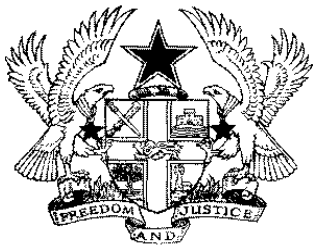

REPUBLIC OF GHANA

DEPARTMENT OF FEEDER ROADS

OF THE

MINISTRY OF ROADS AND HIGHWAYS

FOURTH QUARTER/ANNUAL REPORT FOR 2022

JANUARY 2023

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Acronyms and Abbreviations

DFR	:	Department of Feeder Roads
DFID	:	Department for International Development
GOG	:	Government of Ghana
GIS	:	Geographical Information System
MRH	:	Ministry of Roads and Highways
DCRIP	:	District Capital Roads Improvement Project
GHA	:	Ghana Highway Authority
DUR	:	Department of Urban Roads
AFD	:	Agence Francais de Developement
SIDA	:	Swedish International Development Agency
TSPS	:	Transport Sector Programme Support
DANIDA	:	Danish International Development Agency
MOFA	:	Ministry of Food and Agriculture
KfW	:	Kreditanstalt für Wiederaufbau
AfDB	:	African Development Bank
EMQAP	:	Export Marketing and Quality Awareness Project
TSP	:	Transport Sector Programme
IFAD	:	International Federation for Agricultural Development
JICA	:	Japan International Cooperation Agency
MMDAs	:	Metropolitan, Municipal and District Assemblies
MDAs	:	Ministries, Departments and Agencies
MoF	:	Ministry of Finance
LSDGP	:	Local Service Delivery and Governance Programme
LBT	:	Labour Based Technology
DWD	:	District Works Department
RSDP	:	Road Sector Development Programme
VOC	:	Vehicle Operating Cost
KNUST	:	Kwame Nkrumah University of Science and Technology
KTC	:	Koforidua Training Centre
RAI	:	Rural Accessibility Index

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1 CHAPTER ONE: EXECUTIVE SUMMARY

1.0 Mission and Vision of DFR

1.0.1 Mission

Ensure the provision of safe, all weather accessible feeder roads at optimum cost, to facilitate the movement of people, goods and services and to promote socio-economic development, in particular agriculture.

1.0.2 Vision

Ensure that 80% of rural communities in Ghana can access a feeder road within 2km radius at optimum cost under a decentralized system.

1.0.3 Functions

The functions of the DFR are as follows;

1. Plan, develop and maintain feeder road networks and related bridge works.
2. Undertake research to support DFR's planning, development and maintenance activities.
3. Undertake route location and design studies for development of feeder roads
4. Classify and set up design standards on different classes of feeder roads.
5. Ensure an effective information management system on feeder roads.
6. Procure the services of contractors for the construction of feeder roads and related bridge works.
7. Ensure that Labour standards, environmental, health and safety related issues are adhered to during execution of feeder road contracts.
8. Initiate the development and implementation of human resource management policies, systems and programs consistent with the requirements of the sector to enhance service delivery.
9. Facilitate the implementation of capacity building activities for DFR staff, contractors and other stakeholders to attain efficiency in DFR's functions.
10. Collaborate with other MDAs to provide technical backstopping on feeder road related issues.

1.1 1.1 Road Network and Condition Mix

The total feeder road network as at December 2021is **43,304.70km**

The feeder roads network condition mix as at December, 2021(projected, 2022 condition data is yet to be collected and validated) is as follows;

Good	29.5%
Fair	38.3%
Poor	32.2%

Details of the surface type is also as follows:

Bituminous surface	:	3,792.6km	(9%)
Gravel roads	:	27,191.0km	(63%)
Earth roads	:	12,321.10km	(28%)
TOTAL	**:**	**43,304.70km**	

The breakdown of the network engineering categories is as follows:

Engineered network	:	27,526.4km	(63.6%)
Partially engineered network	:	6,500.9km	(15.0%)
Un-engineered network	:	9,277.4km	(21.4%)
		43,304.70km	

1.2 1.2 DFR Policy and Strategy for network Maintenance and Economic Development

The ultimate aim of the DFR is to achieve a network condition mix of 70%, 20%, 10% good, fair, poor respectively in the long term in a progressive manner.

As a means to working towards the aim, it has become the DFR's policy to always keep the engineered and partially engineered feeder roads in good or fair condition through routine/recurrent activities. The rationale is to provide continual accessibility to rural communities, agricultural enclaves and tourist attraction sites, whiles upgrading the poor network through stage development and minor rehabilitation activities. This strategic decision is in line with the Road Sector Strategies under section 3.1 of the Sector Medium Term Development Plan (SMTDP, 2022 – 2025) which draws a linkage from the National Development Plan Frame work (2022 – 2025).

Therefore, in order to contribute towards sector achievement under the SMTDP, 2022 - 2025, the DFR has adopted the following strategies;

- Prioritising Routine Maintenance above all other activities
- Achieve 100% Routine Maintenance
- Achieve 50% of Periodic and Minor Rehabilitation needs
- Contribute to increase percentage of paved roads significantly at the end of 2022
- Achieve National road condition mix of 50%, 40%, and 10%, good, fair, poor respectively by the end of 2022

Thus in order for the DFR to contribute effectively to the achievement of the set condition mix by 2022, the department's operations or activities will be targeted at improving upon the condition for 2021 as follows;

- Reduce the current 37% poor by 15% through upgrading
- Improve upon the 34% fair by 10% through upgrading
- Improve upon the 29% good by 21% through upgrading and routine maintenance
- Ensure 100% maintenance of the eventual good network category.

However, the current level of contract portfolio and delay in payment for work done (including routine maintenance), which has a net effect on contractor performance and therefore the road condition, could be a major hindrance to the achievement of the set condition mix target by 2022.

1.3 1.3 Historical Overview of Condition Mix

The historical overview of Condition Mix of feeder road network seem to show a stagnation after achieving the highest good percentage category of 37% in 2017 and 2019. Thereafter performance has dropped to below 30% good. The explanation to the fallen figure is that delayed maintenance is causing more deterioration of the road surface conditions. Ensure regular routine maintenance as a priority over all other activities will improve the network condition significantly.

The historical overview of the condition mix is shown below:

MIX	**2009**	**2013**	**2014**	**2015**	**2017**	**2018**	**2019**	**2020**	**2021**
GOOD	39%	30%	30%	34%	37%	27%	37%	29%	29%
FAIR	30%	38%	38%	34%	38%	33%	31%	34%	34%
POOR	31%	32%	32%	32%	25%	40%	32%	37%	37%
TOTAL	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

The observed trend between 2009 and 2021 shows a situation of rise and falls in the surface condition mix with the worst case occurring in 2018. This is attributed to a number of factors, major among which is the delay in routine maintenance works awards and execution. Low capacity of some routine maintenance contractors to mobilize equipment to locations of the works. In addition is the general lack of financial capacity of some routine maintenance contractors. The timing of the award of routine maintenance contracts which often spilled over into the following year and therefore does not allow for effective assessment of current year performance.

1.4 1.4 Targets and Achievements as at 31st December 2022

In the year 2022, no routine maintenance award has been issued. The achievements as at December 2022 are spill over contracts from 2021 or earlier years before 2021.

Table 1.1 shows the planned (approved) programme and achievement as at 31st December 2022 while Table 1.2 shows the financial Programme and disbursements as at 31st December 2022.

Table 1.1: Physical Target and Achievements (January – December 2022)

ACTIVITIES	APPROVED ANNUAL PROGRAMME	PHYSICAL ACHIEVEMENT	% ACHIEVED
	Km/No	Km/No	
Routine Maintenance - (Reshaping)	5,000	4,011.0	80.2%
Sub-Total	**5,000**	**4,011.0**	80.2%
Periodic Maintenance			
Spot Improvement	300	316	105.3%
Minor Improvement			
Minor works/Rehabilitation	500	552.5	110.5%
Bridge Program			
Bridges	24	3.00	12%
Grand Total	**5,824**	**3,605.5**	

Table 1.2: Financial Programme and Disbursement (January – June, 2022)

