



**USAID** | **LIBERIA**  
FROM THE AMERICAN PEOPLE

**ENGINEERING SERVICES FOR RURAL ROADS  
REHABILITATION (ES3R)  
CONTRACT NO: EDH-I-00-08-00023  
MONTHLY PROGRESS REPORT – MAY 2014**

10 June 2014

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

## MONTHLY PROGRESS REPORT

### MAY 2014

**Prepared for:** USAID/Liberia

**Prepared by:** Howard M Shelmerdine  
Jim Clarke  
Michael Kpange

10 June 2014

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
COR	Contracting Officer Representative
EMMP	Environmental Mitigation and Monitoring Plan
ES	Environmental Specialist
ESMMP	Environmental & Social Mitigation & Monitoring Plan
ES3R	Engineering Services for Rural Roads Rehabilitation
ETL	Engineering Team Leader
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
LESSP	Liberia Energy Sector Support Project
LMWP	Liberia Municipal Water Project
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
USAID	United States Agency for International Development

**ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION (ES3R)  
MONTHLY PROGRESS REPORT MAY 2014  
LIST OF CONTENTS**

<b>1. SUMMARY PROJECT DESCRIPTION</b>	
1.1 Introduction	5
1.2 Objectives	6
<b>2. MAY 2014 OVERVIEW</b>	
2.1 May Highlights Summary	7
2.2 Details of Highlights	9
2.2.1 Field Staff Deployment	9
2.2.2 Road Prioritization Surveys	9
2.2.3 Design of Bridgeworks	15
2.2.4 Project Deliverables and Documentation	15
2.2.5 Project Vehicles	16
2.2.6 Multiple Criteria Analysis Presentation	16
<b>3. PROJECT OBJECTIVES PROGRESS</b>	
3.1 Objective 1 – Construction Oversight	20
3.2 Objective 2 – Design and Contract Documents	23
3.3 Objective 3 – Training (of A & E Firms) and Mentoring	23
<b>4. PROJECT CHALLENGES</b>	25
<b>5. OUTLINE SCHEDULE</b>	
5.1 Staff Availability	27
5.2 Work Schedule for June 2014	27
<b>ANNEXES</b>	
A Progress Photographs	
B Work Schedules	

# 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, 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,
- 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.

This monthly progress report presented in respect of the project covers the progress of the works for the period from 1 May 2014 to 31 May 2014. In addition, the report details the status and approach to project challenges and presents a work schedule for the forthcoming month.

## 2. MAY 2014 OVERVIEW

### Preamble

During May 2014, the majority of logistical work was completed however; accommodation is still being finalized at county locations.

### 2.1 May Highlights Summary

The table included hereafter provides a summary of the project highlights:

<b>MAY 2014</b>		
<b>Date</b>	<b>Description</b>	<b>Comment</b>
2 May	Meeting with USAID Environmental Officer	COP & E Specialist
3 May	Environmental Specialist departs Liberia	Visit complete
5 May	Bong & Nimba FTL/RE travel to Grand Bassa	Meet FED CM
6 May	Meet FED field & extension staff to map areas	In Buchanan
6 May	Grand Bassa (GB) road survey work commences	Districts 1 & 2
7 May	Meeting with Dep Minister Paye at MPW	Meeting with COP
7 May	GB road survey continues through 9 May	Districts 1,2,3 & 4
9 May	Meet Prosper staff & FDA extension officer	In Buchanan
9 May	Weekly Meeting with USAID	CDM office
9 May	Monthly Progress Report submitted to USAID	April 2014
9 May	Lofa FTL returns to site with SI & equipment	FTL return to Lofa
10 May	Inventory and condition assessment data process	Data entry
12 May	Bong team to Gbaranga from G Bassa surveys	Bong team return
12 May	GB road survey and meet with Prosper staff	District 3 roads
12 May	Automatic levels procured in Monrovia	Auto Levels
13 May	GB meet with County Planner, FED & prosper	In Buchannan
13 May	Nimba team completes G Bassa surveys	En route to Ganta
16 May	Visit SIDA – meet Jallah Kennedy	Programme officer
19 May	Prioritization Presentation invites by USAID	Meeting 27 May pm
20 May	Jim Clarke arrives Monrovia	Jim Clarke
20 May	Motorcycles delivered in Monrovia	To sites 21 May

