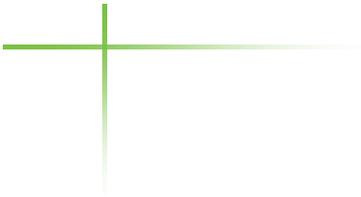




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ENGINEERING SERVICES FOR RURAL ROADS
REHABILITATION (ES3R)
CONTRACT NO: EDH-I-00-08-00023
YEAR 2, QUARTER 3
PROGRESS REPORT (TO JUNE 2015)

14 July 2015



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

YEAR 2, QUARTER 3

PROGRESS REPORT (To June 2015)

Prepared for: USAID/Liberia

Prepared by: Francisco Perez
Jim Clarke

14 July 2015

The views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government. This report was prepared for the U.S. Agency for International Development. It was prepared by CDM International, Engineering Services Rural Roads Rehabilitation (ES3R)



Acronyms

A & E	Architect and Engineer
BOQ	Bills of Quantity
COP	Chief of Party
CO	Contracting Officer
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 Road Rehabilitation
GIS	Geographic Information System
GOL	Government of Liberia
IWP	Interim Work Plan
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 Results Sheet
RE	Resident Engineer
SI	Site Inspector
	United States Agency for International Development

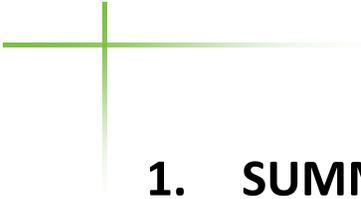


ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION (ES3R)

YEAR 2, QUARTER 3, APRIL TO JUNE 2015

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1. SUMMARY PROJECT DESCRIPTION

1.1 Introduction

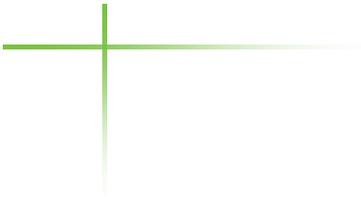
The U. S. Agency for International Development's (USAID) 'Engineering Services for Rural Roads Rehabilitation (ES3R)' was awarded to Camp Dresser McKee International (CDM) under the following USAID contract number: EDH-I-00-08-00023 and task order AID-669-TO-13-00002 which records the period of performance as 8 October 2013 to 20 October 2015.

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, aiming 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,
- 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. QUARTERLY OVERVIEW

This is the third quarterly progress report to be presented for Year 2 of the project. It has been reported previously the completion of Health Assessment #1/2 which enabled the resumption of full operation of all project objectives after the EVD crisis. As previously noted, it was the onslaught of the pandemic which had led to the temporary withdrawal of the field teams (field survey and construction oversight) to Monrovia office based activities in early August 2014. In January 2015, the field teams were remobilized to the County capitals as a result of the positive status concluded in Health Assessment 1 as it confirmed no risk of exposure of the ES3R staff to EVD. In addition to the EVD issue, this quarterly report details the work plan for the execution of remaining project activities for the three components through completion. This revised Work Plan reflects the mentioned interruption in the second half of the year 2014 with a new approach and strategy to mitigate previous delays and to address the new expected challenges. The request to USAID to amend the contract with accompanying financial implications includes a change in original scope of work in connection with the addition of 75 kilometers of construction oversight and inclusion of a structural designing team for bridges with spans greater than 10 meters.

2.1 Quarter 3 Year 2 Highlights Summary

The table below summarizes key events undertaken (by month) in the operations of the project. Items of importance are detailed in the following table.

Date	Description	Comment
April 6, 2015	Submittal Weekly Project Updates	To USAID/Liberia

April 12, 2015	Submittal of Quarterly Report, Q2, Y2	To USAID/Liberia
April 13, 2015	Submittal Weekly Project Updates	To USAID/Liberia
April 13, 2015	Handover to Westwood Corporation, Contractor at Bong county of links as extension of their original SOW	Westwood Co.
April 14, 2015	Site inspection and progress meeting with Westwood Co., USAID COR, MPW local RE and ES3R team in Bong County	WW Co., USAID, local MPW and ES3R
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	ES3R
April 20, 2015	Submittal Weekly Project Updates	To USAID/Liberia
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	MPW
April 23, 2015	Meeting with MPW, Minister W. Gyudi Moore on PQM2 and planning for future MPW Road Maintenance	MPW
April 23, 2015	Meeting on project progress, inputs for PQM2 and Client Audit	USAID COR
April 27, 2015	Submittal of weekly updates	To USAID Liberia
April 27, 2015	PQM2 Workshop at Mamba Hotel, Monrovia	To USAID, MPW and ES3R
April 27, 2015	Meeting on project progress and inputs for PQM2 and Client Audit	USAID CO
April 27, 2015	MOU sent to the Five A&E firms for continuation of Component 3 with the scheduled on-the job-training	Five A&E firms

Date	Description	Comment
May 4, 2015	Submittal of weekly updates	To USAID Liberia
May 5, 2015	Completion of all A&E Firm signing of MOU for capacity building in field training.	Gbesohn Associates, Ltd. to ES3R
May 7, 2015	Meeting/ Site Inspection for substantial	SSF, USAID COR,

	completion of three road links, Lofa County	local MPW and ES3R team
May 7, 2015	Draft of CDM Contract Modification 4 received from USAID	From USAID, to CDM COP
May 8, 2015	ES3R Environmental Specialist arrived in Monrovia for review of the Environmental Monitoring Compliance by construction Contractors	ES3R Environmental Specialist -Karen Menczer-
May 11, 2015	Submittal Weekly Project Updates	To USAID/Liberia
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.	USAID, MPW & ES3R team
May 13, 2015	Submittal of Monthly Report for April 2015	To USAID/Liberia
May 18, 2015	Engagement of Site Inspector for Lofa County	ES3R Team
May 19, 2015	Submittal Weekly Project Updates	To USAID/Liberia
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	MPW, ES3R team
May 22, 2015	Weekly Meeting with USAID COR for project and environmental compliance issues	USAID COR, ES3R Team
May 22, 2015	Submittal of Contract Modification 4	To USAID/Liberia
May 26, 2015	Submittal of Weekly Project Updates	To USAID/Liberia
May 31, 2015	Mobilization of the Capacity Training A&E firms' engineers for on-the job-training	Five A&E firms, ES3R Team

May 4, 2015	Submittal of weekly updates	To USAID Liberia
June 1, 8, 15, 22 & 29, 2015	Submittal Weekly Project Updates	To USAID/Liberia
June 2, 2015	Visit to ES3R project by HO Management; meetings with USAID/Liberia Mission Director and MPW Deputy Minister	USAID, MPW & ES3R team
June 5, 2015	Resignation to ES3R from James Clarke as	From Cardno to