FINANCIAL PERFORMANCE					
S/N	**BUDGET PROGRAMME**	**PROGRAMME COST (As per Appropriation)**	**SOURCE OF FUNDS**	**ACTUAL EXPENDITURE**	**BALANCE AS AT THE END OF QUARTER**
1	Management and Administration	13,649,714.00	GoG	13,649,700.00	14.00
			GOODS & SERVICES (GoG)		
			ABFA (GoG)		-
			Capex (GoG)		-
			GOODS & SERVICES (IGF)		-
			ROAD FUND		-
2	Road Construction		GoG		-
		16,621,666.74	ABFA(GoG)		16,621,666.74
		390,000.00	GOODS & SERVICES (GoG)*	31,900.00	358,100.00
		1,228,000.00	DONOR (CAPEX)		1,228,000.00
			DONOR (G&S)		
		96,437.00	GOODS & SERVICES (IGF)		96,437.00
			IGF (Capex)		-
			ROAD FUND		-
3	Road Rehabilitation & Maintenance	186,089,000.00	GoG	186,089,000.00	0.00
		129,361,333.26	ABFA(GoG)	111,915,290.00	17,446,043.26
			GOODS & SERVICES (GoG)		-
		261,735,000.00	DONOR (CAPEX)	426,600.00	261,308,400.00
			DONOR (G&S)		
			GOODS & SERVICES (IGF)		-
			IGF (Capex)		-
		200,000,000.00	ROAD FUND	111,003,870.00	88,996,130.00
			ROAD FUND ARREARS		-
					-
4	Road Safety and Environment		GoG		
			ABFA(GoG)		
		10,000.00	IGF (G&S)		10,000.00
	TOTAL	**809,181,151.00**		**423,116,360.00**	**386,064,791.00**

2 CHAPTER TWO: DEVELOPMENT PARTNERS ASSISTED PROGRAMME

2.1 2.1 Transport Sector Improvement Project (TSIP)

*2.1.1 **Introduction***

2.2 Background

The main development objective of the proposed TSIP is to support Government of Ghana: (i) reduce travel time on selected parts of the classified road network in Northern Ghana through the introduction of Performance Based Contracts; (ii) promote road safety and (iii) strengthen the institutional management of the transport sector. The project include the following components:

2.1.2 *Component 1: Road Asset Preservation***:**

This Component covers improving the sustainable management of Ghana's road network with support for the establishment of a network-wide Road Asset Management System and the introduction of performance-based contracting, in the form of long-term performance-based roads contracts based on design-build-operate-maintain-transfer principles. The Project will introduce PBCs on selected parts of the networks managed by the Ghana Highway Authority (GHA) and DFR.

The PBC- methodology will use World Bank's Bid Document for Output and Performance-based Road Contracts (OPRC) on both paved and unpaved roads. These PBCs will include the initial rehabilitation works and the long-term maintenance services in lump sum contracts where payments are based on achieving performance targets. Based on experience gained elsewhere, the duration of these contracts and associated World Bank Projects would be between 7 and 10 years for the paved roads and about 5 years for the unpaved roads.

The Project activities will be spread over two main road networks (trunk and feeder/farm roads) allowing the respective responsible Agencies to gain experience with this new contracting arrangement after which the Government could replicate and rollout the methodology with similar, but domestically-funded contracts.

2.1.3 *Component 2: Improved Road Safety*:

This Component will support the activities related to improving road safety in Ghana with particular support to the National Road Safety Authority (NRSA), and Driver &

Vehicle Licensing Authority (DVLA) to engage in activities including operationalizing the crash database, mainstreaming road safety in school curricula and driver training in general, as well as roll out private sector driven vehicle inspection facilities.

2.1.4 *Component 3: Institutional Strengthening and Capacity Building*:

This component aims to support government's vision of modernizing the Transport Sector so that the respective Road Agencies can become more effective road asset managers and can also more efficiently respond to the changing demands in the transport sector.

2.1.5 Improved Asset Management of the Feeder Road Network:

a. Consulting services to undertake the Assessment Study and develop the bid documents for the road network in five prioritized geographical areas.

b. PBC works contract for the improvement of the selected road network in the Atebubu and Amanten Districts of the Bono East (formally part of the Brong Ahafo) Region.

c. Monitoring Consultancy services under the parent TSIP

d. Socio- Economic Impact Assessment (SEIA) to determine the long-term impact of using PBCs on rural development initiatives such as the Ghana Agricultural Sector Improvement Programme (GASIP) activities

e. Under the EU grant of Euro 35million, three works contracts have been awarded in the Upper West Region.

f. Monitoring Consultant services under the Additional Financing in the Upper West Region.

2.1.6 Project Components and Cost

The project has three (3) main components and is estimated to cost One Hundred and Fifty Million United States Dollars (US$150million). The project will be 100% funded by the IDA (inclusive of taxes and duties). Details of the project components and cost are outlined in the tables below:

2.3

Table 2.1: Project Components and Estimated Costs

Project Components	Project Cost (US$ M)	IDA Financing	IDA Financing (%)
Component 1: Road Asset Preservation (About US$125 million)			
1.1. Development of a Road Asset management System	3.0	3.0	100%
1.2 Improved Asset Management on the Trunk Road Network	100.0	100.0	100%
1.3 Improved Asset Management on the Feeder Road Network	22.0	22.0	100%
1.4 Improved Asset Management on the Urban Road Network	0.0	0.0	0%
Component 2. Improved Road Safety (About US$8 million)			
2.1. Support to NRSC	6.0	6.0	100%
2.2. Support to DVLA	2.0	2.0	100%
Component 3: Institutional Strengthening and Capacity Building (about US$17.0 million)			
3.1. Institutional Strengthening	8.0	8.0	100%
3.2. Support Capacity Building	5.0	5.0	100%
3.3. Support Project Implementation	4.0	4.0	100%
Total with taxes	**150.0**	**150.0**	100%

2.1.7 Assessment Study Consultancy (UWP Consulting)

This Consultancy assignment commenced in April, 2017. Ghana Highway Authority (GHA) are the client for this assignment. This service combines the GHA road and DFR Packages in Bono East, Northern Region, Upper West and Upper East region.

Five (5) Addenda have been issued on the project so far. Addendum No. 3 specifically requested the Consultant to prepare Assessment study report, Concept design and bidding documents for the project in Upper West region. EU has provided a grant of Euro 35 million for the roads in upper West region through the Ministry of Food and Agriculture under the Savannah Ecological Zone 6 programme.

For the original assignment the Consultant and Ministry of Roads and Highways through the MRH Agency Implementation Team (AIT) have reviewed the following document and have been submitted in STEP (Systematic Tracking for Exchange in Procurement) for final No-Objection for implementation.

a. Concept Design Report
b. Assessment study report including (Gender and Poverty, Environmental Social Impact Assessment, Citizen Engagement report)
c. Bidding documents for Package 3 (Selected Feeder Roads in Atebubu District), Package 4 (Selected Feeder Roads in East Gonja District) Package 5 (Selected Feeder Roads in Builsa North and Builsa South Districts) and Package 6 (Selected Feeder Roads in Zabzugu District).

The assignment for the Assessment Study consultant was to come to an end on 31st March, 2021. They are however to assist the client during the procurement of the works contracts.

2.1.8 Socio-economic Baseline Studies on Selected Feeder Roads in Brong Ahafo, Northern, Upper East and Upper West Regions

Addendum No. 3 has been prepared and submitted to the Bank for similar assignment to be carried out on the three (3) packages in the Upper West region to be funded by the European Union.

The payment for the Addendum No. 3 will be made under the European Union funding.

The Bank has given it's no-objection for the signing of Addendum 3.

The contract has been signed and possession of the site given to the Consultants in the Upper West region.

The Consultants have submitted their final report on the assignment.

2.1.9 GH-MRH-8885-CW-RFB: Works contract for upgrading to gravel surface of selected Feeder Roads in Atebubu District of the Bono East Region.

Contract has been signed with the recommended bidder at a cost of GH₵103,583,700.00 for a duration of 5 years (60 months). Data collection for detailed design of 57.8km is ongoing. Meanwhile the contractor has completed the establishment of the site camp and also submitted detailed designs for the 1st tranche of 57.8km and RAP to the Monitoring Consultants for review and recommendation for approval by the Employer. The Employer has approved 89km of the detailed designs and given notice to proceed with works on 55km after the payment of compensation to PAPs. Contractor have completed about 40km out of 55km.

2.1.10 EU-GH-MRH-166902: Selected Feeder Roads and Farm tracks in the Wa West District, Nadowli-Kaleo District and Wa Municipal (235.4km)

Contract has been signed with the Contractors and are undertaking the detailed designs of the roads.

2.1.11 EU-GH-MRH-166903: Selected Feeder Roads and Farm tracks in the Jirapa Municipal, Daffiama Bussie Issa District and Lawra Municipal (208.9km)

Contract has been signed with the Contractors and are undertaking the detailed designs of the roads.

2.1.12 EU-GH-MRH-166906: Selected Feeder Roads and Farm tracks in the Nandom District and Lambussie District (225.8km)

Contract has been signed with the Contractors and are undertaking the detailed designs of the roads.

