ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)
FOR
THE PROPOSED BACKLOG MAINTENANCE/ REHABILITATION INTERVENTION, PHASE 1 ROADS (11 NOS. – 85.68KM) IN KOGI RAAMP. KOGI STATE, NIGERIA.



DRAFT FINAL REPORT

AUGUST, 2024

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ABBREVIATIONS AND ACRONYMS

CBOs	Community Based Organizations
CESMP	Contractor Environmental and Social Management Plan
CHS	Community Health and Safety
CLO	Community Liaison Officer
DHS	Demographic Health Survey
EA	Environmental Assessment
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESS	Environmental and Social Safeguards
FDRD	Federal Department of Rural Development
FMARD	Federal Ministry of Agriculture and Rural Development
FMEnv	Federal Ministry of Environment
FGN	Federal Government of Nigeria
FPMU	Federal Project Management Unit
GBV	Gender Based Violence
GIS	Geographic Information System
GRC	Grievance Redress Committee
GRM	Grievance Redress Mechanism
HIV	Human Immunodeficiency Virus
IDA	International Development Association
IPV	Intimate Partner Violence
KSMENR	Kogi State Ministry of Environment& Natural Resources
KOSEPB	Kogi State Environmental Protection Board
LGA	Local Government Area
MDAs	Ministries, Departments and Agencies
MEnv	Ministry of Environment
NESREA	National Environmental Standards and Regulations Enforcement Agency
NGO	Non -Governmental Organization
NPC	National Population Commission
OHS	Occupational Health and Safety
OP	Operational Policy (of the World Bank)
PAPs	Project Affected Persons
RAAMP	Rural Access and Agricultural Marketing Project
RAPs	Resettlement Action Plans
RoW	Right of Way
RPF	Resettlement Policy Framework
RTTP	Rural Travel and Transport Policy
SEA	Sexual Exploitation and Abuse
SMENR	State Ministry of Environment & Natural Resources
SPIU	State Project Implementation Unit
TA	Technical Assistance
ToR	Terms of Reference
VAC	Violence Against Children
WB	World Bank
WHO	World Health Organization

EXECUTIVE SUMMARY

ES.01: Background Information

The Federal Government of Nigeria (FGN) has initiated the preparation of the Rural Access and Agricultural Marketing Project (RAAMP), the successor of the Second Rural Access and Mobility Project (RAMP-2). The participating states are: eleven northern states (Bauchi, Gombe, Kaduna Kano, Katsina, Kebbi, Kogi, Kwara, Niger, Plateau and Sokoto) and eight southern states (Abia, Akwa Ibom, Ebonyi, Ekiti, Ogun, Ondo, Osun and Oyo). The RAAMP is aimed at improving and enhancing accessibility and mobility in the rural areas of Nigeria. As part of RAAMP activities, Kogi State RAAMP has selected 11 Nos Road projects totaling 85.68 km out of the 24 Nos roads totaling 171.61km covering the three (3) senatorial district and located within 7 LGAs (Adavi, Kabba-bunu, Mopa amuro, Dekina, Olamaboro, Igalamela-Odolu and Idah) for Backlog maintenance and rehabilitation roads to be intervened under the phase 1 work package. An Environmental and Social (E&S) Screening was undertaken February, 2023 which indicated that proposed project activities will result in E&S impacts and thus triggering the World Bank's Safeguard Policy OP/BP 4.01 (Environmental Assessment), OP/BP 4.04 (Natural Habitats), OP/BP 4.11 (Physical Cultural Resources) and OP/BP 4.12. (Involuntary resettlement). However, there is always a possibility of chance find with excavation works, hence the need for this policy to be activated. Consequently, this Environmental and Social Management Plan (ESMP) has been prepared to identify and address the E&S risks and impacts that may arise from the implementation of the proposed civil works while a stand-alone Resettlement Action Plan (RAP) has to be prepared to effectively manage resettlement related impacts.

The Kogi State RAAMP has selected 11 Nos road projects totaling 85.68 km out of the 24 Nos roads totaling 171.61km for Backlog maintenance and rehabilitation as roads to be intervened under the phase 1 work package**.** Despite the potential positive impacts, the project is envisaged to have limited adverse environmental and social impacts due to the nature of civil works and has triggered four environmental and social safeguards policies of the World Bank namely: Environmental Assessment OP/BP 4.01, Natural Habitats OP/BP 4.04, Physical Cultural Resources OP/BP 4.11 and Involuntary Resettlement OP/BP 4.12. The Kogi State Project Implementation Unit (SPIU) has prepared this Environmental and Social Management Plan (ESMP) as an instrument to address the environmental and social safeguard concerns of the Projects.

ES.02: Legal and Administrative Framework

The proposed project will be guided by applicable Federal and State policies and regulatory framework, and the World Bank Operational Safeguard Policies. The ESMP has been prepared in accordance with the procedures for conducting Environmental Assessments (EA) for development projects in line with the Environmental Impact Assessment Act No. 86, 1992 (codified as EIA Act CAP E12 LFN 2004), and the World Bank Operational Policies: OP 4.01 (Environmental Assessment), OP 4.04 (Natural Habitats), OP4.12 (Involuntary Resettlement) and OP 4.11 (Physical Cultural Resources). Consequently, the project implementation will be guided by the provisions of the National Policy on Environment (2016) and the applicable World Bank operational policies. The legal and regulatory framework is provided in detail in chapter 2.

ES.03: Project Description

The work package would involve engineering works such as, but not limited to, the following:

Backlog maintenance/Rehabilitation intervention applicable to all sites:

- Site clearance of the proposed roads except for Elubi-Etiaja-Ajakwu Road (Dekina LGA) and Adumu Junction-Adum Farm Road (Idah LGA).
- Drain clearing & desilting, unlined erosion, reshape & lining where necessary,
- Restoring of existing/new drainage works,
- Stone pitching repair,
- Concrete, gabion, scour & chutes and berm repair,
- Restoring of existing/new protection works,
- Culvert cleaning & element repair, stone pitching, marker post & reflector repair/replacement,

- Waterway (Debris/obstacles, water erosion, waterway desilting) where necessary,
- Structure damage,
- Furniture, signs & markings (road furniture, road sign, road marking, rumble strips & speed humps repair/paint/replace) where necessary.

ES.04: Environmental and Social Baseline Information of Project Routes

Kogi state is one of the six states that make up the North-Central (middle belt) geopolitical zone of Nigeria. It is bordered to the West by the states of Ekiti and Kwara; to the North by the Federal Capital Territory Abuja; to the Northeast by Nasarawa state; to the Northwest by Niger state; to the Southwest by Edo state and Ondo state; to the Southeast by Anambra state and Enugu state and to the East by Benue state. It is the only state in Nigeria that is bordered by ten other states. The State capital is Lokoja and has three (3) main ethnic groups (Igala, Ebira and Okun). Kogi State covers an area of 29,833km^2. It lies at latitude 7°75' North and longitude 6°75' East.

The proposed roads for backlog maintenance and rehabilitation intervention are currently rural earth roads which cut across 11 roads of 12 communities in 7 Local Government Areas of Kogi State (Adavi, Kabba Bunu, Mopa Amuro, Dekina, Olamaboro, Igalamela/Odolu and Idah). The road alignment in all the proposed projects is poorly drained in some locations due to poor drainage channels and road surfaces below surrounding ground level which will be mitigated by the proposed line drains and slope protection works in the project engineering designs. The soil in the entire road project is largely sandy in appearance. The details of the geographical coordinates, length of road and L.G.A are presented in Table 1, Chapter 1 of this Report.

There are seasonal stream crossings in some roads which needed box culverts and silted culverts along the existing roads due to low ground levels with poor drainage which will be mitigated with box culverts already captured in the engineering design for each of the road rehabilitation works. The Illai – Ifeolukotun road has 7 stream crossings which are largely wooden structures and shall be replaced by box culverts. The important features including the start and terminal points of each of the road projects are presented in Figure 2 while detailed maps are presented as Appendix 15

The host communities for the proposed roads are: Aku Uro and Atami communities in Adavi LGA; Aiyegunle Egun Bunu and Adaratedo Ape Bunu communities in Kabba Bunu LGA; Illai community in Mopa Amuro LGA; Agala Ate and Elubi Ajakwu communities in Dekina LGA; Odododoko Emenyoku Ogugu community in Olamaboro LGA; Ayikpele, Okochogbe and Etutobo Ofugo communities in Igalamela/Odolu LGA and Adumu community in Idah LGA. The major occupation of the people is farming. The major crops cultivated in each of these communities include cashew, palm oil, ground nut, beans, soya beans, millet, cassava, beni seed, maize. Each of the communities has cassava processing centres. Economic trees along the project route include Oil Palm, Bamboo Trees, Mango Trees, Neem Trees, African Rosewood Tree (Oha) and Wild Mango Tree (Ogbono). Rice is especially grown in Adumu community. The major languages spoken by the people include Igala, Ebira, Okun and Yoruba with Christianity as the predominant religion.

ES.05: Potential Environmental and Social Impacts

The scale of the proposed 85.68km for Backlog rehabilitation/intervention (Phase 1) works is such that severe negative impacts are not anticipated. The negative environmental and social impacts will be localized in spatial extent, short in duration and can be reduced or minimized through compliance with the implementation of the appropriate mitigation measures contained in Tables 22 -24. The Tables also contains the monitoring plan, institutional arrangements, and cost estimates. The potential **positive environmental and social impacts** include:

- Improved standard of living for the poor rural host communities.
- Provision of all-weather rural roads to boost access to economic opportunities and social services.
- Enhanced accessibility and commercial activities to facilitate economic integration at all levels.
- Development of roadside commercial activities in response to speculation that improved access and greater visibility will bring more customers.

- Reduction in the tear and wear on vehicles resulting in improved travel and waiting times, increased frequency of transport services and reduced transport costs.
- New economic openings for women with the community-based road maintenance scheme as well as improvement in the agriculture and trading sectors.

Some negative environmental and social impacts envisaged due to the nature of the civil works which will involve the use of heavy-duty equipment, use of labour, use of resources, generation of waste, movement of equipment and materials to site are summarized in Table 01:

Table 01: Negative Environmental and Social Impacts

Environmental Impacts	Social Impacts
Pre-Construction **Phases**	
➢ **Loss of Flora and Fauna** ✓ **Land clearing which could lead to loss of vegetation cover and soil erosion and exacerbate climate change impacts.** ➢ **Environmental Degradation from site clearance and Potential for air, water and soil pollution** ➢ **Land Degradation** **Sourcing of construction materials from unlicensed vendors and burrow pits**	➢ **Involuntary Resettlement** due to the nature of the road on farming terrain with narrowed pathway, part of some farmlands will be affected, demolition of some open stalls, displacement of some persons, temporal blockage of access to the assets and other social issues ✓ Increase in traffic and delay time in movement of peole and goods. ➢ Labor Influx and associated risk such as spread of STDs, Gender- based violence, including sexual harassment, child abuse and exploitation, Poor labor and working conditions. ➢ Conflict and Community Unrest ➢ Accident/incidents involving Community members from movement of construction equipment and materials. ➢ Occupational Accidents/incidents ➢ Insecurity ➢ Loss of Archaeological and Cultural Resources which can cause conflict or grievances
Construction Phase	
➢ **Impairment of Air Quality** ➢ **Soil Degradation/Contamination** ➢ **Noise and vibration nuisance** ➢ **Impairment of Water Quality from leakages of parked equipment and stored petroleum products which may contaminate nearby seasonal streams during the Wet Season.** ➢ **sanitation waste including from campsites, workers' open defecation, etc** ➢ **Environmental Pollution from solid wastes** ➢ **Environmental contamination from toxic wastes**	➢ Disruption of Community Activities / Social Stress ➢ Labor Influx ➢ Conflict and Community Unrest ➢ Accident/Incidents Involving Community Members ➢ Occupational Accidents/incidents. ➢ Insecurity
Demobilization Phase	
➢ **Environmental Pollution and health issues from poor housekeeping, management of solid waste and poor borrow pit management**	➢ Accidents/incidents involving community members
Operational Phase	
➢ **Noise Pollution from vehicular movement and traffic**	➢ Security Risk from improved accessibility of the roads ➢ Increased risks of accidents due to more vehicular movements along the rehabilitated roads.

This project may face an influx of labour as skilled labourers required might not be available in the communities along the project corridors. Therefore, Kogi RAAMP will take concrete measures to avoid and mitigate potential labour influx-related risks such as workers' sexual relations with women/minors and

resulting to unwanted pregnancies, presence of sex workers in the community, the spread of HIV/AIDS, sexual harassment of female employees, child labour and abuse, increased dropout rates from school, inadequate resettlement practices, and fear of retaliation, failure to ensure community participation, poor labor practice, and lack of road safety. These risks require careful consideration to improve social and environmental sustainability, resilience and social cohesion. Details are in Chapter 7, Tables 18 -20.

ES.06: Grievances Redress Mechanism (GRM)

A Grievance Redress Mechanism has been designed in this ESMP to ensure that deliberate processes and procedures are put in place to capture, assess and respond to concerns from project beneficiaries, project executors and the general public during the implementation of the roads project. This will ensure smooth implementation of the projects, timely and effectiveness in addressing problems that may be encountered during implementation. The mechanisms for receiving grievances include complaint boxes, dedicated phone lines, grievance redress committees, stakeholder consultations, direct complaints to the project office etc. as stated in chapter 6 of this ESMP. The project has also designed a separate GRM for GBV related cases which includes reporting to the GBV Intermediary Service Provider engaged by the SPIU for onward referral to the relevant service providers mapped by the project. The GRM for the subprojects will be implemented at four distinct levels namely; Community/Site Level with the Village Head as the Chairman, SPIU Level with the Social Safeguard Officer as the Head while the Project Coordinator is the Adviser; State Steering Committee Level with the Permanent Secretary Directorate of Rural and Community Development as the Chairman/Chairperson and the FPMU Committee Level with National Project Coordinator as the Chairman.

Considering the high risk of Gender-Based Violence (GBV) in RAAMP, the project will adopt Model 2 of the GRM document. This model involves connecting the Project's grievance mechanism with a designated intermediary service provider responsible for handling Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH) allegations. The intermediary service provider will be accessible to all members of the communities and stakeholders.

ES 07: Environmental and Social Management Plan

The identified potential adverse environmental and social impacts of the project activities at the pre-construction, construction, demobilization and operation phases are presented in Table22-24 of this ESMP indicating the mitigation and monitoring measures, responsibility and frequency for monitoring. The ESMP matrix also provides the costs associated with the implementation of proffered mitigation measures. The total budget for implementing the ESMP is Thirty-Six million, Four hundred and Three thousand and Five hundred Naira.

Table 02: ESMP Implementation Budget

Item	Responsibility	Cost Estimate in Nigerian Naira (₦)	Cost Estimate in US Dollars (US$)
Mitigation	Contractor	17,160,000	10,725
Monitoring	Kogi RAAMP SPIU, Supervising Consultant, Other relevant MDAs	9,610,000	6,006.25
Capacity building	SPIU (Engineers, Safeguard Officers, Procurement Officers)	5,700,000	3,562.5
ESMP Disclosure	Kogi RAAMP SPIU	**2,200,000**	**1,375**
Sub- Total		34,670,000	21,668.75
Contingency (Add 5% of Sub Total)		1,733,500	1,083.44
Total		**36,403,500**	**22,752.19**

Currency Unit = Nigerian Naira; US$1 = ₦ 1, 600: March 2024

Table 02: ESMP Implementation Budget
Currency Unit = Nigerian Naira; US$1 = ₦ 1, 600: March 2024

Capacity Building Plan

Training is essential for ensuring that the ESMP provisions are implemented efficiently and effectively. The SPIU shall therefore ensure that all persons that have roles to play in the implementation of the ESMP including the contractors are competent with appropriate education, training, or experience. Similarly, the contractors and their workers shall be required to undertake general HSE awareness Including GBV sensitization for their project workforce and specific training for those whose work may significantly have impact on the environment.

Disclosure

Following the review and clearance of this ESMP by the World Bank, the ESMP will be disclosed in country and in the World Bank external website. The SPIU shall disclose the ESMP in line with the Nigeria EIA laws for 21 days.. This will include a formal registration of the ESMP with the FMEnv and receipt of guidelines for the disclosure from the Environmental Assessment Department of Federal Ministry of Environment including the locations to disclose the documents.

ES.08: Public Consultation

The stakeholders engaged and consulted for each of the proposed projects include traditional rulers of Host Communities, Women groups, Community Based Organizations, Youth groups, Religious Leaders, Farmers Associations, Ministries of Environment and Agriculture etc. The consultations took place between the 26th of February, 2024 to the 10th of March, 2024 at the palaces of each of the host community head. The communities where consultation took place are: Aku Uro and Atami communities in Adavi LGA; Aiyegunle Egun Bunu and Adaratedo Ape Bunu communities in Kabba Bunu LGA; Illai community in Mopa Amuro LGA; Agala Ate and Elubi Ajakwu communities in Dekina LGA; Ododoko Emenyoku Ogugu community in Olamaboro LGA; Ayikpele, Okochogbe and Etutobo Ofugo communities in Igalamela/Odolu LGA and Adumu community in Idah LGA. The major concern from stakeholders was that the project commences timely and eligible persons from the community should be considered for employment during the execution of the project. Public consultation will be continuous across the different phases of the proposed projects. Details are presented in chapter 8.

E.S.09: Conclusion and Recommendation

In summary, this ESMP was prepared to provide mitigation for potential adverse impacts and risks associated with the various lots of the proposed 85.68km Backlog rehabilitation/intervention works in Kogi State, and monitoring program to ensure compliance with best international practices. The proposed road projects will have highly beneficial impacts on the rural adjoining communities and respective LGAs and the state at large as it will promote integration and improve accessibility to communities, markets, farms and agro-processing centres in the project areas. The effective implementation of mitigation measures in this ESMP will help to avoid, reduce or mitigate/manage the potential adverse impacts and risks, and in very few cases they may be offset. Some recommendations that will enhance the overall sustainability of the proposed project especially during the implementation phase of the project are stated in Chapter 9.

CHAPTER ONE INTRODUCTION

1.1 Project Background

The Federal Government of Nigeria (FGN) has initiated the preparation of the Rural Access and Agricultural Marketing Project (RAAMP), the successor of the Second Rural Access and Mobility Project (RAMP-2). The project is supported with financing from the World Bank and the French Development Agency (AFD) and guided by the FGN's Rural Travel and Transport Policy (RTTP). The lead agency for the Federal Government is the Federal Department of Rural Development (FDRD) of the Federal Ministry of Agriculture and Food Security (FMAFS). The Federal Project Management Unit (FPMU) is overseeing the project on behalf of FDRD, while the respective state governments of nineteen (19) participating states will implement it. The participating states are Kano, Katsina, Sokoto, Kebbi, Bauchi, Plateau Abia, Akwa-Ibom, Kogi, Ogun, Oyo, Kwara, Ondo, Gombe, Kaduna, Ebonyi, Ekiti, Niger and Osun.

The Nigeria road network is relatively dense consisting of about 194,000 km of roads. This includes 34,000 km of federal roads, 30,000 km of state roads and 130,000 km of registered rural roads. The road density is about 0.21 km of roads per square kilometre (RAMP-2 ESMF, 2012). In spite of the relatively high road density, the rural accessibility index for Nigeria (defined as the proportion of the rural population living within 2 kilometres away from an all-weather road) is low, at only 25.5 percent, leaving about 92 million rural dwellers unconnected (World Measuring Rural Access: Update 2017/18). Rural access is limited where the poor population is concentrated. An improved rural access will enhance the agricultural potentials and marketing opportunities for the agrarian rural communities in Nigeria and, by extension, help in the improvement of livelihoods of the rural population.