	Engineering Team Leader	CDM COP
June 5, 2015	Notification to USAID from CDM on ETL's resignation and proposal to replace him by Frederick Were Hyngenji	To USAID/Liberia
June 5, 2015	Internal Meeting with ES3R REs and distribution of temporary Organization Chart and Roles & Responsibilities	SSF, USAID COR, local MPW and ES3R team
June 6, 2015	Quality audit to ES3R project	by HO Management
June 9, 2015	Travel to Nimba and Bong Counties for Construction oversight	ES3R COP and Environmental Specialist
June 12, 2015	Induction of an Administration assistant in Project Office	ES3R
Jun 15, 2015	Submission of Monthly Report for May	To USAID/Liberia
June 1, 8, 15, 22 & 29, 2015	Weekly coordination meetings	ES3R Staff
June 27 thru 30, 2015	Visit the sites for handover to Lofa Contractor the Phase II road links; site inspections and progress review meetings	USAID COR/ES3R COP
Jun 24, 2015	Project Office shifted to MPW premises	ES3R
Jun 25, 2015	Weekly project review meeting	USAID COR and ES3R

2.2 Quarter 3 Details of Highlights

2.1.1 EVD Crisis in Liberia

On 23 April, the Government of Liberia has declared Liberia as Ebola free; this announcement significantly boosted the spirit of the population in the Country and in the project sites.

Even so, the Ebola Task Force Teams recommended a continued screening at the Gbanga-Voinjama Road, road which communicates Bong and Lofa Counties and runs parallel to the border line with Guinea within which some EVD cases are still being registered.

By the end of June, unexpectedly, three more cases of Ebola became known at Margibi County, where one of them resulted in a casualty; Government has not yet emitted an official statement. Reasons remain still unknown to the public.

For the time being, the ES3R project continues to enforce the medical screening at the project office at the premises of the Ministry of Works in Monrovia as well as the site offices in Lofa, Nimba and Bong. The ES3R team will keep watchful and on alert for any adverse situation that may come up and prepared to take appropriate actions in order to protect project personnel in accordance with the established Health and Safety Plan.

2.2.2 Progress Meetings with USAID

Periodic meetings were held between the ES3R team with the USAID Contracting Officer Representative (COR), at the project office in Monrovia as well as in the field sites. In addition, early in the month of June, CDM Smith HO management met the USAID/Liberia Mission Director where the COR also attended in absence of the Contracting Officer (CO).

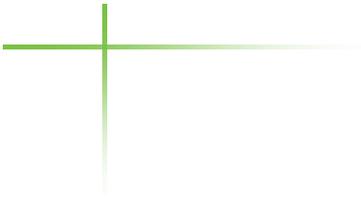
2.2.3 Project Deliverables and Documentation

Table of ES3R Communication Documents and Letters

Communication		Date	Detail
From	To		
CDM	USAID CO	22-May-15	Submittal of Contract Modification 4

e

above ‘Table of Communication Documents and Letters’ includes in chronological order those communications of particular relevance to the progression of Works on the ES3R project during the reporting period.



The ES3R team maintained close liaison with USAID CO and COR, regarding changes in planning and project implementation warranted as a consequence of the health risks of the EVD.

2.2.4 Field Visits to Counties Sites

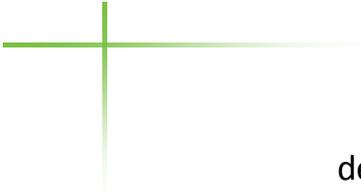
USAID Contracting Officer Representative (COR) and ES3R Team have visited the construction sites in Nimba and Bong counties at the very end of the month during the Quarter for site inspections, progress meetings, besides, to Lofa County for substantial completion of SSF's works and handover of the new road link under modification to contractor.

The ES3R will provide oversight on these new packages until or around Oct-Dec 2015 under Contract Modification 4, at which time we understand that a separate program will assume construction oversight.

2.2.5 Design of Road and Bridgeworks

Field survey works in the four counties continued especially at Grand Bassa, Lofa and Nimba. To the end of this Quarter, nearly 300 kilometers have been surveyed in preparation for road and box culvert design, out of the estimated total of 386 km. All surveys and survey data entry have been completed in Grand Bassa (139km).

It is noted that the estimated remaining 386 km for design has been considered in the Year 2 Work Plan (Refer to Annex a: ES3R NARRATIVE and, YEAR 2 WORK PLAN), keeping in mind the contractual level of detail for design of 30%. Clarifications on the 30% level of detail was discussed and coordinated with USAID CO and COR during frequent meetings in preparation of future design packages for the balance of ~386 km to be designed. A more



definitive remaining number of kilometers are still to be adjusted (through the field surveys) since the length of each road link making up the 386 km was measured using the vehicles' odometer readings during the rapid assessment.

This bridge design and the need for a structural designer has been accepted by USAID as a change to the scope of work and is included in the Contract Modification 4 currently pending execution due to SAM re-registration requirements. Upon execution of the modification to the existing contract, a structural design component will be added to the current ES3R team to complete up to estimated 14 potential bridge locations. Given that the structural work is included within Mod #4 and is delayed solely due to the SAM re-registration issue, CDM Smith has initiated this work in advance of the formally executed modification.

2.2.6 Revised Work Plan

A revised work plan was presented to the USAID COR and other officers involved in ES3R project on 26 February 2015, and later resubmitted on 27 March after incorporation of comments by USAID (17 March 2015). The document included a narrative statement with a revised approach and strategy to complete the remaining activities and components. This work plan considers the impact of the EVD crisis, an additional 75-km of construction oversight, and induction of a structural team, as well as incorporation of additional capacity building and training within the Ministry of Public Works, and their logistical support with rented vehicles.