2.1.13 STATUS OF ON-GOING CONTRACTS

The table below shows the status of on-going works as at 30th June, 2022

ACTIVITY NO	PROJECT TITLE	BUDGET US $' 000	STATUS	CONTRACT SIGNED DATE	CONTRACT COMPLETION DATE	ACTUAL CONTRACT AMOUNT US $' 000	UPDATE
GH-MRH-83885-CW-RFB	Upgrading to gravel surface selected Feeder Roads and Farm access in Atebubu/Amanten district of the Brong Ahafo region of Ghana (206.4km)	16,000.00	Contract was signed with Yangtse River International Limited on 2nd July 2020.	02-Jul-2020.	30-Jun-2025	18,333.40	Detailed designs of for roads in tranche , 2 & 3 approved by Employer. 40km of roads completed. Another 75km under construction. .
EU-GH-MRH-166902-CW-RFB	EU Funded Works Contract on Selected Feeder and Farm Roads in the Upper West Region of Ghana-Package 1 (Wa West District, Wa Municipal and Nadowli-Kaleo District)-234.7km	11,200.00	Contract was signed with Nag Fairmount Company Limited on 29th April, 2021	29th April, 2021	31st December 2024	12,419.00	120km of detailed designs resubmitted for review and approval by Monitoring Consultant.

ACTIVITY NO	PROJECT TITLE	BUDGET US $' 000	STATUS	CONTRACT SIGNED DATE	CONTRACT COMPLETION DATE	ACTUAL CONTRACT AMOUNT US $' 000	UPDATE
EU-GH-MRH-166906-CW-RFB	EU Funded OPBRC Works Contract on Selected Feeder and Farm Roads in the Upper West Region of Ghana-Package 3 (Nandom Municipal and Lambussie-Karni District) - 225.8km	10,500.00	Contract was signed with Attachy Construction Limited on 24th May, 2021	24th May, 2021	31st December 2024	10,234.00	Detailed designs for 225.8km submitted for review by the Monitoring Consultant(MC). MC reviewed and submitted comments to Contractor.
EU-GH-MRH-166903-CW-RFB	EU Funded OPBRC Works Contract on Selected Feeder and Farm Roads in the Upper West Region of Ghana-Package 2 (Lawra, Jirapa and Daffiama-Issa-Bussie Districts)-209.3km	10,200.00	Contract was signed with Memphis Metropolitann Limited on 2nd December, 2021	2nd December, 2021	30th June 2025	15,841.00	Detailed designs ongoing
	Total	**37,700.00**				**56,827.40**	

2.2 Bridge Development Programme

The Department of Feeder Roads under its Bridge Development Programme has identified 5,000 water crossing points that hamper the provision of basic access to rural communities. Out of this number 1,200 sites have been classified as critical for the effective functioning of the rural road network.

The Department through the assistance of some development partners including Japan International Corporation Agency (JICA), Department for International Development (DFID) of United Kingdom, Agience Francais de Developement (AFD) of France, ACROW Corporation of United States of America (USA), the Spanish Government and the Government of the Royal Netherlands have constructed 170 bridges and major box culverts so far out of the 1,200 critical river crossing points identified.

The DFR Bridge Development Programme forms part of the Ministry of Roads and Highways' programme under the Ghana Poverty Reduction Strategy which aims at improving the socio-economic life of the rural dwellers.

The provision of the bridges has facilitated the safe and more economical movement of people, goods and services in the rural communities due to the elimination of long detours and making the network more coherent and interactive. This has also contributed to the reduction of travel times in some instances.

Table 3.2: SUMMARY OF STATE OF BRIDGE PROJECTS AS AT 31ST DECEMBER 2022

Description	Dutch Bridges	Acrow Bridges	Spanish Bridges (Phase 1)	Spanish Bridges (Phase 2)	Belgium Bridges
No. Awarded	94	44	21	13	5
No. completed & opened to traffic	81	33	14	13	2
No. Launched but not opened to traffic	7	3	0	0	1
No. Awarded as Box Culverts	16	3	3	Nil	Nil
No. of Culverts completed & opened to Traffic	16	3	3	Nil	Nil
REMARKS	14nos. terminated	11nos. terminated, 1no ongoing. 10nos. completed under emergency programme.	7no. terminated.	Funding under Ghana-Spain Debt Swap Programme. Works are 100% complete	Civil works Supervision by Private Consultant. Slow progress partly due to financial challenges.

2.2.1 Ghana/Dutch Bridges Project

2.2.1.1 Background

The Government of Ghana received a credit facility of Euro 16.5 million (with 65% credit and 35% grant) from the Netherlands Government for the supply of steel bridge components for the construction of ninety-two (92) bridges on selected feeder roads in Ghana under the "Ghana/Dutch Bridge Project".

GOG provided a counterpart fund for the provision of the following:

i. Construction of reinforced concrete bridge substructure.
ii. Clearance and transportation of steel bridge components from Tema Port to the bridge sites.
iii. Assembling and launching of steel bridges.
iv. Construction of both the approach and access roads to the bridges and
v. Construction of sixteen (16) major box culverts in tandem with the bridge project.

The project, which is in three phases, is as detailed below:

Phase I – 31 bridges and 14 major box culverts

Phase II – 30 bridges and 1 major box culvert

Phase III – 33 bridges and 1 major box culvert

2.2.1.2 Status

A total of ninety-two (92) bridges were planned under this programme. As at 31st December 2022, eighty-seven (87) bridges have been launched with eighty (80) opened to traffic and in service. The remaining seven (7) which were constructed up to the launching level have been terminated due to excessive delay in completion.

Sixteen (16) major box culverts were also awarded as part of the bridge programme and have been completed and opened to traffic. The overall progress of work under the programme is thus currently 100%.

Table 2.3 shows the regional distribution of the bridges and the number completed as at 30th September 2022.

Table 2.3: Regional Distribution of Dutch Bridges and Number Launched/Completed

Region	BRIDGES		MAJOR BOX CULVERTS	
	No. Awarded	No. Launched/ Completed	No. Awarded	No. Completed
Greater Accra	4	4/2	2	2
Volta	9	9/9	0	0
Eastern	8	7/7	4	4
Central	10	10/9	1	1
Western	11	10/10	2	2
Ashanti	13	13/13	3	3
Brong Ahafo	13	13/12	1	1
Northern	11	9/9	0	0
Upper East	8	8/7	2	2
Upper West	5	4/2	1	1
TOTAL	**94**	**87/80**	**16**	**16**

2.2.2 Ghana-ACROW Bridges Project

2.2.2.1 Background

The Ghana-ACROW bridge project involved a total amount of US$47.7 million. This consisted of a loan amount of US$37.7 million for the supply of bridge components for 100 bridges. A grant amount of US$7.0 million was also provided as seed money for the cost of the civil works and filling of approach roads to the bridges which is to be funded by GoG.

A contract for the supply of the bridge components was also signed as part of the project. The project was planned to be executed in three phases.

2.2.2.2 Status

A total of forty-seven (47) bridges were awarded under Phase One of the project but three (3) out of that number were redesigned as major box culverts due to the prevailing site conditions. Additional 10nos. bridges were executed under emergency situations which were completed successfully.

As at 31st December 2022 a total of forty-three (43) bridges had been completed and opened to traffic. Three (3) of the box culverts have also been completed. The overall progress of work is about 98%. Thirteen (13) of the contracts were terminated whilst one was still on-going. Of the thirteen bridge contracts terminated five (5) have been launched by direct labour.

The bridge components are currently stockpiled at DFR Stores in Koforidua and the Koforidua Training Centre (KTC) from where they are transported to the various sites as and when the sites are ready for assembly and launching.

The cost of the civil works for the phase 1 contracts was estimated at GH¢ 27,981,976.34.

Table 2.4 shows the regional distribution of the (Phase I) bridges.

Table 2.4: Regional Distribution of ACROW Bridges and Number Launched/Completed

Region	**BRIDGES**		**MAJOR BOX CULVERTS**	
	No. Awarded	**No. Launched/ Completed**	**No. Awarded**	**No. Completed**
Greater Accra	2	2/2	0	0
Volta	7	7/6	2	2
Eastern	4	4/3	1	1
Central	5	3/3	0	0
Western	5	5/5	0	0
Ashanti	6	4/4	0	0
Brong Ahafo	5	4/3	0	0
Northern	3	3/3	0	0
Upper East	3	3/3	0	0
Upper West	4	2/1	0	0
TOTAL	**44**	**37/33**	**3**	**3**

2.2.3 Ghana - Spanish Bridges Project

The Spanish bridge programme involves the construction of fifty-two (52) bridges throughout the country.

This involves a facility of Euro 10.0 million under the Second Ghana-Spain Protocol for the supply of components. The supply of the components was in two lots of 26 each. The Government of Ghana funded the cost of the civil works and filling of approach road to formation level.

2.2.3.1 Status of Supply Contracts

Two supply contracts were awarded to Two (2) Spanish firms for the supply of the bridge components; M/s Makiber for Lot 1 and M/S Schwart-Hautmont for Lot 2.

Lot 1

M/s Makiber supplied twenty-six (26) bridge components which are stockpiled at the DFR Regional Office yard in Koforidua.

Lot 2

Under the Lot 2 supply contract, M/S Schwart-Hautmont also supplied 26 bridge components which are stockpiled at DFR Stores in Accra.

