



Promoting Accountability of Public Resources

## AUDITOR GENERAL'S PERFORMANCE AUDIT REPORT



### On Road Maintenance and Rehabilitation in Liberia

Final Report



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| <b>Definition of Key Terminologies</b> |  |
|--|--|
| Construction                           | The process by which a road is built in accordance with an established design standards and work method.   |
| Rehabilitation                         | Activities which restore a road's geometric characteristics to the original recommended standard.  |
| Maintenance                            | The work required to keep the road, structures and property within the road margins as near as possible its constructed or rehabilitated condition.  |
| Paved Roads                            | Paved roads are those, which have a homogenous strength carriageway surface, which consists of bitumen, concrete or other pavement materials such as stones and bricks.                    |
| Feeder Roads                           | Lowest level of roads in the network hierarchy with the function of linking traffic to and from rural areas; either directly to adjacent urban centers, or to the collective road network. |
| Gravel Roads                           | Gravel roads have a gravel layer as a surfacing material.  |
| Upgrading                              | is the process by which the standard of an existing road is improved to ensure safe use by a greater volume of traffic than originally designed  |
| Horizontal alignment                   | Arrangement of a road on the plan view showing the series of straight lines connected by curves.   |
| Carriageway                            | Paved or unpaved width of the road; excluding the shoulders, normally used by traffic.   |
| Live Load                              | Amount achieved in a certain time (period).  |
| Outturn                                | A statement made in the form prescribed by Customs, by which the persons interested indicate the Customs   |



| <b>Acronyms</b> |  |
|-----------------|--|
| GAC             | General Auditing Commission                            |
| NRF             | National Road Fund                                     |
| MPW             | Ministry of Public Works                               |
| SSF             | Sam Shawki Fawaz                                       |
| CICO            | China Chongqing International Construction Corporation |
| PPCC            | Public procurement and Concession Commission           |
| GOL             | Government of Liberia                                  |
| RE              | Resident Engineer                                      |
| MDMC            | Modern Development & Maintenance Corporation           |
| IIU             | Infrastructure Implementation Unit                     |
| CHICO           | China Henan International Corporation                  |
| LRA             | Liberia Revenue Authority                              |
| MFDP            | Ministry of Finance and Development Planning           |



## **Transmitter Letter**

### **The Honorable Speaker of the House of Representatives and Honorable President Pro-Tempore of the House of Senate**

We have undertaken a Performance audit on road maintenance and rehabilitation for the fiscal years 2016 to 2020. This audit was conducted in line with the Auditor General's statutory mandate as enshrined under Section 2.1.3 of the GAC Act of 2014.

The audit was conducted in line with the International Organization of Supreme Audit Institutions (INTOSAI) auditing standards and guidelines as enshrined in the Performance Audit Manual. The Act that created the Ministry of Public Works (MPW) and guideline, were also used as a baseline for the evaluation of the performance of the MPW Technical Department.

As indicated in the methodology segment of this report, all findings conveyed in the report were formally communicated to the Management of the Ministry of Public Works for their responses. Where responses were provided, they were evaluated and incorporated in this report. We are therefore thankful to the auditee (MPW) for assisting the audit team in completing the audit.

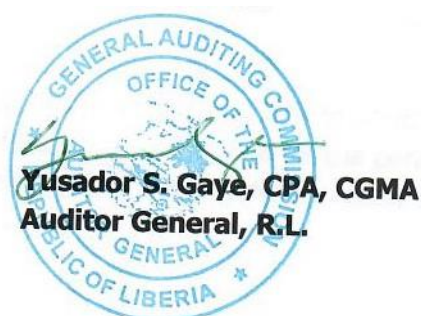
We ask that you pay particular attention to the following matters that if implemented, road maintenance and rehabilitation will significantly improve and reduce the high cost of transportation during every rainy seasons.

- The government should group the counties into four regions and each region should have a fleet of equipment for both laterite and asphalt; the regions could be established by priority area (southeast where six months out of the year there is shut down because of the road condition). Initially the cost to purchase four different fleet of equipment will be high; however, over five or ten years the cost will be negligible when compared to current costs for roads maintenance.
- The Preventative maintenance method should at all times be put into placed to maintain the laterite roads by ensuring that the network of roads are maintained per plan/schedule, throughout the year; and, taking into consideration, the topography and environment.
- Engineers that are employed currently with the Ministry Public Works should be utilized by running the maintenance at the regional maintenance centers.
- The Ministry of Public Works fully supports the resident engineers assigned to counties by providing logistics, vehicles, etc. in order for them to carry out their functions in keeping with their Term of reference (TOR).
- The projects and resident engineers should at all times be given a copy of the contract documents for any roadwork that is within their jurisdiction to enhance their monitoring or supervisory roles. They should report monthly and recommendations should be implemented as the work proceeds.



- The government of Liberia should remit all funds collected by the Liberia Revenue Authority (LRA) in keeping with the National Road Fund (NRF) Act to the accounts of the Road Fund to enable them carry out the purpose of the fund.
- The government of Liberia through the authority of the NRF should ensure that all applicable revenues are fully implemented in line with the Act.
- The approval of road works by the Inter-Ministerial Steering Committee in the Annual Road Maintenance plan should be in accordance with the projected revenue for a particular period in order to avoid the huge backlog of payments during the fiscal period.
- The Ministry of Public Works and the National Road Fund officials should adhere to the terms and condition in the contract regarding payment.
- Completion of works should be checked by a different team to ensure that completions reported by contractors are in accordance with contract terms for portions of the roads reported complete before certifying the request for payment as indicated in the contract documents.
- The Ministry and The NRF should consider payment to contractor's based on who completed first and level of work that is done by the contractor back by the reports from final inspection and a certificate of completion.

Giving the significant of the matters raised in this report, we urge the Honorable Speaker and the Members of the House of Representatives and Honorable Pro-Tempore and Members of the Liberian Senate to consider the implementation of the recommendations conveyed herein with urgency.



## **EXECUTIVE SUMMARY**

### **Executive Summary**

A good road network has the potential to improve a nation's economy and bring lot of social benefits to her citizenry. In particular, roads are the dominant mode of transportation in Liberia and it is crucial to the growth and development of the country. As such, roads are Liberia's most important public assets and should be maintained adequately. The maintenance of roads has the direct benefit of increasing mobility, reducing vehicle operational cost and transportation fares throughout the country.

The Millennium Challenge Account Liberia (MCA-L) signed on to a project, which aims were to strengthen national road maintenance planning. The project further details that Inadequate road infrastructure significantly hinders economic growth in Liberia. The Roads Project focuses on enhancing institutional capabilities to improve road maintenance, and conducting critical periodic maintenance works on key segments of the primary paved and unpaved road network.<sup>1</sup>

Maintenance of road is intended to prevent premature deterioration and to give it a longer lifespan and save the government from high maintenance costs. Ministry of Public Works and the Liberia National Road Fund are making efforts in the implementation of road maintenance and rehabilitation contracts by connecting feeder roads and county capitals to the city of Monrovia, but they are yet to meet their target as referenced in the Annual Road Maintenance Expenditure Program.

Safe and interconnected roads network that is properly maintained is also the key to ensuring that Liberia achieves the United Nations agenda 2030, especially the Sustainable Development Goal 2 and 9. Goal 2 aims at reducing hunger and poverty by ensuring food security for all. The Government of Liberia, in its bid to achieve SDG goal 2, has adopted a strategy to maintain and rehabilitate existing roads which addresses Goal 9 - build resilient infrastructure, promote sustainable industrialization and foster innovation. Sustained investment in infrastructure and innovation are crucial drivers of economic growth and support farmers to improve agricultural practices through the application of modern technology.

### **Audit objective and scope of the audit**

This audit was commissioned by the Auditor General to determines whether MPW has measures in place that are workable to maintain roads in Liberia and ensures roads are in good motorable conditions at all times.

The audit was conducted under Section 2.1.3 (A) of the GAC act of 2014 which states that, "the Auditor General shall be the auditor of the public accounts and public funds of the Republic of Liberia"; and, sub-section (b) which states that, "the Auditor General shall carry out such audits and inquires as he or she considers necessary of public entities and funds owned or controlled by the Government to enable reporting as required by the Act".

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<sup>1</sup> <https://www.mcc.gov/where-we-work/program/liberia-compact>



## **Key findings**

The audit revealed that although the Ministry of Public Works has applied efforts in making sure that roads are maintained, there are still underlying issues with maintenance and rehabilitation of roads that needs to be addressed as indicated below.

### **Inadequate maintenance of roads (Maintenance of roads does not follow the prescribed schedule)**

We found from the review of the Annual Road Maintenance Expenditure Program and through interviews of stakeholders, that the Ministry of Public Works has limited capacity to carryout maintenance and rehabilitation on the list of roads selected for the period under audit. We also observed that MPW does not have an asphalt maintenance plant in the four regions of the country, that is necessary for carrying out maintenance of asphalt roads.

