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**ENGINEERING SERVICES FOR RURAL ROADS  
REHABILITATION (ES3R)  
CONTRACT NO: EDH-I-00-08-00023  
MONTHLY PROGRESS REPORT – NOVEMBER 2013**

9 December 2013

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

**MONTHLY PROGRESS REPORT  
NOVEMBER 2013**

**Prepared for: USAID/Liberia**

Prepared by: Howard M Shelmerdine

9 December 2013

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)

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Ref: ES3R/USAID/13005

9 December 2013

Office of Economic Growth  
US Agency for International Development  
US Embassy  
502 Benson Street  
Monrovia

For the attention of Mr David Wounuah

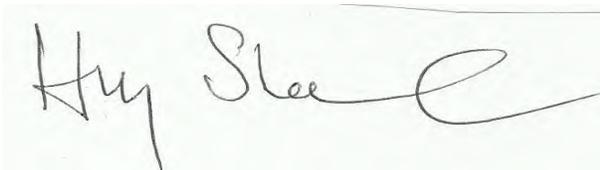
Dear Mr Wounuah,

**Engineering Services for Rural Roads Rehabilitation (ES3R)**  
**Contract no: EDH-I-00-08-0023/AID-669-TO-13-00002**  
**Monthly Progress Report – November 2013**

In accordance with the requirements of Section F.4 of our abovementioned contract,  
we have pleasure to submit our Monthly Progress Report – November 2013 for ES3R.

We look forward to your review and welcome any comments and/or suggestions.

Sincerely,

A handwritten signature in black ink on a light green background. The signature is cursive and appears to read "Howard M Shelmerdine".

Howard M Shelmerdine  
Chief of Party, CDM International,  
USAID/Liberia, ES3R.

# ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION (ES3R)

## MONTHLY PROGRESS REPORT NOVEMBER 2013

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## Acronyms

COP	Chief of Party
CSF	Critical Success Factor
ES3R	Engineering Services for Rural Roads Rehabilitation
FED	Food and Enterprise Development
FTF	Feed the Future
F2M	Farm to Market
F2MRR	Farm to Market Road Rehabilitation
GOL	Government of Liberia
LESSP	Liberia Energy Sector Support Project
LMWP	Liberia Municipal Water Project
MOF	Ministry of Finance
MPW	Ministry of Public Works
PAT	Priorities, Activities, Tasks
PQM	Project Quality Management
USAID	United States Agency for International Development

# 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 is the first monthly progress report to be presented in respect of the project, in view of which, the material presented deals primarily with mobilization events and items. In addition, the report details the status and approach to outstanding items and presents an outline work schedule for December 2013.

## 2. PROJECT MOBILISATION

### 2.1 Advance Mobilization

A CDM advance-mobilization team was initiated for arrival in Monrovia, a few days prior to the scheduled arrival of the Chief of Party (COP).

These permanent staff members of CDM were as follows:

John Gavin, Senior Project Manager, arrived Monrovia on 5 November 2013  
Shannon Dotson, Client Services Strategist arrived on 6 November 2013

Thus initial contact was made for enquiries on the following:

- Business registration
- Office premises
- Office facilities, power back up, furniture etc.
- Project vehicles
- IT hardware & software
- Banking matters
- Office staffing

The COP, Howard M Shelmerdine, arrived in Monrovia on 9 December 2013 to join the advance team members in mobilization activities. Jim Clarke, the road design team leader arrived in Monrovia on 23 November 2013.

### 2.2 Project Quality Management Meeting and Workshop

One of the key items in the CDM mobilization process is the Project Quality Management (PQM) meeting and workshop which was scheduled to be held on 14 November 2013 commencing at 08:30 hours at the Mamba Point Hotel.



This was followed by a workshop, which through collaborative effort a shared understanding was reached of the Critical Success Factors (CSF's) and the importance of each in fulfilling the mission of the project.

