 km were surveyed as summarized in Table 3.2 during Year 2.

Table 3.2: Road links surveyed in the Four Counties

Bong County

1	Foequelleh-Morgan	2.2 km
2	Foequelleh-Menequah-Yowee	13.0 km
3	Felela-Jarwuta	9.1 km
4	Wensue-Kpai	9.0 km
5	Sinyea-Kayata	14.0 km
6	Bassa Town-Veleyan-Molonakpaiga	18.0 km
	Total	65.3 Km

Nimba County

1	Garwompa-Nyonkiayee	22.2 km
2	Kpai-CNC Junction (Zao)	10.0 km
3	Boyee Junction-Goekorpa	13.0 km
4	Graie-Toweh Town-Yourpea 2	47.0 km
	Total	92.2 km

Lofa County

1	Bulor-Tusu	10.4 km
2	Koiba City-Koilahun-Bolahun	10.0 km
3	Checkpoint-Bassamolahun-Ngorkohun	7.0 km
4	FoyaTown-Yasadu	8.0 km

5	Foya Town-Sangai-Kelima Pombor	15.0 km
6	Bulor – Goyala	1.8 km
7	Zelemai-Womai	22.0 km
8	Zorzor-Yeala Boarder	7.0 km
9	Zorzor-Kpaiyea-Gbarnway	14.0 km
	Total	95.2 km

Grand Bassa County

1.	Ben Luogan-Kor	2.5 km
2.	Blewein-Doewein-Sarwain	9.6 km
3.	Compound 1-Little Bassa-Vermah	22.0 km
4.	Compound 1-Doezoh	0.9 km
5.	Compound 2-Zahn	18.8 km
6.	Garpu-Behn	6.3 km
7.	James Hennry-Kardor	12.0 km
8.	Karsuah-Newcess Beach	10.2 km
9.	Siah-Weiker	3.2 km
10	Tain-Frank	2.1 km
11	Waka-Johnny Tutu	7.3 km
12	Waka-Compound 2	20.8 km
13	Yonbehn-Grand Kola	24.0 km
	Total	139.7 Km

3.2.3 Design of Road Links

In addition to the 75 km of road links designed in year 1, an additional 81 km had been designed and submitted to USAID by end of the reporting period. Similarly, six bridges and 14 box culverts along the road links had been designed. The design of completed road links in Year 2 are summarized in Table 3.3 below.

Table 3.3: List of Road Links Designed

Road Link	Length (km)	County
Bulor-Tusu	10.4	Lofa
Bulor-Goyala	1.8	Lofa
Garwompa-Nyonkiayee	22.2	Nimba
Compound 2-Zahn	18.8	Grand Bassa
Waka-Johnny Tutu	7.3	Grand Bassa
Waka-Compound 2	20.8	Grand Bassa
Total	81.3*	

*Excludes 75km developed during Year 1

3.3 Objective 3: Training and Mentoring of A & E Firms

Under the capacity building program, 5 engineers from the pre-selected/qualifying A&E Firms were attached to the project for training and mentoring in design and construction oversight of roads. The mentoring period was for 3 months which commenced in June through August 2015. At the end of the training the A&E firm trainees were assessed to determine their level of understanding in three areas:

- i) Topographical survey and reduced levels for drainage structures;
- ii) Identification and selection of road interventions and drainage structures; and
- iii) Road construction activities and contract management.

The training was effective in transferring some knowledge to the trainees. However, the period of training was considered inadequate to fully achieve all training objectives given the tight work schedule for the mentors to deliver on their ES3R field survey activities, and especially given the fact that most of the trainees had never been involved in road activities.

Similarly, four (4) MPW Feeder Roads Engineers were seconded to the project for a period of 4 months from August to November 2015. Two Engineers were attached to Bong County, one in Nimba County and one in Lofa County. The Engineers participated in construction oversight activities, design of roadways and design of box culverts.

4. YEAR 2 SUCCESSES

Preamble

The ES3R team achieved success in the approach, planning and operations involved in the Project – despite the many significant challenges. Specific achievements are listed below. We would like to highlight a general project “achievement” of engagement of host country organizations who have been significant contributors and who are the ultimate beneficiary of USAID’s investment in the ES3R program. This engagement was accomplished through regular and ongoing involvement of key stakeholders, including USAID, GOL authorities, County and District officials, implementing partners and local communities - all in the interests of full participation by key parties in order to achieve the desired results for the Project.

4.1 Project Quality Management Meeting and Workshop No. 2

One of the key elements in any CDM Smith mobilization of a project of this nature is a Project Quality Management (PQM) meeting and workshop. In early 2015, a follow-up PQM was held on 27 April 2015, conducted by CDM Smith HO Senior Management with the attendance of the Minister of Public Works and other MPW officers. CDM Smith was also represented by three team field team leaders, Environmental Specialist, the ETL and COP; and USAID was represented by:

David Wounuah	Contracting Officer Representative (COR)
Luiz Velasquez	COR
Maxime Bainduah	Civil Engineer
Vasselle Yakpazuo	Civil Engineer

A Mission statement was also refined at the April 2015 PQM. The purpose for developing a Project Mission Statement includes:

- A Mission Statement provides the high level objective(s) of the project and why it is important.
- Development of a Mission Statement by key stakeholders helps to create shared ownership and accountability for the project;
- they also help guide actions and provide a path for decision-making for the team
- Ultimately, what is required to consider the project a success.

As a starting point, the Mission Statement developed at project startup was reviewed and refined, to include some key accomplishments not necessarily anticipated at project startup.

The Mission Statement developed for the project is:

Provide engineering services to USAID/Liberia for the development and implementation of rural roads rehabilitation projects in support of the Feed the Future (FTF) Initiative. Supervise the construction of farm-to-market roads in Bong, Lofa, and Nimba counties; develop engineering designs of 450 km farm-to-market roads in Bong, Lofa, Nimba, and Grand Bassa counties in preparation for tendering by the end of the project; assessment/capacity building of five local A&E firms. The project must meet the expectations of Ministry of Public Works (MPW) and Communities where roads are designed and constructed.

The project is important to:

- *Develop an objective, transparent and defensible approach to select the 450km of roads to be designed by the project.*
- *Develop methodologies for overcoming constraints and limitations in construction oversight and design to ensure that scope objectives can be met.*
- *Improve transportation capacity of priority road networks in Liberia.*

- *Improve local capabilities and experience in the construction and design of rural roads for development of roads into the future.*
- *Improve the lives of the local population with improved access to social services, medical, education, commerce, etc.*

4.2 Award of Works Construction Contracts Modifications

Construction contractors SSF, 21st Century and Westwood Corporation were granted a contract modification after substantial completion of the initial 84 km was about to be achieved. These contract modifications involved an additional 75 km of road designs that CDM Smith had submitted to USAID in October 2014 as part of the total 450 kilometers of design under Objective #2 in the Task Order.

4.3 Substantial Completion of the Initial 84 kilometers

On different dates, the three construction contractors achieved the contractual 90% of completed works to receive the certification of ‘substantial completion’.

Inspection of the road links substantially completed were carried out by the USAID, MPW and the ES3R which resulted in a snag list (punch list) of the outstanding 10% in construction items which were executed within a reasonable period of time in the three counties.

The USAID Deputy Mission Director attended the opening ceremony in Bong County for a symbolic opening of all 84 kilometers of the original construction contracts. The ceremony took place on July 15, 2015 with the attendance of the Senior Officers of the Ministry of Public Works along with other local authorities.

4.4 Environmental Compliance

The International Environmental Specialist (IES) for the ES3R project, Karen Menczer, arrived for the first time in Monrovia on 23 April 2015 for an initial visit to the Project sites.

Other visits during the reporting period included: site visits to Lofa, Nimba and Bong counties and all roads under the ES3R. This facilitated the development of environmental and social mitigation and monitoring plans (ESMMP) and reports (ESMMRs) for each sub-contractor's use. The IES developed the ESMMP and ESMMR tools in compliance with the governing Programmatic Environmental Assessment (PEA); they were meant to help construction contractor staff implement the PEA requirements.

During the visit, the IES worked with each construction contractor to complete the ESMMR to ensure they became familiar with the tool. The following documentation was completed for each county:

- Environmental and Social Screening Checklist (a PEA requirement)
- Environmental and Social Mitigation and Monitoring Plan
- Environmental and Social Mitigation and Monitoring Report

The IES also incorporated environmental criteria into the prioritization tool that ES3R uses to choose which road segments to upgrade. Later, the IES developed an ESMMP to guide the environmental mitigation requirements for the design phase.

The environmental specialist visit was concluded by a meeting with the USAID/Liberia Mission Environmental Officer. The plans and reports prepared during the visit were approved by USAID/Liberia and distributed as appropriate.

In April 2015, ES3R hired a Local Environmental Specialist (LES), Danny Carter, to conduct regular monitoring and oversight of environmental compliance (April 1 - November 13, 2015). From May 12-20, in 2015, the IES returned to Liberia to work with the LES to strengthen his capacity in environmental monitoring and reporting.

During that visit, the LES and IES visited road segments where work was ongoing and conducted environmental compliance oversight. In addition, they used the design phase ESMMP on road segments that were in the design stage. This IES visit concluded with a meeting at the Ministry of Public Works to discuss the environmental impacts of the project and strengthening capacity in environmental monitoring of road projects.

The LES conducted environmental oversight visits to roads that were proposed for upgrade, where ongoing work was taking place, and to roads where work was completed. He also met with communities along the road segments to raise awareness about the roadwork, including the potential safety and environmental issues. A key finding was that the capacity of construction contractor environmental officers was weak and often were not given the support they needed to do their jobs.

4.5 Training and Mentoring

The Capacity Building objective established in Component 3 has been carried out and completed during this reporting period. The preselected five A&E firms have been trained per the scope of the task order, at the desired level for them to carry out future construction oversight and road and bridge design.

Capacity building, perhaps, is best defined by one of the recent participants in the “Building Roads to Business Development” workshop who wrote:

“We hope to receive such a good training again that will build our capacity in developing our country. Human capacity building is more important than gold or any other thing under this sun.”