21 May	Up country visit to Gbarnga for team meeting	Howard & Jim
22 May	Team meeting- status for prioritization tool	Meet at FED, Cari
22 May	Return to Monrovia (with car for upgrade)	Arrive Monrovia
24 May	No objection to A & E Firms selection	USAID advice
26 May	Accountant (E Becker) arrives in Monrovia	SA head office
27 May	MPW Rural Infrastructure Sector Co-ord meeting	Stakeholders; a.m.
27 May	Presentation on Multi Criteria Analysis, USAID	Stakeholders; p.m.
28 May	Weekly Meeting with USAID	CDM office
30 May	Depart Monrovia for up country visit & meetings	ETL to sites
31 May	E Becker departs Monrovia	Return to SA

In particular, there are numerous items worthy of note, being specifically related to the progression of the objectives of the project, namely:

- Field Staff Deployment
- Road Prioritization Surveys
- Design of Bridgeworks
- Project Deliverables and Documentation
- Project Vehicles
- Multiple Criteria Analysis Presentation

The aforementioned items will be elaborated in the following section.

## 2.2 Details of Highlights

### 2.2.1 Field Staff Deployment

Site inspectors have been formally engaged since last month and deployment to site was effected between Friday 9 May and Monday 12 May 2014. This now completes the ES3R engaged staff complement, with trainees of A & E firms expected to be attached to the teams in due course.

### 2.2.2 Road Prioritization Surveys

The commencement of preliminary road surveys was undertaken in the reporting month after much communication, liaison and discussion with the following key stakeholders:

- USAID Staff
- County administrations
- MPW County Resident Engineers
- Senior County officials
- FED County Managers
- FED Field and Extension staff
- City Mayors
- District Commissioners
- USAID Implementing Partners
- Other Donor Agencies
- Communities within road corridors

A general summary of the roads surveyed is as follows:

<b>County</b>	<b>Road Length Surveyed</b>
Bong	261.6
Nimba	233.9
Lofa	196.3
Grand Bassa	237.3
<b>Total Length Surveyed (Km)</b>	<b>929.1</b>

Included in the following four pages (one county per page) is a listing of the roads for which preliminary surveys were carried out. It is from these lists of roads, the majority of which are simply formed tracks or paths, that a total of 450 kilometers of roads will be selected for F2M road design to be undertaken within the ES3R project.

During the survey exercise typical difficulties encountered were as follows:

- Unreliable information from local sources,
- Inaccuracy of mapping received from LISGIS,
- Poor access along the tracks some involving broken bridges, fallen trees etc.,
- Lengthy dispersal of tracks,
- Unidentified institutions,
- Establishment of populations in settlements,
- Availability of officials,
- Adjustment / additions to program,
- Access to FED sites/clusters take up road quotas.

Numerous photographs related to the prioritization exercise are included in Annex A of this document.

## Bong County

<b>BONG COUNTY PRIORITIZATION EXERCISE</b>		
<b>District</b>	<b>Road Link</b>	<b>Length</b>
<b>Panta</b>	Fokolah - Morgan	1.9
	Tobacco - Gbaota	3.1
	Garmu - Desa	4.3
<b>Zota</b>	Weinsue - Kpai	8.7
	Foequelleh – Menequah - Yowee	13.2
<b>Suakoko</b>	Sinyea - Kayata	13.4
	Suakoko - Gamue	9.4
	Gbondoi - Gbarnla	17.3
	Suakoko - Yaindewoun	19.0
<b>Fauma</b>	Bong mine - Yarbayah	23.3
	Popota - Dombli	4.8
	Lepolu Junction - Lepolu ta	3.3
	Bong mine - Yeamah	16.7
	Handi - Mawah	6.6
<b>Salala</b>	Maimu – Veleyan - Molonakpaiga	10.2
	Felela - Jarwuta	8.6
	Salala - Sonyea Road	9.8
<b>Jorquelleh</b>	Samay - Baryata	14.1
	Janyea - Darwata	10.4
	Janyea - Goleemue	9.9
	Amos town - Kpai	12.4
<b>Yellequelleh</b>	Gbatala - Taylor town - Fenetolee	21.0
	Yaindewoun – Nyan – Molo ta Junction	6.1
	Taylor ta – Gaeyaerd - Belefanai	14.1
	<b>Total Length (Km)</b>	<b>261.6</b>