Progress

Phase 1

Contracts for 24 bridges under Phase 1 was awarded at a total cost of GH¢ 15,359,267.33. The design of three (3) of the 24 bridges under Phase 1 were revised due to the prevailing site conditions and were thus constructed as major box culverts.

Fourteen (14) bridges have been installed and opened to traffic. The remaining seven (7) bridges have been terminated. The overall progress of work for those opened to traffic is 100%.

Table 2.4 shows the regional distribution of the (Phase I) bridges.

Table 2.5: Regional Distribution of Spanish Bridges and Number Launched/Completed

Region	BRIDGES		MAJOR BOX CULVERTS	
	No. Awarded	No. Launched & Completed	No. Awarded	No. Completed
Greater Accra	0	0	0	0
Volta	1	1	0	0
Eastern	5	4	0	0
Central	2	2	2	2
Western	3	0	0	0
Ashanti	2	2	1	1
Brong Ahafo	2	2	0	0
Northern	2	2	0	0
Upper East	1	1	0	0
Upper West	3	0	0	0
TOTAL	**21**	**14**	**3**	**3**

2.2.3.2 Phase 2 Spanish Bridges

Thirteen (13no.) bridges were awarded in the last quarter of 2016 but works commenced in June 2017. They are located in Volta, Central, Eastern and Northern Regions. All the thirteen (13) bridges have been fully completed and opened to traffic.

Table 2.5b: Regional Distribution of Spanish Bridges

Region	No. Awarded	Foundations completed	Bridges launched	Bridges opened to traffic
Volta	4	4	4	3
Eastern	3	3	3	3
Central	3	3	3	3
Northern	3	3	3	3
TOTAL	**13**	**13**	**13**	**12**

2.2.4 Belgium Bridges

The supply of the bridge components for a total of 490m span over five (5) water crossing points have been received and stockpiled. As at 31st December 2022 three bridges have been launched; Galosota in the Volta Region, Suprudo and Kushea in the Central Region). Of these, the 105m length at Suprudo was substantially completed on 15th April, 2021 whilst the 70m length bridge at Galosota was finally handed over to DFR on the 16th of April 2021 with commissioning in 2022.

Table 2.6 shows roads, river names and regions within which the bridges are located and the individual progress of work as at this reporting quarter.

Table 2.6: Bridge Locations, River Names and Spans

No.	Road Name	River Name	Span of Bridge (m)	Region	District	% Progress	Remarks
1	Kpando Agbenoxoe – Kpando Dafor	Tributary to Volta	175	Volta	North Dayi	89%	Two abutments and five piers completed. Bridge installation on-going concurrently.
2	Galo – Sota – Bomingo	Angor	70	Volta	South Tongu	100%	First taking over done.
3	Anlo Jn. – Nsese No. 1 – Nsese No. 2	Pra	70	Eastern	Akyemansa	41%	One abutment and one pier completed to launching level
4	Mankessim – Suprudo – Amissano	Okyi	105	Central	Mfantsiman	100%	Final Taking-over done.
5	Asempaneye – Kushea – Hwidiem	Pra	70	Central	Assin North	97%	Foundation works completed. Bridge Installed. Approach filling completed. Access Road works completed whilst protection works almost completed

Supervision of the works under this bridge programme is being undertaken by a Consultant. The Contractors working on the 175m bridge at Agbenoxoe have completed the sub-structural works (two abutments and four piers). They have almost completed the bridge installation and the approach filling activities. The protection and finishing works are also simultaneously being executed.

The contractors working on the 70m bridge located in the Eastern Region have completed the first abutment.

3 CHAPTER THREE: STATUS OF ON-GOING ROAD PROGRAMMES UNDER VARIOUS FUNDING SOURCES

3.1 Road Fund

3.1.1 Background

The DFR received the approved funding amount of GHC 200,000,000.00 from Road Fund under the 2022 budget. A total of GHC 111,003,870.00 was disbursed as at the end of December 2022 on Road Fund contracts.

3.2 Consolidated Fund (Investment)

3.2.1 Background

The 2022 approved funding amount after appropriation include investments under GoG Consolidated Fund and the Annual Budget Funding Amount (ABFA) from the Ministry of Finance (MoF).

3.2.2 Status of on-going Contracts

A total of **GH¢111.92million** has been disbursed as at the end of December 2022 in respect of payment under ABFA funding and **GH¢0.427million** under donor capex for on-going and completed contracts. Personnel compensation expenditure is **GH¢13.65million** as at the end of December 2022. Only GH**¢0.032million was dis**bursed in respect of goods and services for the whole year ending December 2022. This situation affected the operations of the Department significantly during this year under review.

3.3 Rural Roads in Cocoa Growing Areas

The collaboration between the Department of Feeder Roads and Ghana Cocoa Board (COCOBOD) continues with the rehabilitation and or upgrading of selected roads in cocoa growing communities. The improvement of such roads is augmenting the DFR's mandate of providing all weather accessibility to facilitate the movement of people, goods and services and as a catalyst for rural economic development. The summary of COCOBOD Funded Projects under the supervision of DFR is presented below as at 31st December 2022.

FUNDING NAME	OUTSTANDING NO. OF CONTRACTS	COST OF WORKS (GHC)	CERTIFIED AMOUNT (GHC)	OUTSTANDING COST OF WORKS (GHC)	YEAR OF AWARD	EXPECTED YEAR OF COMPLETION	STATUS (AVERAGE % COMPLETION)
CFRIP	6	18,902,064.52	10,061,005.85	8,841,058.67	2011	2013	58.7
COCOBOD	64	883,049,505.45	380,250,431.25	502,799,074.20	2016	2019	50.4
TOTAL	**70**	**901,951,569.97**	**390,311,437.10**	**511,640,132.87**			

The 2022 upgrading of roads in cocoa growing areas funded by COCOBOD are being managed directly by the Ghana Cocobod with the DFR being responsible for only supervision. The table below shows a summary of the number of contracts on-going as at 31st December 2022.

FUNDING NAME	NO. OF CONTRACTS	CONTRACT SUM (GHC)	CERTIFIED AMOUNT (GHC)	OUTSTANDING COST OF WORKS (GHC)	STATUS (AVERAGE % COMPLETION)
COCOBOD	325	6,371,926,269.50	2,538,831,199.08	3,833,095,070.42	51.0

4 CHAPTER FOUR: COLLABORATIVE PROGRAMMES

4.1 WESTERN CORRIDOR INFRASTRUCTURE PROJECT (GHANA GAS FUNDING)

4.1.1 Introduction

The Atuabo Gas Processing Plant in the Western Region has been constructed to produce Liquefied Petroleum Gas (LPG) in commercial quantities as part of the natural gas prospecting activities for the nation. The initial design proposal was to transport the LPG via subsea through Camp Buoy but due to time constraint, it is desired that the LPGs be transported by road.

However, in view of the general poor condition of the selected LPG transporting road corridor in the Western Region, the Ministry of Energy and Petroleum arranged with the Jubilee Partners to solicit financial support to facilitate the construction of the road network in the gas production zone.

A feasibility assessment was therefore carried out to ascertain the conditions of the existing road network within the corridor and proposed a suitable route that will enable the safe transportation of LPG with limited impact on the environment.

To this effect, the Department of Feeder Roads (DFR) was contacted to assist in the upgrading of part of the road network to facilitate the transportation of the LPG. A total of 34.00km of the road network was seeded to the department to supervise. Due to the urgency of the work, the road was divided into two phases and awarded to two construction firms. The total cost of the two (2) contracts is GH¢24.368m.

The two phases commenced in April and May, 2014 respectively under the supervision of a DFR team and were completed in 10th October, 2018 for phase 1 and 30th July, 2020 for the phase 2.

A third contract with the description of Bitumen Surfacing of Half Assini – New Town Road (20.0km) was awarded on 26th July, 2016 for completion over a 12-month period. The contract was awarded as part of a number of contracts under the supervision of the Department of Urban Roads but the supervision was ceded to the DFR due to the location of the contract road.

4.2.2 Status

The progress of work is 77% physical completion with a total certified amount for work done as at 31st March, 2022 at **GH¢96,649,189.01**million. The length completed to date is 12.50km and has come to a standstill because of variations due to excessive haulage distances to source

for suitable material for sub-base and base. The cost effect of the variations has led to a shortfall in the amount of money required to complete the remaining 8.0km.

Table 4.3 shows the detailed progress data on the contract.