This statement reflects the focus on the third objective of the task requirements of the task order for the Engineering Services for Rural Roads Rehabilitation (ES3R) project: “Training and pre-qualification of five (5) local A&E firms capable of providing oversight for the road rehabilitation activities by 2015.”

This objective had three sub-objectives:

- Conduct a skills assessment and pre-qualification process of five (5) local A&E firms
- Based on the results of the skills assessment surveys, develop and execute a training program for local A&E firms aimed at enhancing the technical skills of employees of these firms so they can better perform road engineering work in the future. Training manuals were developed and published.
- Develop a mentorship program in which all trained local A&E firms will be mentored through periodic office visits, provision of consultant services on best practices and project management, institutional system strengthening of the firms and following up performance reports from other clients/employers.

To accomplish these objectives, the capacity development initiative began with the first sub-objective, an assessment of eight local architect

and engineering (A&E) firms. The assessment concluded that there was a need to:

- Train the next generation of Liberian civil engineers to rehabilitate rural roads.
- Train leaders of Liberian A&E firms in leadership and management.

Based on the recommendations of the assessment and in conjunction with project objectives for capacity development, ES3R developed a capacity building program which consisted of:

- A 90-day on-the-job mentorship program in road survey and design, box culvert survey and design and road construction supervision and oversight.
- Two workshops, “Roads to Leadership and Management” and “Roads to Business Development,” to build the capacity of the principals of Liberian A&E firms.

After a thorough review of the eight local firms who had expressed an interest in participating in the program, five local Liberian A&E firms were selected to participate in the ES3R capacity building initiative which focused on mentoring and training. The selection process included:

- Identification of A&E firms through an Expression of Interest (EOI) published on-line and in the national press.
- Assessment using “The Organizational Capacity Assessment Tool”
- On-site interviews

The following firms were selected for the ES3R initiative:

- Gbesohn Associates
- Longman Engineering
- Prime Consortium
- Tristar (TSC)

- Walker Robinson International

The mentorship program was initiated with a three day workshop in Monrovia in March 2015. The workshop covered effective skill transfer, communication skills, and team building. The workshop was attended by six mentees and four mentors. Subsequent to the workshop, mentees apprenticed in the field under the direction of their mentors in road survey and design, box culvert design, bridge design, and road construction oversight and supervision.

For principals of the Liberian A&E firms, the first workshop, “Roads to Leadership and Management” workshop, was conducted in March, 2015, and focused on:

- The different yet complimentary roles of leading and managing
- Making decisions and building teams
- Giving feedback and resolving conflicts
- Development others and developing yourself

Seven principals from five firms Liberian A&E firms attended the workshops.

The second capacity building workshop for principals of the A&E firms, “Roads to Business Development” workshop was conducted in August/September, 2015. The workshop trained leaders on the principles of:

- Defining a business through defining their vision, mission, values, customer-base, and market niche
- Developing a business strategy through a SWOT analysis and transformation mapping
- Positioning business through partnerships and networking

The second workshop built on concepts covered in the first capacity building workshop and continued to strengthen the cohesiveness among the five firms.

The need for forming a cohesive group among small A&E firms was emphasized by Jackson Payne, Deputy Minister, Ministry of Public Works during his closing comments of the workshop: “Small Liberian A&E firms need to form a consortium and work together in order to compete with larger international firms to be in a position to bid for this work.” In addition, Deputy Minister Payne emphasized the need to continue to conduct regular training workshops to build the capacity of Liberian engineers and to begin to focus on gender equity in construction and engineering projects.

Workshop participants made the following recommendations to strengthen the capacity of Liberian A&E firms:

- Provide employment opportunities for people who have undergone the training so as to enable them to perform what they have learned from the training.
- Legislate that in all engineering projects in Liberia there should be a significant percentage of local content participation, that will better facilitate local knowledge transfer.

In addition, A&E firm leaders talked about the need to change the way Liberia conducts rural road design and construction. They emphasized the need to incorporate erosion control in road design and construction to increase the life span of roads.

These recommendations reinforced the need for continued capacity building of Liberian A&E firms and civil engineers.

On-the job Training

AE trainees were deployed to the construction sites in the counties to participate for the planned on-the job training and were exposed to various disciplines in construction oversight such as bridges, culverts, earthworks,

revetment works and random spot-checking on quality. In addition, they participated in field surveys to include topographic, hydrological and geotechnical in preparation for road and culverts design. The participation of the five engineers from the five Engineering Firms was active with intensive teaching-learning conducted by the ES3R Field Teams. The trainees completed a period of 3-4 months counted from May 2015 until end of August.

Continuous assessments of the mentor program were undertaken during the training period to monitor progress. All trainees demonstrated a very positive attitude and interest towards the program.

The selected trainees rotated field assignments to ensure maximum exposure to field work activities.

All trainees presented an overall program presentation during the last workshop to their respective A&E firm management (September).

During the same workshop, the final ES3R Capacity Building workshop on Business Development was held for 11 day from 25 August 2015.

MPW Feeder Roads Engineers

Four MPW Feeder Road Engineers have been temporarily assigned to the ES3R project to support the construction oversight and design packages. This approach is similar to the AE mentor program to promote skills transfer to local Liberians. These four engineers are under training and are assisting the design works for roads, and culverts as well as providing assistance to construction oversight.

Resident Engineers (REs)

After the experience on the project gained to date, the REs in Bong, Nimba and Lofa are sufficiently acquainted with the survey process to manage day to day survey verification and construction oversight.

We consider this advancement of RE capabilities, gained through work on the project, to be a significant accomplishment. This knowledge transfer is in line with our capacity building objectives established at the beginning of the project.

Site Inspectors (SIs)

With the promotion of Bong RE to FTL, the site inspector of works has been elevated to the post of RE as envisaged in Inception Report. Mentoring of the promoted RE has been intensive and successful taking into consideration that he has been in the same team from inception.

5. MONITOR OF PERFORMANCE

5.1 Performance Management Plan

The management tool which has been used to efficiently demonstrate the implementation progress at any point in the project timeline is the Performance Management Plan (PMP), which was originally submitted in parallel with the ES3R Inception Report. The PMP provides a simple and consistent performance monitoring and evaluation framework across the main scope components.

5.2 Development Objective

F2MRR is an initiative to provide infrastructure investment in the rehabilitation of rural F2M roads for which ES3R provides local procurement for the rehabilitation of F2M roads and technical assistance for road maintenance. Thus the Development Objective of the ES3R mechanism is:

“EASE OF ACCESS TO MARKETS FACILITATED”

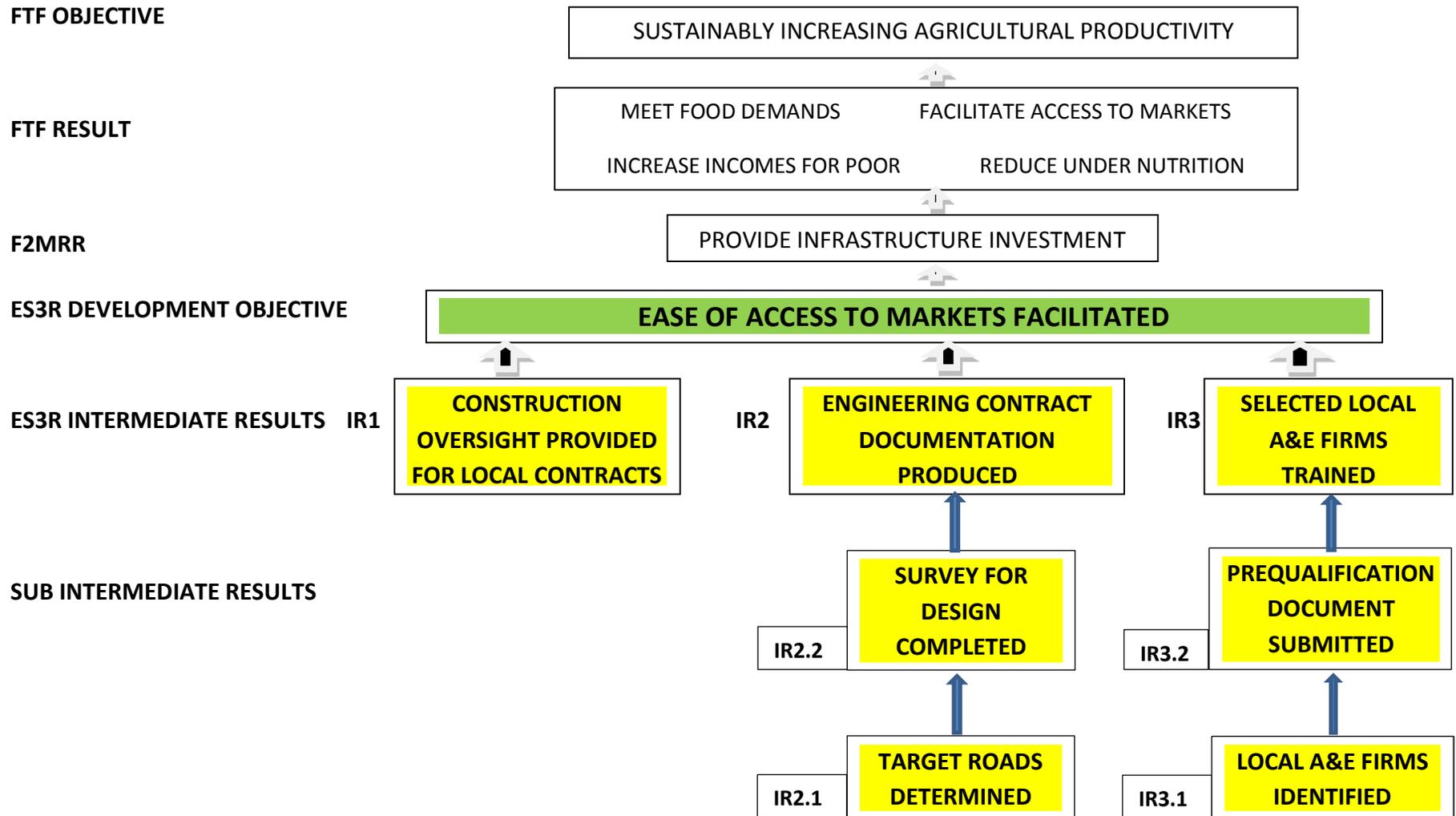
5.3 Monitoring of Results by Intermediate Results

The Project performance is monitored by a series of Results – *Intermediate* results (IR) and *Sub-Intermediate* results – all of which are related to the overall Development Objective.