1.2 Description of the Proposed Intervention

The proposed Backlogs maintenance work packages are for 11 Nos rural roads totaling 85.68km and cover 7 Local Government Areas in the three (3) senatorial districts of Kogi State. The 7 Local Government Areas are Adavi, Kabba-Bunu, Mopa amuro, Dekina, Olamaboro, Igalamela & Odolu & Idah. The conditions of the roads have deteriorated over the years with some portions of some of the sub projects identified for intervention now almost impassable for vehicles, motorcycles and even human especially during the wet seasons as a result of muds, floods, erosion and failed culverts. Figure 1 and Table 1, shows the projects distribution within the Local Government Areas of Kogi State.

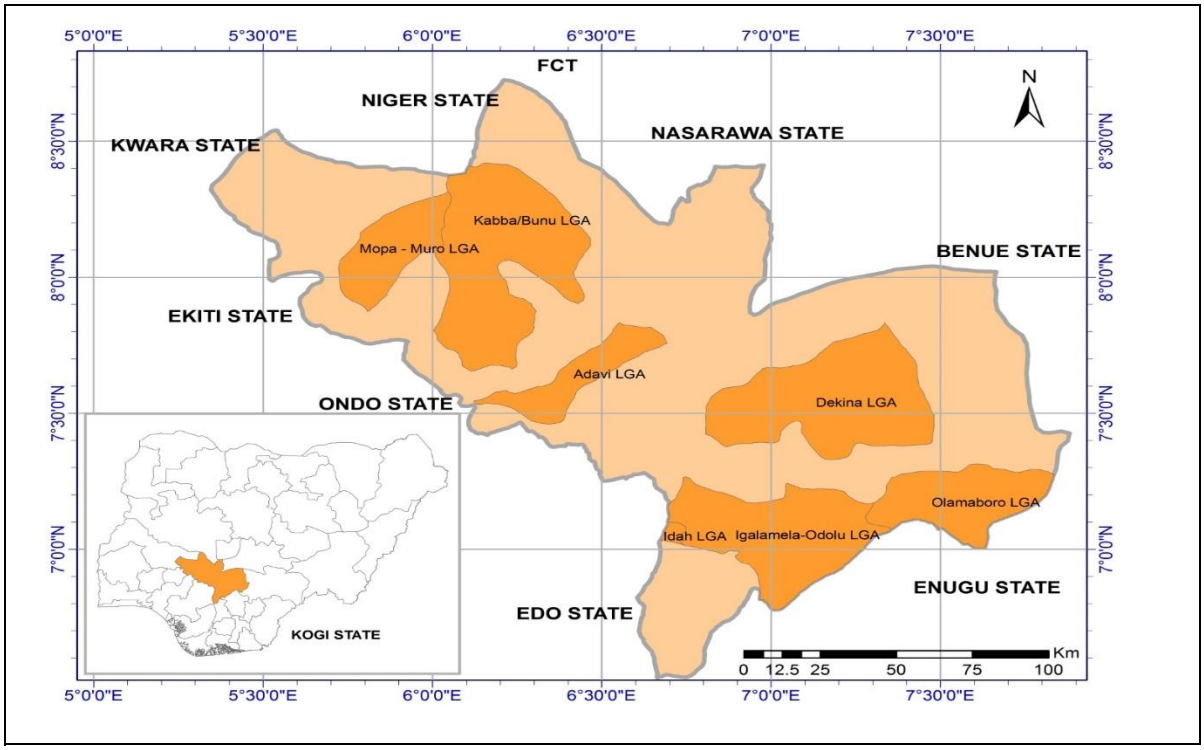

Figure 1: Map showing the projects distribution within the LGAs of Kogi State.

Table 1: Road Projects Covered under this ESMP

S/N	ROAD NAME	LGA	ROAD LENGTH (KM)	LOT
1.	Aku Uro-Obajana Road	Adavi	19.55	1
2.	Aku Uruko-Odoba Farm Road	Adavi	2.41	1
3.	Osara-Atami Road	Adavi	6.59	1
4.	Ayegunle-Olumode-Daji Farm Road	Kabba-Bunu	4.65	2
5.	Eshi Bunu Junction-Aherin Ape Road	Kabba-Bunu	4.10	2
6.	Illai-Ifeolukotun Road	Mopa Amuro	24.1	2
7.	Ayingba-Agala Ate Road	Dekina	4.05	3
8.	Elubi-Etiaja-Ajakwu Road	Dekina	6.83	3
9.	Odidoko-Ugbamaka-Ugbaja-Oloye Road	Olamaboro	4.13	3
10.	Ayikpele-Okochogbe-Ofugo-Etutobo Road	Igalamela/Odolu	6.64	3
11.	Adumu Junction-Adum Farm Road	Idah	2.63	3
		Total	**85.68**	

1.3 Scope of the Assignment

The assignment is for the preparation of site specific ESMP for 11 nos. of roads (85.68Km) identified for Phase 1 of the Backlog maintenance/Rehabilitation work package that consist of a well-documented set of likely environmental and social issues with appropriate mitigation measures, monitoring, and institutional actions to be taken before, during and after implementation to eliminate the identified adverse environmental and social impacts, offset them, or reduce them to acceptable levels. It also includes the measures required to implement these actions, costing, and responsibility, addressing the adequacy of the monitoring and institutional arrangements in the intervention site.

1.4 Rationale for ESMP

The Project triggers four environmental and social safeguards policies namely: Environmental Assessment OP/BP 4.01, Natural Habitats OP/BP 4.04, Physical Cultural Resources OP/BP 4.11 and Involuntary Resettlement OP/BP 4.12 and has been assigned an Environmental Assessment (EA) Screening Category “B”. This rating is based on the scope of the project, which indicates limited negative environmental and social

impacts, especially as the project does not contemplate constructing new roads and will essentially remain within the existing right-of-way. This ESMP identifies the environmental and social impacts of the proposed project and defines roles and responsibilities of all stakeholders throughout project life cycle to ensure that mitigation measures are implemented, and overall sustainability of the project is assured. It is to be noted that a RAP was being developed for the project as at the time of the ESMP study.

1.5 Objectives of the ESMP

The specific objectives of the ESMP are to:

- Assess the potential environmental and social impacts of the proposed works as described in the detailed preliminary designs.
- Develop appropriate mitigation measures to address the negative impacts.
- Outline mitigation costs & responsibilities, and a monitoring plan which will include monitoring parameters, frequency, responsibility and costs.
- Advise any required updates to the engineering design based on impacts reduction strategies and mitigation measures, prior to finalization of the engineering design.

1.6 Project Development Objectives

The development objective of RAAMP is to improve rural access and agricultural marketing in selected participating states while strengthening the financing and institutional base for effective development, maintenance and management of the rural and state road networks.

1.7 Project Components

The RAAMP has four main components as described below:

- **Component A**: Improvement of Rural Access and Trading Infrastructure – The component will have two sub-components:
  - (i) A.1 Major Civil Works: upgrading of rural roads and the construction of short-span (largely up to clear span of 15 meters) cross-drainage structures (culverts/bridges) on rural roads, and the physical improvement of the existing agro-logistics centers (rural markets).
  - (ii) A.2 Consultancies and Supervision: technical assistance (TA) support to the planning, design, implementation and supervision and consultancy costs linked to the civil works.
- **Component B**: Asset Management, Agro-logistics Performance Enhancement and Sector Reform - This component comprise three sub-components:
  - (i) B.1 Other Civil Works. Support the maintenance and spot improvement of rural roads.
  - (ii) B.2 Support for Improving Agro-logistics Activities. Support to Agro-logistics performance enhancement activities.
  - (iii) B.3 Consultancies Studies and Supervision. This sub-component will provide TA support to state-level road sector reforms activities, to the establishment of an asset management system, and to the design and supervision of civil works under the component.
- **Component C**: Institutional Development, Project Management and Risk Mitigation - The component has two sub-components.
  - (i) C.1 Institutional Development and Project Management. This sub-component will involve support to institutional development of the rural transport, trading infrastructure and agro-logistics activities, maintenance and management.
  - (ii) C.2 Risk Mitigation and Resiliency. This sub-component will support project risk mitigation and resiliency activities, including sexual exploitation and abuse (SEA), gender, grievance redressing, rural road safety and climate resiliency of rural roads.
- **Component D**: Contingent Emergency Response - The component will address any unforeseen emergency infrastructure needs following a natural disaster.

However, the Consultancy for this ESMP will be focused on Component A: Improvement of Rural Access and Trading Infrastructure – activities include the upgrading of rural roads, construction of short-span critical

cross-drainage structures, improvement of agro-logistics centres and support to the costs of consultancies and supervision of construction activities.

. The following environmental and social safeguards policies were triggered by the project:

- Environmental Assessment OP/BP 4.01
- Natural Habitats OP/BP 4.04
- Physical Cultural Resources OP/BP 4.11
- Involuntary Resettlement OP/BP 4.12

1.8 ESMP Approach and Methodology

This ESMP was prepared in accordance with standard procedures and guidelines for environmental and social management plan including the applicable World Bank safeguard policies and Nigeria environmental assessment guidelines.

The approach/activities for preparing the Environmental and Social Management Plan (ESMP) are shown in Figure 2.

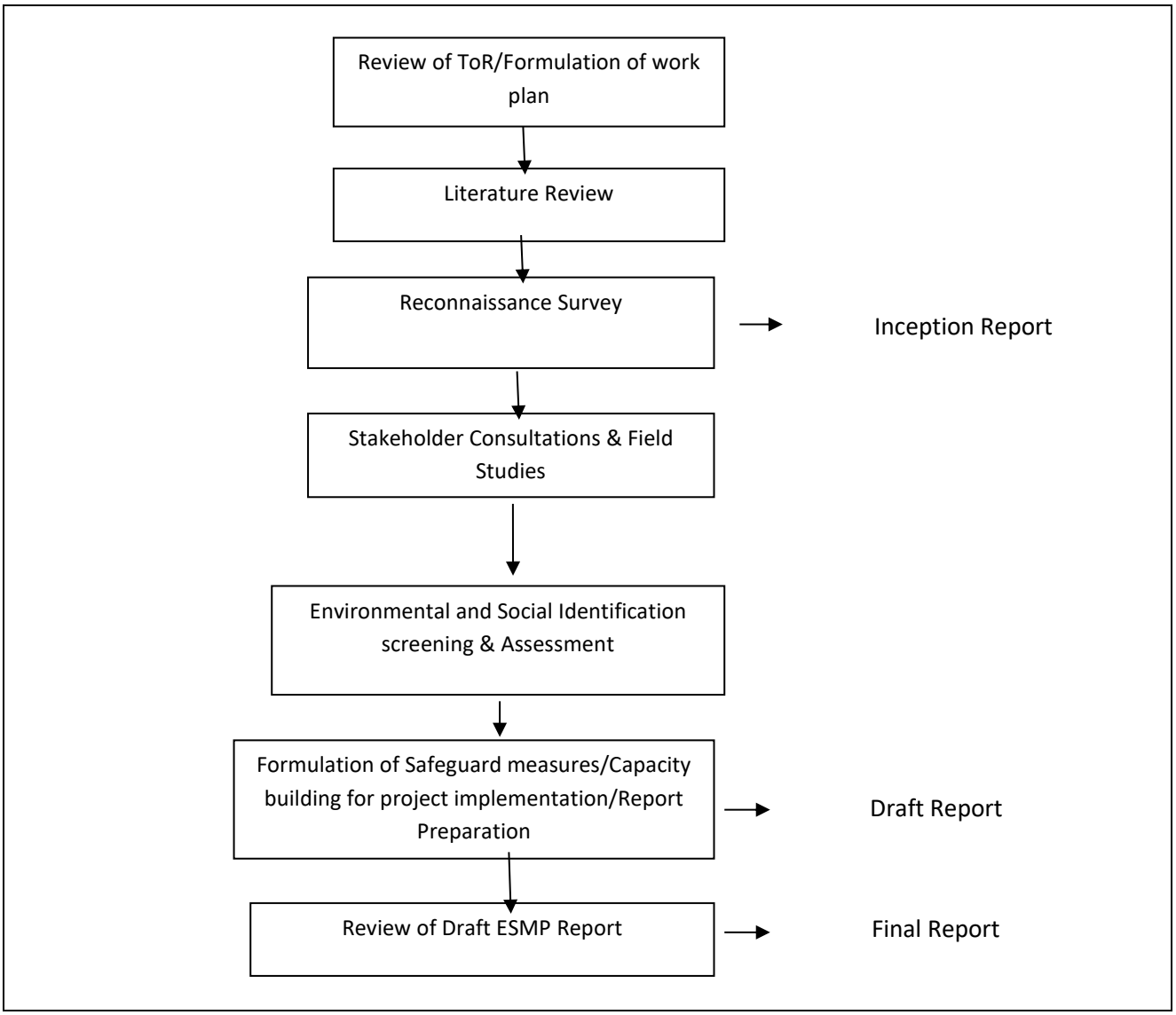

Figure 2: ESMP PREPARATION APPROACH

CHAPTER TWO INSTITUTIONAL LEGAL AND REGULATORY FRAMEWORK

2.1 Introduction

This Chapter presents the regulatory and institutional framework that guides the implementation of the project. The preparation of this ESMP for the proposed Backlog maintenance/Rehabilitation (phase 1) package is guided by the Environmental Impact Assessment Act No. 86, 1992 (as amended by EIA Act CAP E12 LFN 2004), relevant Federal Government and Kogi State environmental and social policies, laws, regulations, guidelines, and applicable World Bank Operational Policies

2.2 National and State Environmental Legislation and Institutional Framework

Table 2 summarizes the provisions of the National and the Kogi State Government's existing policies, laws, institutional and regulatory frameworks relevant to the proposed RAAMP project activities

Table 2: Legal & Institutional Framework

Kogi State Legal Framework		
Legislation	**Year**	**Mandate**
Kogi State Sanitation and Environmental Health Law	2022	The Kogi State Government has banned the dumping of refuse in unauthorised place across the 21 Local Government Areas of the State.
Kogi State Institutional Framework		
Kogi State Environmental Protection Board (KOSEPB)	1995	The objectives include: • To promote a safe and healthy environment for the people to live in. • To ensure sustainable development in terms of the use of the environment. **The functions of this Board include**: • Monitoring the air, land and water to detect the presence of pollutants and other environmental nuisance with the aim of abating it. • Reviewing or processing the Environmental Impact Assessment (EIA) of existing major projects for certification. • Inspection of industries to ensure environmental compliance. • Control of noise pollution. • Checkmating activities that degrade the environment e.g. quarrying, sand mining, trenching and indiscriminate creation of burrow pits.
Kogi State Ministry of Rural Development		The Ministry of Rural Development was created out of necessity and specifically to address the issue of rural-urban drift by employing rural development and poverty reduction programmes. The functions of the Ministry include: • Development of rural and urban communities using participatory community driven bottom-up with top down support approach through the execution of confidence building projects and completion of all other on-going projects; • Mobilizing and encouraging community development initiative to complement the activities of Government in the transformation of the rural communities; • Strengthening the capacity of community Institutions to promote and drive sustainable development and grant aiding self-help projects • Coordinating all community development programs/projects being implemented in the state by the government, private sector, local and international agencies to provide a synergy of sustainable development thus preventing duplication of efforts. • Conducting baseline community needs assessment surveys with a view to establishing data bank on community needs for the medium- and long-term sustainable state-wide community development plans

		• Establishment of community micro industries within clustered communities based on the homogeneity of available raw materials; amongst other functions
Kogi State Ministry of Agriculture		The specific functions of the ministry are: • To ensure there is abundant supply of food for all • Production beyond immediate home demands so that surplus can be exported or supplied as agricultural raw materials to meet the needs of the agro-industrial sub-sector; • To employ sound management principles, practices and initiate or develop appropriate development programme policies and legislation in partnership with relevant stakeholders (national and international) using abundant human and material resources; • To undertake periodic research on soils for proper recommendations as to the best suitable soil for different crops and fertilizers requirement of such soils; • Modernization of agricultural production, processing, storage and distribution through the infusion of improved technologies and management techniques to make them more responsive to the demands of other sectors of the state's economy; • Transforming agriculture from the level of subsistence to that of commercial agriculture through mechanization; • Enhancing the capacity for value addition leading to industrialization and employment opportunities; amongst other functions.
Kogi State Bureau of Land and Urban Development		This ministry ensure there is an easy access to land for Government, its agencies, individuals and private developers for the social and economic development of the state
Kogi State Ministry of Women Affairs and Social development		The function of the ministry includes: • Promote the general welfare of women and enhancing their ability to realize their full potentials in various fields of human endeavors • Embarking on awareness creation and formulation of policies and legislation on survival, development, protection and participatory rights of Women and Children in the state. • Ensuring the integration of Women in state processes and promoting the mainstreaming of gender on all issues of state importance. • Protection against GBV cases and handling the cases appropriately • Protection against child labour, human trafficking etc
Kogi State Ministry of Environment and Natural resources		The function of this Ministry includes; • Enact and enforce State regulations control criteria, procedure, guidelines and environmental standards for effective prevention, remediation, control and prevention of point and non-point sources of pollution and degradation; • Implement environmental policy in the State and in particular to demand and review EIA and statements for new development projects and to also demand and review environmental audit reports for existing developments and such other operations which are deemed to have significant impact on the environment; and • Establish operational mechanisms for refuse collection, transportation and disposal in cooperation with local governments of the State.
RELEVANT NATIONAL POLICIES AND LEGISLATION		
National Policies and Legislation	**Year**	**Provisions**
The National Policy on Environment (NPE) of 1989	(Revised 2016)	The mandates of the NPE include among others: • Ensuring the quality of the environment is adequate for good health and well-being;

		• Promoting sustainable use of natural resources and the restoration and maintenance of the biological diversity of ecosystems; • Promoting an understanding of the essential linkages between the environment, social and economic development issues; • Encouraging individual and community participation in environmental improvement initiatives.
Environmental Impact Assessment (EIA) Act CAP. E12 L.F.N	2004	The Act makes EIA mandatory for all major development projects likely to have adverse impacts on the environment and gives specific powers to FMEnv to facilitate environmental assessment of projects in Nigeria. The Act also stipulates the minimum requirements for environmental assessments.
National Environmental Protection (Management of Solid and Hazardous Wastes) Regulations.	1991	Regulates the collections, treatment and disposal of solid and hazardous wastes from municipal and industrial sources.
National Environmental (Noise Standards and Control) Regulations	2009	The objective of the Regulations is to ensure maintenance of a healthy environment for all people in Nigeria, the tranquillity of their surroundings and their psychological wellbeing by regulating noise levels. The Instrument prescribes maximum permissible noise levels of a facility or activity to which a person may be exposed as 60dB and 40dB for day and night respectively
National Environmental (Air Quality Control) Regulations, S. I. No 88, 2021 (Amended)	2014	The purpose of these regulations is to provide for improved control of the nation's air quality to such extent that would enhance the protection of flora and fauna, human health, and other resources affected by air quality deteriorations.
National Environmental (Soil Erosion & Flood Control) Regulations (S.I. 12)	2011	The purpose of this Regulation is to establish technically feasible and economically reasonable standards and procedures to achieve appropriate level of management and conservation practices to abate soil erosion, siltation and sedimentation of the waters of Nigeria, due to soil erosion and flood aggravated by non-agricultural earth-disturbing activities.
National Environmental (Construction Sector) Regulations (S.I No. 19)	2011	The purpose of these regulations is to prevent and minimize pollution from construction, decommissioning and demolition activities in the Nigerian environment. It stipulates that new projects in the construction sector shall apply cost-effective, up-to-date, efficient, best available technology, to minimize pollution to the barest degree practicable. In addition, every operator or facility shall carry out an EIA and submit an EMP for new projects or modification including expansion of existing ones before commencement of activity.
Relevant National Social policies and legislations		
National Gender Policy	2006	The goal of the National Gender Policy is to build a just society devoid of discrimination, harness the full potentials of all social groups regardless of sex or circumstance, promote the enjoyment of fundamental human rights and protect the health, social, economic and political well-being of all citizens in order to achieve equitable rapid economic growth; evolve an evidence based planning and governance system where human, social, financial and technological resources are efficiently and effectively deployed for sustainable development.
National Cultural Policy	*1988*	The goal of this policy is to affirm the authentic cultural values and cultural heritage; building up of a national cultural identity and parallel affirmation of cultural identities of different ethnic groups.
Relevant Acts		
National Environmental Standards and Regulations Enforcement Agency Act (NESREA Act)	2007	With the repealing of the Federal Environmental Protection Act of 1988, the NESREA Act, 2007 became the major statutory regulation or instrument guiding environmental matters in Nigeria. It specially makes provision for solid waste management and its administration and prescribes sanctions for offences or acts, which run contrary to proper and adequate waste disposal procedures and practices.
Land Use Act	1978	The Land Use Act of 1978 (modified in 1990) remains the primary legal means to acquire land in the country. The Act vests all land comprised in the territory of each state in the federation in the governor of the