## Nimba County

<b>NIMBA COUNTY PRIORITIZATION EXERCISE</b>		
<b>District</b>	<b>Road Link</b>	<b>Length</b>
Buoyawo	Wea Beadatua - Bahn	15
Tappita	Dounpa - Zuaplay - Gogein	21.4
Tappita	Fleedin - Garwonpa	11.7
Saclepea Mahn	Fleedin - Nyonkiayee	15.1
Zoe-geh	Payee - Gbanwin	3.6
Saclepea Mahn	Saclepea - Tengbin	12.8
Meanpeamah	Kpain - CNC Junction (Zao)	10.1
Meanpeamah	CNC Jctn (Tunukpuyee) - Y Intersection	8.5
Gbehlay-geh	Geanplay - Souplay	5.1
Zoe-geh	Kpaglay - Nyenpa	2.5
Twan River	Bayleglay - Rlekorlay	8.4
Twan River	Bayleglay - Siaplay	5.6
Tappita	Boyee Junction - Goekorpa	13.1
Tappita & Gbee	Tappita - Unification Town	20.2
Tappita	Gbonarglay - Gbarplay	19.2
Zoe-geh	Gbarplay - Karnplay	4.9
Zoe-geh	Zontuo - Sankayplay	16.5
Yeameh	Gbaleyee Junction - Kinnon	14.2
Yeameh	Yekepa - Bolewee	26
	<b>Total Length (Km)</b>	<b>233.9</b>

## Lofa County

<b>LOFA COUNTY PRIORITIZATION EXERCISE</b>		
<b>District</b>	<b>Road Link</b>	<b>Length</b>
<b>Voinjama</b>	Zenalomai - Boiboimai	5.1
	Massanormai - Zawordamai - Movomai	10.0
<b>Zorzor</b>	Konia - Ziggida	11.8
	Zelemai - Womai	22.2
	Zorzor - Yeala Bordor	6.9
	Passama	5.5
<b>Salayea</b>	Zorzor - Kpaiyeya - Gbarnway	14.3
	Yarpuah Road	2.8
<b>Quardu Gbondi</b>	Wankendu	2.3
	Jarmulor - Kanela - Korlelah	7.6
	John's Town - Tusu	25.0
	Sansanor - Moibadu	3.7
	Kanela - Safudou	3.2
<b>Kolahun</b>	Bolahun-Mbalotahun road	2.6
	Kolba City - Bolahun Road	9.7
	Kolba City - Bassamolahun-Ngorkohun Road	7.2
	Taninahun and Bolobengun Road	11.5
<b>Foya</b>	Foya Town - Sangia	15.2
	Kolochoe Road	3.3
	Korlorsu Road	4.7
	Menekorma Junction - Kpandu - Koimei	4.6
	Menekorma Highway - Karmbo	2.1
	Leo Genbu - Weima - Kporndodu Intersection	10.5
	Kporndodu - Menekorma Highway	2.6
	Sengia Intersection - Kelima Pombor	1.9
	<b>Total Length (Km)</b>	<b>196.3</b>

## Grand Bassa County

<b>GRAND BASSA COUNTY PRIORITIZATION EXERCISE</b>		
<b>District</b>	<b>Road Link</b>	<b>Length</b>
<b>1 &amp; 2</b>	Little Bassa - Varmah	21.4
	Ben Luogan Town - Kor's Town Road	2.4
	Waka Town - Compound #2 Road	20.6
	Compound #2 - Zarn Town Road	18.6
	Compound 1 - Doezohn Road	6.8
	Bokay Town - Moores Town Road	12.0
	Compound #2 - Karngbo Town Road	23.7
<b>3 &amp; 4</b>	James Henry Town - Kardor Town Road	11.9
	Rally(Yarmah Town - St John River Road)	12.0
	Siahn - Waiker Town Road	3.2
	Gio Town - Little Kola Road	12.6
	Timbo Town (Gbagee) - Yeahbee Town	4.8
	Waka Town - Johnny Tutu Town Road	7.1
	FDA Junction - Keyah	29.6
	Karsuah - Newcess Beach Road	8.5
	Yeabea Town - Grand Kola	23.9
<b>3</b>	Keyan - Karjuah Town Road	2.1
	Blewein - Doewhein - Sarwain Town	9.7
	Garpu Town - Behn Town	6.4
	<b>Total Length (Km)</b>	<b>237.3</b>