The ‘Results Framework’ included within this section (see graphic below), shows the relationship between these IRs. Note the IR results directly relate to each of the three Project objectives, namely:

- Construction Oversight
- Design and Documentation
- Training and Mentoring of A & E Firms

ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION (E3R)



Results Framework

Sub-Intermediate results are precursor activities required to achieve the Intermediate Results. For example, in the case of IR2: ‘Engineering Contract Documentation Produced’, there are two Sub-Intermediate results required to be undertaken, prior to the commencement of the engineering design and documentation process. These are as follows:

IR2.1: ‘Target Roads Determined’, for which 450 km of F2M roads will be prioritized by means of a multi-criteria analysis which will facilitate the selection of the target roads which is clearly needed prior to IR 2.2;

IR2.2: ‘Survey for Design’, in which the target roads which have been selected will be subject to detailed field survey, inclusive of instrument levelling, hydraulic and materials studies.

5.4 Baseline Data

The original Project targets were those prescribed by the USAID/Liberia ES3R Task Order. Adjustments were made to those original targets, in agreement with USAID, in order to reflect updated knowledge provided in the Inception Report. It is those revised targets developed in 2014 which are reflected in the ‘Performance Data (Summary) Table’ included hereafter.

**PERFORMANCE DATA (SUMMARY) TABLE
ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION (ES3R)**

ES3R DEVELOPMENT OBJECTIVE	Ease of Access to Markets Facilitated								
	Indicators	Indicator Type	Unite of Measure	Disaggregated	Baseline Year	Baseline Value	Targets		
							2014	2015	2016
Length of rehabilitated F2M roads completed	ES3R	KM	None	2013	0	83.5	160*	NA	
ES3R INTERMEDIATE RESULT									
Construction Oversight Provided for Local Contracts									
Length of road that has construction contract for rehabilitation awarded	ES3R	KM	None	2013	0	83.5	160	NA	
Length of roads inspected during construction	ES3R	KM	None	2013	0	83.5	160	NA	
ES3R INTERMEDIATE RESULT									
Engineering Contract Documentation Produced									
Length of roads with complete engineering designs submitted to USAID/Liberia	ES3R	KM	None	2013	0	75	270	105	
Bid documents prepared and submitted to USAID/Liberia	ES3R	KM	None	2013	0	75	270	105	
ES3R SUB INTERMEDIATE RESULT									
Survey for Design Completed									
Length of survey (windshield & instrument) completed	ES3R	KM	None	2013	0	75	220	155	
ES3R SUB INTERMEDIATE RESULT									
Target Roads Determined									
Prioritized target roads for further design development based upon stakeholders needs	ES3R	KM	None	2013	0	150	270	NA	
ES3R INTERMEDIATE RESULT									
Selected Local A&E Firms Trained									
Number of engineers and technical staffers from local A&E Firms trained	ES3R	Number	None	2013	0	10	15	NA	
Number of local A&E firms with improved capabilities in design and supervision of rural roads	ES3R	Number	None	2013	0	5	5	NA	
ES3R SUB INTERMEDIATE RESULT									
Prequalification Document Submitted									
Develop evaluation criteria and conduct full assessment of available engineering source	ES3R	Number	None	2013	0	8	NA	NA	
ES3R SUB INTERMEDIATE RESULT									
Local A&E firms identified									
EOI evaluation completed for number of A&E firms	ES3R	Number	None	2013	0	8	NA	NA	

*ES3R has been contracted to provide oversight until Q4 2015. Continuation continues under different project

5.5 General

Performance indicators have been drafted for the ES3R Development Objective and each of the ES3R results, both intermediate and sub intermediate. These performance indicators are a direct measure of the completion status of the particular result.

5.5.1 Performance Indicators

Performance indicators are as follows:

Result	Description of Result	Performance Indicator
DO	Ease of access to markets facilitated	Length of rehabilitated F2M roads completed.
IR1	Construction oversight provided for local contracts	Length of road that has construction contract for rehabilitation awarded.
IR1	Construction oversight provided for local contracts	Length of roads inspected during construction.
IR2	Engineering contract documentation produced	Length of roads with complete engineering designs submitted to USAID/Liberia.
IR2	Engineering contract documentation produced	Bid documents prepared and submitted to USAID/Liberia.
IR2.2	Survey for design completed	Length of survey (windshield & instrument) completed.
IR2.1	Target roads determined	Prioritized target roads for further design development based upon stakeholder needs.

IR3	Selected local A & E firms trained	Number of engineers and technical staffers from local A & E firms trained.
IR3	Selected local A & E firms trained	Number of local A & E firms with improved capabilities in design and supervision of rural roads.
IR3.2	Prequalification document submitted	Develop evaluation criteria and conduct full assessment of available engineering sources.
IR3.1	Local A & E firms identified	EOI evaluation completed for number of A & E firms.

5.5.2 Performance Indicator Reference Sheets

The Performance Indicator Reference Sheet (PIRS), prepared for each indicator, presents the details related to each indicator: description, plan for data acquisition, data quality issues, a plan for data analysis, review, roles, responsibilities and reporting. The PIRS are included in Annex F of this document.

5.6 MANAGEMENT TASK SCHEDULE

The Management Task Schedule included within this section outlines the major benchmarks and tasks required for the performance monitoring.

PERFORMANCE MANAGEMENT TASKS	Q1'13	Q2 Jan 14 - Mar 14			Q3 Apr 14 - Jun 14			Q4 Jul 14 - Sep14			Q5 Oct 14- Dec 14			Action
PMP Management Tasks	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
Preparation of Data Collection tools		X	X	X										Key Staff
Project monitoring		X	X	X	X	X	X	X	X	X	X	X	X	Team
Quarterly report writing		X			X			X			X			HS
Periodic review of PMP indicators							X						X	Key Staff
Finalize PIRS for each indicators	X	X												HS
Target setting for new indicators											X			Key Staff
Performance Evaluation														
Internal project evaluation							X			X				Team
Data Collection														
Collect baseline data	X	X	X											Key Staff
Collect monitoring data		X	X	X	X	X	X	X	X	X	X	X	X	Key Staff

PERFORMANCE MANAGEMENT TASKS	Q1 Jan 15 - Mar 15			Q2 Apr 15 - Jun 15			Q3 Jul 15 - Sep15			Q4 Oct 15- Dec 15			Action
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
PMP Management Tasks													
Preparation of Data Collection tools													
Project monitoring	X	X	X	X	X	X	X	X	X	X	X	X	Team
Quarterly report writing	X			X			X			X			FP
Periodic review of PMP indicators						X						X	Key Staff
Finalize PIRS for each indicators													
Target setting for new indicators										X			Key Staff
Performance Evaluation													
Internal project evaluation						X			X				Team
Data Collection													
Collect baseline data													
Collect monitoring data	X	X	X	X	X	X	X	X	X	X	X	X	Key Staff

5.7 Year 2 Results – 2015

The Year-2 results are shown in the following table.

YEAR	PROVISIONAL				ACTUAL				NOTES
	BONG	LOFA	NIMBA	GRAND BASSA	BONG	LOFA	NIMBA	GRAND BASSA	
2013	0	0	0	0	0	0	0	0	Base Year
2014	150				31.6	15.4	28.2	0	Sub-total 75.2Km
2015	300				57.8	105.5	91	139.3	Total for the four Counties in the year 2015: 393.6 Km. Grand total in the project: 468.8 Km

Performance Indicator Reference Sheets are included in Annex F.

ES3R Targets and Results Year 2 - 2015

Indicator	2013 Base Value	2015		Comment
		Target	Actual	
Length of rehabilitated F2M roads completed (DO)	0	0	84	Construction contracts and inspection relate to the actual length of F2M roads as measured on site. Work is under construction with
Length of road that has construction contract for rehabilitation awarded (IR1)	0	83.5	85.4	

Length of roads inspected during construction (IR1)	0	83.5	159	assessed completion recorded in section 3.1 of this report.
Length of roads with complete engineering designs submitted to USAID/Liberia (IR2)	0	150	75	The actual results of 75 km which was recorded for the first three indicators in the IR2 series were less than the 150 km targets which were envisaged. This was due to a combination of numerous delays in the early stages of the design objective and the EVD crisis which had a negative impact on the detailed field survey work from late June 2014.
Bid documents prepared and submitted to USAID/Liberia (IR2)	0	150	75	
Length of survey (windshield & instrument) completed (s IR2.2)	0	150	75	The ES3R teams completed the road prioritization, survey, detailed design and documentation of 75km of road by the end of Year 1 and submitted the preliminary draft design package to USAID/Liberia.
Prioritized target roads for further design development based upon stakeholders needs (s IR2.1)	0	450	450	All 450km of F2M roads for further design development were prioritized as per the 2014 target.
Number of engineers and technical staffers from local A&E Firms trained (IR3)	0	10	15	Eight A & E firms were assessed and recommendations accepted for five selected firms to take part in the ES3R Project. The schedule for specialist in-country training was postponed due to the EVD crisis.
Number of local A&E firms with improved capabilities in design and supervision of rural roads (IR3)	0	5	5	
Develop evaluation criteria and conduct full assessment of available A/E source (s IR3.2)	0	7	9	
EOI evaluation completed for number of A&E firms (s IR3.1)	0	7	9	

6. FINANCIAL REPORT – YEAR 2

We include hereafter a summary of project expenditure from Project from 26 October 2014 to October 31, 2015.