		State and requires that such land shall be held in trust and administered for the use and common benefit of all Nigerians in accordance with the provisions of this Act.
Labour Act	2004	This Act is the principal and most direct legislation on employment matters in Nigeria. It is a piece of legislation, which seeks to protect the employment rights of individual workers and it includes matters such as classification of worker types, wages, contracts, employment terms and conditions, and recruitment.
Trade Union Act	2005	The Trade Union Act provides freedom to join and form unions. Every person is entitled to assembly freely and form association with political party, trade union or any other association for the protection of their rights. Trade union is any combination of workers and employers, whether temporary or permanent, the purpose of which is to regulate the terms and conditions of employment of workers.
National Commission for Museums and Monuments (NCMM) Act	1990	National Commission for Museums and Monuments has a mandate to manage the collection, documentation, conservation and presentation of the National Cultural properties. NCMM Act: Section **20.** (1) Any person who discovers an object of archaeological interest in the course of operations permitted under section 19 of this Act shall, not later than seven days thereafter, give notice thereof to the Commission. (2) Any person who discovers an object of archaeological interest otherwise than in the course of operations mentioned in subsection (1) of this section shall, not later than seven days thereafter, give notice thereof together with particulars of the place and the circumstances of the discovery to the Commission and to the Secretary to the local government where such discovery is made or to such other person an may be prescribed.
Factories Act	2004	The Act is the primary legislation for the protection of the safety, health and welfare of workers. It has its broad objective to make elaborate provisions for the health, safety and welfare of the workers exposed to occupational hazards by taking measures to prevent accidents and injuries.
Child Rights Act	2003	The Act serves as a legal documentation and protection of Children rights and responsibilities in Nigeria. It also acts as legislation against Human trafficking since it forbids children from being "separated from parents against their will, except where it is in the best interest of the child.
Employee's Compensation Act	2010	The Act make provisions for compensations for any death, injury, disease or disability arising out of or in the course of employment; and for related matters.
Violence Against Persons Prohibition(VAPP) Act	2020	The Act provides protections against offenses that affect women disproportionately, including a prohibition of female genital mutilation, forceful ejection from home, forced financial dependence or economic abuse, forced isolation, emotional, verbal and psychological abuse etc.
Other Relevant Legislations at the Federal Level		
Criminal Code		The Nigerian Criminal Code makes it an offence and punishable with up to 6 months' imprisonment for any person who: • Violates the atmosphere in any place so as to make it noxious to the health of persons in general dwelling or carry on business in the neighbourhood, or passing along a public way: or • Does any act which is, and which he knows or has reason to believe to be likely to spread the infection of any disease dangerous to life, whether human or animal.
National Institutional Framework		
The Federal Ministry of Environment (FMEnv)		FMEnv is the apex body charged with the responsibility to administrate and enforce environmental laws in Nigeria. The FMEnv prohibits public and private sectors from embarking on major

		developmental projects or activities without due consideration, at early stages, for environmental and social impacts. In addition to the EIA Act, the Ministry has produced sectorial including sectorial guidelines on infrastructure development which will be duly considered in the implementation of this project.
Federal Ministry of Agriculture and Rural Development		The Federal Ministry of Agriculture and Food Security (FMAFS) has the responsibility of optimizing agriculture and integrating rural development for the transformation of the Nigerian economy, with a view to attaining food security and positioning Nigeria as a net food exporter for socio-economic development.
Federal Ministry of Works and Housing		The Federal Ministry of Works and Housing is a Professional Service Ministry charged with the responsibility of providing Technical Services such has Design, Construction and Maintenance of Federal Roads, and provision of Mechanical and Electrical Services as well as provision of adequate and affordable housing for all Nigerians in both urban and rural areas in secure, healthy and decent environment through access to a functional Nigerian road.
Federal Ministry of Labour and Productivity		The Federal Ministry of Labour and Productivity has been in existence (with different names) since 1939, with the central purpose of ensuring cordial relations between workers and employers in the public and private sectors.
Federal Ministry of Women Affairs and Social Development		The broad mandate of the Ministry is to advise the Government on gender and children issues and issues affecting persons with disabilities and the elderly. The Ministry also initiates policy guidelines and leads the process of ensuring gender equality and mainstreaming at both the national and international levels.

2.3 International Conventions and Agreements

Applicable international guidelines/conventions/treaties to which Nigeria is a signatory which will be duly considered in implementation of this project are outlined below:

- Vienna convention for the protection of the Ozone Layer and the Montreal protocol for Control of Substances that deplete the ozone layer;
- Convention on Biodiversity 1992;
- Convention on climate change 1992; and
- World Health Organization (WHO) Health and Safety Component of EIA, 1987.
- International Labour Organization (ILO) Conventions
- The International Covenant on Civil and Political Rights (ICCPR) (2004)
- The International Covenant on Economic, Social and Cultural Rights (ICESCR) (2004)
- The Convention on the Rights of the Child (CRC) (1990), and the Convention on the Rights of Persons with Disabilities (CRPD) (2012)
- The African Charter on Human and Peoples' Rights (ACHPR) (1982)
- The African Charter on the Rights and Welfare of the Child (ACRWC) (2007)
- The Protocol to the ACHPR on the Rights of Women in Africa (the "Maputo Protocol") (2007)
- The National Action Plan for the Implementation of United Nations Security Council Resolution 1325 (2009);

2.4 World Bank Safeguards Policies Triggered By RAAMP

Table 3 presents the summary of the World Bank Safeguards Policies triggered by the Kogi RAAMP proposed road rehabilitation and upgrading package project.

Table 3: World Bank Safeguards Policies

Operational Policy	Description of Policy	Triggered by Proposed Sub Project	How it will be addressed
Environmental Assessment (OP/BP 4.01)	This policy requires Environmental Assessment (EA) of projects proposed for the Bank financing so as to help ensure that the investments made are environmentally sound and sustainable. The EA is seen as tool to improve decision making and the process takes into account the natural environment (air, water, and land); human health and safety; social aspects (involuntary resettlement, vulnerable groups, and cultural and archaeological property) and trans-boundary and global environmental aspects. It requires that the ESMP report must be disclosed as a separate and standalone document by the Nigerian government and the Bank as a condition for Bank appraisal. It is also a requirement of this policy that the date for disclosure must precede the date for appraisal of the program. The policy also calls for the RAAMP to be environmentally screened to determine the extent and type of the EA process required. The proposed project entails civil engineering works with activities such as site clearing, use of heavy equipment, concrete works, Bitumen/Asphalts, labour influx etc. and may trigger some site-specific environmental and social impacts including waste generation, OHS risks, disturbance of economic activities, community health & safety risks, potential GBV/SEA/SH risks, child labour etc.	Yes	An ESMF[1] has been prepared for RAAMP and site-specific mitigation measures developed in this ESMP
Natural Habitats (OP/BP 4.04)	This Bank Operational Policy recognizes that conservation of natural habitats, like other measures that protect and enhance the environment, is essential for long term sustainable development. Natural habitats are land and water areas where (i) the ecosystems biological communities are formed largely by native plant and animal species, and (ii) human activity has not essentially modified the areas primary ecological functions. All natural habitats have important biological, social, economic, and existence value. This is triggered by Kogi RAAMP activities such as vegetation clearance for Proposed campsites; borrow pits and road realignment along the 11 now Road project corridor.	Yes	Site-specific mitigation measures developed in this ESMP to remove or reduce adverse impacts on natural habitats or their functions
Physical Cultural Resources (OP 4.11)	The Bank's policy regarding cultural property is to assist in their preservation, and to seek to avoid their elimination. Specifically, the Bank (i) normally declines to finance projects that will significantly damage non-replicable cultural property, and will assist only those projects that are sited or designed so as to prevent such damage; and (ii) will assist in the protection and enhancement of cultural properties encountered in Bank-financed projects, rather than leaving that protection to chance. The management of cultural property of a country is the responsibility of the government. The government's attention should be drawn specifically to what is known about the cultural resources aspects of the proposed project site and appropriate agencies, NGOs, or university	Yes	Implement the Chance find procedure within the ESMP (Appendix 13) A standalone RAP has been prepared to address the shrine observed along Ayikpele-Okochogbe-Ofugo-Etutobo route

[1] https://documents1.worldbank.org/curated/zh/751201571907380000/Environmental-and-Social-Management-Framework-for-Abia-Akwa-Ibom-Bauchi-Kano-Katsina-Kebbi-Kogi-Kwara-Ogun-Ondo-Oyo-Plateau-and-Sokoto.docx

	departments should be consulted. Civil works under the project will most likely not be able to avoid all cultural heritage such as shrines and other ancestral objects which seem unavoidable on the Right of Way (RoW) of some roads.		
Involuntary Resettlement (OP 4.12)	The objective of this Policy is to avoid, where feasible, or minimize, while exploring all viable alternative project designs, displacement and having to resettle people. The policy aims to avoid involuntary resettlement to the extent feasible, or to minimize and mitigate its adverse social and economic impacts. Involuntary Operation Policy (OP 4.12) covers direct economic and social impacts that both result from Bank-assisted investment projects, and are caused by (a) the involuntary taking of land resulting in (i) relocation or loss of shelter; (ii) loss of assets or access to assets, or (iii) loss of income sources or means of livelihood, whether or not the affected persons must move to another location; or (b) the involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons. The Involuntary Resettlement Operational Policy prescribes compensation and other resettlement measures to achieve its objectives and requires that borrowers prepare adequate resettlement planning instruments prior to project appraisal of proposed projects. The activities under the project will require the acquisition of farm land due to the narrow nature of the existing width. Some economic trees/cash crops seen on the proposed RoW will be removed, Temporal restriction of access to the assets of some persons and other social issues.	Yes	A resettlement policy framework (RPF) has been prepared for the RAAMP States. A standalone RAP will also be prepared to ensure the PAPs are properly captured including appropriate compensation measures.

2.4.1 World Bank Group Environmental, Health, and Safety General Guidelines

These guidelines are technical reference documents with general and industry-specific examples of good international industry practice. The EHS guidelines contain the performance levels and measures that are normally acceptable to the World Bank Group and that are generally considered to be achievable for infrastructural developments including road construction.

2.4.1.1 Environmental, Health, and Safety Guidelines for Toll Roads

The EHS Guidelines for Toll Roads include information relevant to construction, operation and maintenance of large, sealed road projects including associated bridges and overpasses. Issues associated with the construction and operation of maintenance facilities are addressed in the General EHS Guidelines.

2.4.1.2 Environmental, Health, and Safety Guidelines for Construction Materials Extraction

This document includes information relevant to construction materials extraction activities such as aggregates, limestone, slates, sand, gravel, clay, gypsum, feldspar, silica sands, and quartzite, as well as to the extraction of dimension stone. It addresses stand-alone projects and extraction activities supporting construction, civil works, and cement projects. Although the construction materials extraction guidelines emphasize major and complex extraction schemes, the concepts are also applicable to small operations.

https://www.ifc.org/content/dam/ifc/doc/2000/2007-toll-roads-ehs-guidelines-en.pdf
https://www.ifc.org/content/dam/ifc/doc/2000/2007-general-ehs-guidelines-en.pdf
https://www.ifc.org/content/dam/ifc/doc/2000/2007-construction-materials-extraction-ehs-guidelines-en.pdf

2.4.2 World Bank Good Practice Note Road Safety

The World Bank's Environmental and Social Framework (ESF) calls for road safety to be considered on projects. Improving road safety is critical to the World Bank's twin goals of eradicating extreme poverty and increasing shared prosperity. This note focuses on addressing road safety on World Bank financed operations. The ESF road safety requirements are defined in Environmental and Social Standard 4 (ESS4): "The Borrower will identify, evaluate and monitor the potential traffic and road safety risks to workers, affected communities and road users throughout the project life-cycle and, where appropriate, will develop measures and plans to address them. The Borrower will incorporate technically and financially feasible road safety measures into the project design to prevent and mitigate potential road safety risks to road users and affected communities"

2.5 Comparison between Applicable National Laws and World Bank Policies

Table 4: Comparison of Kogi State, Nigerian EA and World Bank EA Guidelines

Kogi State	Nigeria Environmental Assessment	World Bank Policies	Comments
Kogi State Ministry of Environment and Natural Resources has domesticated the National Policy on Environment to guide its development operations **Kogi State Environmental Protection Board (KOSEPB) is the enforcement arm of the State Ministry of Environment and Natural Resources. Its operations are guided by the following:** • **Kogi State Environmental Protection Board law which took effect, 18th July, 2006 & amended in 2008.** • **The Federal Government of Nigeria Public Health Laws, 1998 for sanitation enforcement issues.**	The Federal Ministry of Environment through the National Policy of Environment has a goal to achieve sustainable development The Environmental Impact Assessment (EIA) Act CAP. E12 LFN (*2004)* makes it mandatory for all major development projects likely to have negative impacts on the environment like the RAAMP to conduct Environmental Assessment. RAAMP is rated a category II based on the Nigerian EIA law which stipulates the need for an Environmental Management Plan.	Environmental Assessment (OP/BP 4.01) which ensures that projects likely to have potential environmental and social negative impacts undergo environmental assessments based on the defined project category. RAAMP is rated a category B due to the nature of envisaged limited environmental and social impacts. An ESMF has been prepared to identify all potential risks and mitigation for the project. This ESMP also provides site-specific mitigation plans for potential negative impacts.	This ESMP has adopted the World Bank OP4.01 as a guide for the project, which is also in line with the Nigerian EIA law for a category B project and State law for assessment on project impacts prior to approval for development.
Kogi State Environmental Protection Board law has provisions for biodiversity protection	The National Policy on Environment has provisions to restore, maintain and enhance the ecosystems and ecological processes essential for the functioning of the biosphere to preserve biological diversity and the principle of optimum sustainable yield in the use of these natural resources and ecosystems.	Natural Habitat (OP/BP 4.04) which is triggered by RAAMP activities such as vegetation clearance. The policy aims to conserve biological diversity and promote the sustainable use of natural resources. Mitigation measures for envisaged associated negative impacts have been captured in this ESMP.	Kogi RAAMP has adopted the World Bank OP/BP 4.04 pursuant to the robust guidelines for protection of natural habitat.
No specific law on Physical Cultural Resources	National Cultural Policy, 1988 sets directions for the following: affirmation of the authentic cultural values and cultural	Physical Cultural Resources (OP/BP 4.11) which stipulates the need to protect the integrity of physical and	In the absence of an associated robust law at the state level, national provisions will

	heritage; building up of a national cultural identity and parallel affirmation of cultural identities of different ethnic groups. Federal Ministry of Information & Culture has a mandate to promote the nation's rich cultural heritage National Commission for Museums and Monuments has a mandate to manage the collection, documentation, conservation and presentation of the National Cultural properties.	cultural heritage. Excavation works under RAAMP may lead to chance find, also, project activities may not completely avoid unknown sacred sites and cultural resources. To address this policy, chance find procedures have been provided in appendix 7.	be complied with and the World Bank OP4.11 has been adopted to provide the overarching guidance.
The state adopts the National Land Use Act (1978)	Land Use Act (1978) which proscribes that all Land belongs to the State Government and can be allocated for developmental purposes.	OP 4.12 Involuntary Resettlement which ensures measures to compensate for land acquisition, economic and physical displacement, loss of assets, economic trees and cash crops. Project activities will affect economic trees, access to assets and temporary structures, thus a Stand-alone RAP is being prepared by the SPIU.	In the absence of stringent relevant state and national laws, the World Bank OP/BP 4.12 has been adopted.

CHAPTER THREE PROJECT DESCRIPTION

3.1 Overview of the Proposed Projects

Each of the 11 Nos backlog maintenance and road rehabilitation projects is a single lane carriageway, with asphalt 25mm – 30mm thickness. Inclusive of the activities of the sub-projects is de-silting of existing culverts,

provision of new box culverts at selected locations, provision of Reinforced Concrete (RC) rectangular line drain at selected alignments within the built-up areas and slope protection works/embankment at areas with erosion threat. The approximate duration of civil works across all phases is 18 Months. The geographical Coordinates of the start and terminal points of each of the proposed road projects are presented in Table 5.

Table 5: Geographical Locations of the Proposed 11 Nos Road Projects.

S/N	ROAD NAME	LENGTH (km)	START POINT COORDINATES		TERMINAL POINT COORDINATES	
1	Aku Uro-Obajana Road	19.55	N 07^0 43’ 42.3’’	E 006^0 29’ 04.5	N 07^0 52’ 13.9’’	E 006^0 30’ 44.8’’
2	Aku Uruko-Odoba Farm Road	2.41	N 07^0 43’ 28.3’’	E 006^0 29’ 20.2’’	N 07^0 42’ 38.0’’	E 006^0 30’ 13.0’’
3	Osara-Atami Road	6.59	N 07^0 40’ 53.1’’	E 006^0 25’ 34.6’’	N 07^0 37’ 53.9’’	E 006^0 27’ 08.9’’
4	Ayegunle-Olumode-Daji Farm Road	4.65	N 07^0 52’ 57.1’’	E 006^0 11’ 16.8’’	N 07^0 51’ 18.0’’	E 006^0 12’ 35.0’’
5	Eshi Bunu Junction-Aherin Ape Road	4.10	N 07^0 56’ 17.1’’	E 006^0 07’ 11.8’’	N 07^0 56’ 41.1’’	E 006^0 09’ 15.1’’
6	Illai-Ifeolukotun Road	24.1	N 08^0 05’ 59.5’’	E 005^0 51’ 49.2’’	N 07^0 55’ 02.5’’	E 005^0 46’ 16.7’’
7	Ayingba-Agala Ate Road	4.05	N 07^0 30’ 04.7’’	E 007^0 10’ 14.3’’	N 07^0 29’ 42.2’’	E 007^0 08’ 07.1’’
8	Elubi-Etiaja-Ajakwu Road	6.83	N 07^0 34’ 54.4’’	E 007^0 24’ 26.1’’	N 07^0 38’ 22.6’’	E 007^0 23’ 31.1’’
9	Odidoko-Ugbamaka-Ugbaja-Oloye -Emakpe Road	4.13	N 07^0 11’ 10.2’’	E 007^0 30’ 31.4’’	N 07^0 11’ 50.9’’	E 007^0 28’ 29.9’’
10	Ayikpele-Okochogbe-Ofugo-Etutobo Road	6.64	N 07^0 11’ 04.7’’	E 006^0 50’ 17.3’’	N 07^0 14’ 24.8’’	E 006^0 51’ 15.9’’
11	Adumu Junction-Adum Farm Road	2.63	N 07^0 03’ 49.9’’	E 006^0 44’ 05.3’’	N 07^0 03’ 12.5’’	E 006^0 44’ 50.6’’
Total		**85.68**				

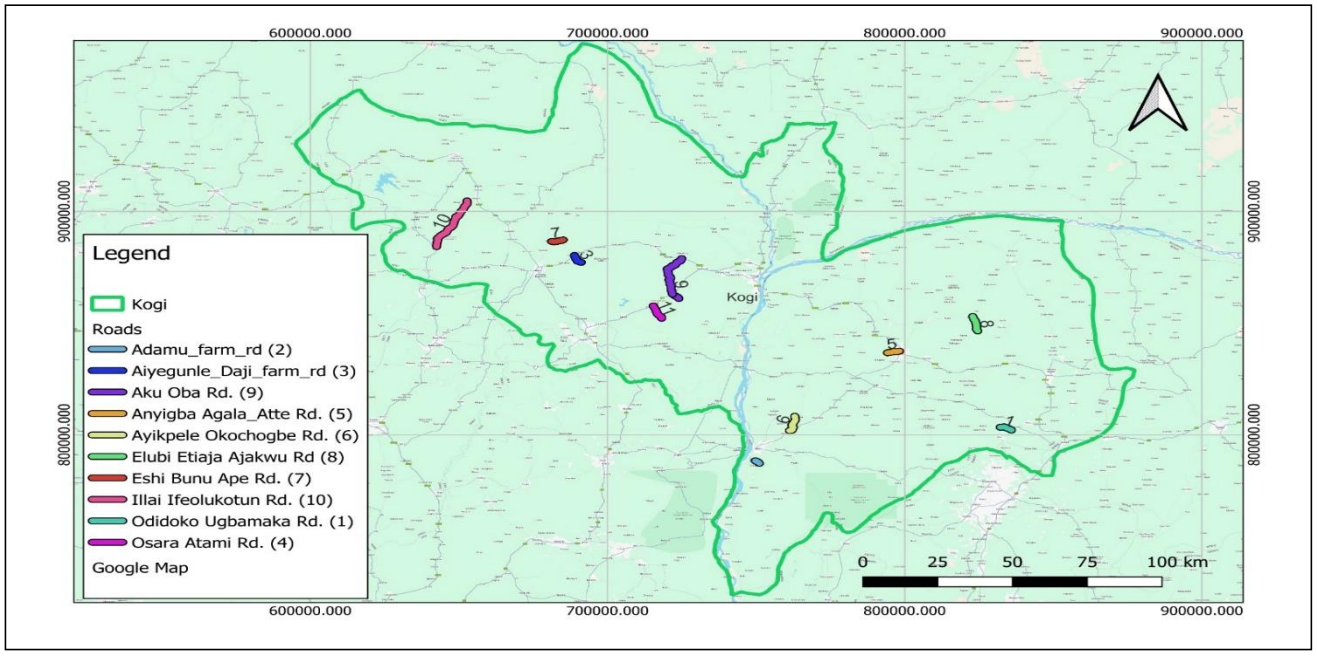

Figure 3: Map of Kogi State Showing the Location of the 11 Nos Road Projects.