The absence of such plant poses a challenge to the maintenance of asphalt roads thus resulting in the delay in mitigating deterioration on roads. We also noted during the interview with authorities of the Ministry of Public Works that they lacked the equipment needed to carry out maintenance on roads.

### **Limited supervision of road works (There is limited coordination between MPW and Supervising Site Engineers on the monitoring of road works.**

The audit team noted that there was limited supervision between the resident engineers and the contractors on more than eight (8) different road projects visited in various counties during the audit.

Amongst the key causes for the limited supervision was the lack of vehicles for resident engineers to pay frequent visits to project sites and the failure of the Ministry to provide copies of the contract documents to resident engineers for effective supervision.

Failure of the Ministry of Public Works to provide copies of the contracts and make available vehicles for resident engineers to supervise or monitor the daily activities of contractors according to the work schedule, is limiting supervisory role of the resident engineers and therefore undermining the quality assurance processes. These limitations further give rise to compromises of the quality of works needed to guarantee value for money for the resources spent on the road works.

### **Not all funds collected under NRF Act has been transferred for intended use**

The NRF Annual Financial Statements for 2018-2020, indicated that the Liberia Revenue Authority collected US\$ 48,364,012 for the fiscal years 2018-2020. Of the amount collected, a total of US\$ 28,005,540 was transferred to the escrow account of the National Road Fund and a total amount of US\$ 20,358,572.00 is yet to be transferred for the period.

Generally, the NRF is responsible for payments of contractors; however, with the underfunding by GOL the NRF numerous payment requests from contractors are outstanding who had commenced or completed works. The government could not fully finance what was approved by the inter-ministerial steering committee; instead, withheld funds in the tune of US\$ 13,358,572 and transferred an amount of US\$7 million as direct budget support for the fiscal period 2019/2020. These funds were collected





purposely for road maintenance and rehabilitation. Authorities at the NRF maintained that the payment of contractors remained a challenge.

The total amount paid to contractors by both GoL and NRF for the period of two years is US 31,603,154.32 constituting 35% of the total contract value and 65% is yet to be paid.

### **Delays in making payment to contractors**

In the course of the audit, we noted that there was delay in the payment of contractors during the audit period. From our observation during the field verification, it was established that contractors are leaving sites and transferring equipment to other locations due to lack of money to keep the men on site.

This situation is causing the government and contractors additional cost and time because work done earlier has to be repeated due to the washing away of the surface soil thus creating potholes that sometimes develop in critical sections especially on laterite roads.

### **Conclusion**

The Audit concludes that the Ministry of Public Works has maintenance measures in place to keep roads accessible during all seasons; however, the measures are not working effectively.

The gravel roads maintenance and rehabilitation have been a huge recurrent cost to the government and the work on these roads because of Reactive Road Maintenance measures, especially Nimba and the Southeastern corridors along with Lofa and the western region. Gravel primary roads are still deplorable in the eight counties visited; rural Montserrado County is no exception.

Roads listed in the Annual Road Maintenance Expenditure Plan are not being maintained or rehabilitated according to the plan. Further, maintenance contracts entered for the fiscal period, 2019-2020 under were not implemented. The conditions of those roads are deplorable and some at the critical stage.

The Ministry of Public Works is not empowering resident engineers to fully supervise the maintenance and rehabilitation of roads. Six (6) out of the eight (8) counties visited at the time of the audit, resident engineers were seen without vehicles. Resident Engineers also revealed to the audit team that most of the time they rely on the contractors to take them to sites of ongoing construction in order to ascertain the level of work that is being done or completed and whether it is in keeping with the contract terms and specifications.

The NRF Act has not fully been implemented by GOL. Portion of the revenue collected on fuel levied charges by LRA for maintenance and rehabilitation was not remitted by the GOL to the National Road Fund escrow account as stated in the act and funds are being diverted for budgetary support that not in line with road maintenance. Roads approved for maintenance or rehabilitation are not implemented on grounds that funds are limited.

The contractors are doing all they can to honor their respective contracts and keep various work sites active but the government is challenged in paying for contracts already completed and ongoing in keeping with the agreed payment plan.



## **Recommendations**

### **Inadequate maintenance of roads (Maintenance of roads does not follow the prescribed schedule)**

In order to properly maintain laterite roads in the country, we recommend that the government of Liberia through the MPW, procures fleet of equipment that will be managed by the private entity under the Public Private Partnership arrangement so as to better maintain, supervise and manage the equipment for their longevity.

### **Limited supervision of road works (There is limited coordination between MPW and Supervising site Engineers on the monitoring of road works.**

We recommend that the Ministry of Public Works fully supports the resident engineers assigned to counties by providing logistics in order for them to carry out their functions in keeping with their TOR.

### **Not all funds collected under NRF Act have been transferred for their intended use**

The approval of road funds by the inter-ministerial steering committee in the Annual Road Maintenance program should be in line with the projected revenue for a particular period in order to avoid the huge backlog of payments during the fiscal period.

We recommend that all funds collected by LRA for the purpose of road works be remitted direct to the escrow account of the National Road Fund.

### **Delay in making payment contractors**

We recommend that the Ministry of Public Works and the National Road fund adhere to the terms and conditions in the contract regarding payment to the contractors.

## CHAPTER ONE: INTRODUCTION

### 1.1 Background of the Audit

The movement of people and goods is essential to both the economic growth as well as social development of a country. In Liberia, travel by road is the primary and affordable means of transportation. Good roads are the key because it ensures that Liberia achieves the United Nations agenda 2030 of the Sustainable Development Goal 2 that aims at reducing hunger and poverty by ensuring food security for all. The Liberian Government to achieve SDG goal 2 has adopted a strategy aimed at supporting farmers to improve agricultural practices through the application of modern technology. The maintenance and rehabilitation of existing roads is a strategy that will improve feeder roads and link farms to markets.

- 1.1.1 Greater percentage of Liberia`s population is in the rural areas and is engaged mostly in farming. Road accessibility for rural population is also emphasized in SDG 9.1.1 which outline a goal to develop quality, reliable, sustainable and resilient infrastructure inclusive of equitable access for all by 2030. The government of Liberia hopes to achieve the UN goal 2, by improving roads which facilitate the carting of products from farms to markets. In achieving Goal 2, the government hopes to make food accessible and affordable to all citizens; thereby also improving the economic wellbeing of farmers.
- 1.1.2 The risk to the SDGs strategy is the deplorable nature of the roads across the country, which continues to undermine government`s effort in reducing hunger and ending poverty. A well-maintained road infrastructure enhances the transport sector`s role in the socio-economic development of Liberia as it provides access to markets, jobs, health, education and other social services. The Government of Liberia considers the improvement of road infrastructure as vital and essential to the nation`s medium and long-term socio-economic development as it aims at meeting the Sustainable Development Goals.
- 1.1.3 The Spatial Analysis of Liberia Transport<sup>2</sup> Sector highlights that road system in Liberia is significantly underdeveloped. Liberia has a total area of 111,369 km<sup>3</sup> and a road system with a total length of 11,423 km with less than a quarter classified as all-weather roads. At the time of the audit, the detail length of the roads by categories are: Primary roads 2,846 km, secondary roads 1,960 km and feeder roads 6,616km. Of these, only 565 km (5%) are paved while 10,858km (95%) are unpaved.
- 1.1.4 Primary roads are classified by the Ministry of Public Works as road connection between County Capitals. The road Inventory has identified the following statistics for primary road connection as of December 2019. The Primary roads class has almost 20% paved while 80% is unpaved. About 6% of the Primary road is in good condition, 79% in fair, Poor and Bad condition and only 15% in excellent condition<sup>4</sup>.

<sup>2</sup> 2018 Spatial Analysis of Liberia`s Transport connectivity and potential Growth page 10

<sup>3</sup> <https://www.nationsonline.org/oneworld/liberia.htm>

<sup>4</sup> Spatial Analysis of Liberia Transport Connectivity and potential growth



- 1.1.5 Available information from the Ministry of Public Works and the budgetary allocation to the Department of technical Services show that between 2015 to June 2020 an amount of \$ 93.5million United States dollars was spent on roads maintenance in the country. This amount represents 16%, a significant portion of Liberia's GDP .
- 1.1.6 The Ministry of Public Works through the Department of Technical Services continues to engage in the maintenance of laterites roads every year, yet the conditions of the roads are deplorable and are contributing to high cost of locally grown goods on the market because of the difficulty in transporting products from the farms.
- 1.1.7 Futhermore, the deplorable nature of the roads makes it difficult to transport the sick and sometimes pregnant women who are in labor pains to clinics or hospitals. There are also complaints by drivers about the constant breakdown of vehicles on bad roads and commuters on the roads have had to pay high fares to reach their destinations.