### **2.2.3 Design of Bridgeworks**

It is evident that numerous waterways on future road links will require bridge structures in excess of 10 meters to be addressed. Following discussion with USAID, ES3R will quantify the LOE required for the design of the bridges between 10m and 16m, for the development of standard bridge superstructure designs as well as a design guide checklist for substructure elements of bridgeworks for feeder roads in Liberia. This will be developed when sufficient information is at hand to enable an informed judgment of the extent of bridgeworks required, particularly in Grand Bassa county. The preliminary surveys have now been completed, thus, following the priority ranking of roads at the county workshops, the roads selected for design will be determined which will enable the extent of bridgeworks to be assessed.

### **2.2.4 Project Deliverables and Documentation**

- **Monthly Progress Report**

The Monthly Progress Report for April 2014 was submitted to USAID on 9 May 2014.

- **Progress Meetings with USAID**

Progress meetings have been continued with USAID COR in Monrovia as and when appropriate, since it is often the case that meetings are scheduled in the field when the parties are involved in site visits.

Meetings were held at ES3R offices on 9 May and 28 May 2014.

- **Pre-Qualification Report**

ES3R have been advised by e-mail from USAID COR on 24 May 2014, that there has been no objection raised on the selection process or recommendations made for the A & E firms to participate in the ES3R project. All A & E firms have been notified of the selection by ES3R.

- **Country Clearance /Travel Request for Regional Accountant**

This clearance was requested by ES3R letter of 21 May 2014 and was provided by return e-mail of 22 May 2014 by USAID COR.

### **2.2.5 Project Vehicles**

The onset of the rainy season has required the upgrading of the 4 x 4 project vehicles to include enhanced undercarriage and wet weather tyres which has been completed for two vehicles.

Following the approval of motorcycle source by waiver during April 2014, the purchase of motorcycles for use principally by the site inspectors was pursued and three cycles were delivered to ES3R on 20 May 2014. These were subsequently handled and taken up country on 21 May 2014.

### **2.2.6 Multiple Criteria Analysis (MCA) Presentation**

During the reporting month, final preparations have been underway to facilitate the presentation of the Multiple Criteria Analysis, which is the tool by which the prioritization and selection of F2M roads will be assessed and evaluated.

The presentation was held on Tuesday 27 May 2014 with scheduled commencement at 14:00 hours at the U.S. Embassy, Monrovia.

Those staff who presented the MCA tool was as follows:

Michael Nicholson, USAID/Liberia, Mission Economist

David Wounuah, USAID/Liberia, COR ES3R

Jim Clarke, Lead Design Engineer, ES3R

The presentation commenced with the following topics:

- Overview of USAID F2MRR activity
- ES3R Objectives
- Timelines for Development
- Economic Approach
  - Cost Benefit Analysis: judged by Mission Economist, USAID/Liberia to be inappropriate in this context
  - Alternative (as presented in Inception Report):  
Multiple Criteria Analysis

Following an explanation of the Liberia road classifications, the process stages which facilitate the MCA were presented as follows:

- Consultation with key stakeholders
- Preliminary Surveys
  - Inventory Survey
  - Rapid Condition Survey
  - Identification of defects
  - Selection of Remedies
  - Data assessment and Costing
  - Quantify Population

‘Basic Access’ which is the design parameter is defined as follows:

*‘The least cost intervention for providing reliable all season access for the prevailing means of transport.’*