Row Labels	Sum of RAW COST		TOTAL Cost
01-Auto - A/P	50,620.35		50,620.35
02-Entertainment - A/P	598.05		598.05
03-Room - A/P	52,503.00		52,503.00
03-Room - expense	2,744.20		2,744.20
04-Park, Toll, Taxi - A/P	26,310.31		26,310.31
04-Park, Toll, Taxi - expense	5.00		5.00
05-Prints - A/P	37.76		37.76
06-Supplies - A/P	15,290.76		15,290.76
07-Miscellaneous - A/P	86,624.55		86,624.55
07-Miscellaneous - expense	476.56		476.56
08-Telephone - A/P	4,892.00		4,892.00
10-Air Fare - A/P	6,860.62		6,860.62
10-Air Fare - expense	9,599.22		9,599.22
11-Outside Professionals	1,414,552.41		1,414,552.41
12-Computer - A/P	14,648.00		14,648.00
19-Shipping, Postage - A/P	1,174.49		1,174.49
30-Meals - A/P	37,634.59		37,634.59
30-Meals - expense	1,004.57		1,004.57
45-Business Conference	75.30		75.30
Labor	46,094.00	84,812.96	130,906.96
Labor Local	214,857.83	395,338.41	610,196.24
Overseas Differential - ODC	31,155.52		31,155.52
Grand Total	2,017,759.09		2,497,910.46
		Fee @ 7.5%	187,343.28
		Year 2	2,685,253.74

ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION (ES3R)

ANNEX A

ES3R Year 2 ACTIVITIES SUMMARY

ES3R Main Activities in Y2	
OCTOBER 2014	
Date	Description
1 Oct	CDM letter reply to USAID of 26 September
3 Oct	USAID CO letter reply to CDM of 1 October
6 Oct	USAID COR in design meeting with ES3R
6 Oct	CDM Letter to USAID – reply to USAID 3 October
14 Oct	USAID CO letter; issuance of Notice
w/e 24 Oct	Numerous office visits by COR
24 Oct	Meeting of CDM, USAID CO and senior staff
24 Oct	USAID CO letter, Notice of 14 Oct rescinded
24 Oct	USAID COR to Monrovia office to peruse designs
25 Oct	ETL proceeds on medical leave to Europe
27 Oct	CDM letter to USAID – will provide new proposal
27 Oct	ES3R deliver design package to USAID/Liberia
29 Oct	COR/ES3R meet 21 st Century re: bridge design
29 Oct	Meeting with COR – advice of field visits
NOVEMBER 2014	
Date	Description
7 Nov	CDM submits letter with Revised Work Plan
8 Nov	SSF Suspension of Works lifted
10 Nov	Monthly Progress Report submitted
14 Nov	Letter received from USAID/Liberia MD
14 Nov	Letter received from USAID /Liberia CO
17 Nov	ES3R ETL, Jim Clarke, returns to Monrovia
19 Nov	Meeting with USAID
20 Nov	ES3R Annual Report 2014 submitted to USAID
25 Nov	Invitation to IP's meeting received from USAID
27 Nov	FTL, G Kibisi, proceeds on annual leave
December 2014	
Date	Description
2 Dec	Conf. Call with USAID (Macy, Smith, Wounuah.)
5 Dec	J. Clarke attends Implementing Partners Meeting
7 Dec	Jackson Kirungi departs Liberia

9 Dec	Conf. Call with USAID (Macy, Smith, Wounuah.)
10 Dec	Monthly Progress Report (Nov) submitted
11 Dec	CDM Smith letter USAID telephonic phone conferences (Revised Work Plan)
11 Dec	Letter request for transfer of COP duties
12 Dec	Last day Howard Shelmerdine as COP
12 Dec	MPW Meeting to discuss standard documents
13 Dec	Shannon Dotson assumes acting COP
12-22 Dec	James Clarke conducts Health Assessment 1 in Lofa, Bong, and Nimba County
16 Dec	Path forward meeting held with project staff
19 Dec	Office Closes for the festive season
22 Dec	Approval for travel and onboarding of new COP- Francisco Perez
22 Dec	James Clarke departs Liberia for festive season
w/e 24 Oct. '14	Numerous visits to ES3R office by USAID COR
24 Oct. 2014	CDM senior staff meet with USAID CO and senior staff of USAID in Washington D.C.
24 Oct. 2014	USAID/Liberia COR peruse prelim. draft design package
29 Oct. 2014	Meeting with USAID/Liberia
JANUARY 2015	
Date	Description
14 Jan	CDM Approval to return to County Capitals as result of Health Assessment 1 results.
18 thru 23 Jan-	ES3R Project leadership transition in Brussels to Francisco Perez, new COP
23 Jan	ES3R COP, Francisco Perez, arrives to Monrovia
27 Jan	Meeting with USAID COR
28 Jan	Meeting with USAID CO 2015
24 thru 31 Jan	Initiation of Health Assessment #2 Data Collection at Bong and Lofa Counties

29 thru 31 Jan	USAID Mission Director and the CO visit constructions sites in Bong and Lofa Counties
FEBRUARY 2015	
Feb 5	Weekly Project Review Meeting
Feb 10	Health Assessment 2 submitted for review
Feb 12	Health Assessment 2 approval
Feb 12	Weekly Project Review Meeting
Feb 12	Submittal of Draft Monthly Progress Report for January 2015
Feb 13	Participation of the Y2 Work Plan for USAID FED
Feb 17	Travel request approval for TRG Capacity Building Expert
Feb 20	Draft Year 2 Work Plan submitted
Feb 27	Presentation of Year 2 Work Plan including cost estimates
MARCH 2015	
Date	Description
6 March	Meeting with A&E Firms Directors for preparatory discussion for the on-job training
9 March	Project Review Meeting with attendance of Pretoria Office staff, ETL and COP
12 March	Workshop No. 1 by TRG and ES3R staff
12 March	Submittal of Monthly Report
13 March	Site visit to Bridge Lee in Nimba County for confirmation of founding levels and bearing capacity on Banh Payee Rd.
17 March	Workshop No. 2 on Leadership and Management by TRG and ES3R staff for E&E Firm owners
23 March	Meeting with A&E Firms Directors for mobilization plan for the on-job training
25 March	Received approval for travel for Frederick Were-Higenyi, FTL
27 March	Submittal of Contract Amendment 4
29 March	ETL on Leave
APRIL 2015	

April 6, 2015	Submittal Weekly Project Updates
April 12, 2015	Submittal of Quarterly Report, Q2, Y2
April 13, '2015	Submittal Weekly Project Updates
April 13, 2015	Handover to Westwood Corporation, Contractor at Bong county of links as extension of their original SOW
April 14, 2015	Site inspection and progress meeting with Westwood Co., USAID COR, MPW local RE and ES3R team in Bong County
April 14, 2015	Internal meeting in Nimba to discuss the progress for the remaining design of 36 box culverts for all the extension in 388km
April 20, 2015	Submittal Weekly Project Updates
April 20, 2015	Meeting the MPW Minister Moore on Capacity Building to Five A&E Firms information and, the supply to ES3R of MPW Feeder Road Engineers
April 23, 2015	Meeting with MPW, Minister W. Gyudi Moore on PQM2 and planning for future MPW Road Maintenance
April 23, 2015	Meeting on project progress, inputs for PQM2 and Client Audit
April 27, 2015	Submittal of weekly updates
April 27, 2015	PQM2 Workshop at Mamba Hotel, Monrovia
April 27, 2015	Meeting on project progress and inputs for PQM2 and Client Audit
April 27, 2015	MOU sent to the Five A&E firms for continuation of Component 3 with the scheduled on-the job-training
	MAY 2015
May 4, 2015	Submittal of weekly updates

May 5, 2015	Completion of all A&E Firm signing of MOU for capacity building in field training.
May 7, 2015	Meeting/ Site Inspection for substantial completion of three road links, Lofa County
May 7, 2015	Draft of CDM Contract Modification 4 received from USAID
May 8, 2015	ES3R Environmental Specialist arrived in Monrovia for review of the Environmental Monitoring Compliance by construction Contractors
May 11, 2015	Submittal Weekly Project Updates
May 12, 2015	Meeting with MPW Deputy Minister Jackson Paye on project issues information and discussion of application of MPW ES3R Engineers to the Project.
May 13, 2015	Submittal of Monthly Report for April 2015
May 18, 2015	Engagement of Site Inspector for Lofa County
May 19, 2015	Submittal Weekly Project Updates
May 21, 2015	Meeting with MPW, Deputy Minister Jackson Paye and his staff for project issues and ES3R Environmental Specialist wrap-up of visit to sites
May 22, 2015	Weekly Meeting with USAID COR for project and environmental compliance issues
May 22, 2015	Submittal of Contract Modification 4
May 26, 2015	Submittal of Weekly Project Updates
May 31, 2015	Mobilization of the Capacity Training A&E firms' engineers for on-the job-training
	JUNE 2015
June 1, 8, 15, 22 & 29, 2015	Submittal Weekly Project Updates

June 2, 2015	Visit to ES3R project by HO Management; meetings with USAID/Liberia Mission Director and MPW Deputy Minister
June 5, 2015	Resignation to ES3R from ETL as Engineering Team Leader
June 5, 2015	Notification to USAID from CDM on ETL's resignation and proposal to replace him by Frederick Were Hygenji
June 5, 2015	Internal Meeting with ES3R REs and distribution of temporary Organization Chart and Roles & Responsibilities
June 6, 2015	Quality audit to ES3R project
June 9, 2015	Travel to Nimba and Bong Counties for Construction oversight
June 12, 2015	Induction of an Administration assistant in Project Office
Jun 15, 2015	Submission of Monthly Report for May
June 1, 8, 15, 22 & 29, 2015	Weekly coordination meetings
June 27 thru 30, 2015	Visit the sites for handover to Lofa Contractor the Phase II road links; site inspections and progress review meetings
Jun 24, 2015	Project Office shifted to MPW premises
Jun 25, 2015	Weekly project review meeting
	JULY 2015
July 6, 13, 20 27, 2015	Submittal of weekly updates
July 10, 2015	Arrival of Mr. Javed Sultan to replace COP during personal holiday time
July 12, 2015	Meeting with MPW Deputy Minister Jackson Paye on road design at Nimba County
July 14, 2015	Submittal of Quarterly Report for April-June