Critical success factors were those items identified which are considered key to project success. These include the following:

1. Adhering to project schedule while maintaining reasonable expectations,
2. Identify challenges and customize capacity building for local A&E firms,
3. Maintain focus on project objectives and avoid distractions and outside influences,
4. Bring in/hire appropriate and proactive personnel,
5. Establish and maintain teamwork and communication at every key level,
6. Develop consensus on design criteria,
7. Provide quality [products/services] that exceed expectations.

Thereafter, activities and tasks to be undertaken in the course of the project were identified and connection points between those tasks and CSF's were determined as well as 'complexity' rankings. Utilising the information and inputs as described which were developed at the workshop, a priority matrix was formulated. This exercise resulted in the identification of five Process, Activities and Tasks (PAT's) which will require the most focus, which are as follows:

C. Assessment of A&E firms/identification of their needs,

E. Mobilization of key/project staff,

N. Provide ongoing site technical assistance,

Q. Prepare bid documents,

J. Conduct Design Studies

The CSF's / PAT's table together with the PAT's Matrix are included in Annex A of this report.

### **2.3 Meetings with other USAID Contractors**

Meetings were held with Chief of Party of other USAID projects as follows:

- DAI, contractor for Food and Enterprise Development Program (FED)
- Winrock, contractor for Liberia Energy Sector Support Program (LESSP)
- Tetra Tech, contractor for Liberia Municipal Water Project (LMWP)

The first of these above meetings with DAI was of particular note in that ES3R is directly allied to the FED project since the F2M roads are located to provide service access to FED demonstration sites and areas. During the meeting, small scale mapping was provided showing locations of FED developments and associated F2M roads.

The first weekly meeting was held with USAID on 25 November 2013, the summary notes of which are included in Annex B of this report. During this meeting, a memorandum regarding discussions which took place at the PQM meeting, which was subsequently updated as a result of USAID comments, was issued. A copy of this memorandum entitled 'Design Elements' is included as Annex C of this document.

On 26 November our key staff attended a USAID pre bid meeting which was called for the guidance of tenderers who intended to bid on the three F2M road construction tenders.

## **2.4 General**

The resident key staff members have been well involved in the fine tuning of the project team structure in consideration that a two team (field and Monrovia based) scenario would not best achieve the project objectives. Thus a three team field based structure, the ratification of which is key to progress on the project, has been under preparation which will be put forward for observations in early December.

## **2.5 Staffing**

Advertisements have been placed for both office and F & A manager positions which have generated vast response. Interviews have been carried out for the former post for which an offer should be made soon.

### 3. OUTSTANDING ITEMS

The following is a list of outstanding items, status of each with pending actions and area of responsibility.

Item	Outstanding Issue	Status	Action Required	Responsible
1.	CDM registration in Liberia	Application docs In preparation	Signed docs to Liberia for submittal to authorities	CDM
2.	Waiver for vehicle purchase order to be placed	Waiver applied on 21 November 2013	Waiver to be issued	USAID
3.	Tax related issues	Request to USAID on 22 November 2013	Letter to be issued for project	USAID MOF
4.	New office establishment	Refurbishment in progress	Completion of improvements	Owner CDM
5.	Office fit out and security	PO's placed generally	Signature of Lease	Owner CDM
6.	Appointment of Office Manager	Response to advertisement evaluated	Interview of candidates underway	CDM
7.	Appointment of F&A Manager	Response to advertisements in progress	Interviews pending	CDM
8.	Recruit RE staff	Advertisement to be placed	Advertisement in progress	CDM
9.	Recruit Design and supervisory TCN staff	Contact proposed staff members	Interviews pending	Cardno
10.	EOI for A & E Firms	Advertisement to be placed	Advertisement in progress	CDM TRG
11.	Staff Travel Request	TRG staff visit to Liberia	Letter to USAID	CDM

12.	Development of road selection prioritization tool	Initiated and in progress	Finalize prioritization tool	Team
13.	Fine tune team structure	Initiated and in progress	Finalize and issue for observation	Team

The abovementioned items are all scheduled for action and substantial completion, if not final, on or before the end of December 2013. Specific dates for action and/or completion have not been included due to the fact that the duration of most of the items cannot be predicted with a comfortable degree of accuracy.