3. PROJECT OBJECTIVES PROGRESS

Objective 1 – Construction Oversight

As of the end of June 2015, the general progress of each of the contracts is as follows:

Description	Bong, Westwood Corp	Lofa, SSF	Nimba, 21 st Century
Contract Award	22 Jan 2014	27 Jan 2014	22 Jan 2014
Modification	7 April 2015		7 April 2015
Contract Period, days initial scope completion	16 months	16 months	16 months
Maintenance and defects liability	8 months	8 months	8 months
Additional scope – to complete Maintenance and defects liability	12 months 8 months		15 months 8 months
Extension of time due to EVD		3 months	
Time Elapsed (end April 2015), % Additional scope	101%	81%	101%
Completion date for construction: initial scope	22 May 2015	27 August 2015	22 May 2015
Completion date for construction additional works	6 April 2016		6 April 2016
Overall Assessed Completion, % (14 approx.) Additional scope	81%	<90 (to be determined pending substantial completion survey)	84
Total Contract Value, USD Additional scope	1,895,141.86 <u>1,861,722</u>	592,384	843,228.25 <u>2,183,507</u>

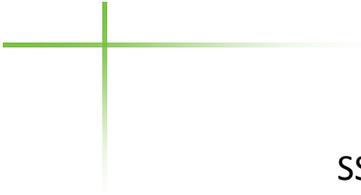
Total	3,756,864		3,026,286
Value of works certified as of May 2015, USD	1,138,663	578,706	556,530.49
Additional scope	1,861,792	1,562,043	2,183,507

All three Contractors received modifications to their contracts during the reporting period. Preliminary works has commenced on the extended scopes. The total 75 km of design delivered to USAID last October 2014, were allotted to present contractors as Modifications to their original contracts: SSF, 15.2km; Westwood, 31.6km; and 21st Century, 28.2 km.

All three Contractors submitted requests for substantial completion inspection for the initial works scope, while only SSF Inc. was judged to be substantially complete. The other two contractors: Westwood Corp and 21st Century are not yet eligible to attain the substantial completion stage since important works such as Lee Bridge on Banh-Payee Rd in Nimba is not complete, and Westwood cross drainage works and graveling of the road link is not yet done, being this a constraint for them to achieved the contractual 90% of works completion.

A proposed modification for the quality assurance for the additional scopes for the F2MRR to oversee the additional scopes is still pending on approval of Modification 4 which is subject to SAM documentation clearance by USAID the functions of the ES3R have been seriously compromised as a consequence.

Seasonal rains became progressively more intense and frequent as the reporting period progressed. All Contractors were impeded as a consequence. Frequency and duration of rain storm events are considered to be more extreme than during the same period in 2014.



SSF is now in the process of mobilizing to the location.

Bong:

Westwood has, at the end of June, completed all major drainage structures. However as a consequence of repeated equipment breakdowns, and inadequate supply of fuel and materials, the Contractor failed to meet with its planned outputs for the reporting period.

In last month of the Quarter, contractor only achieved: wearing course gravel (3.5km), short length of embankment filling (1km) and completion of grouted stone pitching at the inlet and outlets of the CMPs (100m²) are stilling remaining.

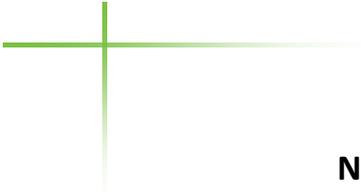
The Contractor is judged to have completed 85% of the works under the initial scope of works. The Contract was scheduled to be substantially complete by 22 May 2015 but has been delayed.

Westwood Inc. was awarded a Contract Modification on 7th April 2015. The scope of this work is additive to the previous contracted scope and includes:

- the improvement of a total of 31.6 km on two roads, namely: Yaylota-Yendewoun road (14.1 km); and
-

The modification to the Westwood Inc. contract was granted on the basis of a technical proposal that indicated the mobilization of additional technical staff and that the works/progress on the original scope not to be compromised.

To date the additional staff has yet fully mobilized. As a consequence clearing works on the Gbondoi – Gbarnla road link are not done as per contractor's work program adequately due to insufficient equipment and internal organizational staff.



Nimba:

21st Century continues to be hampered by frequent equipment breakdowns and extended delays in the procurement of spare parts. Major cash flow constraints have further impacted progress. Even so, at the end of the reporting period the Contractor was judged to have completed all road works. There remains substantial concreting works on the Lea Bridge. Progress on this activity was judged to be at 60% level of completion.

The Contractor is estimated to have completed 84% of the contracted work on its original scope.

The Contract was awarded on 22 January 2014. Substantial completion was due in May 2015. Therefore the Contractor is delayed in relation to the scheduled completion date in the contract; some of the works are not completed such as Lee Bridge at Banh Payee road. Insufficient number of masons and materials has been the main causes for the delay.

21st Century was awarded a contract modification on 6th April 2015. The additional scope includes:

- Gogein – Zuaply – Doumpa Rod – 22.1 km
- Garopa – Garwoumpa Road – 5.6km

The modification was conditional on an immediate start to the works and without compromise on the initial scope activities. The condition has not been met and the limited transport for senior site staff has resulted in clearing activities along Gogein – Zoaplay road link to be inadequately supervised. The result is an excessive cleared width, inadequate water course detours and general degradation of access between Gogein and Zoaplay.

Clearing activities on the Gaopa – Garwonpa road link are less challenging and the Contractor has progressed well and finished the activity. Shaping of the roadway has been completed to approximately 2km.

Transport constraints for the ES3R have severely limited its ability to

adequately oversee the Contractor activities on the additional scope.

Lofa:

At the commencement of the reporting period the Contractor was assessed to be 81% complete.

On 7th May following a request by the Contractor for a substantial completion inspection a punch list was prepared by ES3R and issued to the Contractor. Following a site visit on 30th June the Contractor was assessed to have complied with the contractual definition of ‘substantial completion’. A completion certificate has been issued to the Contractor by USAID.

Following protracted attempts by SSF to re-register with USAID as a vendor, on June 2015 USAID modified its contract to include John’s Town – Bulor Road, 15km.

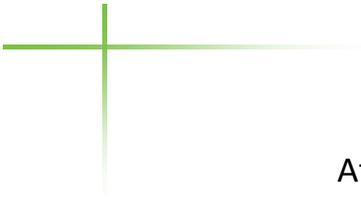
3.2 Objective 2 – Design and Contract Documents

Road Design/Road Field Surveys

The table below summarizes the progress made on field surveys during the reporting period.

County	Km to be completed	Km done in the Quarter	Km Completed to date	Km remaining
Lofa	105	85	95	10
Nimba	95	60	60	35
Bong	51	0	17	34
Grand Bassa	139	139	139	0

Survey teams have converted the hand written data gathered during field surveys into a digitized form.



At this moment it is anticipated that all road link surveys will be complete by end July.

Box Culvert Design Field Surveys

The Y2 work plan estimated that 39 would be needed; the total number of box culverts currently estimated for the 386km of road links now stands at 46. Despite the additional 7 box culverts identified during the road link field surveys, ES3R still expects to meet the target deadlines indicated in the Y2 work plan.

Bridge Design

Following road and box culvert surveys it is now anticipated that a total of 13 bridges (with span > 12m) are required. The bridge locations are indicated in the attached large structure schedule.

The mobilization of the Bridge Design Team has been initiated as has a Geotechnical Engineer. An identification of suitably qualified Hydraulic Engineer is still underway.