Jul 16, 2015	Project site meeting
July 16, 2015	Inauguration of Bong County road links in Phase I
July 17, 2015	COP vacation leave commenced and demobilization of the ETL
July 17, 2015	Approval of Contract Modification 4
July 28, 2015	Return of COP from leave to Monrovia County
July 1 thru 2, 2015	Monthly site inspection and progress meetings in the Counties
	AUGUST 2015
August 1,	Arrival of the Bridge Design Team Leader
August 3, 10, 17, 2015	Submittal of weekly updates
August 4, 2015	Quarterly Rural Infrastructure Meeting with MPW and other stakeholders
August 22 & 24, 2015	Submittal of weekly updates
August 12, 2015	ETL and Nimba FTL proceeded on vacation leave respectively
August 16, 2015	Commencement of road, bridge and culvert design in Voinjama, Banga and Ganta
August 25, 2015	Start of workshop on Business Development for the Five A&E firms' principals and managers
August 31, 2015	Conclusion of the on-the job training for the Five A&E engineers
August 31, 2015	Submittal of weekly updates
	SEPTEMBER 2015
Sep 7, 14, 21 & 28, 2015	Submittal of weekly updates
Sep 18, 2015	Meeting with all the ES3R field and project office staff on Anti-corruption and bribery in Bong County
Sep 18, 2015	Meeting at Bong County on road, culverts and bridge design with FTLs and Acting ETL

Sep 24, 2015	Meeting with USAID COR for bridge design status
Sep 30, 2015	ES3R Internal meeting with field and project office staff for standardization in Bid Documents when design is submitted to USAID
Sep 24, 2015	Reception of Dr. Anthony Chan at US Embassy House as new USAID Mission Director to Liberia
Sep 30, 2015	Courtesy visit to the ES3R Project Office of the new USAID Mission Director

ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION (ES3R)

ANNEX B

ES3R Year 2 FIELD VISITS

ES3R Year 2 Field Visits

ES3R YEAR 1 FIELD VISITS (2014)				
Month	From	To	Staff	Purpose
January	Wed 29	Sat Feb 1	COR, COP, ETL.	Introductions to key stakeholders in Bong, Lofa and Nimba counties including visits to MPW Resident Engineers and FED offices.
February	Tues 18	Sat 22	COR, ETL & RE (Lofa)	Kick off site progress meetings in Bong, Lofa and Nimba construction contracts.
	Thurs 27	Sat Mar 1	ETL RE (Lofa)	Inception report project visits in Bong and Nimba.
March	Wed 5	Sat 8	ETL & RE (Bong)	Introductions of RE (Bong) to county stakeholders and Contractor.
	Tues 11	Thurs 13	ETL, RE (Bong) & RE(Nimba)	Introductions of RE (Nimba) to county stakeholders and Contractor.
	Thurs 19	Wed 25	ETL and three Field Team Leaders (FTL's)	Introductions of FTL's to all county stakeholders incorporating site visits to selected roads.
April	Tues 1	Sat 5	ETL and USAID	Ground breaking ceremony for F2MRR and monthly site progress meetings.
	Mon 14	Thurs 17	ETL	Introductions to stakeholders in Grand Bassa followed by team coordination meeting in Bong county.
	Thurs 24	Thurs May 1	COP & Environmentalist	Attendance at monthly site progress meetings, site visits to all project roads for environmental inspection and evaluations.

June	Fri May 30	Fri 13	ETL + COR & COP for coordination meeting	Preparation for Bong, Lofa, and Nimba prioritization workshops & attendance at site meetings. Team coordination meeting 12 & 13 June Gbangra.
	Sun 22	Fri 27	ETL, COR & COP(later)	Preparations for prioritization workshop in Grand Bassa. Team coordination and finalization of selected roads.
July	Tues 1	Fri 4	ETL	Site progress meetings in Bong and Nimba
	Mon 7	Sat 12	ETL	Meeting with FTL Bong and continue to conduct bridge survey on Nimba road link.
	Sun 20	Tues 22	ETL & COR	Team coordination meeting in Ganta with all field staff.

ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION (ES3R)

ANNEX C

ES3R Year 2 PROJECT DELIVERABLES

DATE	REPORT
20 October 2014	Quarterly Report, Y1 Q4
10 November 2014	Monthly Report for October 2014
20 November 2014	Annual Report Y1
10 December 2014	Monthly Report for November 2014
20 January 2015	Quarterly Report, Y2 Q1
10 February 2015	Monthly Progress Report for January 2015
10 March 2015	Monthly Progress Report
20 April 2015	Quarterly Progress Report Y2 Q2
12 May 2015	Monthly Progress Report – April 2015
15 June 2015	Monthly Progress Report – May 2015
18 June 2015	Performance Management Plan
14 July 2015	Quarterly Progress Report Y2 Q3
12 August 2015	Monthly Progress Report – July 2015
11 September 2015	Monthly Progress Report – August 2015
14 October 2015	Quarterly Progress Report Y2 Q4

ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION (ES3R)

ANNEX D

ES3R PROJECT CORRESPONDENCE

October 2014

- Letter from CDM to USAID CO on 27 October 2014 on Updated Proposed Action Plan

November 2014

- Letter from USAID to ES3R on 14 Nov 2014 on EDV related information to ES3R team

December 2014

- Letter from CDM to USAID CO on 11 December submitting Work Plan in draft for Year 2
- Letter from CDM to USAID CO on 11 December requesting USAID COP transfer of duties

January 2015

None

February 2015

- An email addressed to ES3R COP, was received from USAID/Liberia on 6 February 2015. The content is summarized as:
- Information that that USAID had initiated preliminary discussions with the construction contractors relative to potential expansion of the contract contracts to include the recently designed 75 km of roads.
- Advising that within the following week the designs (75-km package delivered on 25 October 2015) would be forwarded to the contractors. This to be followed by a site walk-through and subsequent submission of proposals by the contractors.
- USAID COR request the ES3R submit the supplementary and final design for the box culverts and electronic version of the specifications by mid next week.
- Suggestion from USAID COR on the next USAID-ES3R weekly meeting be held at ES3R project office by 11:00 am on Monday Feb. 9, 2015.

April 2015

- Information on tentative dates of April 7 to 13 for monthly progress meetings and handover of new road links to Westwood Corporation and 21st Century contractors within the extended scope of work to their initial contracts at Bong and Nimba counties.
- Approval on 6 April for the Environmental Specialist travel request to the project for work with ES3R local environmental compliance specialist, to undertake field inspections of ongoing road rehabilitation activities ; to ensure that road works are in compliance with ES3R ESMMPs; provide in-field training to the local environmental compliance officer in USAID-ES3R environmental requirements (as required by the approved Programmatic Environmental Compliance for the rehabilitation of roads in Liberia); brief USAID appropriate staff including, Mission environmental officer and Contracting Officer representative on findings and recommendation of environmental issues observed during the visit.
- Request on 6 April to review invoice for payment to 21st Century Engineering & Construction Company for works executed as on 31 March 2015.
- Information on 10 April of the fully executed modification # 2 for contract # AID-669-C-14-00002 to 21st Century Engineering Co. for extended scope of work in Nimba County.
- Information on 10 April for fully executed modification to Westwood Corporation under contract # AID-669-14-C-00003 for extended scope of work in Bong County.

May 2015

May 14, 2015: USAID COR Instructed the ES3R to suspend the field survey of Konia-Zigida road link in Lofa County as it appeared that this road link

construction would be taken over by IFAD as reported by the IFAD County Engineer to ES3R FTL in Lofa.

May 18, 2015: Email from USAID COR instructing the ES3R team to replace Konia-Zigida road for the road link ranked number 10 (Jamulor-Kenela-Korleh road, 7.6 km) in the Lofa prioritized list.

May 19, 2015: Email from USAID on May 19 requesting the ES3R Team to organize a site inspection due to application from Westwood Corp. for substantial completion; the estimated proposed date would be around 29 June in Bong County.

May 19, 2015: USAID COR email addressed to the construction contractors on required efforts to comply with the requisite contractual obligations. Assistance was offered by COR to the contractors to include the ES3R Project resources to ensure that the project quality and outputs are consistent with the contract and best engineering practices.

May 26, 2015: USAID COR requested ES3R to inform the Ministry of Public Work that any project communication should be addressed to the ES3R Chief of Party with copy to USAID and not to the field team members.

26 May, 2015: USAID COR transmitted a copy of email addressed to SSF Contractor on the award of contract modification to carry out construction works of Farm to Market Roads in Lofa County under Contract #AID-669-C-14-00001.

May 29, 2015: USAID COR advised that CDM Smith registration in SAM had been expired on May 11, 2015 and that USAID could not award the modification until after reactivation of CDM Smith, Inc.'s SAM account.

Email from USAID COR on May 29, 2015 requested the ES3R team submit construction Contractor's Environmental Compliance Report prepared by the Environmental Expert in the past month..

July 2015

- On July 9, 2015: USAID COR requested the ES3R to review 21st Century Contractor's IPC.
- July 10, 2015: Email from USAID COR informing the ES3R team the inauguration of completed road links at Bong County to take place on July 16.
- July 13, 2015: Email from USAID COR requesting the ES3R Team to confirm the proposed list of guests for the inauguration ceremony which would be attended by the US Ambassador.
- July 13, 2015: USAID COR email addressed to the COP on the change of timing for Bong County inauguration to 10:00 am.
- July 15, 2015: USAID COR requested ES3R to implement suggested from MPW Deputy Minister, survey of road link from Yourpea (1) to Yourpea Old town in Nimba County
- July 17, 2015: USAID COR approved the insertion of the Indicators proposed by LMEP which are to be entered in an annual basis.

August 2015

- August 11, 2015: Email from USAID COR for follow-up of various issues discussed in meeting in Banga the previous week.
- On August 13, email from USAID COR suggesting to plan, as an important event, the presentation of the 5 Engineering Firms upon completion of the on-the job-training during the workshop
- On August 21, 2015: to USAID COR on information on temporary arrangement of field staff in lieu with Field Team Leader and Field Team Leader vacation leave from 22 Aug and 24 Aug respectively, and that would be reporting back to project on 14 Sep 2015.