Table 4.1: Western Corridor Gas Infrastructure Project

Department of Feeder Roads

Western Corridor Gas Infrastructure Project

Progress Report- December 2022

Region	District	Lot No	Road name	Length (km)	Name of contractor	Award Date	Commencement Date	Revised Completion Date	Contract Sum (GH¢)	Revised Contract Sum (GH¢)	Certified Payment to Date	Planned/ Scheduled progress (%)	Actual Progress (%)	REMARKS
Western	Ellembele/ Jomoro	1	Bitumen Surfacing of Half Assini – New Town	20.50	M/s Memphis Metropolitan Ltd	26/07/2016	10/11/2016	09/11/2017	20,527,290.12	20,527,290.12	20,024,933.82	97.55	77	Contract scheduled to be closed at this status.
			TOTAL	**20.5**					**20,527,290.12**	**20,527,290.12**	**20,024,933.82**			

A meeting held with Ghana Gas on the future of the contract arrived at the conclusion that the contract be closed due to the shortfall in funding. A joint site visit for the final measurement is scheduled to take place within the first quarter of 2023.

4.2 WESTERN CORRIDOR GAS INFRSTRUCTURE PROJECT (GNPC FUNDING)

4.2.1 Introduction

The Ghana National Petroleum Corporation (GNPC) is collaborating with the DFR in the upgrading of selected roads within the gas enclave of the Western Region. A memorandum of understanding has been established between the DFR and GNPC for the management and supervision of the roads.

A total of 15 individual roads with a cumulative length of 398.16km have been awarded and are on-going since 2022 and are expected to be completed by 2023. The total cost of the commitment is GHc 888.45million.

The status of implementation of the GNPC funded projects is presented as table 4 below.

Table 4: status of GNPC funded upgrading contracts

No.	REGION	DISTRICT	ROAD / BRIDGE NAME	LENGTH (KM) / SPAN (M)	CONTRACTOR	AWARD DATE	START DATE	COMPLETION DATE	ORIGINAL CONTRACT SUM (GH¢)	AMOUNT CERTIFIED TO DATE (GH¢)	COST TO COMPLETE	FINANCIAL PROG (%)	PHYSICAL PROG (%)	ACTUAL COMPLETION DATE	REMARKS
1	Western	Nzema East	Bitumen Surfacing of Gwira Aiyinase - Gwira Wiawso Feeder Road PH.I (KM 0.00-10.00)	10.00	Fridoug Limited.	22-Oct-19	07-Aug-20	06-Aug-21	14,918,799.24	6,892,317.34	8,026,481.90	53	52		10km cleared, 10km formation and 3,713m u-drain, 8no. 1/900PC, 6no. 1/900PC ext, 11no. 1/1200PC, 3no. 1/1200PC ext, 3no. 2/1200PC and 8.3km subbase completed. First warning letter issued on 11th August 2021. Extention of time due to rainfall, compensation of cocoa farmers and V.O is being finalised for onward submission to the project manager for consideration.
2	Western	Nzema East	Bitumen Surfacing of Gwira Aiyinase - Gwira Wiawso Feeder Road PH.II (KM 10.00-20.00)	10.00	Fridoug Limited.	22-Oct-19	07-Aug-20	06-Aug-21	14,009,852.44	3,293,639.50	10,716,212.94	28	25		10km cleared, 10km formation and 2,6720m u-drain, 4no. 1/900PC and 3no. 1/1200PC completed. First warning letter issued on 11th August 2021. Extention of time due to rainfall, compensation of cocoa farmers and V.O is being finalised for onward submission to the project manager for consideration.
3	Western	Nzema East	Bitumen Surfacing of	10.00	Fridoug Limited.	22-Oct-19	07-Aug-20	06-Aug-21	14,867,436.64	2,140,012.79	12,727,423.85	21	17		10km cleared, 10km formation and 2,763m u-

			Gwira Aiyinase - Gwira Wiawso Feeder Road PH.III (KM 20.00-30.00)												drain, 4no. 1/900PC and 3no. 1/1200PC completed. First warning letter issued on 11th August 2021. Extention of time due to rainfall, compensation of cocoa farmers and V.O is being finalised for onward submission to the project manager for consideration.
4	Western	Jomoro	Bitumen Surfacing of Selected Roads in Jomoro District of Western Region	44.00	Myturn Limited	19-May-20	09-Jul-20	08-Jul-22	153,457,050.48	0.00	153,457,050.48	8	0	-	43.9km clearing and formation, 3,148m U-drain completed. First warning letter was issued on 8th September, 2021 for slow progress.
5	Western	Nzema East	Upgrading to Bitumen Surfacing of Kutukrom - Tabakrom Feeder Road (37.00Km)	37.00	Kingspok Company Limited	17-Aug-20	12-Jan-21	11-Jan-23	55,824,562.00	10,649,871.97	45,174,690.03	22	23	-	37km clearing, 10No. 1/900PC, 1No. 1/1200PC, 1No. 2/1200PC, 2No. 2/3 x 3m RBC, 3,666m u-drain, 2.5km formation and 2.5km subbase completed. Contract behind schedule.
6	Western	Ellembelle/Nzema East	Upgrading to Bitumen Surfacing of Dadwen - Averebo - Ahunyane - Adelekezo Feeder Road & others (54.00Km)	54.00	Kingspok Company Limited	17-Aug-20	13-Jan-21	12-Jan-23	113,535,394.92	38,908,811.09	74,626,583.83	39	39	-	32.53km site clearing, 32.53 formation, 38no. 1/900PC, 6no. 1/1200PC, 2no. 2/1200PC, 1no. 1/2 x 2m RBC, 2/2 x 2m RBC, 30,483m u-drain, 9.4km formation and 2.86km subbase completed. Contract behind schedule.
7	Western	Ellembelle/Nzema East	Upgrading to Bitumen Surfacing of Santasu - Baseke Feeder Roads & others (65.20Km)	65.20	K. P. S. Resourses Limited	17-Aug-20	21-Sep-20	20-Sep-22	97,340,903.92	14,712,945.36	82,627,958.56	15	18	-	SANTASU - BASEKE F/R: 20km Clearing, 8km cut & fill to formation. ESSIAMA NEW SITE: 288m 0.6m u-drains, 95m 0.9m u-drains, 2.65km formation, subbaseand base completed. ADUBRIM - AYAWURA: 677m 0.6m u-drain, 22no. 1/900PC, 2no. 1/1200PC, 8km subbase completed. First warning letter was issued on 3rd December, 2021 for slow progress.
8	Western	Ellembelle/Jomoro	Upgrading to Bitumen Surfacing of Tikobo No.2 Jn - Tikobo No.2 Feeder Road & others (43.83Km)	43.83	Memphis Metropolitan Limited	17-Aug-20	14-Sep-20	13-Sep-22	120,085,042.20	26,452,207.69	93,632,834.51	24	26	-	28.23km cleared, 20,234m 0.6m u-drain and 549m 0.9m u-drain completed.
9	Western	Ellembelle/Nzema East	Upgrading of Asaasetre - Gyampre Jn	21.10	Memphis Metropolitan Limited	29-Dec-20	15-Jul-21	14-Jul-23	43,375,157.84		43,375,157.84	0	0		Contractoryet commence works.

			Feeder Road Ph.1 (21.10Km)												First warning letter issued on 31-Jan-2022.
10	Western	Nzema East	Upgrading of Asaasetre - Gyampre Jn Feeder Road Ph.2 (Km 21.10 - 40.50)	19.40	Myturn Limited	17-Aug-20	15-Jul-21	14-Jul-23	29,494,961.28		29,494,961.28	3	0	-	19.4 km site clearance completed
11	Western	Ahanta West	Upgrading of Dixcove - Akwadai & other Feeder Roads (15.00Km)	15.00	Erdmac Company Limited	11-Dec-20	03-Feb-21	02-Feb-23	37,340,992.53	10,523,970.12	26,817,022.41	16	17		15km cleared, 15km formation, 11no. 1/900PC, 7no. half 1/900PC, 1no. ext 1/900PC, 2,470m U-drains completed. Contract behind schedule.
12	Western	Ahanta West	Upgrading of Tonto - Aketechie - Aboadi Feeder Road (14.17Km)	14.17	Erdmac Company Limited	11-Dec-20	03-Feb-21	02-Feb-23	32,127,237.06	15,035,522.17	17,091,714.89	37	41		14.17km clearing and formation, 28no. 1/900PC, 21no. Ext 1/900PC, 2no. Ext 1/1200PC, 5'790m U-drains, 14.17Km Sub-base completed. Contract behind schedule.
13	Western	Ellembelle/Nzema East	Upgrading Of Santasu - Aidusuazo - Kwesikrom - Prestea Nkwanta Feeder Roads Ph.1 (20.00Km)	20.00	Memphis Metropolitan Limited	14-Dec-20	13-Jul-21	12-Jul-23	66,923,231.89	0.00	66,923,231.89	2	0		20km site clearance and 17km formation completed
14	Western	Nzema East	Upgrading of Santasu - Aidusuazo - Kwesikrom - Prestea Nkwanta Feeder Roads Ph.II (18.16Km)	18.16	Kingspok Company Limited	14-Dec-20	14-Jul-21	13-Jul-23	59,727,173.02	7,412,055.81	52,315,117.21	16	16		38.16km site clearance, 15no. 1/900PC, 15No. 1/1200PC, 3No. 2/1200PC and 1,626m u-drain completed. Contract behind schedule.
15	Western	Ahanta West	Upgrading of Nyamebekyere - Agyambra Feeder Road & others (16.30Km)	16.30	Park-Side Limited	11-May-21	24-Aug-21	23-Aug-23	35,422,324.42	0.00	35,422,324.42	2	0		16.3km clearing completed.