## **1.2 Motivation of the Audit**

- 1.2.1 Former Representative of Grand Kru County Numene T. H. Bartekwa phoned-in message to Frontpage Africa newspaper, which was published on June 16, 2020, alarming hike in prices of basic commodities due to bad road conditions. He further stated that marketers, local and international entrepreneurs experienced difficulties in transporting their goods to the urban parts of the country, thus negatively affecting economic activities in the leeward areas of the country, particularly south-eastern Liberia. Mr. Bartekwa, however, urged the Ministry of Public Works to "play low" on the construction of neighborhood roads, and place more emphasis on the construction of roads in rural Liberia.
- 1.2.2 Further, on June 22, 2020 Frontpage Africa newspaper reported that the plenary of the Liberia Legislature summoned Public Works Minister to provide update on road constructions and rehabilitation. He was summoned on grounds that there have been controversies in which some companies with history of bad performance records have been awarded lucrative asphalt road rehabilitation contracts. The plenary of the Legislature called on the Public Works Minister and his team to rise to the occasion, ensure that construction companies live up to the task, and deliver quality work to the Liberian people. <sup>5</sup>
- 1.2.3 Again, in the August 10, 2020 edition of Daily Observer Newspaper also reported that at least 20 vehicles got stuck in the mud for several days between Gio Town in Grand Bassa County and ITI community in Rivercess County.

## **1.3 Audit Objective**

- 1.3.1 This audit was commissioned by the Auditor General to determine whether MPW has measures put in place to maintain and rehabilitate roads in Liberia that are workable and ensure roads are in good motorable conditions at all times.

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<sup>5</sup> <https://frontpageafricaonline.com/news/rep-solomon-george-blasts-public-work-minister-over-substandard-Jun-22,2020>



**1.3.2 Specific Objective:**

- a. To ascertain as to whether the level of supervision carried out by the ministry during maintenance and rehabilitation works are in line with the contract.
- b. To determine the causes of delay in the payment of contractors
- c. Delay in transfers from Consolidated Account
- d. Limited supervision (Or inadequate supervision)
- e. To assess the scheduling for maintenance and rehabilitation work done on roads
- f. Assess the extent of coordination between MPW and site engineers in the maintenance and rehabilitation of roads.

**1.4 Audit Scope**

The audit is focused on the maintenance and rehabilitation of roads in eight (8) of the fifteen (15) counties in Liberia. The audit covers the period from July 2016 to June 30, 2020 and was carried out from September to December 2020 at the Ministry of Public Works.



## 2 DESIGN OF THE AUDIT

### AUDIT METHODOLOGY

2.1.1 We reviewed documents, conducted interviews and visited selected construction sites to gather data to enable us answer the audit questions and draw conclusions on the findings. The list of documents that were reviewed, individuals interviewed and the reasons are listed on Table 1.1 to 1.5 in appendix 1.

### 2.2 Roles and responsibilities:

2.2.1 Roles and responsibilities of individuals directly under the department of technical services:

#### Deputy Minister for Technical Service

- ✓ Administrative head of the Technical Department
- ✓ Coordinates the administration of the Nation's highway planning, design, construction, and maintenance program
- ✓ Plans and directs the review of highway and bridge construction and maintenance plans, location, contracts, and cost estimates for technical and legal accuracy, and approve acceptable proposals or makes corrective recommendations,
- ✓ Supervises workers in research activities relating to highway planning and engineering and maintenance policies and procedures
- ✓ Supervises and coordinates the work and activities of the Division of Building Construction and Maintenance
- ✓ Directs the review and monitoring of engineering, construction and contract documents, including designed calculations and sketches, construction drawings, specifications, and cost estimates for building construction projects

#### Assistant Minister for Operations

- ✓ Assists the Deputy Minister in engineering, architectural and other technical tasks, providing advice and guidance on technical issues regarding the construction, reconstruction and maintenance of roads and bridges.
- ✓ Performs structural analysis of plans and structures prepared by private engineers,
- ✓ Inspects existing projects and recommends the repair and replacement of defective parts or rebuilding of entire structure;
- ✓ Manages all maintenance projects on Roads & Bridges for the below road classifications: primary, secondary and urban or neighborhood roads



- ✓ Supervises project or site Engineers
- ✓ Supervises project implemented by MPW beyond the scope of engineers on the site
- ✓ Revises and/or prepares assessments and BOQ along with engineers for perusal and approval by the Deputy Minister for Technical Services (DMTS).
- ✓ Supervises all resident Engineers in the counties.
- ✓ Prepares certificate of payment for approval by DMTS for maintenance contract upon verification by site engineer as per contract document and scope of works accomplished.
- ✓ Prepares monthly and annual reports for the bureau of operation.

#### **Director of Feeder Roads**

- ✓ Supervises and coordinates the work and activities of the Division of Feeder Roads
- ✓ Plans, designs, and directs civil engineering projects, such as roads bridges,
- ✓ Ensures the analysis of reports, maps, drawings, blueprints, test and aerial photographs on soil composition, terrain, hydrological characteristics, and other topographical and geological data to plan and design project
- ✓ Directs the calculation of the cost and determines feasibility of project based on analysis of collected data, applying knowledge and techniques of engineering, and advanced mathematics,
- ✓ Directs the preparation and modification of reports, specifications, plans, construction schedules, environmental impact studies, and designs for project
- ✓ Inspects construction sites to monitor progress and ensure conformance to engineering plans, specifications, and construction and safety standards
- ✓ If need be, directs construction and maintenance activities at project site
- ✓ Undertakes any other function as would be directed by the Assistant Minister.

#### **Director of Highways Maintenance**

- ✓ Supervises and coordinates the work and activities of the Division of Highways Maintenance,
- ✓ Coordinates the administration of national highway planning, design, construction, and maintenance programs



- ✓ Plans and directs the review of highway and bridge construction and maintenance plans, location, contracts, and cost estimates for technical and legal accuracy, and approve acceptable proposals or make corrective recommendations
- ✓ Supervises workers in research activities related to highway planning and engineering, and formulates highway engineering and maintenance policies and procedures
- ✓ Plans and supervises the dissemination of highway planning information to the public as the need arises

### **Chief Engineer**

- ✓ Works with engineering staff to make plans, design, and provide approximate cost of roads and building projects,
- ✓ Assigns project engineers to projects,
- ✓ Prepares payment certificate for projects

### **Resident engineer**

- ✓ Technical Duties
- ✓ Plans, designs, and directs civil engineering projects, such as roads, and bridges.
- ✓ Analyzes reports, maps, drawings, blueprints, tests, and aerial photographs on soil composition, terrain, hydrological characteristics, and other topographical and geologic data to plan and design project,
- ✓ Calculates cost and determines feasibility of projects based on analysis of collected data, applying knowledge and techniques of engineering, and advanced mathematics,
- ✓ Prepares or directs the preparation and modification of reports, specifications, plans, construction schedules, environmental impact studies, and designs for project,
- ✓ Carries on Assessments of Horizontal and Vertical Structure, and Roads.
- ✓ Provides approximate Engineer Cost of Projects.
- ✓ Appraises Horizontal and Vertical Structures

### **Supervisory Functions**

- ✓ Supervises and coordinates the Engineering work and activities of the County





- ✓ Inspects construction sites to monitor progress and ensure conformance to engineering plans, specifications, and construction and safety standards,
- ✓ Plans, designs and directs civil works
- ✓ Supervises Construction and Renovation Works in the County
- ✓ Inspects construction sites and or project sites to monitor progress and ensure conformance to specification and plan
- ✓ Assigns Assistant Resident to consultants supervising projects
- ✓ Coordinates Projects to the very end in order to get the best quality for the good of the Country

### **Consultant Legal Unit**

#### Responsibilities:

- ✓ The Legal Consultant responsibilities include, but are not limited to, the following:
- ✓ Draft and review all contracts and agreements entered into between the Ministry of Public Works and third parties;
- ✓ Defends the rights of Ministry of Public Works in contract settlements, negotiations, and litigation;
- ✓ Liaises with the other line ministries, governmental agencies, and the private sector institutions to facilitate timely execution of contracts and the implementation, monitoring, and completion of project;
- ✓ Assists MPW in reviewing contracts funded by the World Bank and AFDB;

### **Comptroller**

- ✓ Participates in the preparation of the Ministry of Public Works annual budget and monitors its implementation

## **2.3 Site visit**

We visited selected counties for the audit, the detail of which is listed in Table 2.6



**TABLE 2.6: Areas visited**

| <b>No</b> | <b>Counties</b> |
|-----------|-----------------|
| 1         | Montserrado     |
| 2         | Nimba           |
| 3         | Grand Gedeh     |
| 4         | River Gee       |
| 5         | Maryland        |
| 6         | Margibi         |
| 7         | Bong            |
| 8         | Grand Bassa     |



## CHAPTER THREE: FINDINGS

### 3.0 Findings

This chapter presents our audit findings based on the audit objective whether the Ministry of Public Works has measures in place to carry out effective road maintenance and rehabilitation. The findings are based on our assessments using our audit methodology, applying reasonable professional judgments to answer our audit questions and analyzing the information gathered. We focused on whether contractors were paid on time, and the roads maintained or rehabilitated are in line with the specification. We also assess whether the measures would ensure that Liberia attains Sustainable Development Goal 2, food security (zero hunger) and Goal 9, support to farmers by the development of road infrastructure.