3.1.1 Backlog maintenance/Rehabilitation intervention applicable to all sites:

The work package would involve engineering design and engineering works such as, but not limited to, the following:

- Site clearance of the proposed roads except for Elubi-Etiaja-Ajakwu Road (Dekina LGA) Adumu Junction-Adum Farm Road (Idah LGA).
- Drain clearing & desilting, unlined erosion, reshape & lining where necessary,
- Restoring of existing/new drainage works,
- Stone pitching repair,
- Concrete, gabion, scour & chutes and berm repair,
- Restoring of existing/new protection works,
- Culvert cleaning & element repair, stone pitching, marker post & reflector repair/replacement,
- Waterway (Debris/obstacles, water erosion, waterway desilting) where necessary,
- Structure damage,
- Furniture, signs & markings (road furniture, road sign, road marking, rumble strips & speed humps repair/paint/replace) where necessary.

3.2 Proposed Sub - Projects Activities.

This is presented in Table 6 below.

Table 6: Proposed Project Activities for Each Road Project

S/N	PROJECT PHASE	ACTIVITIES	LABOUR / STAFFING	SUPPORT FACILITIES
1.	Pre-Construction	• Site marking and Pegging, • Site clearing, • Routine vegetation control, animal control, litter & obstacles • Mobilization of equipment to site • Removal of top soil • Dewatering • Creation of borrow pits (Burrow pits	• Skilled labor (estimate of 15 nos) • Unskilled Labor (estimate of 40 nos)	• Base Camp/Site Office • Sanitary Facilities (1 male and 1 female toilets) • Staging Area for contractor • Borrow Pit Area • PPEs • First Aid kits • Potable water

		needed will be ascertain during civil works by the contractor). • GBV sensitization		• On-camp power source
2.	Construction	▪ Rut & depression, pothole/edge, unpaved shoulder, crack sealing and bleeding; ▪ Fog spray, reseal, overlay, shoulder re-gravel and shoulder reshape, ▪ Dragging, sand cushion, dry grading/light, pothole patching, erosion runnels and dust prevention; ▪ Wet grading, reshaping, re-gravelling, sand cushioning, restoring/replacing of base; ▪ Drain clearing & de-silting, unlined erosion, reshape & lining ▪ Repair of structural members, restoring of existing/new drainage works, ▪ Concrete, gabion, scour & chutes and berm repair; ▪ Restoring of existing/new protection works, ▪ Culvert cleaning & element repair, marker post & reflector repair/replacement; ▪ Waterway (Debris/obstacles, water erosion, waterway de-silting) ▪ Waterway, drift reshaping, post & reflector repair/replacement	• Skilled labor (estimate of 25 nos) • Unskilled labor (estimate of 80 nos)	• Base Camp/Site Office • Clinic • First aid kits (1: 20 staff) • Borrow pit • Maintenance Workshop for contractor equipment • Staging Area • Sanitary Facilities (2 male and 2 female toilets) • PPEs • Potable water • On-camp power source
3	Demobilization	• Removal of construction equipment; • Disposal of construction spoil and waste in general; • Decommissioning of burrow pit • Dismantling of temporary work camp of the contractor; and • Waste management.	• Skilled labor (estimate 15 nos) • Unskilled labor (estimate 40 nos)	• First aid kits (1 kit would serve 10 staff) • Sanitary Facilities (gender friendly) (2 male and 2 female toilets) • PPEs • Portable water •
4.	Operation and Maintenance	• Vehicular movement • Identification of road defects • Fixing of potholes • De-siltation of culverts and drains • Treatment such as crack sealing	• Skilled labor (estimate 3 nos) • Unskilled labor (estimate 15 nos)	• Maintenance Workshop • Maintenance equipment

However, the following should be noted:

- **Pre-construction phase**

During the E & S screening of this intervention, some of the road corridors (Aku Uro-Obajana Road, Aku Uruko-Odoba Farm, Osara-Atami Roadd, Ayegunle-Olumode-Daji Farm Road, Eshi Bunu Junction-Aherin Ape Road, Illai-Ifeolukotun Rd, Ayingba-Agala Ate Roadd, Odidoko-Ugbamaka-Ugbaja-Oloye Road, Ayikpele-Okochogbe-Ofugo-Etutobo Road) were seen with economic trees (cashew trees, palm trees, mango trees, plantain trees and other cash crops) on the proposed Right of Way. There were open stalls/sheds in (Aku Uro-Obajana Rd) which will be encroached upon during civil works. Some selected pictures from the site are presented in Table 4.3.

- **Construction phase**

The key activities lie in this phase. it includes; earthwork and grading, construction of culverts and drainage infrastructure as well as paving and surfacing. Construction works will essentially entail civil engineering works requiring excavation, movement of earth materials, cement and concrete works, cuttings, filling, soil stabilization and compaction. Stone pitching and other erosion protection works on some roads seen with erosion pathway in order to prevent soil erosion and maintain the stability of construction sites and communities on project corridor.

3.2.1 Project Equipment

- Pre-construction phase

Some of the equipment or machinery may include bulldozers, Grader, Sheep foot roller, chipping gritter, excavators, wheel loaders (pay loaders), pavement planers and compactors.

- Construction phase

The machineries for this phase includes; Bulldozer, Grader, Sheep foot Roller, Smooth drum roller, Scraper, Loader shovel, Excavator, Tipper trucks, Bitumen boiler/sprayer, Chipping gritter, Mobile concrete mixer etc.

3.3 Proposed Backlog Maintenance/Road Rehabilitation Design

The proposed alignment has been designed in accordance with the provisions of the *Draft Low Volume Roads (LVRs) Manual, 2016, Federal Ministry of Agriculture and Rural Development* and *Highway Manual, Part 1: Design" and the "General Specifications" of the Federal Ministry of Works.* In line with this, Kogi RAAMP rural road design is planned for a maximum width of 10m (for locations with line drains) and a minimum width of 6m depending on existing sensitivities in the area. The road will be surfaced with asphalt of 25mm – 30mm thickness along the stretch of the road, with slope protection works/ embankment at erosion prone areas as stated in Table 7 below.

Table 7: Proposed Slope Protection Works/ Embankment for each Proposed Road

S/N	Description	Remarks
1	Erosion Threat	Provide 225 m^2 slope protection around the area
2	Wash out around Culvert area	Provide 105 m^2 protection works around the area
3	Big Erosion Threat	Provide 508 m^2 protection works around the area

3.4 Proposed Drainage Structures

3.4.1 Line Drains

Reinforced Concrete (RC) rectangular line drains of 0.6m x 0.6m will be provided at needed locations as shown in Table 8 below, to check the menace of erosion and ensure sustainability of each of the rehabilitated road.

Table 8: Proposed Line Drains

S/N	ROAD NAME	REMARK
1	Aku Uro-Obajana Road	5,350m
2	Aku Uruko-Odoba Farm Road	None
3	Osara-Atami Road	None
4	Ayegunle-Olumode-Daji Farm Road	350 m
5	Eshi Bunu Junction-Aherin Ape Road	350 m
6	Illai-Ifeolukotun Road	3,588m
7	Ayingba-Agala Ate Road	2,300m
8	Elubi-Etiaja-Ajakwu Road	1,76Om
9	Odidoko-Ugbamaka-Ugbaja-Oloye Road	None
10	Ayikpele-Okochogbe-Ofugo-Etutobo Road	None

S/N	ROAD NAME	REMARK
11	Adumu Junction-Adum Farm Road	None

3.4.2 Culverts

- The projects will de-silt and provide protection, maintenance works and road safety signs to existing culverts in each of the proposed road projects.
- Provide new culverts at designated locations in each of the proposed roads.
- Provide and protect embankment of box culvert of 3-cell 3mx3m Box Culvert

This information is depicted in Table 9 below.

Table 9: Data on Culvert for the Proposed Road Projects

S/N	ROAD NAME	No. of Existing Culverts	No. of New Culverts	No. of Box Culverts
1	Aku Uro-Obajana Road	6	14	10
2	Aku Uruko-Odoba Farm Road	1	2	3
3	Osara-Atami Road	3	5	4
4	Ayegunle-Olumode-Daji Farm Road	None	3	1
5	Eshi Bunu Junction-Aherin Ape Road	3	4	3
6	Illai-Ife olukotun Road	6	15	11
7	Ayingba-Agala Ate Road	None	1	1
8	Elubi-Etiaja-Ajakwu Road	1	2	1
9	Odidoko-Ugbamaka-Ugbaja-Oloye Road	None	2	None
10	Ayikpele-Okochogbe-Ofugo-Etutobo Road	None	3	1
11	Adumu Junction-Adum Farm Road	None	1	None

3.5 Summary of Design Standards

Table 10: Summary of Design Standards for the Proposed Road Projects

S/N	Parameter	Design
1	Design Speed	60km/hr
2	Type of Road	Single lane carriageway
3	Carriageway Width	6m
4	Shoulder Width	1m both sides
5	Maximum Grade	5%
6	Pavement	Laterite sub-base
7	Drainage	Reinforced Concrete (RC) rectangular line drain at selected alignments.
8	Design Parameters	Curve radius, curve lengths, sight distances and other parameters shall correspond to the 60km/hr design speed
9	Surfacing	Asphalt sealing 25mm – 30mm thickness
10	Construction activities	Excavation, earth filling, grading, drainage structures, culverts, earth works and road surfacing

3.6 Staging Area

The Contractor, in collaboration with the Kogi RAAMP SPIU and the community, will determine the appropriate location for the project office, equipment parking, and other machinery required for each of the project. Potential impacts linked to the establishment and operations of each staging area have been recognized, and corresponding mitigation measures have been detailed in Chapter 4 of the ESMP (Environmental and Social Management and Monitoring Plan).

The identification and management of the staging area will follow the subsequent criteria:

- The contractor shall take all measures and precautions to avoid any disturbance in the local communities and among the users of the road, as a result of the project execution;
- Be located outside the protection zone of watercourses (100 m) and wetlands.
- The site must be cordoned off and access restricted to prevent accidents and unsupervised visitor.
- Be located within an acceptable distance from existing residential areas.
- Not to be located in or around school premises.
- Not located in areas with intact vegetation, wetlands, critical habitat etc.
- The contractor must first obtain the necessary licenses and consents from the local authorities or from the owner of the needed area, including agreement on how the site should be handed over after use.
- The contractor must submit for the prior approval of the Resident Engineer, the design for the staging area that is intended to be built and the contractual agreement and payment for rental of the staging areas.
- The Contractor will ensure that all necessary sanitary facilities shall be provided for workers expected on site:
    - Conducive office space with tables, chairs, drinking water, good aeration, etc.
    - Separate toilets for male and female.
    - Portable water with well-placed overhead tanks.
    - Wash basins.
    - Concrete and covered septic tanks.

3.7 Material Sourcing/Borrow Pits

Gravels shall be sourced from nearby quarries close to the proposed road projects while fill materials will be obtained from borrow areas which shall be identified later by the construction contractors after the award of contracts. The criteria to be considered shall include: the borrow areas shall not be located in agricultural fields, or along the proposed route. Sufficient quality of soil and suitable earth shall be adjudged to be available. Soil tests from the proposed locations shall be carried out to affirm the suitability of the materials to ensure that fill material compact to the required density for the proposed backlog maintenance and rehabilitation works. A borrow pit management plan has been provided in appendix 7

CHAPTER FOUR: DESCRIPTION OF PROJECT ENVIRONMENT

4.1 Scope of the study

The scope of the study is divided into six (6) study areas, namely,

- Vegetation and Land – Use
- Climate and Meteorology
- Geology and Soils.
- Air Quality and Noise.
- Water studies
- Socio-economic and Health.

4.2 Baseline Data Acquisition Methods

The approach adopted in collecting the baseline data incorporated all relevant disciplines. The baseline data of the project area was acquired, using the following methods:

- Literature/desktop research.
- Field observation.
- Sampling and measurements.
- Laboratory analysis of samples collected in the field at Richflood Laboratories Abuja.
- Secondary data on climate and meteorology from Nigerian Metrological Agency (NIMET).

Note that the methods used for the acquisition of data are described in details at the beginning of each study section**.**

4.2.1 Field Sampling and Observations.

Field Samplings and observations were carried out to cover relevant aspects of the baseline data acquisition. This was aimed at determining the ecological characteristics of the project area. The sampling and data gathering exercise for the dry season only were carried out from 27th February 2024 – 2nd March, 2024. Visual observations were made and documented in the field notebook. Photographs of important features were taken with a ***HP Photosmart M547*** digital camera. The project host communities were studied to obtain baseline environmental data.

4.2.2 General Description of the Proposed Project Areas

Kogi state is one of the six states that make up the North-Central (middle belt) geopolitical zone of Nigeria. It is bordered to the West by the states of Ekiti and Kwara; to the North by the Federal Capital Territory Abuja; to the Northeast by Nasarawa state; to the Northwest by Niger state; to the Southwest by Edo state and Ondo state; to the Southeast by Anambra state and Enugu state and to the East by Benue state. It is the only

state in Nigeria that is bordered by ten other states. The State capital is Lokoja and has three (3) main ethnic groups (Igala, Ebira and Okun). Kogi State covers an area of 29,833km^2. It lies at latitude 7°75' North and longitude 6°75' East

The proposed backlog maintenance and rehabilitation projects are all rural earth roads which cut across 11 roads of 12 communities in 7 Local Government Areas of Kogi State (Adavi, Kabba Bunu, Mopa Amuro, Dekina, Olamaboro, Igalamela/Odolu and Idah). The road alignment in all the proposed projects is poorly drained in some locations due to poor drainage channels and road surfaces below surrounding ground level which will be mitigated by the proposed line drains and slope protection works in the project engineering designs.

There are seasonal stream crossings in some roads which needed box culverts and silted culverts along the existing roads due to low ground levels with poor drainage which will be mitigated with box culverts already captured in the engineering design for each of the road rehabilitation works. The Illai – Ifeolukotun road has 7 stream crossings which are largely wooden structures and shall be replaced by box culverts. The important features including the start and terminal points of each of the road projects are presented in Figure 2 while detailed maps are presented as Appendix 15

4.3 Biophysical Environment of the Project Area

i. Vegetation

Broad habitat types were identified using imagery followed by ground truthing. For each of the identified habitat type, transects were randomly established to ensure adequate coverage of the area of influence. Each transect was 200m long and sampling quadrats were established every 50m. With each quadrat, floral diversity and the density of key economic and medicinal species were determined. The sampling quadrats were 10m x 10m and 25m x 25m for trees and 1m x 1m for herbaceous plants and grasses.

Plant species were identified to family, generic and species level either in the field or herbarium. The position of trees along transects were recorded. Plant health status was visually assessed and the extent of vegetation cover was measured for creeping plants at regular intervals.

Broad habitat types were identified using imagery followed by ground truthing. For each of the identified habitat type, transects were randomly established to ensure adequate coverage of the area of influence. Each transect was 200m long and sampling quadrats were established every 50m. With each quadrat, floral diversity and the density of key economic and medicinal species were determined. The sampling quadrats were 10m x 10m and 25m x 25m for trees and 1m x 1m for herbaceous plants and grasses.

Plant species were identified to family, generic and species level either in the field or herbarium. The position of trees along transects were recorded. Plant health status was visually assessed and the extent of vegetation cover was measured for creeping plants at regular intervals. The proposed 11 Nos road projects do not traverse any protected areas/forest reserves.

The project area of influence is of the derived savanna ecological zone which has also been described as a mosaic of woodland and secondary grassland. Typical trees and shrubs in the project areas include *Crossopteryx febrifuga* (Crystal bark tree*), Combretum spp* (Bushwillows) *., Hymenocardia acida* (West African Rubber tree)*, Terminalia laxiflora (Baushe* in Hausa*), Vitellaria paradoxa (*Shea tree)*, Daniellia oliveri* (West African Copal tree) and *Anogeissus leiocarpus* (African birch). Major crops cultivated in each of these communities include *Anacardium occidentale* (cashew), *Elaeis guineensis* (Oil palm), *Arachis hypogaea* (ground nut), *Phaseolus vulgaris* (beans), *Glycine max* (soya beans), *Panicum miliaceum* (millet), *Manihot esculenta* (cassava), *Sesame seed* (beanie seed), *Zea mays* (maize). Each of the communities has cassava processing centres. Economic trees along the project route include Oil Palm, Bamboo Trees *(Bambusa vulgaris),* Mango Trees (Magnifera indica), Neem Trees *(Azadirachta indica*), African Rosewood Tree (Oha) and Wild Mango Tree (Ogbono). Rice is especially grown in Adumu community in Ida Local Government Area.

ii. Fauna

A variety of invertebrate and vertebrate fauna are found in the study area. The common fauna includes insect, ground squirrel, rabbits, reptiles like monitor lizard, ordinary lizard and snakes, rats, mice, cattle, goats, sheep, antelopes, cats and birds. This is presented in Table 11.

Table 11: Fauna Composition of the Project Area.