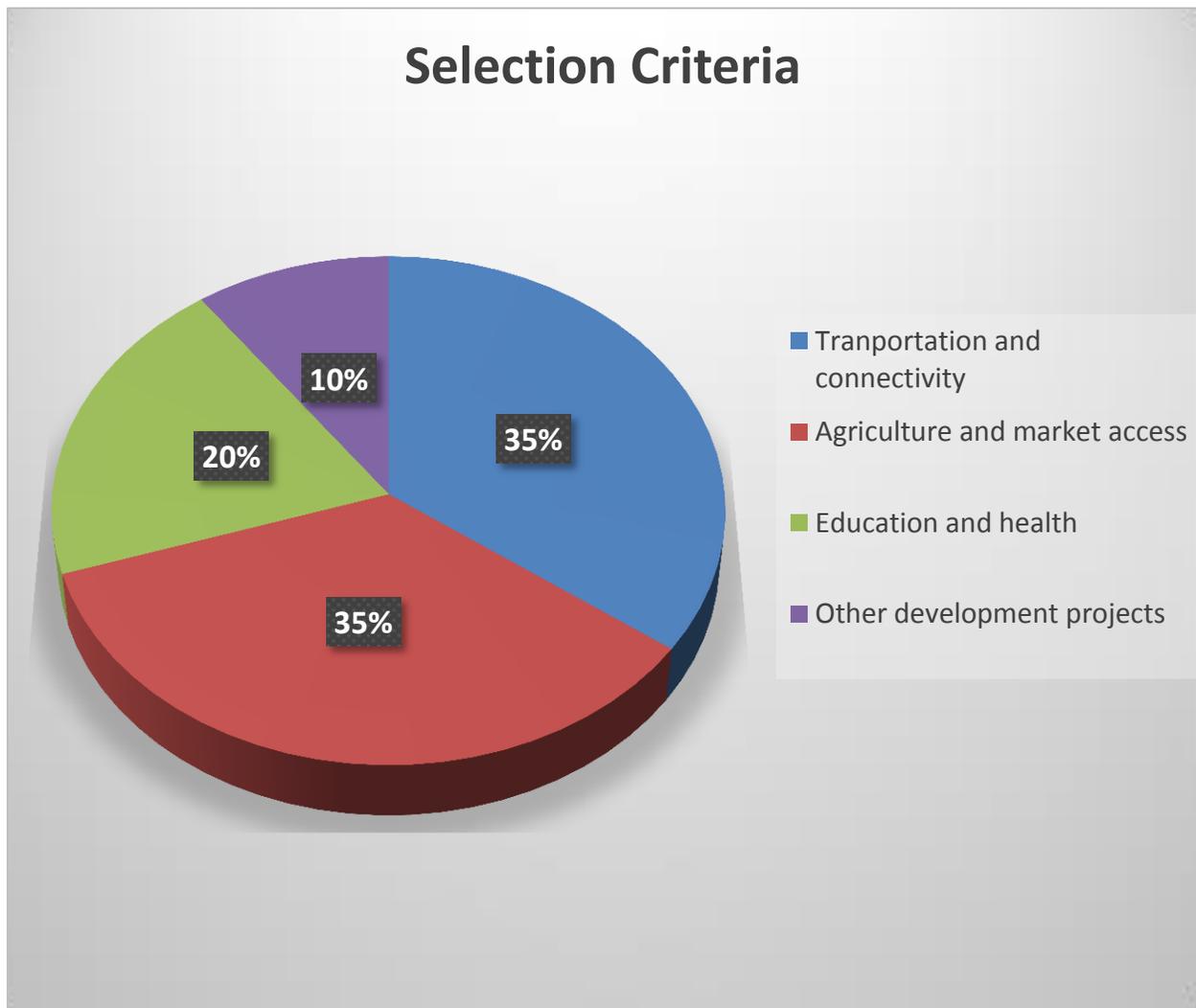
*‘The minimum level of rural transport infrastructure required to sustain socio economic activity.’*

- Selection Factors and Weightings
  - Go / No go
  - Technical factors
  - General Factors

**Go /No go:** These are factors which serve as checks to prevent investments on roads which would otherwise be in conflict with the following:

- Appropriations, laws and funding regulations
- Higher level strategic decisions

**Technical factors:** this is the technical selection criteria:



It was resolved during the presentation that these technical factors were appropriate for the selection process.

**General factors:**

- Population
- Average Cost per kilometer

These general factors are used in the calculation of 'Rank Value';

*where*

Economic Benefit Factor (EBF) = Sum total score of all socio / economic facilities within road corridor according to bias of project objectives.

Rank Value =  $EBF \times Population / Total\ Cost$

Priority Rank is derived by arranging road rank value in a hierarchal order, where highest rank value has highest priority.

There was unanimous agreement amongst economists and transport planners in attendance at the presentation, that MCA was the most appropriate method of assessing priorities for Farm to Market roads.