#### 3.1 Overall

3.1.1 During the audit, we ascertained whether payment to contractors were made on time to avoid delays in completion and whether roads contracted were accessible at all seasons. The audit revealed that though the Ministry of Public Works has applied efforts in making sure that roads are maintained, there are still underlying issues with maintenance and rehabilitation of roads that need to be addressed for the full benefits of government's interventions to be achieved. Our presentations are detailed as shown in the audit findings below.

#### 3.1.2 **Inadequate maintenance of roads (Maintenance of roads does not follow the prescribed schedule)**

3.1.2.1 MPW's road maintenance Manual 1.7.2 requires routine maintenance on roads to be carried out regularly during the year to repair damages caused by traffic or other factors. The purpose of maintenance is to reduce deterioration of roads when they occur, so as to extend their usage.

3.1.2.2 The Ministry of Public Works at the beginning of each fiscal year, carries out road assessment in all the counties through the assigned resident engineers to identify roads for maintenance or rehabilitation.

3.1.2.3 The roads identified are compiled and formulated in a document called "Annual Road Maintenance Expenditure Program". This document becomes the guide for road maintenance work planned to be carried out annually. From the physical inspection of selected roads, we noted that the Ministry of Public Works is not meeting the required target as indicated in its annual road maintenance expenditure program for all types of roads (paved and unpaved) in the country.

3.1.2.4 We noticed from the review of the Annual Road Maintenance Expenditure Program that the Ministry of Public Works has limited capacity to implement the list of roads approved for maintenance during the periods under audit. We also observed that MPW does not have an asphalt maintenance plant in the four regions of the country to carry out maintenance work, where applicable. We noted that the absence of such a plant poses a challenge to



the maintenance of asphalt roads thus resulting in the delay to mitigate the problem on roads.

- 3.1.2.5 We interviewed authorities of MPW, and found that the Ministry of Public Works lacks equipment needed to carry out the maintenance of roads. MPW further revealed that although they have trained engineers as permanent employees of the Ministry, they are not directly involved with works; and therefore, road maintenance contracts are outsourced to foreign and local contractors.
- 3.1.2.6 The Ministry of Public Works reliance on foreign skills and not to fully utilize the skills acquired by engineers locally is a hindrance to local capacity building. We further observed that the Ministry in spending millions of United States Dollars on roads but the conditions of the roads still remain deplorable during rainy seasons.
- 3.1.2.7 From the review of selected maintenance contracts on paved and unpaved roads for the period under audit, MPW has spent millions of dollars on road works, and yet the paved roads continue to deteriorate while unpaved road remain inaccessible for vehicles during the rainy season. Table 3.1: Show the detailed information on contracts reviewed.

**Table 3.1: List of Contracts reviewed by the audit team.**

| Contract Title  | Contract Number   | Cost (US \$)        |
|---|-------------------|---------------------|
| Periodic Maintenance of Laterite roads in Bong county Gayea-Gbanlanta & Kolila-Palala                 | MPW-W-0030-19/20  | 354,866.00          |
| Periodic maintenance of laterite road in Margibi: Kakata-Worhn township, Division 44-Firestone Kakata | MPW-W-0039-19/20  | 680,308.00          |
| Periodic Maintenance of Urban paved road Johnson St. Bridge - St. Paul Bridge                         | MPW-W-0035-19/20  | 1,801,342.53        |
| Periodic Maintenance of Urban Paved road SKD Blvd./Jallah town/Fiamah Montserrado                     | MPW-W-0000-20/21  | 641,330.00          |
| Periodic Maintenance of Urban Roads Oldest Congo town to Montserrado Co.                              | MPW-W-0043-19/20  | 357,840.62          |
| Periodic maintenance of Urban Paved Road Central Business Montserrado                                 | MPW-W-0044-19/20  | 653,880.00          |
| Periodic Maintenance of laterite roads in Lofa county Vahun-Kolahun & Kpomai-Zolowlo                  | MPW-W-0041-19/20  | 698,157.60          |
| Periodic Maintenance of laterite road in Bomi; Gbanbah Town - Weamoi & Bojay town -Jenneh town        | MPW-W-0046-19/20  | 171,283.82          |
| Periodic maintenance of urban paved road Bushrod Island to Montserrado                                | MPW-W-0045-19/20  | 543,000.00          |
| Periodic maintenance of primary laterite roads Nimba; Zekenpa-Tappita                                 | MPW-W--0048-19/20 | 666,860.25          |
| <b>TOTAL</b>  |                   | <b>6,568,868.82</b> |

- 3.1.2.8 The Ministry is charged with the responsibility of carrying out periodic, routine and emergency maintenance but from the reviewed of documents, the audit team noted that there is no evident of routine/preventive maintenance done on roads; rather, it carried out limited periodic and emergency/reactive maintenance works during the period of 2019/2020, especially on laterite roads.



3.1.2.9 We also observed that despite the maintenance works done on the road connecting Grand Bassa and Rivercess counties over the periods, log bridges were used to enable the passage of vehicles as shown in GAC photo1 and 2.

3.1.2.10 The Resident Engineers informed the audit team that log bridges on the road were to be replaced with concrete bridges by the contractor. The contractor, Solid Rock Investment, has been paid in full in the total amount of US\$ 7,206,656 without replacing the log per the term of the contract. The full amount including the defect liability amount was paid in the midst of the unfinished work. Notwithstanding, the Ministry has again awarded the same road contract to another contractor for maintenance.

3.1.2.11 Figure 3.1 to 3.4: Show the condition of roads as at the time of our audit. The audit team took all pictures contained in this report during our inspection between September and December 2020.

**Figure 3.1: Log Bridges on section of the Road between Grand Bassa – Rivercess counties**



**GAC photo 1**

**Figure 3.2: Log Bridge on section of the Road between Grand Bassa –Rivercess Counties**



**GAC photo 2**

Figure 3.3 and 3.4 show the state of the roads and how challenging vehicles find to pass through this road which is now limited to only 4X4 vehicle to travel this route most of the time in the year.

Figure 3.3: Critical section between Grand Bassa and Rivercess Counties

Figure 3.4: Critical section between Grand Gedeh – River Gee counties



**GAC photo 3**



**GAC photo 4**

3.1.2.12 Additionally, the audit team inspected the Caldwell road, Samuel K. Doe Boulevard roads in Montserrado County. We observed that sections of these roads are gradually deteriorating, thus causing difficulty in the movement of vehicles. We noted that for the period under audit, there was no maintenance performed on these roads, thus leaving the existing potholes to widen, thereby causing further damage to the roads.

**TABLE 3.2: Details the portion of the road that needs maintenance**

| Roads                             | Length(Km) | Conditions                 |
|-----------------------------------|------------|----------------------------|
| Caldwell Road                     | 3.8        | Potholes in carriage way   |
|                                   | 3.5        | Potholes in carriage way   |
|                                   | 0.6        | Potholes in carriage way   |
|                                   | 2.0        | Critical section           |
| Boulevard Junction -72nd junction | 3.1        | potholes/ carriage damaged |

3.1.2.13 The condition of roads due to non-adherence to routine maintenance as scheduled by the MPW, has a direct consequence to commodity prices on the markets. The Liberia Market Price Monitor by LISGIS and WFP in 2013<sup>6</sup> indicated that cost of major commodities imported into Liberia by roads have a price disparity due to the poor road network leading from the capital to the inland counties and neighboring countries. Goods to markets are mainly transported to various counties on primary roads, which covered 565km paved and 2,281km is unpaved. The Rural Access Index (RAI) of 2017/18 indicates that there is poor quality of road condition in Liberia despite the fact that 73% of the estimated population lives within 2km distance of the current road network.

3.1.2.14 Specifically, the Liberia Rural Asset Index is estimated at 41.9%, which signifies that 1.6 million of rural Liberians have access to road network, and about 2.3 million does not have access to road network in Liberia<sup>7</sup> considering the condition of the roads. If the RAI is considered in attaining the Sustainable Development Goals 9.1.1, more should be done based on the estimated index of Liberia. Goal 9.1.1. is an indicator and provides a way of measuring progress towards Goal 9 and Target 9.1., and not to be left behind. Liberia RIA needs considerable improvement.