Phylum	**Species**	
	Scientific Name	**Common Name**
I) Annelida	*Hyperiodrilus africanus*	Earth worm
II) Arthropoda -Arachinida	*Loxosceles reclusa,* *Scorpionida:Pandinus imperator* *Armadillidum sp.*	Brown spider Emperor scorpion Wood lice
Diplopoda(millipedes):	*Pachybolus ligulatus,* *Habrodesmus sp.*	Chocolate millipede Millipede
- Insecta	***Trichoptera****:* *Agraylea sp.* *Rhodanella minos* ***Coleoptera****:* *Canthon sp.* *Photinus sp.* *Dytiscus sp.* *Mellodon downer* *Anthia sp.* *Adalia bipunctata* ***Diptera****:.* *Culex and Anopheles sps.* *Simulium sp.* *Tipula sp.* *Psychoda sp.,* *Musa domestica* *Drosophila sp.* ***Orthoptera:*** *Sphedromantis lineola* *Gryllotalpa africana* *Conocephalus sp.* **Homoptera**: *Isoptera:* *Hodotermes mossambicus Macrotermis sp.* *Lepidoptera sp.* *Monomorium destructor* *Vespa sp*	 Caddis flies Collembola springtails Tumblebugs Fireflies Diving beetle Longicorn beetles Ground beetle Ladybird Mosquitoes Black fly Crane fly Sand fly House fly Fruit fly Prey mantis Cricket Longhorn grasshopper Harvester Termites Bark- eating Termites Butterflies Black ant Wasps Army ants
iii) Chordata -Amphibia	**Anura:** *Xenopus laevis*	 African clawed Frog
-Reptilia	*Hermidactylus frenatus* *Lacertilia sp.,* *Atheris chlorechis*	Common House Gecko Lizard West African Bush Viper
-Aves	*Egretta sp*. *Passseri sp.* Gyps africanus *Strix woodfordi* *Columba livia* *Falco berigora* *Accipitridae sp.*	Heron Songbird Vulture African Wood Owl Pigeon Falcon Hawks

Phylum	Species	
	Scientific Name	**Common Name**
-Mammalia	*Lepus sp.,* *Rattus rattus,* *Alcelaphinae sp.* *Epixerus ebii*	Hare Rat Antelope Squirrel

iii. Geology and Soil

The geological setting of Kogi State is unique in view of the occurrence of the two major components of Nigerian geology (Basement Complex and Sedimentary Basin). Approximately, half of the State, the western flank, is covered by crystalline Basement Complex of Precambrian age while the other half, the eastern flank, is covered by Cretaceous to Recent sediments. The Basement Complex is made up of Migmatite-Gneiss Complex, the Schist Belts and the Older Granites and the sedimentary area, which is the Anambra Basin, consists of sedimentary rocks that form part of Cretaceous to Recent sediments of Nigeria. Kogi State is richly endowed with mineral resources. Over twenty mineral resources have so far been reported in the State by the Geological Survey of Nigeria Agency (GSNA). Mineral deposits of economic significance that occur in the two geologic segments of Kogi State among others include; beryl, cassiterite, clay, coal, columbite, feldspar, fire clay, garnet, gold, granite, iron ore, kaolin, magnetite, marble, mica, muscovite, silica sand, quartz, talc, tantalite and tourmaline in alphabetical order.

Seismic Conditions

From the geological point of view, the area falls within what is described as a stable zone. There is no record of seismic activity.

Soil

The summary of soil analysis results (Table 12) indicated that the soils were sandy – lateritic in texture and light brownish - dark brownish in colour. The pH ranged from 6.5 - 6.85. Heavy metals such as Pb, Cd, Ni, Hg and Oil/grease were not detected.

Soil samples at surface (0 – 15cm) and subsurface (15 – 30cm) levels were collected with the aid of a soil Auger. The samples were placed in properly labelled materials (polythene and foil) and then placed in ice-containers to retain quality before being taken to the laboratory for analysis.

Table 12: Secondary Data of Soil Samples taken from EMP of PAT BTS Sites across Kogi State, 2021.

S/N	PARAMETERS	RESULTS
	PHYSICO – CHEMICAL TESTS	**SS1**
1	pH(at 25oC)	6.8 - 6.85
2	Colour	Light Brownish - dark brownish
3	Conductivity (µ/cm)	16.8 - 17.5
4	**Particle Size:**	
	Sand (%)	65.41 - 77.50
	Silt (%)	11.80 - 12.00
	Clay (%)	22.79 - 10.50
5	Porosity (%)	20.5 - 22.0
6	Chloride (mg/kg)	554.0 - 556.0
7	Ammonical Nitrogen (mg/kg)	1 14.0 - 122.0
8	Nitrate (mg/kg)	315.0 - 324.0
9	Nitrite (mg/kg)	<0.05
10	Copper (mg/kg)	ND
11	Zinc (mg/kg)	33.0 - 40.0
12	Iron (mg/kg)	30.0 - 40.0
13	Cadmium (mg/kg)	ND

14	Lead (mg/kg)	ND
15	Manganese (mg/kg)	20.0 - 22.5
16	Sodium (mg/kg)	9.5 - 21.0
17	Potassium (mg/kg)	9.40 - 13.0
18	Calcium (mg/kg)	118.0 - 120
19	Magnesium (mg/kg)	9.2 - 10.8
20	Nickel (mg/kg)	ND
21	Mercury (mg/kg)	ND
22	Oil & Grease (mg/kg)	ND
23	Total Heterotrophic Bacteria	150 - 220

iv. Climatic Conditions

The climate of the project area is typical of the humid tropics with considerable influence resulting from existing seasonal winds, latitude, and apparent movement of the sun across the tropics and relative stability of the Inter Tropical Convergence Zone (ITCZ) or Inter Tropical Front (ITF) over the area. The two dominating air mass are the drier Tropical Continental (TC) from the Sahara in the north and the humid Tropical Maritime (TM) from across the Atlantic Ocean in the south. An Inter Tropical Discontinuity (ITD) zone separates them. This zone oscillates seasonally depending on the apparent movement of the sun.

The third air mass is the Equatorial Easterlies, a rather cool one that comes from the east and blows in the upper atmosphere along the Inter Tropical Zone of Convergence. Occasionally, it dives southwards undercutting either the tropical maritime or tropical continental air mass and gives rise to a line squall.

The major climatic elements of the project area include rainfall, temperature, wind (speed and direction) and relative humidity. Data on these elements were obtained from the Nigeria Meteorological Agency (NIMET) Abuja, for 2005 – 2022 and the mean monthly values were calculated. It is to be noted that climate data from NIMET can be sourced from any location where NIMET maintains weather stations and through the agency's intra net data bank upon an application to the agency.

- **Rainfall**

Like most parts of Nigeria, Kogi State enjoys a Tropical Continental type of climate. This is largely controlled by two air masses, namely Tropical Maritime and Tropical Continental, blowing from the Atlantic and the Sahara Desert respectively. These air masses determine the two dominant seasons wet and dry. The wet season begins with significant rainfall from April to October while the dry season lasts for the remaining period of the year. The average annual rainfall ranges from 38.1mm to 217.4mm. The highest recorded rainfall was in the month of August.

- **Wind**

Wind is strongest between March and April (4.4 – 4.3 m/s) and lowest in November to December (2.6 – 2.5 m/s). Generally the wind in the study area can be described as gentle and moderate breeze. The wind direction in the dry season (November to March) was predominantly Southerly while that of the Wet season (April – October) was predominantly Westerly.

- **Relative humidity**

The relative humidity of the project area is moderate and ranged from as low as 31% during the dry season to as high as 82% during the rainy season. The Relative humidity was generally found to be higher in the morning than in the afternoon.

- **Temperatures**

The monthly maximum temperature of the project area was high and ranged between 30.3^{o}C and 37.6^{o}C while the monthly minimum temperature varies between 16.3^{o}C and 25.6^{o}C. Also the months of July to September are the coolest months while the months of February to April are the hottest.

v. Air Quality and Noise Level Measurements

In-situ air quality assessment was conducted with the aid of Casella MX21 Automatic Air Sampler and MSA, ALTAIR MULTIGAS DETECTOR. The instruments are able to detect automatically (with the aid of sensors) the range of noxious gases present in the air, which was then read off automatically on the digital screen. In addition, the MSA, ALTAIR Multi-Gas Detector also monitors the oxygen concentration in ambient air with two alarm set points at > 20.8% (Enriched oxygen concentration) and < 19.5% (Deficient oxygen concentration). Suspended particulate matter (SPM) was monitored by means of Gillian BDXII Abatement multi flow air sampler with adjustable flow rate.

The results of the in-situ air quality measurements indicated that Total Particulate levels ranged from 38 - 75g/m^3 ; Carbon II Oxide ranged from 250 - 380 mg/m^3 while mean noise levels ranged from 55 - 75 dBA.

vi. Water Quality

The field studies were carried out in the dry season. As such no water sample was collected from the seasonal streams across some of the road projects shown in Table 13. Ground water samples were collected from 4 project routes within 100m radius of the road alignments and analysed in the laboratory. The results indicated that the pH values ranged from 6.75 - 6.92, Dissolved oxygen ranged from 2.90 - 3.30mg/l. Heavy metals (pb, Cd, Ni, Hg, Ba, V), Oil and Grease were not detected in all the samples. All the samples were colourless and odourless. The details are in Appendix 15.

Table 13: Water Sources along the Road Alignments

S/N	Road Name	Water Type/Source	Coordinates	
1.	Aku Uro-Obajana Road	Borehole	N 07^0 43’ 44.6’’	E 006^0 29’ 02.2
2.	Aku Uruku -Odoba Farm Road	None		
3.	Osara-Atami Road	Okuha	N 07^0 39’ 30.9’’	E 006^0 26’ 13.3
4.	Ayegunle-Olumode-Daji Farm Road	Borehole	N 07^0 52’ 57.2’’	E 006^0 11’ 17.4
5.	Eshi Bunu Junction-Aherin Ape Road	Open Well	N 07^0 56’ 39.3’’	E 006^0 09’ 11.7
6.	Illai-Ifeolukotun Road	Ogedeahe Stream	N 08^0 00’ 58.8’’	E 005^0 49’ 25.7
		Agbanagbo Stream	N 08^0 00’ 52.2’’	E 005^0 49’ 24.7
		Iyeweru Stream	N 07^0 59’ 35.3’’	E 005^0 48’ 49.0
		Awuyo Stream	N 07^0 58’ 38.3’’	E 005^0 48’ 06.5
7.	Ayingba-Agala Ate Road			
8.	Elubi-Etiaja-Ajakwu Road	Borehole	N 07^0 34’ 55.6’’	E 007^0 24’ 25.1
9.	Odidoko-Ugbamaka-Ugbaja-Oloye Road	Borehole not functional	N 08^0 00’ 58.8’’	E 005^0 49’ 25.7
10.	Ayikpele-Okochogbe-Ofugo-Etutobo Road	None		
11.	Adumu Junction-Adum Farm Road	None		

4.4 Site Specific Description of each of the Proposed Road Projects

a) 19.55 km Aku Uru – Obajana Road in Adavi LGA

The soil of the start point is sandy in appearance. There are farmlands on both sides of the project route. The Project host Community (Aku) has their Community Market at the start point of the road project. The proposed road projects connect the Lokoja – Okene road to the Lokoja – Obajana road across farmlands. The ground elevation of the project area ranged from 144m – 177m above the sea level.

b) 2.41 km Aku Uruku – Odoba Road in Adavi LGA

The soil of the start point is a mixture of loamy/lateritic in appearance. The proposed road project is simply an access to vast farmlands. The ground elevation of the project area ranged from 149m – 160m above the sea level.

c) 6.59 km Osara – Atami Road in Adavi LGA

The start point of the proposed road project is off the Lokoja – Okene Express way. It is diagonally opposite the Confluence University of Science and Technology Osara. The soil is sandy in texture but gradually changes into a rocky terrain towards the terminal point at Atami Community. There are farmlands on both sides of project route. Existing electricity lines (Plate 9) were observed to be vandalized depriving the host community of electricity supply. There is also an existing concrete bridge over a seasonal stream which needed rehabilitation

The ground elevation of the project area ranged from 124.2m – 177.3m above the sea level.

d) 4.65 km Aiyegunle- Olumode – Daji Farm Road in Kabba-Bunu LGA

The start point of the proposed project has some buildings very close to the road alignment.

The soil is sandy loam in appearance and light brownish in colour but changes to greyish and lateritic type towards the terminal point at Daji farm. There are farmlands on both sides of the project route. The ground elevation of the project area ranged from 417m – 490m above the sea level.

e) 4.10 km Eshi Bunu Junction – Ape Road in Kabba-Bunu LGA.

The soil is sandy loam in texture. It is light brownish in colour but changes to dark brownish towards the terminal point. There are Cashew Orchards and farmlands on both sides of project route. The ground elevation of the project area ranged from 493m – 529m above the sea level.

f) 24.1 km Illai – Ifeolukotun road in Mopa Amuro LGA

The soil of the start point is sandy in texture but gradually changes into a rocky terrain around the mid-point of the proposed road and ends with a sandy terrain at the end point. The LGEA Primary School, Aiyegunle, the First ECWA Church, an Electricity Transformer, UBE SUBEB Primary School, Ilai Community Grammar School, Maternity and Child Health Centre and Busy Brain Nursery and Primary School are located along the proposed project route. There are about 9 seasonal stream crossings along the project route which needed Box Culverts. The ground elevation of the project area ranged from 282 - 508 metres above the sea level.

g) 4.05 km Anyigba – Agala Ate Road in Dekina LGA

The start point of the proposed road project has lockup shops on both sides of the road. The soil texture but gradually changes into a rocky terrain towards the terminal point at Agala Ate.

Along the proposed Project route are the LGEA Primary School, United Evangelical Church, National Evangelical Nursery and Primary School, Electricity Transformer, St. Felicity Catholic Church and Catholic Primary School. The soil is prone to erosion. The ground elevation of the project area ranged from 359m – 394m above the sea level.

h) 6.83 km Elubi Etiaja – Ajakwu Road in Dekina LGA

The start point of the proposed road project intersects with Egunne – Elubi – Ogugu road. There is an Electricity Transformer by the left side of the road. Other features along the proposed road project are UBE Junior Secondary School, St. Peters Catholic Church Elubi Ajakwu and RCM Primary School. The existing road is lower than the surroundings and needed raised with side drain channels to prevent erosion and water logging during the wet season.

The ground elevation of the project area ranged from 312m – 428m above the sea level.

i) 4.13 km Odidoko – Ugbamaka Emenyoku – Emakpe Road in Olamaboro LGA.

The start point of the proposed road project intersects with Okpo – Ogugu road. Features along the proposed road project include farmlands, cashew orchards, United Evangelical Church, Ugbomaka Emenyeoku and Electricity poles which needed re-alignment from the proposed road corridor.

The ground elevation of the project area ranged from 336m – 415m above the sea level.

j) 6.64 km Ayikpele – Okochogbe – Etutobo/Ofugu Road in Idah LGA

The start point of the proposed road project intersects with Ajaka – Ejule road. The proposed road slopes down to the start point from the 1km mark with visible signs of erosion at the start point. Gully erosions were evident at the mid-point of the proposed road at Okochogbe. Features along the proposed road project include farmlands, cashew orchards, United Evangelical Church, LGEA Primary Scholsat Okochogbe and Etutubo/Ofugu as well as Electricity poles which needed re-alignment from the proposed road corridor at some points. The ground elevation of the project area ranged from 178m – 263m above the sea level.

k) 2.63 km Adumu Junction – Adumu Farm Road in Igalamela/Odolu LGA.

The proposed road project is a farm road into the vast flood plains used for rice typical of the government FADAMA Project. Features along the proposed road project include farmlands, LGEA Primary School Adumu and Primary Health Centre Adumu. The ground elevation of the project area ranged from 36m – 48m above the sea level.

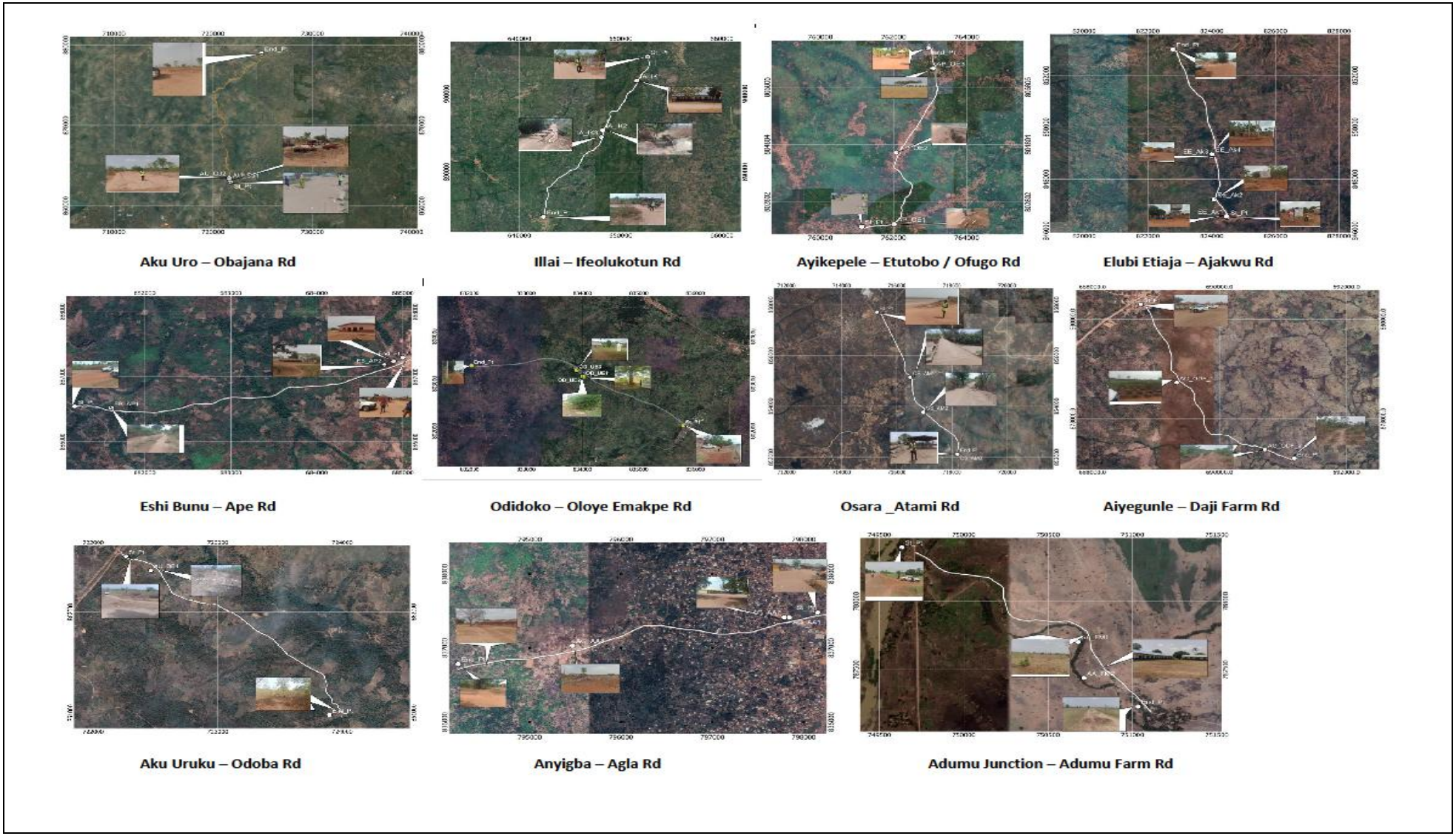

Figure 3: Map showing Important Features of the Proposed Projects including Start and Terminal Points

4.5 Environmental and Social Sensitivities of the Proposed Road Projects

There are schools along some of the proposed road projects. Speed bumps, caution signs and flagmen will need to be provided at the respective locations to prevent accident especially during construction. There are also some failed culverts which shall be replaced by new culverts and silted culvert which shall be de-silted and made free flowing. A few of the economic trees are in the Right of Way of some of the proposed roads and will be impacted by the project. Adequate compensation measures have been captured in a standalone Resettlement Action Plan (RAP) prepared for the project. Table 14 below highlights environmental and social sensitivities along the proposed 11 Nos road projects.