The delayed mobilization of the Bridge Design Team represents the biggest threat to timely delivery of road link designs. After the Bridge Team mobilizes we will evaluate options to mitigate potential delays.

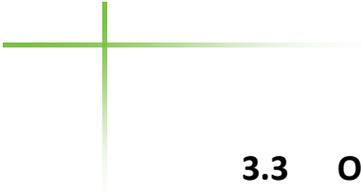
On the other hand, road, culverts and bridge designs will be subject to review by a Technical Review at different stages:

Phase 1: Before submittal of the 0 – 10% design deliverable

Phase 2: Before submittal of the 30% design deliverable

Phase 3: Before submittal of the 60% design deliverable

In addition to the TRC reviews, other quality control measures will be in place to verify accurate data usage and overall presentation with the participation of USAID and Ministry of Public Works, especially at the two initial stages of 10 and 30%.



3.3 Objective 3 – Training and Capacity Building

A & E firm Trainees

Following a conclusion as to compensation packages (\$75.00 per day as field allowances) with the 5 local A&E firms, all 5 trainees (one from each firm) were deployed to field survey site supervision teams from April 26 thru 28, 2015.

A midterm assessment of progress was undertaken from June 17 thru -25 2015; all the trainees under on-the job training demonstrated a very positive attitude and interest towards the program.

The five trainees rotated for them to be exposed to all the field work capacities.

MPW Feeder Roads Engineers

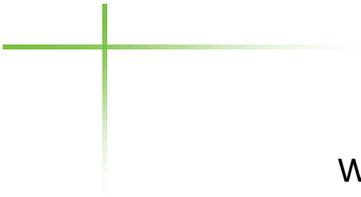
MPW has now formally agreed to the arrangements for the engagement of 4 Feeder Roads Engineers within the ES3R team structure. However deployment is conditional on the finalization of Modification 4. MOU is expected early in July.

Resident Engineers (REs)

Mentoring of REs continues. The focus of the capacity development is intervention selection for culverts, borrow pits, etc. during road link surveys.

It is now considered that the REs in Bong and Lofa are sufficiently acquainted with the survey process to manage day to day survey supervision, but both still require periodic backstopping and quality control checks from the FTLs.

The RE in Nimba, engaged on box culvert surveys, is judged to be sufficiently competent to undertake topographic surveys at box culvert locations.



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

Site Inspectors

A new site inspector for Lofa joined ES3R in April. He is being introduced to supervision activities by the FTL for Lofa, to the extent practical given the FTL's competing commitment to oversee the road link surveys which are geographically remote from the SSF construction activities.

Site inspectors for Bong and Nimba are both constrained by transport difficulties. Motorcycle transport is now limited to movement within the road clusters. Movements between of construction of Farm to Market Roads in Phase 1 and phase 2 a is no longer considered safe, given increasing rains and lengthy journey times.

Both inspectors now use contractor transport for movements to and from phase 1 and phase 2. This significantly limited effectiveness of further skills development.

3.4 Performance Management Plan - PIRS

The Performance Indicator Reference Sheets (PIRS) related to the progress of the ES3R project are included in Annex B of this document.

4. PROJECT CHALLENGES

The following items have been encountered during the course of the project and pose challenges to the ES3R team and project:

Challenge / Issue	Mitigation / Resolution
All contractors are struggling with the design / build contract model, thus require much support in preparation of submittals.	ES3R has to offer inordinate amount of support to contractors in order that compliance be achieved and progress achieved.
The lack of capability of local contractors required that excessive time spent by FTL's in guidance and mentoring process.	ES3R must strike a balance between formal mentoring of contractors and progression of survey and design works required.
The prevailing lack of availability of diesel fuel in both Lofa and Nimba has had a negative impact on logistics and travel plans.	Despite contingency measures being in place, specific journeys out of county have been required to secure fuel, thus loss of productive vehicle time.
Bridge engineer requirement.	LOE for bridge structure designer is proposed to USAID in Contract Modification 4.
MPW Specification contained in Feeder Roads Manual is inconsistent with USAID/Liberia conditions of contract.	A modified Specification is now consistent with conditions of contract. Prior to next solicitations.

5. WORK PLAN FOR NEXT QUARTER

Field teams are in place in the three working counties for construction oversight and design.

Objective 1: Construction Oversight

All field teams will continue oversight and mentoring of the 84-km package for construction oversight. In addition, commencement of the new 75km package is anticipated dependent upon completion of existing projects and the rainy season.

Objective 2: Design and Contract Documents

ES3R anticipates all field surveys for box culverts and road links to be completed by end of July 2015.

Following completion of the field surveys, the 3 teams will be based at the field offices to finalize data conversion and commence quantification of the interventions selected during the surveys, this will be followed by preparation of the final drawings.

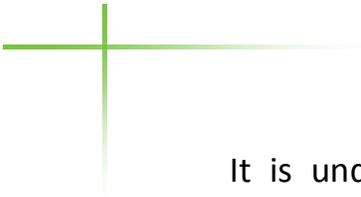
It is also expected that next batch of road contract packages will be finalized following discussion with USAID COR. This will enable the teams to refine and prioritize the delivery schedule originally presented in the Y2 work plan.

Objective 3: Training and Capacity Building

It is anticipated that A & E firm trainees will continue to be placed within ES3R design teams until the end of July for a total training period of 3 months (May, June, and July.)

This coincides with the expected completion of the field based survey activities.

It is further anticipated that during July MPW Feeder Roads Engineers will be deployed to ES3R teams.

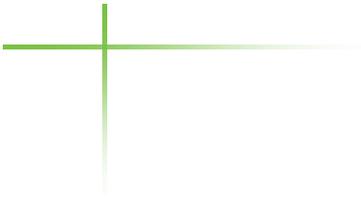


It is understood that MPW engineers will be engaged with ES3R for 4 months. This enables all 4 MPW engineers to be exposed to detailing of the design for both road works and large reinforced concrete (RC) structures.

6. FINANCIAL REPORT

In below table, it is shown the Financial Expenditures in the project from inception.