3.1.2.15 The 2010 National Labor Survey of Liberia indicates that agriculture employs 15% resident of urban areas and 72% of residents in the rural areas. Meanwhile rural accessibility is necessary for farmer to bring their produce to the market and inadequate maintenance of roads has made road connectivity poor in areas where agricultural activities are concentrated.

### **Management's (MPW) Response**

3.1.2.16 *The Ministry acknowledges the findings and notes the proffered recommendation(s). However, in providing clarity to:*

3.1.2.17 *Section 3.1.2.4: The Ministry does not own an asphalt plant but there are asphalt plants in the region that can be purchased for supply of asphalt for maintenance purposes. Currently, the paved roads from Coca Cola Factory to Ganta is under a 10-year OPRC maintenance arrangement with asphalt maintenance currently ongoing on the corridor.*

3.1.2.18 *Section 3.1.2.5-3.1.2.6: The ministry may hire foreign and local contractors for the maintenance works but we still need to supervise the works to make sure they are done*

<sup>6</sup> Liberia Market Price Monitor 2013

<sup>7</sup> World Bank, Measuring Rural Access: Update 2017/18, P19



*according to specification. The cashflow on laterite road maintenance is very crucial to the success of the project. When funds are not made available in time the road will rapidly deteriorate during the rainy season. To curtail these challenges. The Ministry is exploring other alternative maintenance methods that can lead to more durable solutions.*

*3.1.2.19 Section 3.1.2.7-3.1.2.9: The projects under consideration commenced in early 2020 and progress and cashflow were affected by the covid pandemic. The laterite roads suffered more wear and tear during this period since no preventive maintenance could be done as planned in the initial project scope of works. The Grand Bassa to Rivercess Route is a part of the coastal corridor which will be realigned once the project begins. It is not economically wise to spend millions of dollars to construct concrete bridges on a road that is not geometrically profiled. Thus the Ministry intends to install culverts were necessary and repair the log bridges to make sure the road is accessible and when the road alignment is finalized concrete bridges will be considered.*

*1.0.1.1 Section 3.1.2.10: The Ministry wishes to have you informed that the contract under consideration was a maintenance contract that was successfully completed, nevertheless owing to the lack of preventive maintenance as recommended in the report cause the mentioned road corridor to be in a deplorable state as of the date your team did the field visitation, hence prompting another maintenance contract that will enable the corridor to be pliable.*

*1.0.1.2 Section 3.1.2.12: The maintenance works under consideration in this audit report are ongoing contracts which are still being implemented and these sections in the photo have been addressed and the team can verify. Caldwell road maintenance will be commencing in a few weeks with funding from the GIZ. SKD boulevard has been contracted and the contractor is waiting for payment to continue work.*

### **Audit Comments**

1.0.1.3 Preventive maintenance is a mandate of the Ministry of Public Works. MPW's failure to fully implement the monitoring aspect of roads contracts, contributes to road deterioration; thus, limiting the life span of roads. For example, the replacement of log bridges on the road corridor from Buchanna to Nyafuah Town was budgeted per the contract and the Ministry was unable to ensure that contractors replaced the log bridges to concrete bridges as required in the contract documents. We maintain that the Ministry of Public Works is not fully in compliance with its mandate to maintain corridors linking primary, secondary, feeder and community roads adequately.

### **1.0.2 Limited supervision of road works (There is limited coordination between MPW and Supervising Site Engineers on the monitoring of road works).**

1.0.2.1 According to the TOR of Resident Engineers I-VII under the caption Supervision, they are to supervise and coordinate engineering works and activities of the county, inspect construction sites to monitor progress, ensure compliance and adherence to engineering plans and specifications.





- 1.0.2.2 Interviews with the Deputy Minister for Technical Services revealed that in the rural areas, monitoring is done by resident engineers and in the urban areas, monitoring is carried out by project engineers. The director of Highway Maintenance also informed the audit team that every road is monitored by a project team that comprises of at least three engineers, headed by a project lead." They report on daily basis Via WhatsApp chat, weekly through weekly reporting template and monthly progress report".
- 1.0.2.3 The Resident Engineers of Maryland County revealed to the audit team that they resort to using contractor's vehicles for inspection because they do not have assigned vehicle in the county to effectively carryout supervision of ongoing works by contractors, or they use any means of movement at their own expense. In the event they are riding with the contractors, they are not independent to monitor areas of concern; further, riding with the contactors gives the contractor the advantage to take them to areas where work is concentrated at a particular time, which also compromises their ability to reprimand a contractor giving them a favor when works are defective.
- 1.0.2.4 Further, interviews with Resident Engineers in Margibi, Grand Bassa, Maryland and Montserrado counties revealed that although they are charged with the responsibilities to supervise road works contracts in their respective counties. However, contractors were receiving authorization from the top management of MPW to proceed without the input from Resident Engineers. The works on the following roads: Kakata-Worhn Margibi County, Buchanan –ITI Grand Bassa County, Harper-Cavalla Junction Maryland County, Harper-Karlokan Maryland County, Bardnerville-Kebbah-Diggville to New Georgia Caldwell Montserrado, Dry Rice Market – Johnsonville and Pipeline road Montserrado without monitor reports from resident engineers nor were copies of the approved contracts made available to them. The approved contract documents are essential to aid supervision and establish whether the detail specifications were implemented during works. The Engineers are to ensure that the contract terms are being complied with and not to share a copy of the contracts or TOR defeats the purpose of supervision.
- 1.0.2.5 The resident engineers further informed the audit team that without the copies of the contract documents, they cannot effectively monitor or verify whether the value for money and the quality of works done are in line with the specifications. They bitterly complained that the situation is hindering effort to supervise. Again, without definite information on the contract, one will not know what contractors should implement on the roads.
- 1.0.2.6 Failure of the Ministry of Public Works to provide copies of the contracts and make available vehicles to resident engineers for the day-to-day monitoring of work of the contractors according to the work schedule and contracts, are limiting supervisory role and no guarantee for resources spent on the roads or its quality.
- 1.0.2.7 Our reviewed of the Contract documents on the Harper –Cavalla junction road, revealed the total length of the road per the contract was 16KM, but during the physical verification, we noted that portion of the road was incomplete, even though the contractor reported completion of the project. The consultant authorized payment of \$ 12,719,186.52 for this road but the Ministry of Public Works assigned resident engineers could not give reason(s)



why that portion of the road was incomplete. The unfinished portion is about 34.5meters.

### **Management's (MPW) Response**

1.0.2.8 *The Ministry acknowledges the findings and notes the proffered recommendation(s). However, in providing clarity to:*

1.0.2.9 *Section 3.1.3.4-3.1.3.6: Due to limited resources for logistics not all resident engineers have vehicles. The ministry has given five (5) resident engineers cars up to date and continues to make efforts to provide vehicles as resources make it possible. The Ministry has provided contract details to all project leads (RE or PE). All payment for works must be certified by the project lead.*

1.0.2.10 *Section 3.1.3.7: The Ministry wishes to have you informed that the portion of the contract road under consideration that is deemed 'unfinished' as stipulated in the draft audit report was deliberate owing to the fact that the African Development Bank who financed the mentioned road project intends to construct a bridge on the Cavalla River linking Ivory Coast to Liberia: hence it is not technically prudent to have the newly constructed road within very close proximity to the River's bank, this is due to the fact all of the technical data (alignment, length, etc.) for the construction of the bridge was not readily available at the time of the construction of the road corridor under consideration. In summary, the 16km Harper Cavalla Junction road ends at that point to leave enough space for future design considerations of the envisaged Cavalla bridge*

### **Audit Comments**

3.1.2.20 The independent involvement of Resident Engineers in the supervision and qualification of road works during implementation were not functioning as observed during our field visit due to the Ministry's failure to provide logistics and full contract details for effective monitoring.

3.1.2.21 The documents reviewed and observations made during field verification did not indicate that the road work would not continue or stop short of the contracted 16KM due to an ensuing bridge project; further, there was no addendum to the original contract indicating possible bridge project.

3.1.2.22 Payment for fully completed road when 33.5 meters of the road is unfinished is not an economical use of resources. We therefore maintain that the Ministry of Public works is not providing the necessary document to Resident Engineers to enable them carry out the needed proper supervision and monitoring of ongoing road works.

1.0.3 **Not all funds collected under NRF Act have been transferred for their intended use**

1.0.3.1 NRF Act Section 2.2.1 states that, "All funds of the NRF shall be held in the Fund's Account from which disbursement shall be made solely for the purpose of financing the approved Annual Road Maintenance Expenditure program and directly related costs as hereby required in the Act.