The MCA tool as developed will be customized for each county and presented at a series of four workshops at each of the four county administrations in order that the participatory approach to the F2M road selection is achieved.

### 3. PROJECT OBJECTIVES PROGRESS

#### 3.1 Objective 1 – Construction Oversight

The ES3R field staff in each of the counties has been almost totally engaged in construction overview related duties for the majority of the reporting month. This work has included the following:

- Quality assurance of the physical works
- Mentorship of the contractors
- Review of reporting submitted by contractors
- Review of incremental designs
- Verification of quantities of work undertaken
- Monitoring compliance with ESMMP
- Monitoring of HSE matters including HIV awareness

#### **Bong:**

Overall assessed percentage completion: 17%

Percentage time elapsed: 22%

General Progress Statements: (all roads total 49.9km)

(May quantity followed by total percentage in brackets)

**Gbenquelleh – Janyea Road: (10.5km)**

**Gbenquelleh – Molly Town Road: (9.5km)**

**Tolomai – Palala Road: (29.9km)** Work has not yet commenced.

Clearing of Bush: 10.5 km (59%)

Earthworks: Reshape 10.5 km (21%)

Embankment 1100 m<sup>3</sup> (9%)

Culverts:	Excavation 30 No (46%)
	Pipe installations 9 No (28%)
	Inlets/Outlets 31 No (26%)
Borrow sources opened:	4 No – no gravelling to date

**Nimba:**

Overall assessed percentage completion: 22%

Percentage time elapsed: 22%

General Progress Statements (all roads total 21km):  
(May quantity followed by total percentage in brackets)

**Bahn – Kpayee – Zuolor – Payee Road (14.4km)**

**Dwonwea - Zuo Lapa Road (4.1km)**

**Duanpea Road (2.5km)**

Clearing of Bush:	13 km (67%)
-------------------	-------------

Grade and Shape:	2.5 km (67%)
------------------	--------------

Culverts:	Excavation 8 No (78%)
	Pipe installations 6 No (71%)
	Inlets/Outlets 4 No (71%)

Borrow sources opened:	3 No
------------------------	------

**Lofa:**

Overall assessed percentage completion: 23.5%

Percentage time elapsed: 22%

General Progress Statements: (all roads total 14.6km)

(May quantity followed by total percentage in brackets)

**Galamai Road: (2.6km)**

Grade and Shape 0.6 km (23%)

Culvert Pipe installation 3 lines

Inlet / Outlets 4 lines

**Bitijama Road: (3.6km)**

Grade and Shape 2.2 km (60%)

Culverts Excavation of 2 lines

Pipe installation two lines culvert

Blinding to twin box culvert

Inlet / Outlets 2 lines

**Barkedu – Jamulor – Moibadu Road: (8.4km)**

Clearing of Bush complete

### **3.2 Objective 2 – Design and Contract Documents**

ES3R field staff has devoted such time as practical to progress the process of road prioritization which has included the following general input for each of the three teams during the reporting month:

- Consultative meetings with county stakeholders,
- Identification of county development priorities,
- Meetings and discussions with FED county managers,
- Field visits to and survey of candidate road links,
- Rapid assessment and mapping road link identification,
- Processing of field data,
- Estimates of road rehabilitation costs
- Preparations for road prioritization meetings

### **3.3 Objective 3 – Training (of A & E Firms) and Mentoring**

Further advice from USAID regarding the status of the modification for which application was made is awaited accordingly.

During the first half of April 2014 the ES3R field staff was involved in the mentoring of contractors' staff generally as follows:

- Reporting of site activities and format thereof,
- Estimate of progress of works
- Setting out of the physical works,
- Applications of construction best practices,
- Negative impact identification and mitigation planning,
- Construction works costs and QC monitoring

The Field Team Leaders were involved in the mentoring of ES3R Resident Engineers as follows:

- Identifying candidate F2M roads
- Field data collection from candidate roads,

- Road condition assessment procedures,
- Conducting consultative meetings with stakeholders,
- GPS tracking and mapping,
- Developing estimates from condition data,
- Estimating progress of works,
- Work site management and work planning,
- Construction works QC,
- Preparation of payment certificates,
- Reporting of site activities.