5 CHAPTER FIVE: CROSS CUTTING ISSUES

5.1 Road Safety

5.1.1 Action Plan

As part of the National Road Safety Strategy III (NRSS III) covering 2021-2030, the DFR planned the for the implementation of some measures on feeder roads to address safety challenges. The table below shows DFR's action plan for 2022.

OBJECTIVE 1; CAPACITY ENHANCEMENT												
Activity 1: Improved Capacity for DFR Road Safety Focal Persons												
Description	**Specific Activity**	**Target 2022**				**Achievement 2022**						
		No./Length/ Area (km/m2)	**Variable indicators**	**Budget (GHC)**	**Proposed Date/Period of Implementation**	**Actual Date/Period of implementation**	**Evidence of Implementation**	**Expenditure (GHC)**	**Actual No./Length obtained**	**Physical Achievement (%)**	**Remark**	**Comment**
In house capacity building	Undertake in-house capacity building in road safety	20No.	No of staff to be trained	5,000.00	2nd-4th Quarter					0.00	Activity will be proposed in 2023	Could not be undertaken due to inadequate funding
Road Safety Inspection	Identification of implemented road safety measures on selected completed roads.	40No.	No of roads inspected	5,000.00	2nd-4th Quarter					0.00	Activity will be proposed in 2023	Could not be undertaken due to inadequate funding
SUB-TOTAL				10,000.00								

OBJECTIVE 2: SAFETY CONSIDERATIONS IN DESIGN AND CINSTRUCTION												
Activity 2.1: Road safety in road design and construction												
Ensure vegetation control	Undertake routine maintenance(grass cutting) on engineered roads.	$20x10^6$ m^2	Area	NIL	Whole year	Jan – Dec. '22	Regional Quarterly report submission		$16x10^6m^2$	80		Activity is part of the contract.
Road warning signs	Erect warning signs at appropriate locations including curves, at bridge approaches and construction sites.	500No.	No of road warning signs	NIL	Whole year	Jan – Dec. '22			1,359nos	272		Activity is part of the contract.
Road line markings	Undertaking road line marking of bituminous surfaced roads	450km	Length of road marked	NIL	Whole year	Jan – Dec. '22			476.68km	106		Activity is part of road contracts
SUB-TOTAL				-								
Activity 2.2. Incorporate pedestrian safety facilities in road construction to provide for their special needs and requirement												
Provision of pedestrians crossing,	Provide pedestrian crossings on	100No.	No of pedestria	NIL	Whole year	Jan – Dec. '22			157nos	157		Activity is part of

speed humps/ rumble strips facilities	roads crossing through communities		n crossing									road contracts
	Provide speed humps on roads within communities, health institutions and Schools.	200No	No of speed humps provided	NIL	Whole year	Jan – Dec. '22			161nos	80.5		Activity is part of road contracts
SUB-TOTAL				-								
GRAND TOTAL				10,000.00								

As part of DFR's strategy for implementing the action plan, road safety and environment focal persons are to be established in the regions to be responsible for data collection and reporting on issues of road safety and environment.

6 CHAPTER SIX: HUMAN RESOURCE MANAGEMENT

7.1 Staffing

The Department of Feeder Roads has a total staff strength of Three Hundred and Fifteen (315), including the Head Office and the Regions as at 31st December 2022. This is made up of both technical and non-technical staff of various professional backgrounds.

The Department is headed by a Director (Chief Engineer) with three (3) Deputy Directors (all Chief Engineers) in charge of Planning, Development and Maintenance. The Department is currently operational in all the sixteen (16) regions of Ghana.

7.1.1 Gender Ratio

The gender distribution of staff of the Department is as follows;

Staff Categorization					
Gender	**Male**		**Female**		**Total**
Staff Levels	**Senior**	**Junior**	**Senior**	**Junior**	
	190	50	41	34	315

7.1.2 Age Distribution

The age distribution of the Staff of the Department is shown in the Table below.

Age Distribution	**Age Range**					
Gender	**20-30yrs**	**30-40yrs**	**41-50yrs**	**51-60yrs**	**60yrs+**	**TOTAL**
MALE	15	52	92	81	0	240
FEMALE	9	23	23	20	0	75
SUB-TOTAL	24	75	121	101	0	315

7.1.3 Staff Establishment

The staff establishment levels of DFR as at 30th June 2022 is indicated on table 7.1 below. The total staff requirement against the number at post shows a variance of 393 personnel which implies that the Department is under staffed.

This deficiency is particularly noticed in the categories of technical staff and drivers. The situation has currently led to officers driving themselves whiles on official assignment to the regions and elsewhere putting extra stress on performance.

Table 7.1: STAFF ESTABLISHMENT

No	GRADE/POSITION	NUMBER AT POST	NUMBER OF OFFICERS RECOMMENDED	VARIANCE
1	Chief Engineer	14	20	6
2	Principal Engineer	10	25	15
3	Senior Engineer	17	25	7
4	Engineer	14	30	16
5	Assistant Engineer	13	35	22
6	Chief Quantity Surveyor	2	3	1
7	Principal Quantity Surveyor	6	13	7
8	Senior Quantity Surveyor	4	15	11
9	Quantity Surveyor	8	20	12
10	Assistant Quantity Surveyor	13	20	7
11	Chief Planning Officer	0	1	1
12	Principal Planning Officer	0	1	1
13	Senior Planning Officer	0	1	1
14	Planning Officer	1	2	1
15	Assistant Planning Officer	1	2	1
16	Deputy Director	0	1	1
17	Assistant Director IIA	0	1	1
18	Assistant Director IIB	0	1	1
19	Chief Technician Engineer	8	15	7
20	Assistant Chief Technician Engineer	10	15	5
21	Principal Technician Engineer	8	20	12
22	Senior Technician Engineer	8	20	12
23	Technician Engineer	5	20	15
24	Chief Technical Officer	5	12	7
25	Assistant Chief Technical Officer	5	12	7
26	Principal Technical Officer	5	15	10
27	Senior Technical Officer	5	15	10
28	Technical Officer(Grade I & II)	4	20	16
29	Chief Works Superintendent	6	10	4
30	Principal Works Superintendent	7	15	8
31	Senior Works Superintendent	5	15	10

32	Works Superintendent	7	20	13
33	Foreman	5	20	15
34	Junior Foreman	5	20	15
35	Chief Technical Assistant	3	10	7
36	Principal Technical Assistant	5	10	5
37	Senior Technical Assistant	6	15	9
38	Technical Assistant	8	15	7
39	Chief Executive Officer	2	2	0
40	Assistant Chief Executive Officer	3	3	0
41	Principal Chief Executive Officer	5	8	3
42	Senior Executive Officer	6	6	0
43	Higher Executive Officer	3	5	2
44	Executive Officer	5	5	0
45	Senior Records Officer	2	2	0
46	Principal Records Supervisor	0	1	1
47	Senior Records Supervisor	0	1	1
48	Senior Records Assistant	1	1	0
49	Principal Estates Manager	0	1	1
50	Senior Estates Manager	1	1	0
51	Operations Control Manager	2	2	0
52	Higher Executive Officer	3	5	2
53	Executive Officer	5	5	0
54	Chief Records Supervisor	2	2	0
55	Principal Records Supervisor	0	1	1
56	Senior Records Supervisor	0	1	1
57	Senior Records Assistant	1	1	0
58	Principal Estates Manager	0	1	1
59	Senior Estates Manager	1	1	0
60	Operations Control Manager	2	2	0
61	Operations Computer Supervisor	0	2	2
62	Principal Computer Operator	0	2	2
63	Assistant Programming Officer	0	2	2
64	Supply Officers	2	4	2
65	Senior Private Secretary	4	5	1
66	Private Secretary	4	5	1
67	Stenographer Secretary	3	5	2
68	Stenographer Secretary Grade I	5	6	1
69	Stenographer Secretary Grade II	5	8	3
70	Senior Typist	7	8	1
71	Yard Foreman	8	20	12
72	Heavy Duty Driver	7	25	18
73	Driver Grade I	6	20	14
74	Driver Grade II	6	15	9
75	Driver Grade III	4	15	11
	TOTAL	**315**	**708**	**393**

7.1.4 Training and Development

The Training needs and Programmes for the Staff of DFR for the year 2022 is planned to cover a wide spectrum of discipline with the aim of enhancing the technical as well as administrative capacities, and to enhance efficiency and effectiveness in the execution of the core mandate of the department. Details of the whole year training activities of the Department is presented in a separate End of Year Training Report for 2022 (copy attached to this report).