- 1.0.3.2 The National Road Fund is responsible to finance the maintenance and rehabilitation of roads and bridges works in Liberia<sup>8</sup>. The NRF is established on the concept of securing sustainable funding through appropriations approved by GoL, grants, loans, and road user charges to accelerate improvement to roads conditions throughout Liberia.
- 1.0.3.3 The manager of the Liberia National Road Fund indicated to the audit team that they are currently challenged with the payment of contractors that are implementing road maintenance and rehabilitation contracts due to delay in the transfer of funds from the consolidated account.
- 1.0.3.4 We reviewed NRF Annual Financial Statements for 2018-2020, and found that the Liberia Revenue Authority collected a total amount of US\$ 48,364,012 from fiscal years 2018-2020. Of the amount collected, a total of US\$ 28,005,540 was transferred to the escrow account of the National Road Fund and the amount of US\$ 20,358,472 yet to be transferred for the period as stated above.
- 1.0.3.5 From the review of the list of contracts financed by both GOL and NRF, we noted that 14 contracts were not financed at all, while others were financed but with huge indebtedness to the contractors. See table 3.3 below on the different types of works and detail on payment and balances.

**Table 3.3: Rehabilitation of road contracts**

| Category A: Road Rehabilitation Contract |                           |
|--|---------------------------|
| Contract Value                           | US\$ 74,015,884.70        |
| Amount Paid NRF                          | US\$ 13,906,806.08        |
| Amount owned contractors                 | <b>US\$ 46,298,626.15</b> |
| Amount paid by MFDP                      | US\$ 13,810,452.47        |

**Table 3.4: Maintenance of road contracts**

| Category B: Road Maintenance Contract |                            |
|---------------------------------------|----------------------------|
| Contract Value                        | US\$ 15,874,823.28         |
| Amount Paid NRF                       | US\$ 3,036,042.62          |
| Amount owned contractors              | <b>US\$ 12,838, 793.66</b> |
| Amount paid by MFDP                   | US\$ -0-                   |

**Table 3.5: Emergency road contracts**

| Category C: Road Emergency Contract |                        |
|-------------------------------------|------------------------|
| Contract Value                      | US\$ 1,301,838.28      |
| Amount Paid NRF                     | US\$ 815,179.15        |
| Amount owned contractors            | <b>US\$ 451,985.13</b> |
| Amount paid by MFDP                 | US\$ 34,674.00         |

- 1.0.3.6 The total amount paid to contractors by both GoL and NRF for the period of two years US\$ 31,603,154.32 constituting 35% of the total contract value and 65% is yet to be paid. Notwithstanding, work is still ongoing on some of the roads.

<sup>8</sup> National Road Fund Act, p4



- 1.0.3.7 We reviewed the approved procurement plans of the Ministry of Public Works for the periods 2018-2020 and found that an amount of US\$ 52,202,988 was approved to be spent on road maintenance and rehabilitation.
- 1.0.3.8 In the midst of payment requests from contractors who commenced or completed works, the government could not fully transfer what was collected by LRA to the NRF Account but withheld funds in the tune of US\$ 13,358,572 and also transferred an amount of US\$7 million as direct budget support for the fiscal period 2019/2020. These funds were collected for the purpose of road maintenance and rehabilitation. Authorities at the NRF maintained that the payment of contractors remained a challenge.
- 1.0.3.9 In keeping with the purpose of the fund, the office of the National Road Fund shall not expend monies from the fund, except in accordance with the Annual Road Maintenance Expenditure Program approved by the Inter-Ministerial Steering Committee. The transfer of funds for other reasons is a violation and creates shortfall in the fund available for the payment to road maintenance and rehabilitations contracts. See table 3.6 for the details on the collections of charges on fuel by LRA & Amount Remitted to NRF Account as well as amount pending transfer for the period July 1, 2018- June 30, 2020.

**TABLE 3.6: Collection of fuel levied charges and transfers to the NRF**

| Date           | Amount collected by LRA (US \$) | Amount Transferred to Escrow Account NRF (US \$) | Amount Transfer to GOL Budget (US \$) | AMT Due GOL (US \$) |
|----------------|---------------------------------|--|---------------------------------------|---------------------|
| 2018/2019      | 21,766,141                      | 15,899,526                                       | -                                     | 5,866,615           |
| 2019/June 2020 | 26,597,871                      | 12,106,014                                       | 7,000,000                             | 7,491,957           |
| Totals         | 48,364,012                      | 28,005,540.00                                    | 7,000,000                             | 13,358,572          |

*Source: Liberia National Road Fund financial documents 2018/2020*

- 1.0.3.10 Authorities of the National Road Fund are yet to fully implement Section 5.5.1 of the NRF Act that will enable them raise additional revenue to settle current and pending payments to contractors. Below are road users' charges stated in section 5.5.2 that are not being implemented by the NRF<sup>9</sup>:
- ✓ Charges on motor vehicles traveling within the road network of the Republic of Liberia, whether foreign or national based upon the vehicle's mass, length width, height, loading number of axles, distance covered or a combination of all of the factors mentioned herein
  - ✓ Entry fees levied on all foreign motor vehicles entering the territory of the Republic of Liberia
  - ✓ Registration and license fees for vehicles drivers

<sup>9</sup> National Road Fund Act, Section 5.2, p17



1.0.3.11 Our reviewed of financial documents of the NRF for the fiscal yr. 2019/2020 revealed that the listed companies in Table3.4 are indebted to the NRF in the tune of US\$ 22,212,538.00 as of June 30 2020.

**Table 3.7: Companies indebted to the NRF**

| No           | Name of Company            | Amount in USD     |
|--------------|----------------------------|-------------------|
| 1            | Conex Petroleum Service    | 8,126,797         |
| 2            | Srimex Oil and Gas Company | 4,753,129         |
| 3            | Kailondo Petroleum         | 167,271           |
| 4            | Petro Trade                | 1,087,347         |
| 5            | Aminata & Sons             | 2,804,030         |
| 6            | MOTC                       | 1,736,894         |
| 7            | Nexium Petroleum           | 488,260           |
| 8            | West Oil Investment        | 2,858,565         |
| 9            | NP Liberia                 | 190,245           |
| <b>TOTAL</b> |                            | <b>22,212,538</b> |

Source: NRF Financial Statement 2019/2020

### Management's (NRF) Response

#### TRANSFER OF FUNDS TO THE ROAD FUND ACCOUNT

- 1.0.3.12 *All transfers to the Road Fund shall be made into the Road Fund Account designated by the Minister of Finance and Development Planning and established in this Act.*
- 1.0.3.13 *Where funds are to be transferred from or through the MFDP, the Minister of Finance and Development Planning shall agree on a schedule of transfers with the National Road Fund Manager prior to the commencement of each fiscal year,*
- 1.0.3.14 *All agencies, other than the MFDP, mandated to collect user charges identified in this Act, shall:*
- a. *Set up mechanisms for the transfer of funds to the Road Fund Account*
  - b. *Prepare annually and at least 4 months in advance of each fiscal year, a forecast of funds that will be made available to the Road Fund, including an analysis of factors, which may affect the flow of funds as planned.*
  - c. *Prior to the commencement of each fiscal year, agree with the National Road Fund Manager a schedule of transfers to be made throughout the fiscal year*
- 1.0.3.15 *All transfers to the Road Fund Account shall be accompanied by a statement of account, providing details of the amount transferred, a breakdown of sources if applicable, the basis of the allocation and evidence of receipts on which the allocation has been based.*
- 1.0.3.16 *The above statement is the part of the Road Fund Act that gives support to the above finding.*

### **NRF response**

- 1.0.3.17 *The Liberia Revenue Authority fuel levies collection reconciled reports for the periods 2018-2019 to 2019 / June 2020 amounted to United States Dollars equivalent of \$48,364,114. Of this amount, the Ministry of Finance and Development Planning transferred to the National Road Fund Escrow Account at Central Bank of Liberia a total of US\$28,005,540 United States Dollars equivalent. As was seen in the (CBL BANK STATEMENT 2018 – 2020)*
- 1.0.3.18 *During the fiscal year 2019/2020 US\$7,000,000.00 was withheld from the Funds collected by LRA as the NRF direct budgetary support to the Government of Liberia as per the approved National Budget 2019/2020 by the National Legislature. The MFDP wrote the NRF requesting 7 million for budget support for 2019/2020 and this amount was approved by the Inter-Ministerial Steering Committee (IMSC) of the NRF in a IMSC called meeting at which time a resolutions was passed by the Committee.*
- 1.0.3.19 *The total revenue collected by LRA in the same fiscal period (2019/2020) was US\$23. Million recast downwards to US\$12 million thus reducing the NRF revenue by US\$11 million.*
- 1.0.3.20 *We acknowledged strives made by the government in making remittances or transfer of monies collected by the LRA from fuel levies to the NRF Escrow Account and also recognized challenges that COVID-19 and other world-wide economic challenges faced by the Government of Liberia. Additionally, the 7million budget support was communicated to our international partners by GOL / MFDP.*

### **Audit Comments**

- 1.0.3.21 The government through the National Road Fund and the Ministry of Public Works should commit funds collected to road works as indicated in the NRF Act. We maintain that not all funds collected under NRF Act were fully transferred for the intended purpose.