- August 26, 2015: Email from USAID COR approving travel request for Robert Talmage to facilitate the workshop on Roads to Business Development.
- August 26 2015: Email from USAID COR informing that the USAID Mission Deputy Director would attend to the workshop closure.
- August 26, 2015: Email to USAID COR email briefing on development of first days of activities in workshop being facilitated by CDM.
- August 26, 2015: Email from USAID COR requesting ES3R to submit the Punch List for Bong County substantially completed road links
- On August 27, USAID COR requested the ES3R to get confirmed from the COP the full attendance by the A&E on-the job trainees to Workshop closure.

ANNEX E

PRIORITIZED ROAD LISTS

ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION (ES3R)

Zota	Foequelleh - Menequah- Yowee	13.2	56	3392	510997.7	0.372	8
Salala	Felela - Jarwuta	8.6	54	2277	486612.3	0.253	10
Yellequelleh	Yaindewoun -Nyan - Molo ta Junction	6.1	50	1132	252636.5	0.224	11
Suakoko	Gbondoi - Gbarnla	17.3	69	1610	522274.4	0.213	12
Jorquelleh	Weinsue - Kpai	8.7	64	815	248000.9	0.210	13
Suakoko	Sinyea - Kayata	13.4	54	1429	472096.6	0.163	14
Jorquelleh	Amos (Jimmy) town - Kpaiya	12.4	69	963	475629.5	0.140	15
Panta	Tobacco - Gbaota	3.1	38	456	129726.8	0.134	16
Salala	Maimu (Bassa town) - Veleyan - Molonakpaiga	10.2	50	746	283205.2	0.132	17
Suakoko	Suakoko (Geayea)- Gamue	9.4	48	733	296475.6	0.119	18
Yellequelleh	Taylor ta - Gaeyaerd - Belefanai	14.1	37	1324	579242.8	0.085	19
Jorquelleh	Janyea - Darwata	10.4	40	788	491654.3	0.064	20
Jorquelleh	Samay - Baryata	14.1	59	472	487909.8	0.057	21
Fauma	Popota - Dombli	4.8	40	343	279597.5	0.049	22
Jorquelleh	Janyea - Goleemue	9.9	51	502	557773.1	0.046	23
Fauma	Lepolu Junction - Lepolu ta	3.3	27	101	120202.4	0.023	24
	Total Km	191.7					

Bong Roads Prioritized List

Lofa Roads Prioritized List

District	Road Name	Length (km)	Intervention	Rank	Select (km)
Voinjama	Zenalomai - Boiboimai	5.10	Rehabilitation	19	
	Massanormai - Zawordamai - Movomai	10.0	Rehabilitation	18	
Zorzor	Konia - Ziggida	11.80	Rehabilitation	9	
	Zelemai - Womai	22.20	Rehabilitation	8	
	Zorzor - Yeala Bordor	6.90	Rehabilitation	5	
	Passama	5.50	Rehabilitation	11	
Salayea	Zorzor - Kpaiyea - Gbarnway	14.30	Rehabilitation	2	
	Yarpuah Road	2.80	Rehabilitation	12	
Quardu Gbondi	Wankendu	2.30	Rehabilitation	25	
	Jarmulor - Kanela - Korlelah	7.60	Rehabilitation	10	
	John's Town - Tusu	25.0	Rehabilitation	6	
	Sansanor - Moibadu	3.70	Rehabilitation	23	
	Kanela - Safudou	3.20	Rehabilitation	22	
Kolahun	Bolahun-Mbalotahun	2.60	Rehabilitation	16	
	Kolba City - Koilahun - Bolahun	9.70	Rehabilitation	4	
	Checkpoint - Bassamolahun-Ngorkohun	7.20	Rehabilitation	7	
	Taninahun and Bolobengun Road	11.50	Rehabilitation	20	
Foya	Foya Town - Sandia	15.20	Rehabilitation	1	
	Kolochoe Road	3.30	Rehabilitation	14	
	Korlorsu Road	4.70	Rehabilitation	13	
	Menekorma Junction - Kpandu - K	4.60	Rehabilitation	17	
	Menekorma Highway - Karmbo	2.10	Rehabilitation	21	
	Leo Bengu - Weima - Kporndodu	8.30	Rehabilitation	15	
	Sengai - Menekorma Highway	1.40	Rehabilitation	24	
	Foya Town - Sangai - Kelima Pom	8.20	Rehabilitation	3	
Total		199.20			1

Nimba Roads Prioritized List

Road Link	District	Length (Km)	Estimated Cost (USD)	FED Farmer Linked	Pop'n Linked	Cost Effectiveness (Popn/\$1,000 USD)	Economic Benefit Factor	Ranking Index	Rank	Batch
Bahn - Karnplay	Zoe-geh & Gbehlay-Geh	42.9	1,583,425	1,388	18,283	11.5465	93	1,073.82	1	
Bahn - Gbarplay	Zoe-geh	4.9	199,975	377	2,342	11.7115	48	562.15	2	B
Baylehglay - Siaplay	Zoe-Geh	5.6	241,100	267	1,797	7.4533	57	424.84	3	B
Payee - Gbanwin	Zoe-geh	3.6	279,595	209	2,214	7.9186	51	403.85	4	B
Wea Beadatua - Bahn	Buu-Yao	15	856,550	305	5,167	6.0323	62	374.01	5	B
Gbaleyee Junction - Kinnon	Yarmein	14.2	686,031	-	5,666	8.2591	42	346.88	6	
Barn - Saclepea	Zoe-geh & Saclepea mah	14.5	570,525	575	1,573	2.7571	83	228.84	7	
Kpaglay - Nyenpa	Zoe-geh	2.5	132,375	78	566	4.2757	45	192.41	8	B
Geanplay - Souplay	Gbehlay-geh	5.1	327,556	52	1,067	3.2575	55	179.16	9	B
Saclepea - Tengbin	Saclepea Mahn & Meinpea mahn	12.8	423,650	-	1,724	4.0694	44	179.05	10	

Yekepa - Bolewee	Yarmein	26	1,616,851	-	4,131	2.5550	66	168.63	11	
CNC Jctn - Y Intersection (2 nd Arm)	Meinpea-mahn	8.5	507,656	-	2,340	4.6094	36	165.94	12	
Dounpa - Zuaplay - Gogein	Tappita & Saclepea Mahn	21.4	1,581,801	276	3,502	2.2139	71	157.19	13	A
Fleedin - Nyonkiayee	Yarweih Mehnssoh	15.1	1,025,577	122	2,443	2.3821	51	121.49	14	B
Baylehglay - Rlekorlay	Buu-Yao	8.4	703,562	317	1,453	2.0652	54	111.52	15	B
Kpain - CNC Junction ((Tunukpuyee)	Meinpea-mahn	10.1	747,908	44	1,094	1.4627	59	86.30	16	C
Boyee Junction - Goekorpa	Yarwein Mehnssoh	23.8	1,368,702	417	1,567	1.1449	51	58.39	17	C
Zontuo - Sangarplay	Zoe-geh	16.5	1,062,597	118	1,425	1.3411	42	56.32	18	
Garwonpa - Fleedin	Saclepea Mahn	11.7	497,656	210	581	1.1675	42	49.03	19	A
Tappita - Unification Town	Tappita & Gbee & Dorlu	20.2	1,016,740	50	923	0.9078	42	38.13	20	
Gbonvarglay - Gbarplay	Tappita	19.2	1,077,031	65	57	0.0529	32	1.69	21	

Grand Bassa Roads Prioritized List

District	Road Name	Length Km	Total EBF points	P = Population	C = Cost	Ranking Factor = Ppln x EBF / Cost	Ranking
District 1	Compound 1 - Little Bassa - Varmah	21.4	81	4476	715,941.43	506.40	6
	Ben Luogan Town - Kor's Town Road	2.4	25	4659	126,784.20	918.69	3
	Compound 1 - Doezohn Road	6.8	55	3256	189,977.23	942.64	2
	Bokay Town - Moores Town Road	12	64	5365	534,494.98	642.40	4
District 2	Waka Town - Compound #2 Road	20.6	82	4406	1,222,505.80	295.53	13
	Compound #2 - Zarn Town Road	18.6	57	4961	800,559.80	353.22	9
	Compound #2 - Karngbo Town Road	23.7	76	4220	1,175,430.10	272.85	15
District 3	James Henry Town - Kardor Town Road	11.9	40	4182	475,200.70	352.02	10
	Rally(Yarmah Town - St John River Road)	12	41	4949	758,366.30	267.56	16
	Siahn - Waiker Town Road	3.2	47	2062	156,174.60	620.55	5
	FDA Junction – Keyah	29.6	51	3684	1,978,938.06	94.94	19
	Blewein - Doewhein - Sarwain Town	9.7	42	67305	393,392.10	7,185.73	1
	Garpu Town - Behn Town	6.4	37	2459	265,225.20	343.04	11
District 4	Gio Town - Little Kola Road	12.6	64	1733	460,421.80	240.89	18
	Timbo Town (Gbagee) - Yeahbee Town	4.8	33	1607	212,856.40	249.14	17
	Waka Town - Johnny Tutu Town Road	7.1	48	1973	340,011.30	278.53	14
	Karsuah - Newcess Beach Road	8.5	27	3650	319,190.50	308.75	12
	Yonbehn Town - Grand Kola	23.9	59	4821	710,752.70	400.19	8
	Keyan - Karjuah Town Road	2.1	20	300	156,067.70	38.44	20
	Tain Town - Frank town (2.1km)	2.1	37	1263	98,265.30	475.56	7

ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION (ES3R)