7 CHAPTER EIGHT: RESEARCH ACTIVITIES - AFCAP AND RECAP PROGRAMMES IN GHANA

7.1 Overview

7.1.1 AFCAP

The Africa Community Access Programme (AFCAP) is a programme of research and knowledge dissemination under the Research in Community Access Partnership (ReCAP) funded by the UK government through the Department for International Development (DFID). AFCAP is promoting safe and sustainable rural access in Africa through research and knowledge sharing between participating countries and the wider community in order to make a vital contribution to the sustainable socio-economic development of the more remote regions, and in particular their disadvantaged groups, in terms of access to markets, schools, health facilities and employment opportunities.

The first phase of AFCAP was implemented from June 2008 to July 2014 and the second phase commenced in 2014 for a period of 6 years. Ghana was selected to be a beneficiary of the second phase programme.

On 2nd December, 2015, a Memorandum of Understanding (MoU) was signed between the Ministry of Roads and Highways and Research for Community Access Partnership (ReCAP) to contribute information to low volume road and transport services related national and regional policies and strategies with the aim of establishing high quality research in low volume and transport services in Ghana that is managed and resourced locally.

The Department of Feeder Roads (DFR) was selected by MRH as the Agency to collaborate with AfCAP on the research and knowledge sharing programme.

7.1.2 Progress of Research Activities

DFR and the West African Regional Manager of ReCAP in consultation with other stakeholders within the transport sector scoped and selected twenty-one (21) research needs for the country. Out of this, as at the end of June 2022, twelve (12) projects had been successfully completed and three (3) are ongoing as shown in Table 8.1 and Table 8.2 respectively.

Table 8.1: Completed Project

No.	Project	Objectives	Start Date	End Date	Outcomes	Comments
1.	Training and application of the DCP-DN Pavement Design Method in Ghana	To build on existing knowledge and expand the appropriate use of the DCP DN method in the design of low volume rural roads in Ghana To introduce and integrate local content in the application of the DCP method in Ghana for cost effectiveness and ease of accessibility to the DCP equipment to facilitate the use of the proposed method.	8th February 2016	19th February 2016	The Trainees had a good grasp of the DCP-DN design method and use of the software for producing an environmentally optimised pavement design	Recommended the need for ToT for selected engineers
2.	Training of Trainers (including the design of trial sites for technology transfer) using the DCP DN in Ghana	To train six (6) trainers from Ghana and two (2) from Sierra Leone to an advanced level to allow for widespread training in the DCP-DN design method throughout Ghana and Sierra Leone using the AfCAP LVR DCP-DN design software To allow current trainers (who were also involved in the development of the software) to standardise training interventions and ensure consistency for further roll-out of the method and software.	12th Sept. 2016		Two of the trainers of trainers trained in the use of the DCP DN method have qualified as key trainers qualified to train as international trainers in the DCP DN method. 20 Materials technicians from all regions in Ghana have been trained	Demonstration Site completed and monitoring being undertaking by DFR.
3.	Alternative surfacing for steep hill section phase 1	To identify the factors that have impact on steep sections of Feeder Roads To identify options for mitigating factors in terms of pavement surfacing and/or effective drainage that can provide an acceptable level of service Propose a programme to demonstrate and try our suitable range of the identified pavement	15th January 2016	15th May 2016	Eighteen (18) pavement options comprising three alternative surfacing and two base/sub-base materials were recommended for steep hill sections	Recommended the need for field trials which was approved for phase II

No.	Project	Objectives	Start Date	End Date	Outcomes	Comments
		surfacing and drainage options on steep ill sections of feeder roads in Ghana.				
4.	Identification of Hazardous Spots and Recommendation of remedial measures on Selected rural roads	To develop an Accident Blackspot Management System (ABMS) which will form the basis of a coordinated approach to road safety on the rural road network	6th June 2016	20th January 2017	Costs Effectiveness of remedial measures on the basis of FYRR	DFR now has two dedicated computers with iMAAP software for the analysis of accident blackspots and all hazardous sites identified by the pilot study have been mitigated and expanded to an additional region
5.	Rural Transport Diagnostic Study	To explore the current state of rural transport in Ghana in light of the changing rural environment, identify gaps in our understanding of current rural transport practices and highlight opportunities for evidence-gathering, policy and practical efforts to improve the rural access experience of Ghanaians	15th Dec. 2016	22nd May 2017	Improved rural transport services and identified new areas for further research	A forum was held by the Ministry of Transport to integrate the findings into the ongoing review of the National Transport Policy
6.	The use of appropriate high-tech solutions for road network and condition analysis, with a focus on satellite imagery	To develop a methodology for using satellite imagery to assess road condition To explore other high-tech solutions for network assessment, such as big data, mobile phones, UAVs (drones) etc	April 2016	March, 2017	This project is handled at the regional level A framework for the application of satellite imagery from road inventory and others have been developed for Ghana	Demonstrations on validation of the results from the use of satellite imagery was validated with a ground routing process using two demonstrations sites in two regions in Ghana
7.	Climate Adaptation: Risk Management and Resilience Optimisation for Vulnerable Road Access	Deliver research programme on activities relevant to climate adaptation and resilience strategies to enable national governments to take both short and longer term, policy-making action Develop an appreciation and awareness within African Road and Transport ministries, departments and agencies of current and future challenges associated with the effects of climate	April 2016	March 2018	This project is handled at the regional level Three Key Manuals developed: Change Management Guidelines Risk/Vulnerability Guidelines Engineering Guidelines The study has provided vital	

No.	Project	Objectives	Start Date	End Date	Outcomes	Comments
		change on rural access, and increase ability to deal with more unpredictable and extreme climate effects Trial and optimize best cost-benefit and return-on-investment approaches to demonstrate optimal resilient rural access and minimal impact on national economic progress Produce Climate Adaptation guidelines Implement a knowledge dissemination and capacity building programme			contributions to the review of the National Transport Policy	
8.	Investigation into the suitability of Roller Compacted Concrete as pavement material in Ghana	To develop a suitable mix design for RCC with optimal compressive strength suitable for road pavement construction in Ghana making use of local materials; To monitor and evaluate its performance over time to enable standard specifications to be developed	7th July 2016	15th July 2018	The construction phase of the study study has been merged with the study on steep hills for cost effectiveness	
9.	Development of Low Volume Roads Design Manuals and update of Standard Specifications and detailed drawings for the three AfCAP member countries in West Africa	The purpose of this project is to prepare similar design manuals for LVRs for three AfCAP member countries in the West African sub-region, namely Ghana, Sierra Leone and Liberia.	July, 2017	March, 2019	First Workshop completed Second workshop completed Manuals launched in July, 2019 and in use by MRH and its agencies	
10.	Development and Recommendations for alternative surfacing for low volume roads in Ghana, Sierra Leone and Liberia	To recommend alternative surfacing technologies that may be viable for low volume roads in terms of lifecycle cost savings compared to traditional gravel surfacing in AfCAP countries in the West African Sub Region.	October, 2017	March, 2019	Manuals launched in July, 2019 and in use by MRH and its agencies	
11.	Enhancing understanding on safe motorcycle and three-wheeler use for rural transport	The overall aim of the project is to improve knowledge and understanding concerning effective ways of enabling rural people to benefit from the safe use of motorcycles and three-wheelers, with emphasis on rural motorcycle taxis,	18th September 2017	31st October 2018	Contributed towards the Consultative process for the lifting on the ban on motorcycle taxi	

No.	Project	Objectives	Start Date	End Date	Outcomes	Comments
		rider training, appropriate regulatory frameworks and realistic enforcement methods				
12	Development of Guidelines and Specifications for Low Volume Sealed Roads through Back Analysis	Provide a database of existing LVSRs that have been investigated related to pavement type and materials, performance and environmental conditions Provide a base level of information on the performance of non-standard designs and materials specifications when compared with traditional designs and specifications for roads carrying higher volumes of traffic (> 300 vpd)				Manual completed

Table 8.2: Status of ongoing Research Projects

No.	Project	Objectives	Start Date	Anticipated Completion Date	Progress/Comments
1.	Alternative Surfacing for Steep Hill Sections in Ghana-Phase 2	To define and demonstrate appropriate surfacing options as alternatives to the current gravel wearing courses on the steep hill sections of feeder roads in Ghana, and To offer sustainable solutions to address drainage and erosion problems experienced by those steep sections.	24th January, 2017	29th June, 2020	Contractor completed sub base construction Drainage works ongoing

No.	Project	Objectives	Start Date	Anticipated Completion Date	Progress/Comments
2.	Establishment of LTPP Monitoring Programme in Ghana, incorporating Capacity Building and Mentorship for research personnel		18th February, 2019	31st December, 2019	Base data collected, 2nd monitoring data collection ongoing Final reported has been submitted for approval
3.	Rural Access Index (RAI)	Review the status of RAI/SDG Indicator 9.1.1 and make recommendations to support more rapid and more extensive measurement of RAI in the future		June 2019	Ongoing Final Workshop to be held online in May in view of the COVID 19 Pandemic