Row Labels	Sum of RAW COST		TOTAL Cost
01-Auto - A/P	31509.98		31509.98
01-Mileage - expense	16.81		16.81
02-Entertainment - A/P	200		200.00
03-Room - A/P	90575.49		90575.49
03-Room - expense	8688.3		8688.30
04-Park, Toll, Taxi - A/P	28746.59		28746.59
04-Park, Toll, Taxi - expense	141.36		141.36
05-Prints - A/P	216.6		216.60
05-Prints - expense	87		87.00
06-Supplies - A/P	192267.57		192267.57
06-Supplies - expense	110		110.00
07-Miscellaneous - A/P	105661.04		105661.04
07-Miscellaneous - expense	1000.06		1000.06
08-Telephone - A/P	6410		6410.00
08-Telephone - expense	58		58.00
09-Car Rental - A/P	1875		1875.00
09-Car Rental - expense	350		350.00
10-Air Fare - A/P	11669.02		11669.02
10-Air Fare - expense	17573.67		17573.67
11-Outside Professionals	1749979.6		1749979.60
12-Computer - A/P	29008.2		29008.20
19-Shipping, Postage - A/P	1284.49		1284.49
24-Field Equipment - A/P	50750.7		50750.70
26-Auto - expense	170		170.00
28-Overnight Delivery - A/P	29.45		29.45
30-Meals - A/P	20484.62		20484.62
30-Meals - expense	4841.78	184104.53	188946.31
Labor	100056.81	623163.66	723220.47
Labor Local	338675.9		338675.90
Overseas Differential - ODC	51072		51072.00
Overtime	60.92		60.92
Grand Total	2843570.96		3650839.15
		Fee @ 7.5%	273812.94
		Inception to	
		Date	3,924,652.08



ANNEX A

ES3R NARRATIVE

And

YEAR 2 WORK PLAN



Year 2 Work Plan Narrative

This section of the work plan narrative is composed of 3 sub-sections:

1. Summary of activities undertaken since the submission of the Inception Report
2. Balance of works remaining as of February 2015
3. A strategy for the delivery of project outputs

Each sub-section is further divided into component 1 and component 2.

Summary of Activities March 14 – February 2015

This section summarizes activities from the commencement of field works in March 2014 until February 2015.

The illustration below indicates the geographic spread of the ES3R activities for the remainder of the project life.

An inherent characteristic of field-based activities has and will continue to be long journey times and challenging road conditions. Figure 1 illustrates the range of the Project sites.

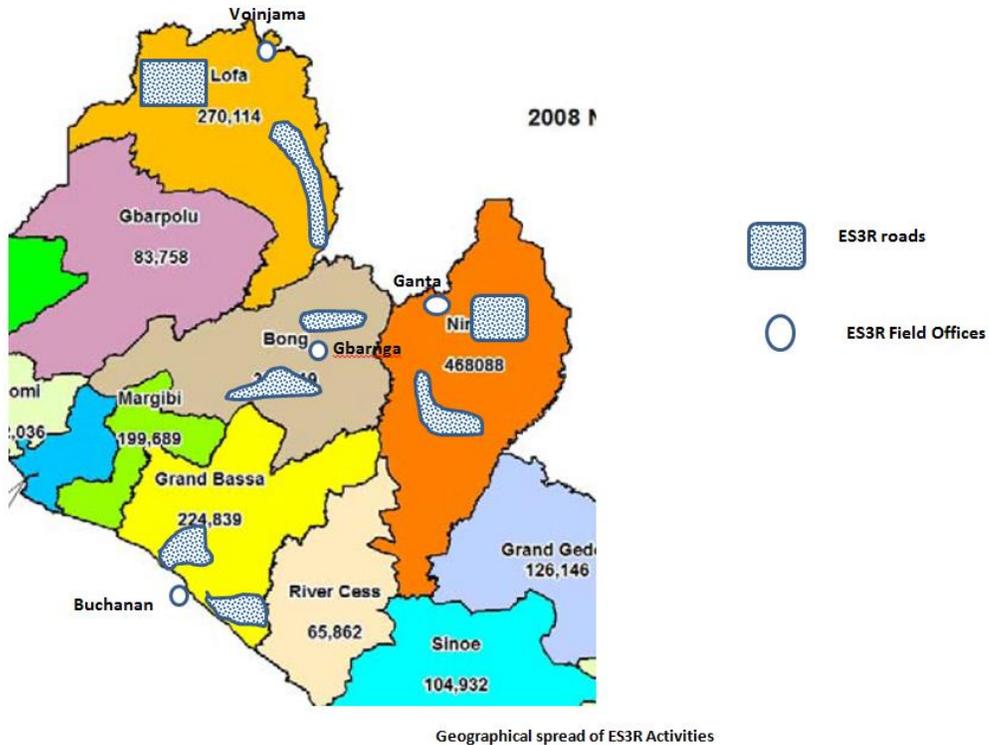
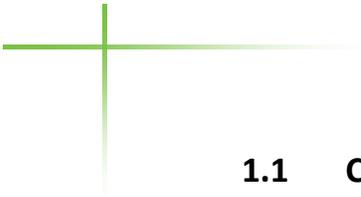


Figure 1. ES3R activities

The ES3R field team structure proposed in the Inception Report is composed of 3 teams. Each team is composed of three engineers, a Field Team Leader (TCN), a Senior Engineer (national), and a Site Inspector, (national).

Field Team Leaders and Senior Engineers were mobilized and orientated by end of March.



1.1 Component 1. Construction Oversight

Quality Assurance Contracting (March – July 2014)

The contracting mechanism by USAID for the initial road improvement contracts was a ‘design and construct’ model.

Contractor’s contracts indicated that ES3R provide ‘full time construction oversight’ and ‘on site mentoring’ to assist Contractor’s project management with its design submission and subsequent construction management.

The ES3R contract states ‘periodic field missions’.

The extra level of effort expended on ‘on site’ mentoring impacted the identification of 450 km of ‘road links for Component 2.

1.2. Component 2 – Road Design

This component can be divided in the 3 distinct activities

1. Identification of 450 km of road links selected for detailed design
2. Field surveys on each of the road links
3. Detailed design of road links based on data collected in the field surveys.

Selection of Roads - (April – June 2014)

ES3R devised a ‘road link’ selection tool based on a combination of cost effectiveness and socio- economic benefits. This replaced the Cost – Benefit Analysis suggested in the ES3R contract.



The outputs are indicated in table 1 below. The table is extracted from the Prioritization Report submitted as a part of the October '14 Design Report.

County	Roads Under contract	Rapid assessment survey	Prioritization outputs	Detailed Design of prioritized road links	
				July'14 - Sept '14	Oct '14 - Sept '15
	Jan '14 - Dec '15	April'14 - May '14	June '14	July'14 - Sept '14	Oct '14 - Sept '15
Bong	49	261.6	88.3	31.6	56.7
Nimba	21	302	117.4	27.7	89.2
Lofa	14	199.2	120.7	15.0	105.3
Grand Bassa	0	239.4	136.7	0	136.7
	84 km	1002.2 km	463.1 km	74.3 km	387.9 km

Table 1. Summary of Design outputs as envisaged July 2014

Field surveys of prioritized road links (June – July 2014)

Field surveys commenced as soon as the County prioritization workshop had been completed.