## 4. OUTLINE SCHEDULE

We include in Annex D, an Outline Schedule of project input which will be carried out during December 2013 for the balance of the month.

This is in effect, the initial portion of the Work Plan which will be issued in full for the coming year in the Inception Report, which is scheduled as a deliverable on 21 December 2013.

The outline schedule effectively addresses input for outstanding items which are included in section 3 herein and in terms of general activities, headings include the following:

- CDM registration
- Office HQ (Monrovia)
- Transport
- Offices – regional (counties)
- Recruit national staff
- Mobilize TCN's
- Formulate tool for road prioritization
- Capacity development of A & E entities

On comparison of the abovementioned list with the PAT matrix, it is apparent that a number of the activities are closely related to CSF's which are in Zone 1 of the chart. These are items considered to be the most complicated or difficult which will demand most focus from the project team presently on the following:

- C     Assessment of A & E firms,
- E     Mobilization of key/project staff,
- F     Provide ongoing site technical assistance.

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

**ANNEX A**

**PROJECT QUALITY MANAGEMENT**

**MEETING AND WORKSHOP**

**Critical Success Factors (CSF's)**

**And**

**Priorities, Activities, Tasks (PAT's)**

ES3R Project Startup/PQM Workshop										
Critical Success Factors/Project Activities & Task Matrix										
Project Activities & Tasks	Owner/Responsible	Critical Success Factors							Count	Rating
		1 Adhering to project schedule while meeting reasonable expectations	2 Identify challenges and customize capacity building for local A&E firms (service providers)	3 Maintain Focus on project objectives and avoid distractions/ outside influences	4 Bring in/fine appropriate and proactive personnel	5 Establish and maintain teamwork and communication at every key level.	6 Develop consensus on design criteria	7 Provide quality (products/services) that exceed expectations		
A Determine target roads	All	1	0	1	0	1	0	0	3	C
B Develop criteria for selection of A&E firms (service providers)	TRG	1	1	1	1	1	0	0	5	B
C Assessment of A&E firms/identification of their needs	TRG	1	1	1	1	1	0	1	6	D
D Select A&E firms (service providers)	All	1	1	1	1	1	0	0	5	B
E Mobilization of key/project staff	COP/RDE	1	1	0	1	0	0	1	4	D
F Administrative setup of project	COP	1	0	0	1	0	0	1	3	A
G Hire of qualified personnel	COP/RDE	1	0	1	1	0	0	1	4	C
H Award to construction contractors	USAID	1	0	1	0	1	0	0	3	C
I Prioritize target roads (after selection)	COP/RDE	1	0	1	0	1	1	0	4	B
J Conduct design studies	RDE	1	0	1	1	1	1	1	6	C
K Conduct contractor performance reporting	RE/CM	1	0	1	1	1	0	1	5	A
L Review contractor resourcing	RE/CM	1	0	1	1	1	0	1	5	B
M Conduct monthly site visits/meetings	COP/RDE	1	0	1	0	0	0	1	3	B
N Provide ongoing site technical assistance	RE/CM	1	0	1	0	1	0	1	4	D
O Coordinate with stakeholders	COP/RDE	1	1	1	0	1	0	0	4	C
P Identify key stakeholder representatives	USAID	1	1	1	0	1	0	0	4	A
Q Prepare bid documents	Team	1	1	1	1	1	1	1	7	C