The ES3R site inspectors have been mentored on the following:

- Daily site progress reporting,
- Setting out and construction generally,
- Road clearance works,
- Drainage culvert installation,
- Planning weekly activities schedule,
- Project overview in line with contract documents,
- HSE compliance monitoring.

## 4. PROJECT CHALLENGES

The following items have been encountered recently which are continuing and pose challenges to the ES3R team and project:

Challenge / Issue	Mitigation / Resolution
ES3R field staff to continue with input in mentoring / support of contractors.	Mentoring input has been reduced to reasonable level in order that progress on ES3R road survey and design component is not compromised.
SI's have been deployed on site, thus more senior field team input will be available for survey, design and documentation.	FTL's will assess the mentoring position on site now that SI's are in the field so that QAC requirements are achieved.
Ebola outbreak in Liberia, particularly in Lofa County but also reported in the two other counties where ES3R staff are engaged.	Circulation of regular updates and recommendations of health agencies and firms. Ensure personal hygiene at all times and act on firm instructions of official authority.
There was an incident including attempted robbery on the Bitijama Road, Lofa in late May, in daylight, when one of the contractor's foremen was ambushed on his motorcycle, attacked at knifepoint and injured as a result. Another traveler (by chance) came to his assistance at the time.	The incident was reported to Lofa Police and also to International SOS (ISOS) who have subsequently provided security advice which is to be made available as appropriate to all relevant parties.
International SOS (ISOS) suggest that motorcycles are not used which in this case is impractical, thus liaise with contractor to arrive at workable travel arrangements.	Travelling in tandem with the contractor may be a workable alternative; however, this may well have an impact on progress of other works – design.

<p>There has been very little fuel (if any) available in Voinjama during the reporting month which has a negative impact on logistics and travel plans etc.</p>	<p>Despite contingency measures being in hand, i.e. fuel cards, fuel barrels; this has necessitated specific journeys to Bong (from Lofa) in an effort to secure fuel, thus losing essential time on the project objectives by loss of vehicle.</p>
<p>On the basis of delays to our schedule which were largely out of ES3R control, the detailed road surveys are now going to begin in the rainy season, thus access to many roads is likely to be hazardous, restricted and/or time consuming.</p>	<p>The target road survey, design and documentation of 150 km in the first year of the project may be possible but is dependent on external factors and should be considered optimistic at this stage.</p>

## 5. OUTLINE SCHEDULE

### 5.1 Staff Availability

Each of the field teams is presently comprised of a FTL, RE, SI and driver, the SI's having been mobilized to site on or around Monday 12 May 2014. Thus, the nucleus of the ES3R field teams is now complete. It is expected that the teams will be joined by trainees from selected A & E firms which were confirmed during the latter part of the reporting month.

### 5.2 Work Schedule for June 2014

The work schedule for field staff during June 2014 will follow the general guidelines of the 'Construction Overview Schedule' and the 'Field Design Schedule', both of which were first issued in the Year 1, Quarter 2 Report and which are included in Annex B of this report for ease of reference. A delay in the design schedule of approximately two weeks is evident as a result of a reschedule of the presentation of the road prioritization tool to stakeholders, owing to the non-availability of the full presentation team on the original date.

As stated in Section 2.2.6 of this report, the Multiple Criteria Analysis Tool was presented to key stakeholders on 27 May 2014. As a result of this, there will be much focus in the first half of June 2014 on the workshops at the Counties, during which the MCA matrix will be populated, which will give rise to the rank values and thus, prioritization of F2M road links in each of the counties. On finalization of the four counties prioritization lists, an overall assessment of the F2M road links will be undertaken which will result in the final selection of road links to be further surveyed and designed under the ES3R project. As of the time of writing, the following meetings had been scheduled, inclusive of the May site progress meetings:

<b>Item /Location</b>	<b>Prioritization Workshop</b>	<b>Site Meeting</b>
<b>Bong</b>	Wednesday 4 June	Thursday 5 June
<b>Nimba</b>	Wednesday 11 June	Friday 6 June
<b>Lofa</b>	Monday 9 June	Tuesday 10 June
<b>Grand Bassa</b>	TBA	N/A

A wrap up team coordination meeting is also scheduled to take place in Bong on 12 and 13 June 2014.