Table 14: Environmental and Social Sensitivities along the Proposed Roads

S/N	Coordinates	Description	Photo
1	**Aku Uru – Obajana Road in Adavi LGA**		
	N 07^0 43' 42.3''; E 006^0 29' 04.5''; Elevation 144.5m	Start Point of the road project at intersection with Lokoja – Okene Road	
	N 07^0 43' 50.2''; E 006^0 29' 01.2''; Elevation 150m	Mechanized Plough and Cassava Processing, 70m away from the start point. These will be removed before construction activities.	
	N 07^0 43' 57.4''; E 006^0 28' 59.3''; Elevation 156.7m	Road section lower in height than the surroundings making it susceptible to erosion and flooding. This will be addressed by the engineering works	
	N 07^0 52' 13.9''; E 006^0 30' 44.8''; Elevation 171.2m	Terminal point of the road project at intersection with Lokoja – Obajana Road	
2	**Aku Uruku – Odoba Road in Adavi LGA**		
	N 07^0 43' 28.3''; E 006^0 29' 20.2''; Elevation 160m	Start Point of the road project which provides access to vast farmlands	
	N 07^0 43' 23.9''; E$006^0$29'26.7''; Elevation 151m	Proposed culvert point	

S/N	Coordinates	Description	Photo
	N 07^0 42' 38.0''; E 006^0 30' 13.0''; Elevation 149m	Terminal Point of the road project surrounded by vast farmlands	
3	**Osara – Atami Road in Adavi LGA**		
	N 07^0 40' 53.1''; E 006^0 25' 34.6''; Elevation 160.9m	Start Point of the road project at intersection with Lokoja - Okene Road	
	N 07^0 39' 30.9''; E 006^0 26' 13.3''; Elevation 124.2m	Existing bridge over a seasonal stream (Okuha) with a cracked abutment at one end. Guard rails also needed. This has been captured as part of the engineering works	
	N 07^0 38' 46.8''; E 006^0 26' 28.8''; Elevation 126.6m	Existing culvert with a collapsed edge levelled up with wood by the host community. This will be replaced with a new Culvert and captured as part of the engineering works.	
	N 07^0 37' 53.9''; E 006^0 27' 08.9''; Elevation 177.3m	Terminal Point before the Community Market Square.	
4	**Aiyegunle- Olumode – Daji Farm Road in Kabba-Bunu LGA**		
	N 07^0 52' 57.1''; E 006^0 11' 16.8''; Elevation 490.3m	Start Point with some structures. Owners of structures that will be impacted by the road project will be compensated under the stand alone RAP prepared for the project	
	N 07^0 52' 06.8''; E 006^0 11' 35.1''; Elevation 456m	Vast farmlands along the proposed road project. Portions of farmland to be taken during engineering works will be captured and compensated under the stand alone RAP prepared for the project	

S/N	Coordinates	Description	Photo
	N 07^0 51’ 23.7’’; E 006^0 12’ 20.0’’; Elevation 415m	Proposed Culvert Point as captured by the engineering design works.	
	N 07^0 51’ 18.0’’; E 006^0 12’ 35.0’’; Elevation 420 m	Terminal Point surrounded by vast farmlands	
5	**Eshi Bunu Junction – Ape Road in Kabba-Bunu LGA**		
	N 07^0 56’ 17.1’’; E 006^0 07’ 11.8’’; Elevation 490 m	Start Point of the road project	
	N 07^0 56’ 16.3’’; E 006^0 07’ 25.5’’; Elevation 500 m	Failed and silted culvert on the road. A new culvert has been captured as part of the engineering works.	
	N 07^0 56’ 37.5’’; E 006^0 09’ 08.2’’; Elevation 521 m	KBLGEA Primary School/UBE/JSS Ape Bunu with adequate clearance (about 30m) from the ROW. Speed bumps, caution signs and flagmen will need to be provided at this location to prevent accident	
	N 07^0 56’ 39.3’’; E 006^0 09’ 11.7’’; Elevation 522 m	Christ Apostolic Church, Ape Bunu. with adequate clearance (about 40m) from the ROW. Speed bumps, caution signs and flagmen will need to be provided at this location to prevent accident	
	N 07^0 56’ 41.1’’; E 006^0 09’ 15.1’’; Elevation 529 m	Terminal Point of the road project.	
6	**Illai – Ifeolukotun road in Mopa Amuro LGA**		

S/N	Coordinates	Description	Photo
	N 08^0 05' 59.5''; E 005^0 51' 49.2''; Elevation 282.1m	Start Point of the proposed road project	
	N 08^0 04' 21.6''; E 005^0 51' 15.5''; Elevation 316m	MA LGEA Primary School Aiyegunle Ilemo, with adequate clearance (about 4m) from the ROW. Speed bumps, caution signs and flagmen will need to be provided at this location to prevent accident.	
	N 08^0 00' 58.8''; E 005^0 49' 25.7''; Elevation 348m	Collapsed box culvert over a seasonal stream (Ogedegbe). The terrain has granite outcrops. A new box culvert has been captured as part of the engineering works	
	N 08^0 00' 29.7''; E 005^0 49' 21.2''; Elevation 365m	Wooden stream crossings improvised over failed culverts. There are five of such. New culvert has been captured as part of the engineering works	
	N 07^0 55' 02.5''; E 005^0 46' 16.7''; Elevation 507.3m	Terminal Point of the road project.	
7	**Anyigba – Agala Ate Road in Dekina LGA**		
	N 07^0 30' 04.7''; E 007^0 10' 14.3''; Elevation 384m	Start Point of the road project at intersection with Anyigba road.	
	N 07^0 30' 02.4''; E 007^0 10' 04.3''; Elevation 321m	LGEA Primary School Agala Ate with adequate clearance (about 50m) from the ROW. Speed bumps, caution signs and flagmen will need to be provided at this location to prevent accident.	
	N 07^0 30' 02.5''; E 007^0 10' 02.3''; Elevation 376m	Solid waste dump site on the road close to United Evangelical Church and National Nursery and Primary School. Local Government Authorities will be communicated to ensure stoppage of this act by members of the public	

S/N	Coordinates	Description	Photo
	N 07^0 29' 56.7''; E 007^0 08' 07.1''; Elevation 381m	Erosion prone sections of the road. The road elevation is below that of the surroundings. The ground level of the road will be raised and side drains provided as captured by the engineering design.	
	N 07^0 29' 50.2''; E 007^0 08' 47.6''; Elevation 381m	St Felicity Catholic Church and Primary School with adequate clearance (about 30m) from the ROW. Speed bumps, caution signs and flagmen will need to be provided at this location to prevent accident.	
	N 07^0 29' 42.2''; E 007^0 08' 07.1''; Elevation 381m	Terminal Point of the road project.	
8	**Elubi Etiaja – Ajakwu Road in Dekina LGA**		
	N 07^0 34' 54.4''; E 007^0 24' 26.1''; Elevation 316m	Start Point intersects with Egunne Elubi – Ogugu Road	
	N 07^0 34' 55.6''; E 007^0 24' 25.1''; Elevation 312m	Borehole with overhead tank at Elubi with adequate clearance (about 20m) from the ROW. Speed bumps, caution signs and flagmen will need to be provided at this location to prevent accident.	
	N 07^0 35' 16.6''; E 007^0 24' 12.6''; Elevation 322m	UBE/JSS Elubi with adequate clearance (about 100m) from the ROW. Speed bumps, caution signs and flagmen will need to be provided at this location to prevent accident.	
	N 07^0 36' 10.3''; E 007^0 24' 10.1''; Elevation 337m	St. Peters Catholic Church Elubi with adequate clearance (about 80m) from the ROW. Speed bumps, caution signs and flagmen will need to be provided at this location to prevent accident.	
	N 07^0 36' 12.8''; E 007^0 24' 10.6''; Elevation 335m	Electricity Transformer along the road. This did not encroach on road alignment and thus does not ned to be relocated. The road elevation is lower than the surroundings predisposing it to erosion and flooding. This has been captured and will be addressed by the engineering works.	

S/N	Coordinates	Description	Photo
	N 07^0 38' 22.6''; E 007^0 23' 31.1''; Elevation 428m	Terminal Point at intersection with Anyigba – Abejukolo Road	
9.	**Odidoko – Ugbamaka Emenyoku Road in Olamaboro LGA.**		
	N 07^0 11' 10.2''; E 007^0 30' 31.4''; Elevation 415.5m	Start Point of the road project at intersection with Ogugu road.	
	N 07^0 11' 43.4''; E 007^0 29' 34.2''; Elevation 376m	African Rosewood (**Pterocarpus mildbraedii) on the road Corridor.** The tree will be impacted and the owner will be compensated under the stand alone RAP prepared for the project.	
	N 07^0 11' 43.6''; E 007^0 29' 33.8''; Elevation 370m	Bamboo trees along the proposed road corridor. The tree will be impacted and the owner will be compensated under the stand alone RAP prepared for the project.	
	N 07^0 11' 47.8''; E 007^0 29' 30.2''; Elevation 373m	United Evangelical Church at Ugbomaka Emenyoku. with adequate clearance (about 100m) from the ROW. Speed bumps, caution signs and flagmen will need to be provided at this location to prevent accident.	
	N 07^0 11' 50.9''; E 007^0 28' 29.9''; Elevation 336m	Terminal Point of the road project.	
10	**Ayikpele – Okochogbe – Etutobo/Ofugu Road in Idah LGA.**		
	N 07^0 11' 04.7''; E 006^0 50' 17.3''; Elevation 178m	Start Point of the road project at intersection with Ajaka - Ejule Road.	
	N 07^0 11' 07.4''; E 006^0 50' 45.8''; Elevation 202m	Silted culvert close to the start point. The road has a gradual slope upward up to 1km mark. The Culvert size appears inadequate. This has been captured as part of the engineering works.	

S/N	Coordinates	Description	Photo
	N 07^0 12' 27.7''; E 006^0 50' 47.7''; Elevation 263m	Erosion ravaged sections at Okochogbe. This has been captured as part of the engineering works.	
	N 07^0 14' 01.8''; E 006^0 51' 20.1''; Elevation 263m	LGEA Primary School Etutobo Ofugu	
	N 07^0 14' 24.8''; E 006^0 51' 15.9''; Elevation 246m	Terminal Point with oil palm and Plantain trees on the proposed road corridor. The trees will be impacted and the owner(s) will be compensated under the stand alone RAP prepared for the project	
	N 07^0.23'89.03": E 006^0.85'45. 9": Elevation 246m	A shrine was seen on the proposed Right of Way (RoW). The shrine will be resettled and the owners shall be compensated as captured in the stand alone RAP prepared for the project	
11	**Adumu Junction – Adumu Farm Road in Igalamela/Odolu LGA.**		
	07^0 03' 49.9''; E 006^0 44' 05.3''; Elevation 45m	Start Point of the road project	
	07^0 03' 27.7''; E 006^0 44' 39.1''; Elevation 42m	Flood Plains of Adumu Farmlands. The road level will be raised to prevent flooding and erosion and has been captured as part of the engineering works	
	07^0 03' 19.2''; E 006^0 44' 40.2''; Elevation 42m	LGEA Primary School Adumu with adequate clearance (about 20m) from the ROW. Speed bumps, caution signs and flagmen will need to be provided at this location to prevent accident	
	N 07^0 03' 12.5''; E 006^0 44' 50.6''; Elevation 48m	Terminal Point Adumu Farm Road surrounded by vast flat lands.	

4.6 Socio-Economic Baseline of the Project Areas

In obtaining socio economic data of communities where the proposed roads are located, the exploratory survey method was adopted. This involved key informant interviews using structured questionnaires and Focus Group Discussions. A "key informant" is generally a person adjudged to have good knowledge of the community under study such as a community leader, youth leader, a traditional ruler etc. The questionnaire used in obtaining socio economic data employed a combination of "open-ended" and "closed" questionnaire

format. Open-ended questions are more suitable for qualitative data while closed questions are more suitable for quantitative data.

The socio-economic survey was conducted across seven (7) LGAs where the intervention roads are located in order to establish the socio-economic baseline of the study area. 10 questionnaires were administered at each Community of the respective projects. Data collected on socio economy of these communities include demography, including population size and growth, age and sex distribution, and adult literacy. Others were indicators of the quality of life of the inhabitants, such as the quality of housing, access to potable water, availability of functional infrastructural amenities, livelihood activities and income levels. Health facilities and their patronage, disease prevalence and vectors, water and sanitation, and nutrition. The summary of the socoio economic data are as follows:

- The major occupation of the people of each of the host communities in all the road projects is farming
- Boreholes/wells are major sources of domestic water in all the communities except for Adumu Community which relies solely on River water. The project contractor would source for water for construction outside the host communities to mitigate competition for existing community resources and reduce potential of water pollution.
- The major languages spoken by the people include Igala, Ebira, Okun and Yoruba with Christianity as the predominant religion. Cultural issues will therefore be given adequate consideration in implementing each of the projects.
- Each of the communities has a primary school located along the proposed project route which could predispose the school children to health and safety issues during project implementation.
- Housing structures consists of block cement with zinc roof sheets and plastered mud walls with zinc roof sheets. Charcoal and firewood are common sources of household fuel.
- There is no good practice for waste disposal. Refuse disposal is by burning, burial and application on farmlands as manure.
- There is a primary healthcare facility in each of the communities except at Aku and Atami Communities. Primary Health Facilities will not be stretched as a result of the project implementation especially if non-skilled labour is sourced from the host communities.

The relevance/implication of the socio economic information obtained for each of the projects is captured in the ESMMP in Chapter 7; A summary of the socio- economic statistics is presented in Table 15 below while the survey questionnaire is presented in Appendix 2.

Table 15a: Socio – Economic Data of Project Host Communities.

	Name of Road	**1.Aku Uru – Obajana Road 2. Aku Uruku – Odoba Road**	**Osara – Atami Road**	**Aiyegunle- Olumode – Daji Farm Road**	**Eshi Bunu Junction – Ape Road**	**Illai - Ifeolukotun road**
	Name of Community	**Aku Community**	**Atami Community**	**Aiyegunle Egun Bunu**	**Adaratedo Ape Bunu**	**Illai Community**
1.	Main Ethnic Group	Ebira	Ebira	Bunu (variant of Okun)	Bunu (variant of Okun)	Yagba (variant of Okun)
2.	Religion	Islam (60%), Christianity (25%) & Traditional (15%)	Islam (85%), Christianity (10%), Traditional (5%)	Islam (30%), Christianity (65%), Traditional (5%)	Islam & Traditional (5%) & Christianity (95%)	Islam (1%) & Christianity (99%)
3.	Estimated Population ((key Informant)	4,000: Male 40%, Female 60%	3,000: Male 45%, Female 55%	9,000: Male 40%, Female 60%	6,000: Male 40%, Female 60%	15,000: Male 45%, Female 55%
4.	Gender Disposition	Recognizes equal Rights for male & female.	Recognizes equal Rights for male & female.	Recognizes equal Rights for male & female, made possible now by the current traditional leadership	Recognizes equal Rights for male & female.	Recognizes equal Rights for male & female; 3 Women in Traditional Council
5.	Major Occupation	Farming (80%); Trading (10%); Public Service (10%)	Farming (95%); Trading (5%)	Farming (90%); Trading (5%); Public Service (5%)	Farming (90%); Trading (5%); Public Service (5%)	Farming (90%); Trading (5%); Public Service (5%)
6.	Average Monthly	₦12, 000 – ₦150, 000	₦25, 000 – ₦ 100, 000	₦25, 000 – ₦150, 000	₦30, 000 – ₦ 200,	₦40, 000 – ₦

	Name of Road	1.Aku Uru – Obajana Road 2. Aku Uruku – Odoba Road	Osara – Atami Road	Aiyegunle- Olumode – Daji Farm Road	Eshi Bunu Junction – Ape Road	Illai - Ifeolukotun road
	Name of Community	**Aku Community**	**Atami Community**	**Aiyegunle Egun Bunu**	**Adaratedo Ape Bunu**	**Illai Community**
	Income (depends on farm yield)				000	200, 000
7.	Transportation System	Bicycle, Motorcycle, Motor Car	Bicycle, Motorcycle, Motor Car	Bicycle, Motorcycle, Motor Car	Bicycle, Motorcycle, Motor Car	Bicycle, Motorcycle, Motor Car
8.	Electricity Source	National Grid but faulty	National Grid but vandalized	National Grid	National Grid	National Grid but vandalized
9.	Cultivated Crops	Yam, Cassava, Maize, Groundnut, Melon	G/Nut, Maize, Beans, Cassava,	Yam, Potatoes , Guinea Corn, Ground Nut, Beans, Soya Beans, Millet, Cassava, Beni seed	Yam, Beans, Palm Oil, Cassava, Plantain, Banana, Maize	Yam, Cashew , Guinea Corn, Ground Nut, Beans, Soya Beans, Palm Oil Cassava, Beni seed
10.	Industries	Oilserve Fuel Station	None	None	None	None
11.	Educational Institutions	LGEA Primary School Digital Model College	LGEA Primary School Atami	LGEA Primary School UBE/JSS Ephraim Rogbesan Nursery/Primary/Sec. School; Information Academy Nursery/Primary/Sec School	KBLGEA Primary School UBE/Junior Secondary School	UBE SUBEB Primary School Goodnews Primary School Illai Community Grammar School
12.	Healthcare Facility	None except Patent Medicine Store	Dispensary	Primary Healthcare Aiyegunle	Primary Health Centre Ape Bunu	Maternity & Child Health Centre. Primary Health Centre Illai
13.	Common ailment (from Focus Group Discussion)	Malaria, Typhoid, B.P & Diabetes	Malaria, Typhoid, Arthritis,	Malaria, Typhoid,	Malaria, Typhoid, B.P & Diabetes	Malaria, Typhoid, Arthritis,
14.	Environmental Problem	Erosion & Waste Disposal	Erosion	Erosion	Flooding, Soil Erosion	Erosion & Wildfires caused by Herders
15.	Toilet System	Pit Latrine & Open Defecation	Open defecation	Open defecation	Pit Latrine & Open defecation	Pit Latrine, WC & Open defecation
16.	Waste Disposal	On farmlands	Burning	On farmlands	Burning & on farmlands	On farmlands
17.	Household Fuel	Fire wood, Charcoal	Fire wood, Charcoal	Fire wood, and Charcoal	Fire wood, Charcoal	Fire wood, Charcoal
18.	Potable Water Sources	Borehole and Open Wells	Seasonal stream – (Okuha) & Water Vendors	Borehole and Open Wells	Open Wells, Stream about 3km away.	Boreholes
19.	Transport access	Motor cycle	Motor cycle	Motor cycle	Motor cycle	Motor cycle
20.	Economic opportunities	Agrarian community	Agrarian community	Agrarian community	Agrarian community	Agrarian community

Table 14b: Socio – Economic Data of Project Host Communities Contd.