Established at PQM on 19Aug2013

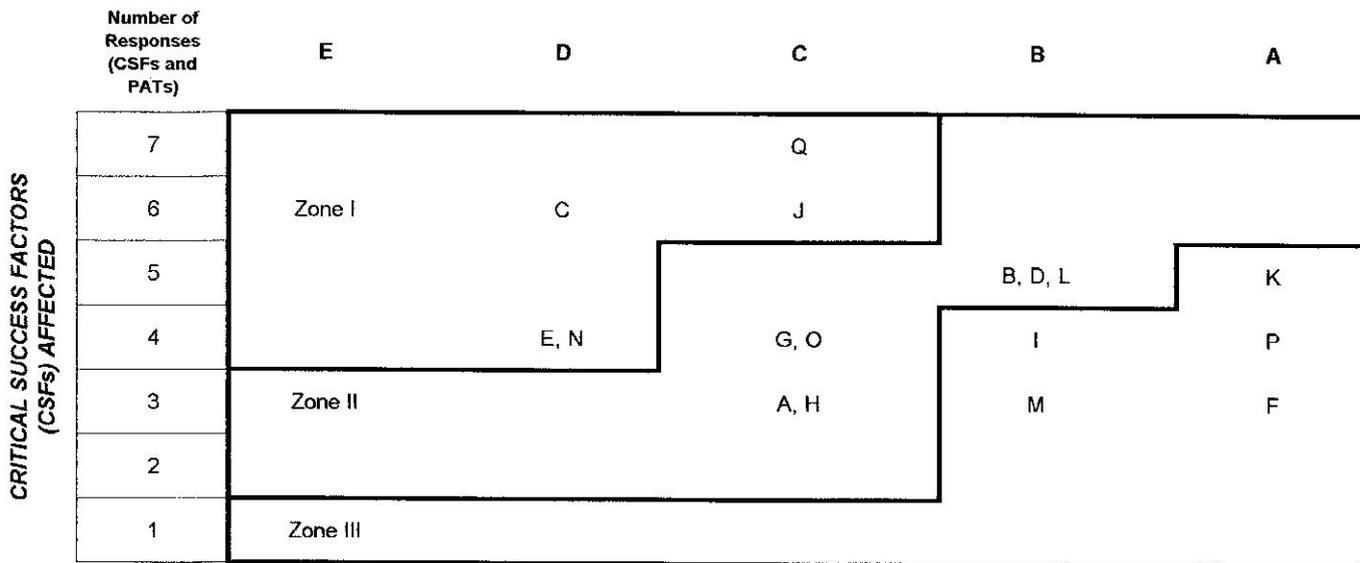
**PAT Counts:**  
For each PAT in the matrix, count the number of X's or dots ("1" was used) in the boxes, and place the total in the "COUNT" column. This gives an indication of how important an individual PAT is to the success of the project. A "high" PAT count means that this particular PAT has the potential to impact multiple CSFs and deserves careful attention.

**USAID/Liberia  
Engineering Services for  
Rural Roads Reconstruction (ES3R)  
PAT MATRIX**

*Risk (How well do we do it? / Influenced by outside forces.)*

Least understood  
Highest ←

→ Lowest  
Most understood



PAT count  
 Zone I (most critical) - 5  
 Zone II (moderately critical) - 7  
 Zone III (least critical) - 5

**Analyse Activities Needing Most Attention:**

The activities affecting the greatest number of CSF's and/or having the highest 'complexity' rating require the most attention to maximize project success. This is the essence of managing project quality effectively and is at the core of the PQM process. These activities are depicted as data points on a Priority Matrix (a graph of the count and rating for each activity); the letter is the matrix corresponds to a PAT (see PAT or CFS-PAT table).

The chart was divided into three sectors or zones.