7.1.3 Research Uptake and Embedment

The completed research project has contributed immensely to the road transport sector. The prominent examples of uptake and embedment of ReCAP research projects are the:

- Use of DCP-DN Design Method to design selected roads
- Application of DCP DN to thin asphalt project under JICA funding
- Training of other engineers in the DCP DN design method
- Training of Burkina Faso in DCP DN Method
- Identification of Black Spots using IMAP
- Inclusion of Climate Change and Climate Adaptation research into transport policy
- Integration of Transport Diagnostic Study into policy
- Contribution towards the consultative process for the lifting on the ban on motorcycle taxi
- Adoption of design manuals by DFR, GHA, DUR, Local Government

- Expansion of the capacity of engineers from all stakeholder entities including the academia in the use of design manuals

7.1.4 Contribution of Ghana to the Overall Research Community

As a result of Ghana's participation in the ReCAP research activities, the ReCAP community has accredited two of the trainers of trainers trained in the use of the DCP DN method as qualified as key trainers to train as international trainers in the DCP DN method. Furthermore, the National ReCAP Coordinator has been appointed as part of the committee of experts to develop a Rural Road Notes on Pavement Design Methods for Low Volume Rural Roads which seeks to replace the Oversees Road Notes

7.1.5 Recommendations under AfCAP

The AFCAP programme in Ghana has so far been successful, the Department of Feeder Roads has also effectively spearheaded all the projects directly under its purview and all the collaborative agencies have been supportive where necessary. The programme comes to a closer in June 2020 and it is the hope that MRH makes funds available to the contractor to successfully complete the research of the steep hills section.

It is also recommended that some of the outcomes of the ReCAP research findings be integrated into new projects such as the TSPI. e.g. the application of the DCP DN method should be considered for implementation on the improvement of some of the low volume roads alongside the conventional design methods.

Furthermore, following the workshop held on 22nd August, 2017 in conference room of MRH to disseminate and solicit opinions on strategies for the uptake and embedment of ReCAP research findings, it is recommended that MRH develop a comprehensive implementation strategy of the entire research programme.
The action on implementation by MRH is however yet to be developed.

8 CHAPTER NINE: LABOUR-BASED BITUMINOUS SURFACING TECHNOLOGY STUDIES

8.1 The Importance of the Technology

The development and maintenance of feeder roads network in Ghana continues to experience challenges in coverage towards improving the current condition mix. The employment of labour-based methodologies as a complement to the capital based methods of rural access development and provision comes in handy as it has inherent social benefits.

The Department of Feeder Roads (DFR) under the Ministry of Roads and Highways solicited support from the Japan International Cooperation Agency (JICA) to assist in the development of Labour-Based Bituminous Surfacing technology (LBST) for feeder roads. The specific focus in seeking the assistant from JICA is to assist in developing a procedure and guidelines for using cold bitumen, since heating of bitumen in the conventional bitumen preparation for hot spraying has its own associated risks and cost, for providing surfacing of a feeder road using labour-based methods of application.

JICA assisted in a pilot project to establish methodology and application of the LBST through field trials in the Eastern Region of Ghana. The field trials is successfully completed with the development of the guidelines for the application of the technology as a tool to protect the easily erodible surfaces of gravel roads at cheaper costs.

8.2 Status and the Way Forward

In a MoU, DFR is supposed to make available a road that has been constructed up to subbase with all the needed concrete structures in place using labour-based technology. JICA on the other hand will provide funds for the cost of laying of base material, provisions of bitumen and chippings, provision of a set of simple bituminous surfacing equipment, cost of labour, and the provision of Japanese experts to assist in the project. At the end of the pilot project JICA will develop a Guideline (manual) to be used as a working document on the technology for future use.

8.3 Status of the Project

The JICA funded pilot study completed in December 2018 with the preparation and launching of an operational manual for the use of the technology. A phase 2 of the project funded wholly under GOG commenced in early 2019 and expected to be completed before the end of 2019 is currently at a slow progress due to delay in payment for certified work done.

9 CHAPTER TEN: MONITORING OF DFR PROJECTS IN 2020

Monitoring and evaluation is one of the means by which the DFR assesses the performance as well as adherence to contract administration and control procedures in the regions. It offers opportunity to identify shot falls in knowledge and skills development among both staff and contractors.

In 2022, the monitoring of contract administration and site supervision activities in the Regions by Teams from the Head Office was planned to commence within the first quarter.

The schedule of DFR internal monitoring activities for 2022 is presented on the table below.

Table 9: planned and actual Internal monitoring schedule

QUARTER	PLANNED VISITS	SCHEDULED REGIONS	ACTUAL VISITS	REGIONS VISITED
1ST	3	UER, NR, BR	2	NR, BR
2ND	6	ASR, AHR, SAVR, NER, OTIR, UWR	2	UWR, NER
3RD	3	VR, CR, ER		
4TH	4	GAR, BER, WNR, WR		

As at indicated on the table above, scheduled monitoring visits for the second half of the year 2022 could not be achieved due to funding limitations.

10 CHAPTER ELEVEN: CHALLENGES AND THE WAY FORWARD

The Department has the capacity and knowhow to perform creditably, however, it faces internal and external challenges.

10.1 Key Challenges and Recommendations for mitigating the Challenges

- **Large portfolio of running contracts**; Recommended that an administrative decision be taken on measures to reduce the number of on-going contracts with a limit set per year. This will enable effective contract supervision, management and evaluation of contractor performance as well as reduction in incidents of interest on delayed payments.
- **Inadequate project preparation**; Proposed projects should be selected, adequately prepared and technically validated for procurement not less than 4 to 6 months before the procurement process for such works begin. This will reduce the incidence of huge variations during execution of contracts.
- **Large variations in original contract sums of certain contracts**; The situation where variations of whole contracts are issued on on-going contracts defeats the purpose of the provision for contract variations under the Public Procurement Law. The situation often raises Audit Inspection queries. In order to avoid such situations those contracts should be awarded as separate contracts or in phases.
- **Large backlog of Routine Maintenance activities leading to rapid deterioration of engineered roads;** Routine maintenance activities should be given priority over all other activities with respect to payment from the Road Fund. There should be a progressive programme towards achieving 100% routine maintenance of all engineered roads excluding those under upgrading or rehabilitation contract. At least a frequency of one reshaping per year at a regular interval.
- **Absence of regular staff training**; New personnel recruited to replace exited staff needs to be trained on various aspects of effective supervision, monitoring and evaluation to boost their technical confidence during decision making at project sites. This will reduce the incidence of error of technical judgement when such decisions have to be taking at a critical moment.

- **Absence of contractor training**; A lot of new road construction companies have appeared on the scene of road construction but most of them lack the requisite knowledge, skill of ability to interpret contract documents, drawings of designs in order to translate onto the ground. The situation is leading to mistakes or errors that raises concern with respect to the technical specifications, and brings frequent altercations between contractors' reps and DFR supervisory staff.
- **The need for a clear direction on the future role of DFR Head Office under a fully decentralized system**. There is the need for a strategic plan into the future to guide the DFR on the new role under the current decentralization process.

10.2 Way Forward

- Decentralization

1) *DFR should constitute an **Adhoc team to examine the new role of DFR Head Office (Policy, Planning, Monitoring & Evaluation) and the Regional Offices (as Departments under the RCC) and their new (eventual) role of Monitoring, Technical backstopping** in accordance with the provisions of the Decentralization Act (2016) under a fully decentralized Local Governance system*
2) DFR should begin engaging MRH and other stake holders on retaining its responsibility in the ***bridge development programme and also to be the repository of the GIS/Road Database*** on feeder roads for the purpose of policy guidance and decision making
3) The need for DFR to examine the actual levels of administrative interactions between the Head Office and the Regional DFR offices as they become Departments under the RCC's with the maintenance of the mother department name (DFR) (Section 196, 197 and Schedule Thirteen of Local Governance Act, 2016, (Act 936)). This will aid in the transition into the new roles and responsibilities.

- Other areas for consideration;

1) Capacity building for Contractors/Consultants and DFR Staff
2) Strategic increase in the use of Labour Based Technology for road works
3) Adequate time to be given to project preparation, supervision and monitoring with improved logistical support
4) Limit overloading of contractors
5) Use of the Road Prioritization Methodology in road selection for development.

10.3 Conclusions

The fourth quarter performance outcome of DFR's operations in year 2022 continued to show quite low progress. Low or none performance of contractors who are also attributing their performance to absence of credit facilities to finance their works and the effect of delayed payment on progress of work are the main drivers.

The DFR is analyzing the performance status of the portfolio of commitments so that some recommendations can be submitted to the MRH on the future of some very low achievement contracts.