	Name of Road	Anyigba – Agala Ate Road	Elubi Etiaja – Ajakwu Road	Odidoko – Ugbamaka Emenyoku Road	Ayikpele – Okochogbe – Etutobo/Ofugu Road	Adumu Junction – Adumu Farm Road
	Name of Community	**Agala Ate Community**	**Elubi Ajakwu Community**	**Odidoko Emenyoku Ogugu**	**Ayikpele, Okochogbe & Etutobo/Ofugu Communities**	**Adumu Community**
1.	Main Ethnic Group	Igala	Igala	Igala	Igala	Igala
2.	Religion	Islam (20%), Traditional (10%) & Christianity (70%)	Islam (35%), Traditional (5%) & Christianity (60%)	Islam (30%), Traditional (5%) & Christianity (65%)	Islam (2%), Traditional (5%) & Christianity (93%)	Islam (30%), Traditional (10%) &

	Name of Road	**Anyigba – Agala Ate Road**	**Elubi Etiaja – Ajakwu Road**	**Odidoko – Ugbamaka Emenyoku Road**	**Ayikpele – Okochogbe – Etutobo/Ofugu Road**	**Adumu Junction – Adumu Farm Road**
	Name of Community	**Agala Ate Community**	**Elubi Ajakwu Community**	**Odidoko Emenyoku Ogugu**	**Ayikpele, Okochogbe & Etutobo/Ofugu Communities**	**Adumu Community**
						Christianity (60%)
3.	Estimated Population ((key Informant)	10,000: Male 40%, Female 60%	5,000: Male 45%, Female 55%	10,000: Male 40%, Female 60%	30,000: Male 40%, Female 60%	1,000: Male 45%, Female 55%
4.	Gender Disposition	Recognizes equal Rights for male & female.	Recognizes equal Rights for male & female.	Recognizes equal Rights for male & female.	Recognizes equal Rights for male & female.	Recognizes equal Rights for male & female.
5.	Major Occupation	Farming (80%); Trading (10%); Public Service (10%)	Farming (95%); Trading (5%)	Farming (95%); Trading (5%);	Farming (90%); Trading (5%); Public Service (5%)	Farming (99%); Trading (1%);
6.	Average Monthly Income (depends on farm yield)	₦40, 000 – ₦ 150, 000	₦30, 000 – ₦ 150, 000	₦15, 000 – ₦ 100, 000	₦20, 000 – ₦ 200, 000	₦30, 000 – ₦ 100, 000
7.	Transportation System	Bicycle, Motorcycle, Motor Car	Bicycle, Motorcycle, Motor Car	Bicycle, Motorcycle, Motor Car	Bicycle, Motorcycle, Motor Car	Bicycle, Motorcycle,
8.	Electricity Source	National Grid	National Grid	National Grid	National Grid	No Electricity
9.	Cultivated Crops	Cashew, Yam, Cassava, Beans, Palm oil, Ground Nut, Maize	Yam, Cassava, Cashew , G/Corn, G/Nut, Beans, Soya Beans, Ogbono,Mangoes	Cashew, Yam, Cassava, Beans, Palm oil, Ground Nut, Maize	Cashew, Yam, Cassava, Beans, Palm oil, Ground Nut, Maize	Rice , Yam, Cassava, Plantain, Maize, Okro, Palm Oil
10.	Industries	None	Garri Processing, Palm Oil Milling	None	None	None
11.	Educational Institutions	LGEA Primary School National Nursery/ Primary School Agala Community Sec. School Odinoka Comprehensive Academy	LGEA Primary School UBE Junior Secondary School	LGEA Primary School, Odidoko	LGEA Primary School Aikpele LGEA Primary School, Etutobo /Ofugu. United Evangelical Church Sec. School Golden Sec School Aikpele	LGEA Primary School
12.	Healthcare Facility	Primary Health Centre, Agala	Primary Healthcare Centre Elubi Ajakwu	None	Primary Health Centre	Primary Health Centre
13.	Common ailment (from Focus Group Discussion)	Malaria, Typhoid, B.P & Diabetes	Malaria, Typhoid, Arthritis,	Malaria, Typhoid,	Malaria, Typhoid, B.P & Diabetes	Malaria, Typhoid, Arthritis,
14.	Environmental Problem	Erosion & Flooding	Flooding & Erosion	Erosion	Gully Erosion	Flooding
15.	Toilet System	Pit Latrine, Water Closet & Open Defecation	Pit Latrine & Water Closet	Pit Latrine & Open Defecation	Pit Latrine & Open Defecation	Open Defecation
16.	Waste Disposal	On farmlands	Burning & on farmlands	On farmlands	On farmlands	Burning & on farmlands
17.	Household Fuel	Fire wood, Charcoal	Fire wood, Charcoal & Kerosene	Fire wood,	Fire wood, & Charcoal	Fire wood,
18.	Potable Water Sources	Borehole and Open Wells	Boreholes	Rain water & Stream (Ajioga), about 2km away	Borehole, Open Wells	Oyina River, about 3km away
19.	Transport access	Motor cycle and buses	Motor cycle	Motor cycle	Motor cycle	None
20.	Economic opportunities	Agrarian community	Agrarian community	Agrarian community	Agrarian community	Agrarian community

CHAPTER FIVE: POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS AND MITIGATION.

5.1 METHODOLOGY.

A Variety of methods exist for environmental and social impact assessment. The following steps were employed in preparation of this ESMP:

- Identification of effects
- Prediction of effects
- Evaluation and Interpretation of impacts
- Communication
- Inspection procedures

The following considerations were the goals of the assessment methodology used:

- Comprehensiveness - ability to handle all possible range of elements and combinations thereof.
- Selectivity - capability to identify early in the process those aspects that are significant.
- Mutual exclusiveness - should be able to examine every component of an impact from different perspectives
- Confidence limits - is the method able to ascertain and isolate Uncertainties.
- Objectivity - should allow no bias either from the assessor or project initiator.
- Interactions - should be able to examine both sides of a coin and provide feedback.

5.1.1 Basis for Screening

In assessing the impacts of the proposed project the following information were used:

(a) Knowledge of the project activities, construction activities, operational activities, demobilization procedures.
(b) The results of baseline studies (biophysical, health and socio-economic)
(c) Findings of previous Environmental Assessment studies and Audits of similar projects and other literature findings on the primary project activities,
(d) Comparison with WB/FMEnv/WHO guidelines and standards,
(e) Series of expert group discussions and seminars,
(f) Past experience on other ESMP projects.

The criteria applied to the screening of various activities were:

(i) Magnitude - Probable level of severity.
(ii) Prevalence - likely extent of the impact.
(iii) Duration and frequency – likely duration - long-term, short-term or intermittent.
(iv) Risks – Probability of serious impacts.
(v) Importance - value attached to the undisturbed project environment.

The various components of the project environment likely to be impacted by the proposed project activities

and the associated impact indicators were identified and are listed in Table 16 below. Likewise, the sources of probable impacts from the various stages of project are also outlined in Table 17.

Table 16: Impactable Components and Associated Impact Indicators

S/N	Impactable Components of the Environment	Impact Indicators
1.	Climate	Humidity, temperature, rainfall, wind speed and direction
2.	Air	Particulates, NOx, SOx, CO, H_2S
3.	Surface Water	Dissolved/suspended Solids, Nutrients, Heavy metals and pH.
4.	Hydrology	Drainage/Discharge, Hydrologic Balance, Sedimentation, Flooding.
5.	Soil/Land	Erosion, Fertility/Farming, Hunting, Recreation.
6.	Ecology	Diversity and abundance of terrestrial flora & fauna, habitats quality
7.	Archaeological Sites	Cultural relics, Cultural Sites.
8.	Noise & Vibration	Daytime disturbance, Hearing loss, Communication Interference, Night time disturbance.
9.	Socio-Economic/Health	Population, Social Structure, Income, Settlement pattern, Employment, Agriculture, Health, Safety and Security.
10.	Wildlife & Forestry	Habitat fragmentation, accessibility to conservation areas, loss of economic trees, Forced migration of species, endangered species.

Table 17: Phases of Project Development Activities and Sources of Impact.

S/N	Project Phase	Activities/Sources of Impact
1.	Site preparation	Road traffic, bush clearing, waste disposal
2.	construction	Grading, compaction, waste disposal, Road traffic, Influx of people. SEA, GBV & related issues
3.	Operation/Maintenance	Noise, vibrations, waste generation, influx of people, SEA, GBV & related issues dust emission, traffic generation,
4.	Decommissioning and abandonment	Removal/dismantling of equipment and structures, waste disposal, residual contamination, Road traffic, scrap metals

5.1.2 Scoping

Scoping identifies the various aspects (activities) of the project that could have significant impact on the environment and people. It identifies issues of critical concerns. Scoping of the proposed project also seeks to provide solutions to issues such as:

- What are the potential impact from the execution and operation of the proposed railway project?
- What will be the magnitude, extent and duration of the impacts?
- Of what relevance are the impacts on the environment within local, contexts?
- What mitigation or amelioration measures can be put in place to reduce or avoid the negative impacts or to enhance and maximize positive impact?

Consequently, scoping was used to identify the biophysical, health, and socio-economic components of the environment that will significantly be affected by the proposed project activities. The project activities that will have impact on the environment and socio economy of the people are:

- Land Acquisition/Right of Way (RoW)
- Material Procurement and Transportation
- Site Preparation/clearing
- Civil works
- Operation and maintenance activities
- Demobilization from site.

5.1.3 Impacts Identification

The main effects of the residues and emissions from site preparation/ clearing, construction, operations and demobilization, were identified and analyzed in sufficiently clear and comprehensive manner. These residuals and emissions include but were not limited to:

- Emissions to air.
- Noise and vibrations.
- Discharges to land and soil.
- Effects on ecosystems.
- Influx of job seekers
- Sexual Exploitation and Abuse (SEA)
- Gender Based Violence (GBV)

The potential/associated impacts and the indicator parameters for different project stages and activities, is given in Table 18

Table 18: Associated and Potential Impacts and Indicator Parameters for the Proposed Projects.

Project Phase	Project Activity	Potential/Associated Impacts	Indicator Parameters
Pre-construction	Land /geological surveys	Vegetation loss, wildlife migration,	Plant density, wildlife diversity, soil organisms density
	Acquisition of RoW	Land take	Compensation, ownership & conflict issues,
	Site preparation	Loss of vegetation and economic crops from vegetation clearing	Compensation, plant diversity, soil organism density.
	Soil Testing	Exposure of soil to weather conditions soil strata Inversion	Soil organisms density
Construction	Access to site	Alteration of hydrological pattern leading to soil erosion	Bare soil, soil intactness, vegetation cover.
		Temporary obstruction of human & vehicular movement during clearing of site	Public complaints, traffic issues.
	Material Transportation	Increased accident risk, vehicular exhaust gas	Accidents rate, Air quality.
	Base Camps/ site offices	Vegetation loss, life migration habitat loss.	Plant density, soil fertility, and water quality
	Project security	Armed attack, youth restiveness, kidnapping,	Security incident rates and cases.
	Influx of people	Increase in infectious disease	Micro economic indices,

Project Phase	Project Activity	Potential/Associated Impacts	Indicator Parameters
		especially STD, social conflicts	conflicts & strife, health statistics etc
	Engineering works	Public nuisance from noise generation and Air pollution from construction equipment	Ambient Air quality and Noise levels.
		Respiratory/ health hazards to onsite personnel due to the release of fumes & dust from construction equipment	Health statistics
	Waste Disposal	Soil/Water contamination, impact on fisheries in nearby streams.	Water quality (TSS, TDS, DO etc.) soil fertility.
	Gender Based Violence	Sexual Exploitation and Abuse, sexual harassment, Violence Against Women, Violence Against Children	Social strife, Incident rates.
Operation	Vehicular movement	Increase in noise, air emissions, waste generation, Increased accident risk.	Air quality, waste generation, traffic impact, Accidents rate.
		Improved access to farmlands, markets and boost in economic and business activities/ transactions within the project area.	Income level, unemployment rate, standard of living.
Demobilization	Removal of equipment, machinery and unused materials from site	Availability of land for alternative uses	Income Level, state of the economy
		Work place accidents/ incidents	Accident rate, health statistics.
		Alteration of hydrological pattern	Bare soil, soil intactness, vegetation cover.
		Waste generation from demobilization activities	Waste volume, waste quality & characterization.

5.2 Potential Significant Adverse Environmental and Social Impacts of the Proposed Project

The proposed 85.68km for Backlog rehabilitation/intervention works could potentially cause impacts on the environmental and socio-economic components of the project area. Majority of these impacts will be beneficial especially in areas of improved access to farms, markets and quality infrastructure. Nonetheless, civil works have the potential to generate adverse impacts on the environment and immediate communities. These unfavourable impacts need to be prevented or managed to enhance the sustainability of the project. This section presents an extensive analysis of the identified potential beneficial and adverse impacts associated with the proposed project in seven (7) local government of Kogi State.

Table 19: Potential Adverse Environmental and Social Impacts

ENVIRONMENTAL IMPACTS	SOCIAL IMPACTS
Preconstruction Phase	
➢ **Loss of Flora and Fauna** ✓ **Land clearing activities (especially at proposed campsite locations and along Road project corridor) could lead to loss of vegetation cover and soil erosion and exacerbate climate change impacts.** ➢ **Environmental Degradation** ✓ **Vegetal waste from clearance of vegetation may**	➢ **Involuntary Resettlement** ✓ Involuntary Resettlement Issues which involve loss of economics trees, cash crops, demolition of some open stalls, displacement of some persons, temporal blockage of access to the assets and other social issues ✓ Disturbance of communities due to construction activities such as mobilization of vehicles/materials/equipment to site and civil

be washed into water bodies and cause pollution if they are not properly managed especially at Illai – Ifeolukotun road where there are seasonal stream crossings ✓ **Potential air, water and soil pollution from land clearing activities, fugitive dust and exhaust fumes from movement and use of vehicles and machines which could result in environmental pollution and public health concerns.** ➢ **Land Degradation** ✓ **Sourcing of construction materials from unlicensed vendors and burrow pits such as sand, clay, gravels could lead to environmental degradation and erosion from unclaimed burrow pits sand mining activities and extraction of gravel from unlicensed quarries.** ✓ **Dust: during this phase, there will be high emission of dust into the environment**	works/operation of machinery on-site, which could also cause grievances. ✓ Increase in traffic and delay time, disturbance of market and religious activities due to movement of vehicles/materials/equipment to site. ➢ **Labor Influx** ✓ Increased risk of illicit behavior and crime (including prostitution, theft and substance abuse) from presence of workers in the community. ✓ Risks associated with Labor influx such as Gender-based violence, including sexual harassment, child abuse and exploitation. ✓ Poor labor and working conditions could expose workers to ill-health, injury, conflicts and legal action. ➢ **Conflict and Community Unrest** ✓ Conflict may arise between community members and contractor, especially when members of the community are not hired/employed at the construction site. ✓ Armed personnel onsite may act harshly towards the contractor workers. ➢ **Accident/incidents involving Community members** ✓ Movement of equipment and vehicle to site could lead to accidents involving community members, students and staff. ✓ Material and equipment stacking could restrict access for students and community members. ➢ **Occupational Accidents/incidents** ✓ Occurrence of accidents and injury of workers during pre-construction activities. ➢ **Insecurity** ✓ Project workers including Consultants, contractor workers could fall victim of theft, kidnap, insurgency, and social conflicts. ➢ **Loss of Archaeological and Cultural Resources** ✓ Possible chance finds during construction works may unearth/destroy sensitive sites such as shrine on Ayikpele-Okochogbe-Ofugo-Etutobo Road which can cause conflict or grievances
Construction Phase	
➢ **Impairment of Air Quality** ✓ **Potential air pollution from fugitive dust and exhaust fumes from movement and use of vehicles and equipment which could result in environmental pollution and public health concerns.** ➢ **Soil Degradation/Contamination** ✓ **stacked equipment containing oil such as engine oil or fuel. This could result in the seeping-through of toxic fluid into the soil, thereby leading to possible contamination of soil.** ✓ **Soil compaction and soil structure changes may occur due to influx and stationary positioning of heavy-duty equipment and vehicles during access road construction.** ✓ **Sourcing of construction materials such as sand, clay, gravels could lead to environmental degradation and erosion from sand mining**	➢ **Disruption of Community Activities / Social Stress** ✓ Disturbance of communities due to construction activities such as movement of vehicles/materials/equipment to site and civil works/operation of machinery on-site. ✓ Increase in traffic and delay time, disturbance of market and religious activities due to movement of vehicles/materials/equipment to site. ➢ **Labor Influx** ✓ Increased risk of illicit behavior and crime (including prostitution, theft and substance abuse). ✓ Increased pressure on accommodation and municipal facilities in the project neighborhood, conflicts with locals, localized inflation due to salaries paid to incoming project workers ✓ Risks associated with Labor influx such as Gender-based violence, including sexual harassment, Sexual exploitation and Abuse. Poor labour and working

activities and extraction of gravel from unlicensed quarries. ➢ **Noise and vibration nuisance** ✓ **Noise pollution resulting from movement and use of heavy machinery and equipment.** ➢ **Impairment of Water Quality** ✓ **Leakages may occur from stacked equipment containing oil such as engine oil or fuel. This could result in the seeping-through of toxic fluid into surface water and ground water and cause water pollution.** ➢ **Environmental Pollution** ✓ **Generation of solid wastes - soil excavated debris, metal scraps, plastics, wood, waste concrete, papers and cartons, etc. and waste from staging area and site camp can cause pollution to soil, water and air if not properly managed.**	conditions. ✓ Potential for child abuse and child labor which could expose children to hazardous situation, accidents, and molestation. ✓ Poor labor and working conditions could expose workers to ill-health, injury, conflicts and legal action. ➢ **Conflict and Community Unrest** ✓ Conflict may arise between community members and contractor, especially when members of the community are not hired/employed at the construction site. ✓ Armed personnel onsite may act harshly towards the contractor workers. ➢ **Accident/Incidents Involving Community Members** ✓ Movement of equipment and vehicle to site as well as construction activities could lead to accidents involving community members. ✓ Material and equipment stacking could obstruct free movement of vehicles or could leads to accident. ➢ **Occupational Accidents/incidents** ✓ Occurrence of accidents, injury, fatality of workers during construction activities from unsafe work practices, unavailability of PPEs and lack of Health & safety cautions ✓ Exposure of workers to hazardous substances such as toxic materials and unsafe working conditions. ➢ **Insecurity** ✓ Project workers including Consultants, contractor workers could fall victim of theft, kidnap, insurgency, and social conflicts.
Demobilization Phase	
➢ **Environmental Pollution** ✓ **Poor housekeeping during decommissioning of staging area, campsite and project site could pollute the environment and also lead to grievances from the school/community members.** ✓ **Unsuitable and unwanted materials could be left lying indiscriminately in the project area and cause environmental pollution and also lead to grievances from the school/community members.** ✓ **Unclaimed established borrow pits used by contractors may lead to environmental degradation and store dirty water which could habour disease vectors and cause public health issues.**	➢ **Accidents/incidents involving community members** ✓ Unclaimed established borrow pits used by contractors may become accident and drowning sites especially for children, stagnant pools could harbor disease vectors and cause illnesses. ✓ Loss of temporary employment for locals engaged during the project activities will lead to loss of income and grievances.
Operational Phase	
➢ **Noise Pollution** ✓ **During the operation stage, the volume of vehicles plying the road will also generate noise that is significantly higher than these background noise levels especially on market days when the volume of traffic is bound to be significantly highest.** ✓ **Considering the topography and high rainfall regime of the project areas as captured in the baseline, there could be drainage/culvert**	➢ **Security Risk** ✓ Improved mobility will enable persons of dubious character ease of mobility from far and near into communities along the roads' corridors. Thus, the security risk in the area traversed by the road will increase. ➢ **Accidents** ✓ Increased risks of accidents due to more vehicular movements along the rehabilitated roads.

blockages with silt, other debris, plastics, overgrown vegetation, etc. and these could cause waterlogging, flooding, water pollution particularly in rivers transversing these proposed roads etc. The sustainability of the road could then become a challenge. Therefore, these silt, vegetation etc. would need to be removed thus generating wastes. ✓ **The drainages may become conveyors for surface debris and improperly disposed wastes during a heavy rain, leading to drainage blockage and disruption of free flow. This may result in stagnated water, and water contamination downstream**	

5.3 Climate Change Impact

The carbon footprint of the proposed project will result from the direct use of hydrocarbon products for powering heavy-duty trucks and vehicles as well as soil excavation and the clearing of vegetation including trees with carbon sink potentials during the project construction phase. However, it is expected that the impacts will be minimal with adequate mitigation measures in place.