**Zone I** is generally focused on the top left portion with activities that impact most CSFs - most complicated or difficult or highest risk (i.e. need the most attention). **Zone III** is

**Summary of Analysis**

The PQM identified that the top five PATs (Zone I) that at this time are critical to the success of the ES3R Project and that the project team needs a higher focus are:

- 1) C. Assessment of A&E firms/identification of their needs
- 2) E. Mobilization of key/project staff
- 3) N. Provide ongoing site technical assistance
- 4) Q. Prepare bid documents
- 5) J. Conduct design studies

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

**ANNEX B**

**WEEKLY MEETING 25 November 2013**

**SUMMARY NOTES**

# ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION (ES3R)

WEEKLY MEETING MONDAY 25 NOVEMBER 2013

## Summary Notes on Meeting

Present:	Sonja Stroud-Gooden	USAID CO
	David Wounuah	USAID COR
	Howard Shelmerdine	Contractor COP
	Jim Clarke	Contractor RDE

### Mobilization:

The Contractor reported the following mobilization items:

- Office in Sinkor, Monrovia has been identified which is presently being redecorated and improved.
- Application has been made to USAID for waiver for purchase of project vehicles, which will be reviewed by COR and a recommendation made to CO. It was noted that there is a shortfall in budget for the vehicle costs and the line item from which the shortfall is to be taken should be identified.
- Backup generator power for the office has been secured by Purchase Order.
- Furniture for the office has been secured by Purchase Order.
- IT hardware and software requirements have been decided and are under discussion internally at present.
- Office manager post has been advertised and interview taken place.
- F & A post likewise advertised.
- Part time secretary for assistance with report preparation has been identified.
- Tax exemption issues have been followed up with USAID as suggested.
- Personal issues (accommodation and banking etc.) are being followed up.
- Business registration is well in progress with the services of a local lawyer firm. It is likely that the application will be made in early December.

- Contractor staff are facing Liberia visa related issues for which USAID will make enquiry from internal department.

### **Construction Overview:**

Information on physical F2M road locations was requested.

F2M roads within Bong and Lofa are included on GIS base which is not available for Nimba.

Liberia Monitoring and Evaluation project has GIS information.

DIA has GIS for numerous sites.

Existing solicitation documents are on the basis of Design and Build in consequence of the rapid information improvement plan which was required to be undertaken.

The Contractor is required to be the QAC on the contracts to be awarded, to be responsible for A & E training and also to provide a mentor role for the construction contractors. This is a diverse situation.

The Contractor was invited to attend a pre bid meeting (presentation) on the preparation of bids on Tuesday 26 November 2013.

### **Design:**

A listing of target roads is available however, there may well be some inaccuracies in the road lengths and the list does not necessarily reflect current priority.

Maps and information will be available for current works.

Selection may be done by multi criteria analysis.

A meeting will be scheduled by USAID to decide on selection and prioritization.

Future design documentation will follow the traditional format.

A handout of Design Elements has been updated following discussion with USAID.

Team Structure for the project was discussed whereby the pros and cons of geographically based team will be assessed against the functional approach envisaged.

**Training:**

It has been recommended that the Contractor advertise the requirement for the training of A & E firms, indicating the basic criteria for assessment and possible future inclusion in a prequalified list to be prepared.

Training is required both in design/documentation and construction overview. A & E firms may not be in a position to fund the training in the field. The parties will revisit the budget to assess the contract provisions.

USAID advised that MPW are hiring independent consultants and it is considered that A & E firms with road sector capability will develop accordingly.

It is felt that space is available at County offices for field based staff. MPW have indicated that space is available for design meetings/workshops.

**Stakeholders:**

Stakeholders in the project include the following:

USAID, MPW, MOA, Fed (DAI), County Authorities.

WB, ADB, SIDA, GIZ, ILO.

**Next Meeting: Monday 2 December at USAID Offices**

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

**ANNEX C**

**SURVEY AND DESIGN**

**DESIGN ELEMENTS**

# ENGINEERING SERVICES FOR RURAL ROADS REHABILITATION (ES3R)

## DISCUSSION OF DESIGN ELEMENTS

### 1. Introduction

A Project Quality Management meeting was held between USAID and CDM International (CDM) on Thursday 14 November 2013, during which various aspects of design elements to be undertaken were discussed. The purpose of this memorandum is to confirm our understanding of the salient discussions and describe the agreed upon design process to be implemented for ES3R.