### **1.0.4 Delays in making payment to contractors**

- 1.0.4.1 Section 2.2 of the National Road Funds states that fund for the NRF shall be held in an escrow account and disbursement shall be made solely to finance the approved Annual Road Maintenance Expenditure Program.
- 1.0.4.2 Funds be held in the account of the NRF, the Government is required to make due payment to contractors when roads works have been certified for payment. This enables contractors to make further progress with their respective road works, while adhering to timeframe agreed upon in the contract.
- 1.0.4.3 In the course of the audit, we interviewed six contractors working on different county roads (CICO, SSF, Quality Group of Companies, Sidani Group Holding, Cemmats Group Limited and MDMC) who indicated that the Ministry of Public Works through the National Road Fund has not been able to adhere to the payment schedules as indicated in the contracts. For example, payment certificates submitted for work done takes an average of 90 days to be honored against the stipulated 30 days as per the conditions of the contract. We noted through our interviews with the contractors that such delayed payments contribute



significantly to the delay in the completion of works as the contractors will normally suspend work till payments are made.

1.0.4.4 We further noted that most times contractors borrow money from commercial banks upon winning contracts in anticipation of repayment upon receipt of their installment as indicated in the contract document. On the contrary, they are experiencing increase interest on loans from commercial banks due to the failure of the Ministry of Public Works through the National Road Fund to pay on time.

1.0.4.5 We observed during the field verification that contractors are leaving sites and transferring equipment to other locations due to lack of money to keep their men at work. This situation is causing the government and contractors additional cost and time because work done earlier has to be repeated due to the washing away of the top soil, thus creating potholes that sometimes result in deplorable conditions especially on laterite roads. See table 3.5 for details of delays on contracts.

**Table 3.5: Contracts that were delayed during the audit period**

| No | Name of contract                             | Commencement date | Completion date   | Delayed period |
|----|--|-------------------|-------------------|----------------|
| 1  | Barnesville –Kebah Diggsville                | April 14, 2016    | February 14, 2018 | 24months       |
| 2  | Caldwell and New Georgia                     | April 14, 2016    | February 14, 2018 | 24months       |
| 3  | Robertfield Highway to Marshall City Road    | March 14, 2016    | January 14, 2018  | 24months       |
| 4  | Bardnesville Dry Rice Market to JonhsonVille | April 4, 2017     | March 4, 2018     | 24months       |
| 5  | Ganta to Yekepa                              | December 9, 2014  | October 9, 2016   | 54months       |

**Intersection of Robertfield Highway to Marshall City Road 13.5miles (21.7KM):**

1.0.4.6 Road works Contract awarded to SSF for the period of 24months signed with beginning date stated for 30days after the contract signed date on March 14, 2016, it was noted from document reviewed that the original contract period elapsed and additional 24-months added, yet without completing the work.

1.0.4.7 During site inspection visit of Marshall Junction to Marshall City, we observed that out of the total road length of 21.7 kilometers according to the contract documents, 4.2 km is not paved as specified and portion of the road constituting 3km has no sidewalk constructed for Pedestrians as specified in the contract.

**Bardnesville Dry Rice Market to Johnsonville (11.05KM):**

1.0.4.8 The Contract was formulated and approved on April 4, 2017 for the rehabilitation of the above-mentioned road and awarded to Quality Group of Construction Companies for the period of Twelve (12) months. The team noted during the document review and following our visit to the site, that the original contract period of 12months for works had elapsed and additional 24 months added had also been exhausted, while the contract is yet to be completed.



**Asphalt pavement of Gbarnga Broad Streets:**

- 1.0.4.9 The contract was awarded to Sidani Group Holding in 2018 for the period of twelve (12) months. From the documents reviewed, the team observed that additional twelve (12) months was added yet without completing the work at the time of the audit. There is still unfinished work on the sidewalk of the road and the original 5ft width measurement for the sidewalk was reduced to 3ft with no clear explanation to the audit team. The company is yet to work on the drainage as specified in the contract document.

**Asphalt pavement of Ganta to Yekepa:**

- 1.0.4.10 Asphalt pavement work contract awarded to Cemrats Group Limited for the period of 24 months beginning August 29, 2014 but had not been completed at the time of our audit. The team was also informed that due to Government not adhering to the payment term as stipulated in the contract documents, the contractor transferred their equipment to nearby country.

**Asphalt pavement of Pipe line to Johnsonville:**

- 1.0.4.11 Asphalt pavement work contract awarded to MDMC for the period of 12 months with the commencement date as of the signing of the contract in 2014 had not been completed during the team's visitation.

- 1.0.4.12 The Ministry of Public Works has not been able to adhere to the payment schedule indicated in the contract formulated for contractors to timely complete works.

**Management's (NRF) Response**

- 1.0.4.13 *The delays in payment to contractors is primarily due to the prolong time that the Ministry of Finance and Development Planning takes to transfer funds from the Consolidated Account to the National Road Fund Escrow Account at the Central Bank of Liberia. At times, the funds transfer is inadequate to meet the cash requirement for contractor's payments creating delays and making smaller payments to contractors.*

- 1.0.4.14 *When MFDP transferred are timely and adequate to NRF Escrow Account, NRF makes payment to the contractors in a timely manner.*

**Audit Comments**

- 1.0.4.15 The Ministry of Public Works has not legally extended the contracts and the terms for completing the roads mentioned above and the period have all expired. Not legally extending these contracts could lead to legal issue for the Government of Liberia.

- 1.0.4.16 Further Advances made on contracts could be a waste of resources as roads works might be abandoned due to GoL inability to make timely payments. The National Road Fund and the Ministry of Public Works need to commit the required funds for road works contracts to avoid roads maintenances delays. We maintain that there is delay in payment to contractors that affect the timely maintenance of roads.





## **4 CHAPTER FOUR: CONCLUSION**

### **4.1 Conclusion**

- 4.1.1 This chapter presents the conclusion of the findings against the key audit objectives as to whether the Ministry of Public Works is carrying out effective roads maintenance, rehabilitation, contractors are also paid on time and the roads maintained or rehabilitated are in-line with specifications.
- 4.1.2 The Audit concludes that the measures put in place by the Ministry of Public Works to keep all roads accessible during all seasons are not effective. Primary roads connecting counties are in deplorable conditions during every rainy season.
- 4.1.3 The Ministry of Public Works lacks the required equipment required to properly implement preventive road maintenance on the current roads network.
- 4.1.4 Further, there are ninety-four (94) trained engineers employed and are on the Ministry's payroll and who are not being fully utilized. They are not fully involved with the maintenance and rehabilitation of roads.
- 4.1.5 The Roads listed in the Annual Road Maintenance Expenditure Program are not maintained or rehabilitated in keeping with the plan. Fourteen (14) maintenance and rehabilitation contracts were not implemented per the plan for the fiscal period 2019-20 and the conditions of those roads are deplorable.
- 4.1.6 The Ministry also specifically lacks asphalt maintenance plants in the four regions of the country to carryout maintenance of asphalt-paved roads. The lifespan of asphalt roads rehabilitated or constructed are fast deteriorating due to non-maintenance.
- 4.1.7 The Ministry of Public Works is not empowering resident engineers to fully supervise the maintenance and rehabilitation of roads. Resident engineers in six out of the eight counties visited at the time of the audit do not have vehicles or other means of movement required to check on the daily work done by contractors but rely on the contractors to take them where work is ongoing.
- 4.1.8 We observed that the continued reliance of the engineers on contractors for their movement compromises their independence and objectivity in reprimanding the contractor for substandard works. The lack evaluation for work done is evident in the case of the Harper- Cavalla-Junction road project.
- 4.1.9 The Ministry is not also sharing copies of the contract documents with the Resident engineers that are responsible to monitor. As a result, resident engineers are not equipped to provide information on the status of the works; compliance with specification, timeline and drawings.
- 4.1.10 The government of Liberia is collecting funds from fuel levied charges as required by the Road Fund Act but not fully remitting the amount collected by the LRA to the National Road Fund Escrow Account per the Act establishing NRF. Therefore, the Ministry of Public



works and the National Road Fund are not following the Annual Road Maintenance Expenditure program in term of implementation. Road project approved for maintenance and rehabilitation are not implemented on grounds that funds are limited.