### **Objective 1 – Construction Oversight**

The items which will be actioned / progressed during June 2014 will be as follows:

- Quality assurance inspection of physical works,
  - Culverts
  - Inlets/Outlets
  - Embankment
  - Grading and shaping
  - Gravelling
  - Maintenance of deviations
- Review of monthly ESMMP monitoring,
- Measurement of work done,
- Facilitation of monthly progress meeting,
- Weekly and monthly reporting.

### **Objective 2 – Design and Contract Documents**

The items which will be actioned / progressed during June 2014 will be as follows:

- Liaison with key stakeholders in counties,
- Visit all key county stakeholders,
- Preparations for prioritization workshops,

- Finalize data for presentation at workshops,
- Preliminary cost estimates,
- Conduct County Prioritization Workshops,
- Finalize F2M road links selected for design,
- Commence detailed road surveys,
- Detailed design interventions,
- Meet county officials to advise of outcome of workshops.

The following 'Field Design Schedule' is indicative of the timing of input which is anticipated during June 2014:

FIELD DESIGN SCHEDULE - JUNE 2014					
Item	Description	June (week ending)			
		6	13	20	27
1	Organise county workshops	xxxxxxxxxxxxxx	xxxxxxx		
2	Finalize Prioritization Tool	xxx			
3	County workshops	B	L N	GB	
4	Review workshop outputs		xxxxxxxxxxxxxx	xxxxxxxxxxxxxx	
5	Finalize road design selection			xxxxxxx	
6	Detailed road surveys		xxxxxxxxxxx	xxxxxxxxxxxxxx	xxxxxxxxxxxxxx
7	Detailed design Interventions			xxxxxxxxxxxxxx	xxxxxxxxxxxxxx
Key: B - Bong; L - Lofa; N - Nimba; GB - Grand Bassa.					

It should be noted that the timing of input for the teams on items 6 and 7 will be dependent on the output of the workshops. It is clearly expected that the teams will commence detailed road surveys in the order in which the workshops have been scheduled, although it may be possible to commence work on high ranking roads prior to the timing of final selection.

### **Objective 3 – Training (of A & E Firms) & Mentoring**

ES3R has submitted a revised Pre-Qualification Report which includes proposals for the following training components:

- Institutional Capacity Development Program,
- Technical Training and Mentoring Program.

ES3R will be in a position to proceed with the arrangements for these programs on notification from USAID / Liberia.

The mentoring contractors in June 2014, will include the following:

- Application of construction best practices,
- HSE monitoring processes.

The mentoring of RE staff will include the following:

- Organize (and conduct) prioritization workshop,
- Intervention selection to achieve the best standard results at minimum cost,
- Detailed survey and design,
- Construction supervision,
- Using automatic level,
- Customized format for minutes,
- Preparation of payment certificates.

The mentoring of SI staff will include the following:

- Construction overview practice,
- Intervention selection ditto,
- Calculate preliminary cost estimates,
- Using automatic level,
- Customized format for minutes,
- Working with contractor on measurement items.

# **ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION (ES3R)**

## **ANNEX A**

### **PROJECT PHOTOGRAPHS**



Lofa - Ministry of Agriculture



Lofa - Ministry of Education



Lofa - Ministry of Public Works



Grand Bassa – Discussions on Road Prioritization



Grand Bassa – Preliminary Survey of Track



Grand Bassa – Preliminary Survey of track curtailed



Grand Bassa – Log Bridge



Grand Bassa – Log Bridge



Grand Bassa – Culvert inundation



Grand Bassa – Bridge 'on float'



Grand Bassa – 'Community' Bridge in progress



Grand Bassa – Log Bridge

**ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION (ES3R)**

**ANNEX B**

**WORK SCHEDULES**

**YEAR 1, QUARTER 3 (April – June 2014)**

YEAR 1, QUARTER 3		CONSTRUCTION OVERSIGHT SCHEDULE		
Activity	Sub activity	Apr-14	May-14	Jun-14
Construction Oversight				
	Support with Inception Report	█	█	
	Inception Report review			
	Support with Incremental design	█	█	
	Incremental design review			
	Mentoring contractor	█	█	
	Measurement of work done			
	Interim Certificate review			
	Monthly site meetings			
	Monthly progress reports			
	Quarterly report			