ANNEX F

**PERFORMANCE INDICATOR
REFERENCE SHEETS (PIRS)**

Performance Indicator Reference Sheet

Name of Development Objective: Ease of Access to Markets Facilitated			
Name of Intermediate Result: N/A			
Name of Indicator: Length of Rehabilitated farm –to-market roads completed			
Geographic Focus: Bong, Lofa and Nimba			
Is this an Annual Report indicator? No ___ Yes _Yes___, for Reporting Year(s) ___2013/2016___			
DESCRIPTION			
Precise Definition(s):			
Unit of Measure: Kilometer			
Method of Calculation: Measure of length of roads			
Disaggregated by: None			
Justification & Management Utility: Usefulness of Indicators			
PLAN FOR DATA ACQUISITION BY USAID			
Data collection method: Driving along the roads			
Data Source: Project sites			
Method of data acquisition by USAID: Reporting			
Frequency and timing of data acquisition by USAID: Annual			
Estimated cost of data acquisition: Included in project cost			
Individual responsible at USAID: David Wounuah			
Individual responsible for providing data to USAID: Francisco Perez			
Location of Data Storage: PIDS			
DATA QUALITY ISSUES			
Date of Initial Data Quality Assessment: N/A			
Known Data Limitations and Significance (if any): N/A			
Actions Taken or Planned to Address Data Limitations: N/A			
Date of Future Data Quality Assessments: N/A			
Procedures for Future Data Quality Assessments: N/A			
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING			
Data Analysis: Manual			
Presentation of Data: Tabulated			
Review of Data: Regular Check			
Reporting of Data: Quarterly and Annual Report			
OTHER NOTES			
Notes on Baselines/Targets: Stipulated			
Other Notes: None			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
2013	0	0	
2014	83.5	0	Due to EVD, target not achieved
2015	160	83.5	Substantial completion by July 2015 original 83.5
2016	160	By new project	
THIS SHEET LAST UPDATED ON: SEPT 2015			

*ES3R will provide technical and oversight support to Dec 2015 as requested by USAID in modification 4.

Performance Indicator Reference Sheet

Name of Development Objective: Ease of Access to Markets Facilitated			
Name of Intermediate Result: Construction oversight provided for Local Contracts			
Name of Indicator: Length of road that has construction contract for rehabilitation awarded and in place			
Geographic Focus: Bong, Lofa and Nimba			
Is this an Annual Report indicator? No ___ Yes _Yes___, for Reporting Year(s) ___2013/2016___			
DESCRIPTION			
Precise Definition(s):			
Unit of Measure: Kilometer			
Method of Calculation: Measure of length of roads			
Disaggregated by: None			
Justification & Management Utility: Usefulness of Indicators			
PLAN FOR DATA ACQUISITION BY USAID			
Data collection method: Driving along the roads			
Data Source: Project sites			
Method of data acquisition by USAID: Reporting			
Frequency and timing of data acquisition by USAID: Annual			
Estimated cost of data acquisition: Included in project cost			
Individual responsible at USAID: David Wounuah			
Individual responsible for providing data to USAID: Francisco Perez			
Location of Data Storage: PIDS			
DATA QUALITY ISSUES			
Date of Initial Data Quality Assessment: N/A			
Known Data Limitations and Significance (if any): N/A			
Actions Taken or Planned to Address Data Limitations: N/A			
Date of Future Data Quality Assessments: N/A			
Procedures for Future Data Quality Assessments: N/A			
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING			
Data Analysis: Manual			
Presentation of Data: Tabulated			
Review of Data: Regular Check			
Reporting of Data: Quarterly and Annual Report			
OTHER NOTES			
Notes on Baselines/Targets: Stipulated			
Other Notes: None			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
2013	0		
2014	83.5	83.5	
2015	160	160	Additional design packages have been awarded to current contractors.
THIS SHEET LAST UPDATED ON: SEPT 2015			

Performance Indicator Reference Sheet

Name of Development Objective: Ease of Access to Markets Facilitated			
Name of Intermediate Result: Construction oversight provided for local contracts			
Name of Indicator: Length of roads inspected during construction			
Geographic Focus: Bong, Lofa and Nimba			
Is this an Annual Report indicator? No ___ Yes _Yes___, for Reporting Year(s) ___2013/2016___			
DESCRIPTION			
Precise Definition(s):			
Unit of Measure: Kilometer			
Method of Calculation: Measure of length of roads			
Disaggregated by: None			
Justification & Management Utility: Usefulness of Indicators			
PLAN FOR DATA ACQUISITION BY USAID			
Data collection method: Driving along the roads			
Data Source: Project sites			
Method of data acquisition by USAID: Reporting			
Frequency and timing of data acquisition by USAID: Annual			
Estimated cost of data acquisition: Included in project cost			
Individual responsible at USAID: David Wounuah			
Individual responsible for providing data to USAID: Francisco Perez			
Location of Data Storage: PIDS			
DATA QUALITY ISSUES			
Date of Initial Data Quality Assessment: N/A			
Known Data Limitations and Significance (if any): N/A			
Actions Taken or Planned to Address Data Limitations: N/A			
Date of Future Data Quality Assessments: N/A			
Procedures for Future Data Quality Assessments: N/A			
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING			
Data Analysis: Manual			
Presentation of Data: Tabulated			
Review of Data: Regular Check			
Reporting of Data: Quarterly and Annual Report			
OTHER NOTES			
Notes on Baselines/Targets: Stipulated			
Other Notes: None			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
2013	0		
2014	83.5	83.5	Due to EVD, target not achieved
2015	160	160	New Construction packages began June 2015
THIS SHEET LAST UPDATED ON: SEPT 2015			

Performance Indicator Reference Sheet

Name of Development Objective: Ease of Access to Markets Facilitated			
Name of Intermediate Result: Engineering contract documentation produced			
Name of Indicator: Length of roads with complete engineering designs submitted to USAID/Liberia			
Geographic Focus: Bong, Lofa , Nimba and Grand Bassa			
Is this an Annual Report indicator? No ___ Yes _Yes___, for Reporting Year(s) ___2013/2016___			
DESCRIPTION			
Precise Definition(s):			
Unit of Measure: Kilometer			
Method of Calculation: Measure of length of roads			
Disaggregated by: None			
Justification & Management Utility: Usefulness of Indicators			
PLAN FOR DATA ACQUISITION BY USAID			
Data collection method: Driving along the roads			
Data Source: Project sites			
Method of data acquisition by USAID: Reporting			
Frequency and timing of data acquisition by USAID: Annual			
Estimated cost of data acquisition: Included in project cost			
Individual responsible at USAID: David Wounuah			
Individual responsible for providing data to USAID: Francisco Perez			
Location of Data Storage: PIDS			
DATA QUALITY ISSUES			
Date of Initial Data Quality Assessment: N/A			
Known Data Limitations and Significance (if any): N/A			
Actions Taken or Planned to Address Data Limitations: N/A			
Date of Future Data Quality Assessments: N/A			
Procedures for Future Data Quality Assessments: N/A			
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING			
Data Analysis: Manual			
Presentation of Data: Tabulated			
Review of Data: Regular Check			
Reporting of Data: Quarterly and Annual Report			
OTHER NOTES			
Notes on Baselines/Targets: Stipulated			
Other Notes: None			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
2013	0		
2014	75	75	Due to EVD, original target (150) was not achieved
2015	270	45	393 km of field survey by July 2015. Designs commenced in August 2015. Target not yet achieved due to extension in contract Mod. period
2016	348	-	Expected by Y3, Q2 end – March 2016
THIS SHEET LAST UPDATED ON: SEPT 2015			

Performance Indicator Reference Sheet

Name of Development Objective: Ease of Access to Markets Facilitated			
Name of Intermediate Result: Engineering contract documentation produced			
Name of Indicator: Bid documents prepared and submitted to USAID/Liberia			
Geographic Focus: Bong, Lofa ,Nimba and Grand Bassa			
Is this an Annual Report indicator? No ___ Yes _Yes___, for Reporting Year(s) ___2013/2016___			
DESCRIPTION			
Precise Definition(s):			
Unit of Measure: Kilometer			
Method of Calculation: Measure of length of roads			
Disaggregated by: None			
Justification & Management Utility: Usefulness of Indicators			
PLAN FOR DATA ACQUISITION BY USAID			
Data collection method: Driving along the roads			
Data Source: Project sites			
Method of data acquisition by USAID: Reporting			
Frequency and timing of data acquisition by USAID: Annual			
Estimated cost of data acquisition: Included in project cost			
Individual responsible at USAID: David Wounuah			
Individual responsible for providing data to USAID: Francisco Perez			
Location of Data Storage: PIDS			
DATA QUALITY ISSUES			
Date of Initial Data Quality Assessment: N/A			
Known Data Limitations and Significance (if any): N/A			
Actions Taken or Planned to Address Data Limitations: N/A			
Date of Future Data Quality Assessments: N/A			
Procedures for Future Data Quality Assessments: N/A			
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING			
Data Analysis: Manual			
Presentation of Data: Tabulated			
Review of Data: Regular Check			
Reporting of Data: Quarterly and Annual Report			
OTHER NOTES			
Notes on Baselines/Targets: Stipulated			
Other Notes: None			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
2014	75	75	Due to EVD, target not achieved. Target has been rebase lined with new work plan.
2015	270	0	Design commenced Aug 2015. Target not yet achieved due to extension in contract Mod. period
2016	393	-	
THIS SHEET LAST UPDATED ON:SEPT 2015			

Performance Indicator Reference Sheet

Name of Development Objective: Ease of Access to Markets Facilitated			
Name of Intermediate Result: Survey for design completed			
Name of Indicator: Length of survey (windshield and instrument) conducted			
Geographic Focus: Bong, Lofa , Nimba and Grand Bassa			
Is this an Annual Report indicator? No ___ Yes _Yes___, for Reporting Year(s) ___2013/2016___			
DESCRIPTION			
Precise Definition(s):			
Unit of Measure: Kilometer			
Method of Calculation: Measure of length of roads			
Disaggregated by: None			
Justification & Management Utility: Usefulness of Indicators			
PLAN FOR DATA ACQUISITION BY USAID			
Data collection method: Driving along the roads			
Data Source: Project sites			
Method of data acquisition by USAID: Reporting			
Frequency and timing of data acquisition by USAID: Annual			
Estimated cost of data acquisition: Included in project cost			
Individual responsible at USAID: David Wounuah			
Individual responsible for providing data to USAID: Francisco Perez			
Location of Data Storage: PIDS			
DATA QUALITY ISSUES			
Date of Initial Data Quality Assessment: N/A			
Known Data Limitations and Significance (if any): N/A			
Actions Taken or Planned to Address Data Limitations: N/A			
Date of Future Data Quality Assessments: N/A			
Procedures for Future Data Quality Assessments: N/A			
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING			
Data Analysis: Manual			
Presentation of Data: Tabulated			
Review of Data: Regular Check			
Reporting of Data: Quarterly and Annual Report			
OTHER NOTES			
Notes on Baselines/Targets: Stipulated			
Other Notes: None			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
2013	0		
2014	75	75	Due to EVD, original target (150) not achieved.
2015	375	393	Survey ahead of revised work plan schedule.
2016	0	0	
THIS SHEET LAST UPDATED ON: SEPT 2015			