Road Design of 74 km (August – October 2014)

All teams were withdrawn from field activities (components 1 and 2) in early August as a consequence of EVD. Component 3 scheduled to commence in September 2014 was suspended.

A Design Report for 74.3 km was submitted on 25th October 2015.

Table 2 below illustrates the composition of the Design Report.

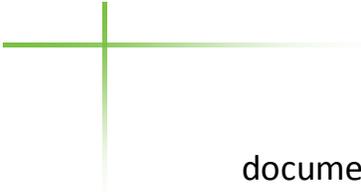
County	District	Road Link	Road Classification	Length km	Large R.C. drainage structures
Bong	Suokoko	Gbondoi – Gbarnla	Feeder	17.5	
	Yealequelleh	Taylorita Marionta – Nyan Yendewound	Secondary	14.1	3
	Total			31.6	
Nimba	Saclepea Mahn	Gaopa Garwompa	Secondary	5.575	
	Tapita	Dounpa - Zuaplay	Feeder	10.8	5
		Gogein - Zuaplay	Feeder	11.4	
	Total			27.7	
Lofa	Voinjama	John’s Town Bulor	Feeder	15.0	1
	Total			15.0	
Grand total				74.3	9

Table 2. Breakdown of Design Report Submission Oct 2015

Remodeling MPW standard documentation (August – October 2014)

MPW has a set of Standard Documents, March 2012. These are composed of, standard drawings and technical specifications. These documents were to be used as the basis for all ES3R detailed designs.

However, it became apparent that the standard documents had never been utilized to previous projects so to measure its effective application. The



documents possess significant inconsistencies and irregularities, such their usefulness limited.

To rectify this deficiency ES3R undertook:

- a. Lobbying for MPW recognition of the limitations of current package of MPW standard documentation.
- b. Reworking all standard design drawings and construction details
- c. Reworking of Method of Measurement and Bill of Quantities
- d. Reworking and expanding on MPW's Technical Specifications

The 74.3 km design submission has been designed, quantified and presented using the remodeled standard documents.

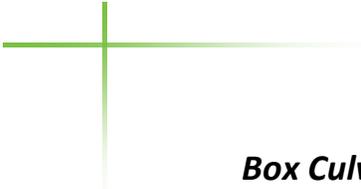
2.2 Road Design of the outstanding 387 km

Road Design in Clusters

The prioritization workshops held in each of the four Counties generated a total of 386 km of road links. The road links vary in length from 8.6km – 46.3km. To facilitate ease of packaging the road links into suitable and convenient contract sizes, links have been grouped into clusters in each County.

Lengths and geographical fragmentation of the Clusters varies.

The scope of work in the recommended range of cluster sizes permits large, medium and small road contractors with the opportunity to bid on tendered packages. Clusters can be combined or split as necessary.



Box Culvert Design (35 nr) in 387 km

During the rapid assessment, April May '14, 35 multi-cell box culverts were provisionally identified as required within the 387 km.

Each of these structures must be individually tailored to suit the river/road crossing point. The exact size and configuration of the structures can only be determined after detailed topographic and hydraulic surveys.

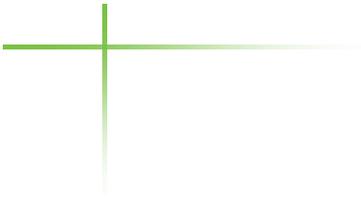
Eight box culvert locations were surveyed and outputs assessed during the design of the 74.3 Km. Hydraulic assessments at these crossing points reveal the adjacent river systems to be complex with existing water crossing points determined by the construction of road embankments either side of the crossing point. Very few are natural courses. Analysis of river characteristics required, to ascertain the optimum size, configuration and location of the new structure therefore requires considerable expertise.

Large Bridge Design (14 nr) in 450 km

The rapid assessment identified 14 river crossing points that strongly indicate a bridge with a clear span exceeding 12m as an optimum crossing structure. Such structures lie beyond the current scope of works.

Detailed topographic and hydraulic assessment is needed before selecting a crossing structure.

It is assumed for the purposes of this report that 14 bridges are required.



2. Strategy for Delivering ES3R Project Outputs - March 15 – Feb 2016

ES3R is proposing the following strategic resource allocation as the most efficient and effective means of project output delivery.

The implementation of this plan will be undertaken in collaboration with MPW counterparts at the National and County level.

Suggested Project Team Structure Revision

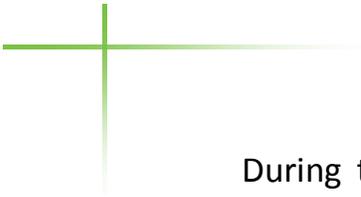
ES3R is proposing 6 teams to undertake the balance of works between March 2015 and February 2016.

This structure permits maximum specialization through the division of labor. This structure also permits A & E trainees involvement with a team whose activities focus on a specific topic i.e. road design, culvert design and bridge design, and environmental mitigation as the trainees move from team to team.

The proposed structure therefore produces greater productivity and concurrently creates a more coherent and focused training/learning environment.

3.1. Component 1: Construction Oversight Team (March 2015– February 2016) 84 km + 74.3 km

The additional 75km designed during August – October has been prepared using the remodeled documentation.



During the period March to June the ES3R field teams will therefore be overseeing two 'road clusters' in their respective Counties, the original 84 km and the proposed 75 km. The additional works in all three Counties are remote from the original road links.

Motorcycles are not considered suitable form of transport due to the long distance between the clusters. Rented vehicles are proposed as site transport until such time as the original 84 km of road links are substantially complete. This is anticipated to be until the end of June 2015.

Contractors are expected to work a 6-day week until rains in July/August become debilitating and severely impede progress. Between March and June it is proposed to have a 6-day working week and the SIs paid accordingly.

It is expected that A & E firm trainees join the ES3R team during this active period. Field Team Leaders will be required to visit sites once a week to ensure contractual compliance and manage site progress meetings.

SIs will revert to a conventional 5-day working week, once contractors have reduced construction activities due to rains.

USAID anticipate that its FRAMP program will be active between October and December 2015. It is anticipated that component 1 will be handed over during this transitional period.



3.2. Component 2 Road Design

Teams 2 & 3: Lofa and Nimba 196 km, Bong and Grand Bassa (194 km)

March 2015 – February 2016

March – July 2015 Field Surveys

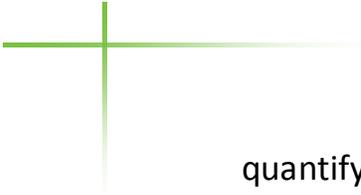
It is proposed that a single team undertake road designs for Lofa and Nimba. Likewise with the Bong and Grand Bassa Team, two counties covered by one team. Productivity of the field surveys is linked to time available in dry season 2015. This is assumed to be March – July. Trainees will be assigned to both teams during this period.