### 2. Design Elements

It was considered that the following design elements required elaboration in order to have a mutual understanding of the scope to be undertaken and agreement reached on the said items hereafter:

➤ **Final Selection of Target Roads**

This will be done in discussion and liaison with USAID, Ministry of Public Works, stakeholders and other interested parties in cognizance of current needs. This stage will also include coordination with other agencies which are undertaking road implementation in the target counties.

➤ **Road Identification Surveys**

The target road list developed will be subjected to video survey, visual inspection and data collection by chainage log (left and right), which will record all natural and physical features along the road or track to be upgraded. This stage will include collection of traffic data, potential connections to nearby social services or villages within the influence zone of the road and road user charges.

➤ **Determine Constraints on Existing Roads / Tracks**

As a result of the road identification surveys, constraints requiring design attention will be determined and may include the following:

1. Existing junctions
2. Road surface conditions – gravel/no gravel
3. Plot / boundary encountered
4. Existing physical infrastructure encountered
5. Side drain – drain or no drain including conditions
6. Existing drainage structure – conditions
7. Erosion gullies – side and/or crossing road
8. Flood susceptibility
9. Unsuitable materials occurrence
10. Rock outcrops
11. Potential borrow sites – suitable fill and gravel materials

➤ **Undertake Topographic Survey as Required**

In the event of the occurrence of (say) 3 or 4 above, topographic survey will be undertaken at the specific location which will form the basis of a horizontal realignment, if needed, of the affected portion of the route. Similarly, when drainage constraints are encountered, limited topographic survey may be undertaken of the affected locations. Isolated survey of these locations will provide data such that vertical alignment control may be designed in the case of culverts, ford or minor bridge, embankment fill etc. In addition, identification of locations for new drainage structures will be undertaken, particularly relief culverts.

➤ **Identify Potential Borrow Areas**

During on-site data collection, areas of potential fill and/or gravel materials will be identified by visual survey and hand excavated trial holes. Such information will be included within tender documents and it will be the responsibility of the contractor to bulk sample the potential borrow area and prove the acceptability of the materials for incorporation in the Works.

In addition it was felt that the design approach will utilize a collaborative review process which will facilitate ease of feedback and/or review as required.

Subsequent to the meeting, where an external review is required, it is expected that such review period would not exceed two weeks.

Original by CDM 18 Nov. 2013, revised in consultation with COR on 22 Nov. 2013.

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

**ANNEX D**

**OUTLINE SCHEDULE**

**DECEMBER 2013**

# Outline Schedule December 2013

		December																														
Activity	Key Stakeholders	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	
<b>1 CDM registration</b>																																
Preparation of application	CDM																															
Submission	CDM																															
Registration	MOF																															
<b>2 Office HQ</b>																																
refurbishment	Landlord																															
infrastructurre	CDM																															
Occupy	CDM																															
<b>3 Transport</b>																																
waiver	USAID																															
procure	CDM																															
register	CDM																															
recruit drivers	CDM																															
<b>4 Offices - regional</b>																																
agree	MPW																															
occupy	Team																															
<b>5 Recruit National staff</b>																																
Ratify staff advert	USAID/MPW																															
Advertise	CDM																															
interview	COP/RDE																															
conclude	COP/RDE																															
engage	COP/RDE																															
orientate	RDE																															
<b>6 Mobilise TCN</b>																																
formal request for no objection to fine tune of structure	CDM																															
Approve fine tuned structure	USAID																															
Contact Candidates	CDM																															
conclude	COP/RDE																															
mobilise	CDM																															
<b>7 Formulate tool for road prioritization</b>																																
present tool	RDE																															
refine tool and intergrate with USAID's CBA	RDE/COR																															
conclude on tool	Team																															
<b>8 Capacity development of A &amp; E entities</b>																																
Capacity Assessment Tool	TRG																															
Advertisement for EOI	CDM/TRG																															
Assess responses	Team																															
Select entities	Team																															