Performance Indicator Reference Sheet

Name of Development Objective: Ease of Access to Markets Facilitated			
Name of Intermediate Result: Target roads determined			
Name of Indicator: Prioritized target roads for further design development based upon stakeholders needs and requirements			
Geographic Focus: Bong, Lofa , Nimba and Grand Bassa			
Is this an Annual Report indicator? No ___ Yes _Yes___, for Reporting Year(s) ___2013/2016___			
DESCRIPTION			
Precise Definition(s):			
Unit of Measure: Kilometer			
Method of Calculation: Measure of length of roads			
Disaggregated by: None			
Justification & Management Utility: Usefulness of Indicators			
PLAN FOR DATA ACQUISITION BY USAID			
Data collection method: Driving along the roads			
Data Source: Project sites			
Method of data acquisition by USAID: Reporting			
Frequency and timing of data acquisition by USAID: Annual			
Estimated cost of data acquisition: Included in project cost			
Individual responsible at USAID: David Wounuah			
Individual responsible for providing data to USAID: Francisco Perez			
Location of Data Storage: PIDS			
DATA QUALITY ISSUES			
Date of Initial Data Quality Assessment: N/A			
Known Data Limitations and Significance (if any): N/A			
Actions Taken or Planned to Address Data Limitations: N/A			
Date of Future Data Quality Assessments: N/A			
Procedures for Future Data Quality Assessments: N/A			
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING			
Data Analysis: Manual			
Presentation of Data: Tabulated			
Review of Data: Regular Check			
Reporting of Data: Quarterly and Annual Report			
OTHER NOTES			
Notes on Baselines/Targets: Stipulated			
Other Notes: None			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
2013	0		
2014	150	450	Prioritization completed ahead of schedule
2015	270	NA	
THIS SHEET LAST UPDATED ON: SEPT 2015			

Performance Indicator Reference Sheet

Name of Development Objective: Ease of Access to Markets Facilitated			
Name of Intermediate Result: Selected local A&E firms trained			
Name of Indicator: Number of engineers and technical staffers from local A&E firms trained			
Geographic Focus: Bong, Lofa, Nimba, Grand Bassa and Monrovia			
Is this an Annual Report indicator? No ___ Yes _Yes___, for Reporting Year(s) ___2013/2016___			
DESCRIPTION			
Precise Definition(s):			
Unit of Measure: Number			
Method of Calculation: Training logs/Attendance registers			
Disaggregated by: Sex			
Justification & Management Utility: Usefulness of Indicators			
PLAN FOR DATA ACQUISITION BY USAID			
Data collection method: Signing attendance			
Data Source: Project trainer			
Method of data acquisition by USAID: Reporting			
Frequency and timing of data acquisition by USAID: Annual			
Estimated cost of data acquisition: Included in project cost			
Individual responsible at USAID: David Wounuah			
Individual responsible for providing data to USAID: Francisco Perez			
Location of Data Storage: PIDS			
DATA QUALITY ISSUES			
Date of Initial Data Quality Assessment: N/A			
Known Data Limitations and Significance (if any): N/A			
Actions Taken or Planned to Address Data Limitations: N/A			
Date of Future Data Quality Assessments: N/A			
Procedures for Future Data Quality Assessments: N/A			
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING			
Data Analysis: Manual			
Presentation of Data: Tabulated			
Review of Data: End of training period			
Reporting of Data: Quarterly and Annual Report			
OTHER NOTES			
Notes on Baselines/Targets: Stipulated			
Other Notes: None			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
2013	0	0	
2014	10	10	(5 Firms/10 Trainees)
2015	15	15	1 Engineers per firm plus two senior staff per firm
THIS SHEET LAST UPDATED ON: SEPT 2015			

Performance Indicator Reference Sheet

Name of Development Objective: Ease of Access to Markets Facilitated			
Name of Intermediate Result: Selected local A&E firms trained			
Name of Indicator: Number of locals A&E firms with improved capabilities in the design and supervision of rural roads			
Geographic Focus: Bong, Lofa, Nimba, Grand Bassa and Monrovia			
Is this an Annual Report indicator? No ___ Yes _Yes___, for Reporting Year(s) ___2013/2015___			
DESCRIPTION			
Precise Definition(s):			
Unit of Measure: Number			
Method of Calculation: Registration/Training logs			
Disaggregated by: None			
Justification & Management Utility: Usefulness of Indicators			
PLAN FOR DATA ACQUISITION BY USAID			
Data collection method: By Registration			
Data Source: Project trainer			
Method of data acquisition by USAID: Reporting			
Frequency and timing of data acquisition by USAID: Annual			
Estimated cost of data acquisition: Included in project cost			
Individual responsible at USAID: David Wounuah			
Individual responsible for providing data to USAID: Francisco Perez			
Location of Data Storage: PIDS			
DATA QUALITY ISSUES			
Date of Initial Data Quality Assessment: N/A			
Known Data Limitations and Significance (if any): N/A			
Actions Taken or Planned to Address Data Limitations: N/A			
Date of Future Data Quality Assessments: N/A			
Procedures for Future Data Quality Assessments: N/A			
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING			
Data Analysis: Manual			
Presentation of Data: Tabulated			
Review of Data: End of training period			
Reporting of Data: Quarterly and Annual Report			
OTHER NOTES			
Notes on Baselines/Targets: Stipulated			
Other Notes: None			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
2013	0	0	
2014	5	5	Continuous training
2015	5	5	Training completed
THIS SHEET LAST UPDATED ON: SEPT 2015			

Performance Indicator Reference Sheet

Name of Development Objective: Ease of Access to Markets Facilitated			
Name of Intermediate Result: Prequalification document submitted			
Name of Indicator: Develop evaluation criteria and conduct full assessment of available engineering sources.			
Geographic Focus: Bong, Lofa, Nimba, Grand Bassa and Monrovia			
Is this an Annual Report indicator? No ___ Yes _Yes___, for Reporting Year(s) ___2013/2015___			
DESCRIPTION			
Precise Definition(s):			
Unit of Measure: Number			
Method of Calculation: Training logs/Attendance registers			
Disaggregated by: Sex			
Justification & Management Utility: Usefulness of Indicators			
PLAN FOR DATA ACQUISITION BY USAID			
Data collection method: Assessment			
Data Source: Project trainer			
Method of data acquisition by USAID: Reporting			
Frequency and timing of data acquisition by USAID: Annual			
Estimated cost of data acquisition: Included in project cost			
Individual responsible at USAID: David Wounuah			
Individual responsible for providing data to USAID: Francisco Perez			
Location of Data Storage: PIDS			
DATA QUALITY ISSUES			
Date of Initial Data Quality Assessment: N/A			
Known Data Limitations and Significance (if any): N/A			
Actions Taken or Planned to Address Data Limitations: N/A			
Date of Future Data Quality Assessments: N/A			
Procedures for Future Data Quality Assessments: N/A			
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING			
Data Analysis: Manual			
Presentation of Data: Tabulated			
Review of Data: End of training period			
Reporting of Data: Quarterly and Annual Report			
OTHER NOTES			
Notes on Baselines/Targets: Stipulated			
Other Notes: None			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
2013	0	0	
2014	8	9	Firms reviewed with developed criteria
2015	NA	NA	
THIS SHEET LAST UPDATED ON:SEPT 2015			

Performance Indicator Reference Sheet

Name of Development Objective: Ease of Access to Markets Facilitated			
Name of Intermediate Result: Local A&E firms identified			
Name of Indicator: Expression of interest evaluation completed for number of A&E firms			
Geographic Focus: Bong, Lofa, Nimba, Grand Bassa and Monrovia			
Is this an Annual Report indicator? No ___ Yes _Yes___, for Reporting Year(s) ___2013/2015___			
DESCRIPTION			
Precise Definition(s):			
Unit of Measure: Number			
Method of Calculation: Training logs/Attendance registers			
Disaggregated by: Sex			
Justification & Management Utility: Usefulness of Indicators			
PLAN FOR DATA ACQUISITION BY USAID			
Data collection method: Evaluation			
Data Source: Project trainer			
Method of data acquisition by USAID: Reporting			
Frequency and timing of data acquisition by USAID: Annual			
Estimated cost of data acquisition: Included in project cost			
Individual responsible at USAID: David Wounuah			
Individual responsible for providing data to USAID: Francisco Perez			
Location of Data Storage: PIDS			
DATA QUALITY ISSUES			
Date of Initial Data Quality Assessment: N/A			
Known Data Limitations and Significance (if any): N/A			
Actions Taken or Planned to Address Data Limitations: N/A			
Date of Future Data Quality Assessments: N/A			
Procedures for Future Data Quality Assessments: N/A			
PLAN FOR DATA ANALYSIS, REVIEW, & REPORTING			
Data Analysis: Manual			
Presentation of Data: Tabulated			
Review of Data: End of training period			
Reporting of Data: Quarterly and Annual Report			
OTHER NOTES			
Notes on Baselines/Targets: Stipulated			
Other Notes: None			
PERFORMANCE INDICATOR VALUES			
Year	Target	Actual	Notes
2013	0	0	
2014	8	9	Firms
2015	NA	NA	
THIS SHEET LAST UPDATED ON: SEPT 2015			