USAID has requested that MPW second 4 Feeder Road Engineers to ES3R for the balance of the project life. The engineers will supplement the road design teams. It is envisaged that the MPW engineers be exposed to ES3R's feeder road design methodology during field surveying April – July.

The engineers will be allocated to each of the four ES3R teams: road and culvert survey x2, box culvert survey and the environmental/community team.

Efforts are now underway identify, interview and sensitize selected candidates.

With the benefit of a recent Component 3 workshop 12 – 14 March 2015, specifically focused on the role, relationships and responsibilities of mentors and mentees, ES3R is now more able to accurately predict and



quantify time required for effective skill enhancement for the junior engineers from both MPW and private sector.

The project will have 9 such engineers as from April 2015.

To permit the anticipated LOE expended on skill transfer during the critical field survey period, April – July, ES3R proposes to mobilize a specialized survey firm.

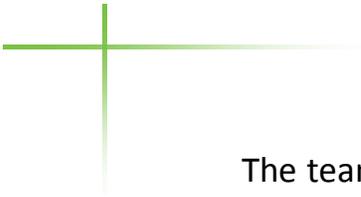
The survey firm will focus on topographic surveys needed for Grand Bassa, to a lesser extent Bong and proposed bridge sites.

While every effort will be made to substantially complete field surveying before the onset of the rainy season (the mobilization of the survey firm is intended to do just this), this cannot be guaranteed. The onset of early rains, road and bridge conditions and other unforeseen circumstances will ultimately determine survey outputs.

However, it should be noted that while any delay will impact the design delivery schedule, it will not have any impact on the proposed F2MRR procurement program of road improvement contracts. It should be further noted that surveys for road links that are unavoidably postponed until after rainy season will benefit by capturing deterioration of the road link caused by the rainy season.

Target outputs for field survey are 10 km/week/team.

August 2015 – March 2016 – Detailed Design



The teams move to Monrovia for the detailed design stage. Using Monrovia as the detailed design center offers MPW engineers the opportunity engage the design activities. A & E firm trainees will be exposed to the design process from data entry to contract packaging.

Target outputs for detailed design are set at 8 km/week/team.

The level of detail of the 387 km designs is not anticipated being equal to the level included in the 74.3 km presented in the Design Report, October 25, 2014, but still within the contractual frame.

However; any omitted detail in the conceived contractual design may be easily generated/supplemented by Contractors with the support of an adequately qualified supervision team.

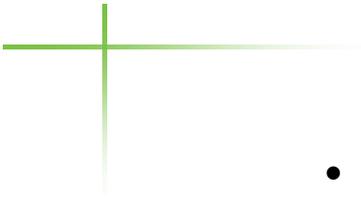
In order to maintain the expected competence of the designs it is proposed that the teams continue to be managed by TCNs.

Team 4: Box Culvert Design Team -

Eight box culverts were designed for the 74.3-km submission.

A further 35 similar structures are anticipated.

<i>Engineering Field Survey</i>	<i>Construction Oversight (team</i>
<i>Teams (teams 2, 3 & 4)</i>	<i>1)</i>

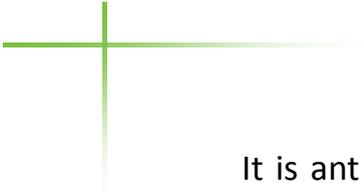
- 
- ES3R's 6 teams offer 5 different feeder road related subjects,
 - Topographic surveying,
 - Tacheometric surveying
 - Hydraulic surveying
 - Hydraulic assessment
 - Carriageway defect assessment
 - Engineering materials sampling and classifying
 - Contract documentation
 - Compliance testing and inspection
 - Quality control techniques
 - Site communications
 - Construction Site reporting
 - Monthly reporting
 - Monthly measurement activities
 - Stakeholder engagement at construction phase

Environmental Management and Community Engagement (team 6)

- Developing an environmental management plan
- Monitoring the plan
- Managing the plan
- Stakeholder engagement at the planning level

Detailed Design (teams 2, 3, 4 and 6)

- Intervention selection
- Preparation of strip maps
- Quantification of interventions
- Preparation of detailed drawings
- Preparation of Bills of Quantities
- Unit Rate Analysis



It is anticipated that by the end of each trainee's exposure's time to both field and office based activities each will have a fundamental comprehension of all aspects of the feeder road design process and construction oversight.

Institutional Training

Institutional Capacity Building is considered here as one of the main types of Capacity Building efforts, along with human Capacity Building; both are closely inter-related and complement each other.

Institutional Capacity Building addresses the Capacity beyond the provision of education and training of professionals. It aims to enhance the capacity of governments, business, non-governmental groups and communities to plan and manage the coast efficiently and effectively.