- 4.1.11 The national road fund authority is yet to implement all the aspects of revenue generation in the act that will enable them to raise more money for the maintenance and rehabilitation of roads.
- 4.1.12 Delay in the commencement and completion of work stems from the side of government through the Ministry of Public Works and the Liberia National Road Fund. The contractors are doing their best but the government is challenged in paying for contracts already completed and ongoing in keeping with the payment plan as agreed in signed contracts.



## 5 CHAPTER FIVE: RECOMMENDATIONS

### 5.1 Inadequate maintenance of roads (Maintenance of roads does not follow the prescribed schedule)

5.1.1 In order to properly maintain laterite roads in the country, we recommend that the government of Liberia should procure a fleet of road equipment (Graders, Tractor Scrapers, etc.) and for Asphalt roads an Asphalt plant and equipment.

5.1.2 In order for the GoL to ensure that the equipment purchased are maintained and in top ship, we recommend that GoL enters a Public Private Partnership arrangement so as to better maintain, supervise and manage said equipment for longevity and maximum use.

5.1.3 The government should group the counties into four regions and each region should have a fleet of equipment for both laterite and asphalt; the regions could be established by priority area (southeast where six months out of the year there is shut down because of the road condition). Initially the cost to purchase four different fleet of equipment will be high; however, over five or years the cost will be negligible when compared to current costs for roads maintenance.

5.1.4 The Preventative maintenance method should be adopted in order to maintain the laterite roads by ensuring that the network of roads are maintained per plan/schedule, throughout the year; and, taking into consideration, the topography and environment.

5.1.5 Engineers that are employed currently with the MPW can be utilized by running the maintenance by actually transferred to the regional maintenance centers.

### 5.2 Limited supervision of road works (There is limited coordination between MPW and Supervising site Engineers for monitoring on the road works.

5.2.1 We recommend that the Ministry of Public Works fully supports the resident engineers assigned to counties by providing logistics, vehicles, etc. in order for them to carry out their functions in keeping with their TOR.

5.2.2 The projects and resident engineers should at all times be given a copy of the contract documents for any roadwork that is within their jurisdiction to enhance their monitoring or supervisory roles. They should monitory reports, monthly and recommendations should be implements as the work proceed.

### 5.3 Not all funds collected under NRF Act have been transferred for their intended use

5.3.1 We recommend that the government of Liberia remits all funds collected by the LRA in keeping with the NRF Act to the accounts of the Road Fund to enable them carryout the purpose of the fund.

5.3.2 The government of Liberia through the authority of the NRF should ensure that all applicable revenues are fully implemented in line with the Act.



5.3.3 The approval of road works by the Inter-Ministerial Steering Committee in the Annual Road Maintenance plan should be in accordance with the projected revenue for a particular period in order to avoid the huge backlog of payments during the fiscal period.

**5.4 Delay in making payment to contractors**

5.4.1 We recommend that the Ministry of Public Works and the National Road Fund officials adhere to the terms and condition in the contract regarding payment.

5.4.2 We strongly recommend that a completion of works should be check by a different team to ensure that completions reported by contractors are in accordance with contract terms for portions of the roads reported complete before certifying the request for payment as indicated in the contract documents.

5.4.3 The Ministry and The NRF should consider payment to contractor's based on who completed first and level of work that is done by the contractor back by the reports from final inspection and a certificate of completion.



## APPENDIXES

### Appendix 1

**TABLE 1.1:** List of Stakeholders and responsibilities

| No | Stakeholders   | Responsibilities  |
|----|--|---|
| 1. | National Road Fund   | Responsible for financing road and bridge maintenance works and directly associated with planning, programming and management activities.                                   |
| 2. | German Agency for International Cooperation (GIZ)          | Is partnering with the Ministry of Public Works in the rehabilitation, maintenance of roads, Bridges, planning and capacity development in the transport sector in Liberia. |
| 3. | Swedish International Development Agency (SIDA)            | Swedish government project that is maintaining feeder roads in seven counties in Liberia.   |
| 4. | United States Agency for International Development (USAID) | Is partnering with the Ministry of Public Works for maintenance of roads in Liberia   |
| 5. | World Bank   | Assist the government in the rehabilitation of primary roads.   |
| 6. | Ministry of Finance  | Responsible to take part in the negotiations and signing of road contracts over US\$250,000.  |
| 8. | Public Procurement and Concessions Commissions             | Responsible to approve procurement plans, provide "NO OBJECTION" for contract award.  |
| 9. | Ministry of Justice  | Responsible to attest all contracts over US\$250,000.00   |

### Interviewees

**TABLE 1.2:** List of key players interviewed

| No | List of Key Players  | Reason for the interview  |
|----|--|---|
| 1  | Deputy Minister for Technical Services                       | To have overall understanding on the road Network in the country and the plans in placed to keep roads in good condition at all times.  |
| 2  | Assistant Minister for operation                             | To ascertain the different interventions on the road during the implementation phase of the contract.   |
| 3  | Assistant Minister for feeder roads                          | To understand methods used to select feeder road contractors and the level of maintenance.  |
| 4  | Assistant Minister for Technical Services                    | To gather information on the function of the technical arm of the Ministry who is directly involved in the road works.  |
| 5  | Comptroller  | To have an understanding of the amount spent by government and donors in the implementation of road projects. To also establish pending and completed payments on road contracts. |
| 6  | Director for High Way maintenance                            | To understand the day – to – day works of resident engineers and project assigned engineers in the various counties as it relates to road maintenance.                            |
| 7  | Director Feeder Roads  | To establish the major stakeholders in the feeder road works so as to have clear understanding of the specifications and time applied.  |
| 8  | Procurement Director   | To understand the different stages of procurement processes and the stakeholders involved in the process.   |
| 9  | Director Engineering Division                                | To get the total number of engineers, training acquired and the areas of assignment.  |
| 10 | Consultant, Legal Unit                                       | To have an understanding on the processes leading to the awarding of contracts and the procurement process  |
| 11 | Director, Monitoring, Evaluation & Aid Coordination Division | To establish whether there are policies/procedures on the monitoring of the process leading to the awarding of road contracts and the implementation stage of the contracts.      |



| No | List of Key Players | Reason for the interview   |
|----|---------------------|--|
| 12 | Resident Engineers  | To understand the different interventions carried out by the engineers in the counties and to establish the work completed on roads and outstanding road projects. |

### Documents reviewed

**TABLE 1.3: Policy document reviewed**

| NO. | Policy documents   | Reason for the review   |
|-----|--|---|
| 1   | The Act establishing the Ministry of Public Works and amendment to the act | To have a thorough insight on the establishment and the legal functions of the Ministry of Public Works |
| 2   | Policy on road construction, maintenance and rehabilitation                | To understand the frequency of maintenance and the procedures required.                                 |
| 3   | Standard Operating Procedures of the Ministry                              | To have a clear understanding of the implementation of road work  |
| 4   | Current strategic plan of the Ministry Of Public Works                     | To check on the compliance and accomplishment of established plans.                                     |
| 5   | Annual reports for the respective years under audit                        | To establish progress and failure on road works   |
| 6   | The Organizational chart   | To understand the departments, division, bureau and units that are directly connected to road works     |
| 7   | Annual reports for the period under audit                                  | To establish progress and challenges in road works  |
| 8   | Project engineers progress reports   | To have a clear understanding on the quality and status of road projects.                               |
| 9   | List of technical service staff and their qualifications                   | To know who are involved in the technical road works of the Ministry.                                   |

**TABLE 1.4: Other documents reviewed**

| No | Procurement documents                                       | Reason for the review   |
|----|---|---|
|    | Procurement plan  | For the audit team to ascertain and understand on how the MPW procured road contracts   |
| 1  | Evaluations reports   | To understand the processes used in the selection of the contractors and the quality of specification provided by the contractors during selection. |
| 2  | Contracts documents on roads rehabilitation and maintenance | To understand the clauses in the condition of the contract.   |
| 3  | List of paved and unpaved roads with Specification          | To confirm the total number of roads paved and unpaved. To also enhance the selection of roads whose contracts will be requested for review.        |
| 5  | List of Shortlisted contractors                             | To check the past performance reports and verify the reasons behind their selection in the single source bidding.                                   |
| 6  | Selection criteria  | To understand the procedure used to select contractors  |
| 7  | Contractors' performance reports                            | To establish whether the contractor performs to task.   |
| 8  | Road completion certificate                                 | To ascertain as to whether certificate of completion is submitted before final payment and is in line with the work schedule.                       |



**TABLE 1.5: Financial document reviewed**

| <b>No</b> | <b>Financial Documents</b>                  | <b>Reason for the review</b>   |
|-----------|---|--|
| 1         | Government of Liberia support to road works | To establish the annual contribution from the government of Liberia towards roads.       |
| 2         | Donors' contribution to road works          | To understand the different donors' interventions on road maintenance and rehabilitation |



## Appendix 2:

### Organization Chart for MPW