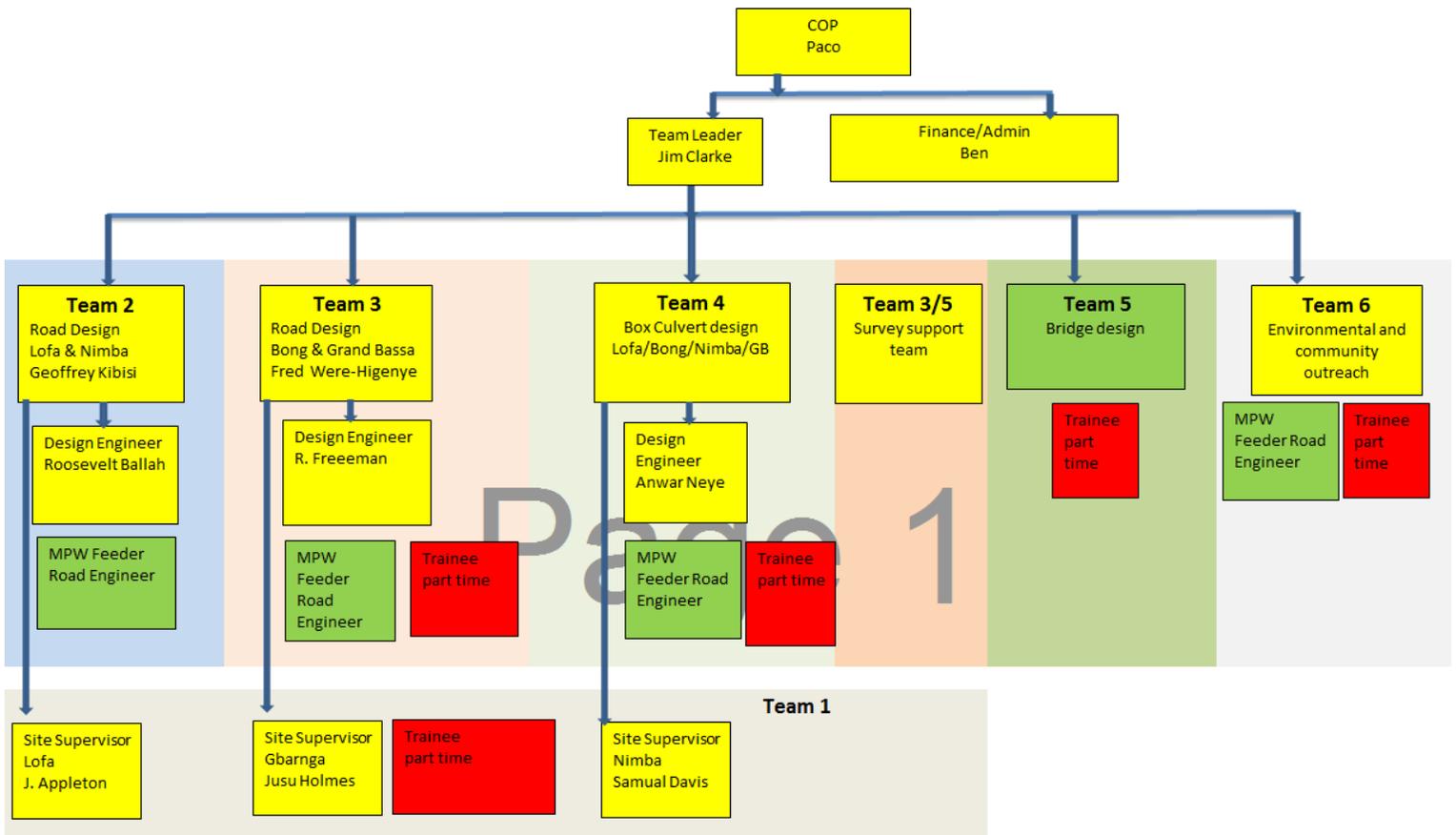
There are several dimensions regarding institutional development according to the desired level, such as for executives of the E & A Firms.

TRG Workshops No. 1&2 were focused on field engineering strategies and on Institutional training held in the third week of March by TRG expert assisted by the ES3R team.

The attendees to these Workshops with a duration of 3&4 days respectively, were addressed to junior engineers belonging to the E&E firms; and the second workshop, to owners/managers to whom were shown the different tools for identification of technical and administrative staff that in the near future may be able to prepare technical and financial proposals, management of resources human and materials for design and construction supervision of engineering works, stressing on the communication area.



The trainees were also aided with the different management techniques to execute in a sound engineering way the management in consultancy contracts.



August 2015- March 2016 – Detailed Design

Detailed design will take place in Monrovia project Office.

Team 5: Bridges in Lofa, Nimba, Bong and Grand Bassa (March - December 2015)

ES3R propose to engage the services of an experienced bridge design team.

The key persons in the team are: qualified Bridge Engineer and an experienced auto-CAD Technician.

The Bridge Design Team will undertake:

- Hydraulic assessment,

- Materials investigation
- Hydraulic design
- Foundation design
- Structural design of sub and super structure
- Preparation of Bills of Quantities and cost estimates for each structure

It is anticipated that 13 days are required for each structure, 5 days for field assessments and 8 for the design and quantification.

The field works are scheduled to complete by end of the current dry season, with the assumed 6-day working weeks.

Detailed design will take place in Monrovia. This arrangement offers similar advantages for A & E firm trainees to teams 2, 3 & 4.

Team 6: Environmental Issues and Community Engagement

The ES3R environmental specialist is programmed to visit the Project in April 2015. She will assist the Project in identifying a suitable candidate for a full time position as Environmental/Community outreach Officer who will be properly trained and instructed to continue the environmental mitigation measures as part of the project.

The environmental Specialist will prepare a scope of work for the proposed new position and introduce and orientate the person regarding the

Programmatic Environmental Assessment Report and Environmental Monitoring and Mitigation Plans as it pertains to the Project.

The role of the Environmental/Community Consultation Officer is twofold:

- Environmental Impact mitigation
- Community Outreach

The officer will support the field survey assessments, ensuring that design interventions are environmentally friendly, that potentially impacted eco systems adjacent to the road links are recorded and EMMPs formulated accordingly.

The officer will ensure that roadside communities are sensitized regarding both road design surveys and future road improvement contracts.

The environmental/community outreach officer will engage with traditional and administrative leaders ensuring that all beneficiary stakeholders are informed of and agree to roles and responsibilities of all implementing agencies.

It is envisaged that trainees will be introduced to issues and mitigation measures as they relate to environmental impact and community engagement on road improvement activities.

3.3 Component 3, Capacity Building

The 5 A & E firms selected in February 2014 have been contacted. All five have expressed their interest in continuing with the program.

Technical Training

After completion of Workshops mentioned in previous section, outputs were orientation, training agreements and a 'on the job' training schedule... ES3R field staff and A & E firm site engineers now have a competent understanding of the mentor/mentee relationship and the dedication required to realize meaningful and lasting skill development.

Each A & E firm is allocated approximately 8 months; 4 months in all in-field activities (survey, road and culverts' construction oversight, etc.) and, four of which months will be field based and the balance 4 months in the Monrovia design office.

ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION (ES3R)

ANNEX B

PERFORMANCE INDICATOR

REFERENCE SHEETS

Updated to the year 2015

PERFORMANCE INDICATOR REFERENCE SHEET

PERFORMANCE INDICATOR VALUES									
Year	TARGETS for ROAD SURVEY								Notes
	PROVISIONAL				ACTUAL				
	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 75.2
2015	300				17	83	60	139	Total for four counties in 2015,

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: JUNE 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: JUNE 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			
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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	75	New Construction packages began June 2015
THIS SHEET LAST UPDATED ON: JUNE 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			
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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	0	386 km of field survey by July 2015. Designs to commence August 2015
2016	105	-	
THIS SHEET LAST UPDATED ON: JUNE 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 commences July/Aug 2015
2016	105	-	
THIS SHEET LAST UPDATED ON:JUNE 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	220	299	Survey ahead of revised work plan schedule.
2016	155	0	
THIS SHEET LAST UPDATED ON: JUNE 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: JUNE 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	2 Engineers per firm plus one senior staff per
THIS SHEET LAST UPDATED ON: JUNE 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	Continuous training
THIS SHEET LAST UPDATED ON: JUNE 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: JUNE 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: JUNE 2015			