5.4: Initiatives to Complement Mitigation/Enhancement Measures

5.4.1 Labour Influx

During project implementation, the arrival of construction workers and the associated influx of camp followers or business opportunists in the project area may result in some labour influx-related risks such as workers' sexual exploitation of minors, presence of sex workers in the project communities, the spread of HIV/AIDS and other STDs/STIs, sexual harassment, sexual exploitation and abuse, child labour and abuse, increased drop-out rates from school, poor community participation, poor labour practice, and increase risk of road accident. These risks require an action plan to improve the social sustainability of the project as well as resilience and social cohesion in the affected communities.

To ensure adequate protection of project communities against the vices highlighted above, the SPIU shall ensure the implementation of the following additional mitigation measures:

a. Assessing living conditions of workers' camps to ensure appropriate living conditions and location to ensure it is not close to schools, market place or anywhere women/girls access to avoid any form of GBV.
b. Establishing proper agreement with host communities on location of contractor's camp and yard.
c. Establishing and enforcing a mandatory Code of Conduct for the contractors, Supervision consultants and anyone working in the project, and an Action Plan for implementation.
d. Ensuring appropriate location for these camps.
e. Taking countermeasures - indicated in the ESMP - to reduce the impact of the labour influx on public services.
f. Devising and implementing a strategy for maximizing employment opportunities for the local population, including women.

A Supervision Consultant (GBV consultant and the SPIU GBV officer) shall be responsible for monitoring the contractor's performance and adherence to the guideline of its Sexual Exploitation and Abuse (SEA) obligations, with a protocol in place for immediate, timely, mandatory, and confidential reporting cases of incidents in the project community.

5.4.2 Gender- Based Violence

Nigeria has ratified or acceded to the core international human rights treaties and is party to the major regional human rights instrument which obliged States to respect, protect and fulfil human rights of all persons within the territory and subject to the jurisdiction of the State, without discrimination. Rape may violate several human rights obligations enshrined in the instruments ratified by Nigeria and is also a form of gender-based violence and a brutal manifestation of violence against women. As a State party to the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) and the protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa (the ''Maputo Protocol'', Nigeria has made legally binding commitments to exercise due diligence to combat gender - based violence and discrimination. Accordingly, Nigeria has an obligation to take all appropriate measures to prevent rape, ensure that there are adequate sanctions for rape in law and in practice and ensure access to reparation for the victims. Furthermore, several human rights instruments require Nigeria to take special measures to protect the rights of individuals who are vulnerable to sexual violence, namely, women, children and persons with disabilities.

The GBV Action Plan includes specific arrangements for the project by which GBV risks will be addressed. This includes considerations such as:

a) Awareness Raising Strategy, which describes how workers and local communities will be sensitized to GBV risks, and the worker's responsibilities under the CoC;

b) GBV Services Providers to which GBV survivors will be referred, and the services which will be available.

c) GBV Allegation Procedures which states how the project will provide information to employees and the community on how to report cases of GBV, Code of Conduct breaches to the GRM.

d) Sensitization on the importance of addressing SEA/SH on the project, and the mechanisms that will be implemented.

e) Conduct GBV/SEA assessment at project sites

f) Strengthen Institutional capacity for GBV/SEA risk mitigation and response.

g) GBV/SEA sensitive channels for reporting in GRM

During construction activities, the presence of young girls or middle-aged women engaging in trading activities (sales of foods, drinks etc.) is inevitable given the additional business opportunities that the projects will create. It is reasonable to assume that women might face some form of sexual violence in the project sites. GBV risks in the project areas might include Intimate Partner Violence (IPV), public harassment including verbal insults, physical abuse, rape, women and child trafficking. The development and implementation of specific GBV risk prevention and mitigation strategies, tailored to local contexts, will be critical. Therefore, it is important for SPIU to include in the bidding documents ('pre-qualification' and 'employers' requirements') key principles and specific requirements to address GBV to reduce and mitigate the risks of GBV especially during project implementation. Some of these measures are included as part of mitigation measures and form part of the development of the GBV action plan. Additional measures include:

- GBV/SEA assessment of project.
- Mandatory contractors' code of conduct on sexual harassment.
- Monthly site visits by the safeguard unit/GBV officer to monitor GBV/SEA during construction/implementation phase.
- Community and workers' sensitization on GBV/SEA.
- Provision of referral units for survivors of GBV/SEA.

- Provisions in contracts for dedicated payments to contractors for GBV/SEA prevention activities against evidence of completion.
- Contractor and SPIU requirement to ensure a minimum target of female employment with incremental rewards for the obtainment of this target. Contractors also need to develop GBV action plan

5.4.3 Camp Site Management

The workers' Camp Site Management Plan for the project should address specific activities that will be undertaken to minimize the impacts resulting from siting a worker's camp on the local project communities. Elements for managing risks associated with the workers' campsite under the proposed project include:

- The Contractor shall ensure that site workers camp is constructed at designated location approved by the SPIU.
- On-site Social and Health Care Facilities: Provision of basic on-site social and medical facilities such as first aid, basic health care centre, food service, mobile toilet etc. to reduce pressure on community facility.
- Campsite Safety and Security: Provision of 24-hour security stationed at the Campsite to ensure the security and safety of the construction workforce and construction equipment.
- Campsite Waste Management: Adequate waste management of sewage and other forms of waste within the campsite. The Campsite shall be equipped with independent toilet facilities for male and female workers respectively, in order to discourage irregular waste disposal. Furthermore, standards must be instituted for personal and public hygiene among project workers. Additionally, project workers shall be properly trained in personal hygiene.
- Establishment and Training of Workers on Code of Conduct: The Supervising Engineer and Safeguards Unit shall ensure that Contractors establish a Workers' Code of Conduct (CoC). The CoC will help mitigate some of the social and environmental impacts of labour influx such as the risk of social conflict, increased risk of illicit behaviour and crime, increased burden on and competition for public service provision, wastewater discharges, increased demand on freshwater resources, and inadequate waste disposal and illegal waste disposal sites etc., will help keep workers in check on the rules and regulations binding their engagement. Contractors shall ensure the provision of training to the workforce on code of conduct and ensure strict compliance.
- Training programs: Conduct and ensure key staff, including contractors, receive training regarding the likelihood, significance and management of influx-related issues such as HIV/AIDS, GBV, SEA, VAC etc.
- Regular E&S compliance Monitoring: The E&S officers of the SPIU shall monitor for change throughout the project cycle to ensure compliance and on mitigation effectiveness from projects/contractors. Ensure a documented monitoring program that tracks key social outcomes, changes, and issues at regular intervals throughout the project lifecycle.

CHAPTER SIX: GRIEVANCE REDRESS MECHANISM

6.1 Introduction

The GRM (Grievance Redress Mechanism) will support the Kogi RAAMP SPIU in establishing systematic processes and procedures to acknowledge, evaluate, and address concerns raised by the project beneficiaries, project executors, and the general public throughout the implementation of the roads project. This approach ensures a seamless project implementation, prompt resolution of encountered issues, and effective responses to challenges that may arise during the project's execution.

Therefore, it is crucial to establish the grievance redress committee early in the project's preparation. Grievances may stem from various factors, including but not limited to the following; 1) matters related to involuntary resettlement and compensation, 2) instances of Gender based violence, 3) Injuries caused by the project activities and 4) cases of exclusion from project benefits or non-compliance of the contractor with agreements reached with Kogi RAAMP or the community. Complaints can be made in English and in local language(s) by the people.

When people present a grievance, any of the followings is or are expected from the project management/channel of grievance resolution by the local people:

- acknowledgement of their problem;
- an honest response to questions/issues brought forward;
- an apology, adequate compensation; and
- Modification of the conduct that caused the grievance and some other fair remedies.

This Chapter has been prepared to handle the resolution of grievances that may arise from the planned intervention works. It presents a concise overview of essential aspects related to the subprojects within this ESMP. The Grievance Redress Mechanism (GRM) for the subprojects will be implemented at three distinct levels namely; Community/Site Level, SPIU Level and State Steering Committee Level. The subsequent sections provide more detailed discussions on the structure and composition of each of these levels.

6.2 Setting up a Grievance Redress Committee

Typically, the most effective resolutions to conflicts are attained through localized approaches that consider the particular issues, cultural context, local traditions and the specific conditions and scope of the project. Three levels of grievance redress channels have been identified:

6.2.1 Redressal Level 1: GRC at the Site/Community Level

Complaints regarding project implementation and activities arising from the project area shall be channelled to the Village head, who shall convene the GRC committee at that level to review and address the complaint. The underlying merit is that the community has proven a notable channel for conflict resolution in the project area. The Village head shall head this committee while membership of the committee will consist of:

✓ The Village head -Chairman
✓ A representative of Council of Elders
✓ A representative of the Community Development Association

✓ A representative of Youth Organization

✓ Representative of the Women Group

✓ Social Safeguards Officer of the SPIU-Secretary

This committee will be expected to report to the SPIU. In addition, complaint box will be placed in the Community leader's palace or any designated place approved by the committee, where complaints from PAPs can be dropped. The complaints are received (in written, verbal or electronic form) at various points at Community Level. These points may include one or more of the following:

a. Complaint box

b. Mobile application (WhatsApp, Telegram) Complaint line

c. Toll-free/hot lines

The various points of receiving complaints at the local government level would be as follows:

a. Respective LGAs;

b. Community Town hall

c. Designated spots along the Road Corridors

d. Traditional Ruler's Palace

e. Social safeguards/Environmental and GBV Officers at SPIU.

After registering the complaint in the Grievance Redressal Registration and Monitoring Sheet, the social safeguards officer of SPIU would study the complaint made in detail and forward the complaint to the SPC with specific dates for replying and redressing the same. The SPIU shall issue an acknowledgement letter within five working days, including an outline of the complaint review and appeal process. A written response shall be issued within two weeks. The SPIU can also coordinate a meeting with the aggrieved party if required. To address such issues in an expedient manner, the SPIU shall nominate a sub-committee to handle complaints. The sub-committee may adopt any of the traditional methods (community meetings, elders-in- council, dialogue, council of chiefs, appeals and summons, elder's assembly, religious leaders, youth council, women group) that is accessible and affordable in the settlement of complaints if required. The deliberations of the meetings and decisions taken are recorded.

The resolution at the first tier will be normally be done within 14 working days and notified to the concerned through a disclosure form. Should the Grievance not be solved within this period, this would be referred to the next level of Grievance Redressal. However, if the social safeguard officer feels that adequate solutions are worked out the problem and it would require a few more days for actions to be taken, he can decide on retaining the issue at the first level by informing the complainant accordingly. However, if the complainant requests for an immediate transfer of the issue to the next level, it would be accepted and the issue would be taken to the next channel. But in any case, if the issue is not addressed within 21 days, it needs to be taken to the next level.

6.2.2 Redressal Level 2: GRC at the SPIU Level:

The second channel for filing grievance shall be at the level of the project's SPIU. The state project coordinator shall constitute a team within the SPIU to receive, hear and address complaints that are not resolved by community level GRCs at the community level. The SPC shall be an advisory to the committee while the Social officer will be chairperson; the membership of the committee shall be as follow:

Project Coordinator- Advisory

Social Safeguard Officer- Chair person

Environmental Safeguard Officer

Gender-Based Violence Officer

Communications Officer

One representative of the non-state sector from within the State Project Monitoring Committees

If the complainant is satisfied with the resolution the case will be closed and recorded in the GRM logbook but if the complaint is not satisfied by the first level GRC response nor has a complaint regarding their decision-making process, they can directly write to the SPIU. All complaints submitted to the SPIU shall be logged with a unique ID code. Complainants shall receive an acknowledgement letter within 5 working days, including an outline of the complaint review and appeal process. The complaint shall be filed according to a tracking system, so that complaints are classified, and responded to consistently. Furthermore, the complaint shall be discussed within the SPIU and responded to in writing within 2 weeks. The SPIU shall also convene a meeting of the aggrieved parties if required. The SPIU shall undertake a six-monthly internal review of the complaint handling mechanism, and make necessary corrections, if need be.

The SPIU-GRC will hold the necessary meetings with the complainant and the concerned officers and attempt to find a solution acceptable at all levels. GRC would record the minutes of the meeting.

The decisions of the PIU-GRC are communicated to the complainant formally and if he accepts the resolutions, the complainant's acceptance is obtained on a disclosure form. If the complainant does not accept the solution offered by the SPIU-GRC, then the complaint is passed on to the next level / or the complainant can reach the next level. The Chairperson of the SPIU-GRC would require to forward the issue to the next level through the Secretary of the SPIU-GRC to facilitate in exploring a solution to this at this level before transferring it to the Third level. In any case the case should be forwarded to the next level if no solution is reached within 14 days of the case reaching the second level and, in a case(s), nearing the required solution, it can be retained to an extent of 21 days.

6.2.3 Redressal Level3: GRC at the State Steering Committee Level:

The committee at this level shall be headed by the Permanent Secretary Directorate of Rural and Community Development while the SPC shall serve as the secretary of the committee. Membership of the GRC at this level shall constitute as follows:

- Kogi state Ministry of Rural Development
- Kogi state Ministry of Environment/Natural resources;
- Kogi state Ministry of Women affairs/Social development
- Kogi state Ministry of Agriculture;
- Kogi state Ministry of Justice;
- The Kogi State Project Coordinator of RAAMP;
- A witnessing NGO

The Social Safeguard Officer of the SPIU will collect all the details of the Grievance including the deliberations of First and Second level efforts and present it to the TC-GRC. The TC-GRC will deliberate upon the issue and give suitable recommendations. The meetings are recorded. The decisions of the TC-GRC are communicated to the complainant formally and if he accepts the resolutions, the complainant's acceptance is obtained on a disclosure form. The case will be closed and recorded in the GRM logbook.

6.2.4 Redressal Level4: GRC at the FPMU Committee Level:

The FPMU is the apex coordinating institution of the GRM. The NPC shall head this committee while the Social officer will be the GRM Coordinator; the membership of the committee shall be as follow:

The FPMU GRM shall consist of the following members:
A nominee from the office of the National Project Coordinator
FPMU Social Safeguard Officer (GRM Coordinator)
FPMU Technical Assistant on Social Safeguard
FPMU Technical Assistant on Environmental Safeguard
FPMU Technical Assistant on GBV

If complainant is not satisfied with the resolutions due to the deliberation, he/she can proceed to this fourth Level GRC (which is the FPMU), The State Project Coordinator should inform the FPMU through the social

safeguard officer (GRM coordinator) of all the development including the attempts to resolve issue. If the issues cannot be resolved by the FPMU GRC, the affected or interested party will be advised to approach the judiciary, the World Bank TTL should be informed of the developments including all attempts to resolve the issue; the SPC, NPC should be in copy of this email. Though this is costly and a time-consuming procedure, hence it should only be a last resort where every other avenue has failed.

The Complainant has also the option of approaching the Donor (World Bank), if they find that the established GRM cannot resolve the issue. The World Bank Grievance Redress Service (GRS) ensures that complaints are promptly reviewed and addressed by the responsible units in the World Bank. The objective is to make the Bank more accessible for project affected communities and to help ensure faster and better resolution of project-related complaints. The GRS is open to all those who believe they have been affected by a Bank-financed project. The GRS requires the complainant express their grievances in writing to The World Bank Office by downloading, filling the GRS complaint form from the World Bank website and submitting same after signing. Details the World Bank GRS can be found in

http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service.

6.3 **Awareness of GRM**

Community members have been sufficiently informed during public consultation meetings held across the project areas that there will be 4 levels at which aggrieved persons can channel his/her complaints for redress. Effective awareness of GRM process makes people better understanding about their options, depending on the types of complaints. However, measures should also be taken to encourage stakeholders not to submit false claims. Criteria for eligibility need to be communicated and also awareness campaigns should be launched to give publicity to the roles and functions of the GRM.

Awareness should include the following components:

- Scope of the project, planned construction phases, etc.;
- Types of GRCs available; purposes for which the different GRMs can be accessed, e.g., construction-related grievances, grievances related to physical and economic displacement
- Types of grievances not acceptable to the GRC
- Eligibility to access the GRM
- How complaints can be reported to those GRC and to whom, e.g., phone, postal and email addresses, as well as information that should be included in a complaint
- Procedures and time frames for initiating and concluding the grievance redress process; boundaries and limits of GRM in handling grievances; and roles of different agencies such as project implementer and funding agency
- A variety of methods can be adopted for communicating information to the relevant stakeholders. These methods could include display of posters in public places such as in government offices, project offices, community centres, hospitals and health clinics of the area.

Grievance redress shall be funded by the SPIU so that there shall be no cost to the aggrieved/complainant for redress. These shall include:

1) The project site/community level,
2) The State Project Implementation Unit level and
3) The State Steering Committee level.

PAPs have also been informed that it is their right to seek redress in the court of law as the last resort, if they felt dissatisfied with the judgments obtained from the grievance redress committees set up by Kogi RAAMP project.

An effective awareness program should be arranged to educate the PAPs on the following:

- Members of GRC and its location

- Method of complaining or reporting the grievance
- Taking part in the GRC meeting (is any companions of the complainant allowed)
- The steps of resolving process and timeline adopted in this mechanism
- Needed documents and evidence to support of the complaint.

This information should be part of a simple brochure that explains the different grievance redress possibilities for PAPs.

6.4 Reporting

The Social Safeguard Officer of the SPIU would prepare the Quarterly Report on the Grievance Redressal issues of the Project for addition into the quarterly report. The State level Steering Committee will review the nature of grievances that have been represented and if similar grievances are reported many times, suitable changes in implementation procedures / suitable policies would be proffered and recommended by the Committee for consideration and needful action.

6.5 GRM Jurisdiction

This is a project specific GRM and applicable to solve the concerns of the stakeholders of the Project. This is however not intended to bypass Governments own redress process; rather intended to address affected people's concerns and complaints promptly, making it readily accessible to all segments of the affected people and is scaled to the risks and impacts of the Project. The Government Redress mechanism takes priority over this one.

6.6 Expectation When Grievances Arise

When local people present a grievance, they expect to be heard and taken seriously. Therefore, the SPMU and others such as the engineers involved in one aspect of the project or other must convince people that they can voice grievances and work to resolve them without retaliation. It should be understood that all or any of the following is or are expected from the project management/channel of grievance resolution by the local people:

- Acknowledgement of their problem,
- An honest response to questions/issues brought forward,
- An apology, adequate compensation,
- Modification of the conduct that caused the grievance and some other fair remedies

6.7 Grievance Redress Procedure

The grievance log will serve as a valuable tool in tracking and managing the resolution of grievances arising from the project, ensuring transparency and accountability throughout the process. As shown in the grievance log in figure 4 below, an aggrieved person will have the opportunity to lodge complaint with the GRC at the residence or palace of the community district head. That will be the first channel of grievance uptake. It is expected that the matter should be addressed and determined within 10 days from date of receiving the complaint. If a complainant feels dissatisfied with the outcome of the closure of the matter by the community GRC, he/she is encouraged to go to the higher channel for redress. Steps for grievance redress shall involve:

i. Registration

The secretary of the committee will receive grievance from the complainant, register and acknowledge receipt of grievance to the grievant within 2 days. The registration will capture the following data: name of the complainant (except anonymous), date of the grievance, category of the grievance, persons involved, and impacts on complainant life, proofs and witnesses. A registration form will have all these bits of information.

ii. Treatment of Grievance

This involves the verification of grievance to determine among other things whether the matter has relationship with the project activities, and whether the matter can be handled/resolved at the level where it

is presented. This will determine if the matter should be referred to the next level or not. Part of the investigations may also be to assess the cost of lost or risk involved in the grievance.

iii. Closing of the Grievance or the Processing of the matter

This involves options and approach taken to resolving the case. This may involve site visit for physical inspection and determination of the claim, negotiation with the aggrieved person and feed back to the parties involved.

iv. Feed back

All responses to the complainant in a grievance redress process that moves beyond a unit level must be communicated in writing and/or by verbal presentation to the complainant. This will include a follow up on the corresponding authority where cases are referred, to ascertain the status of reported cases. Feedback on outcome of each case should get to the complainant through the secretary of committee or social contact/safeguard person as the case may be. It is expected that reported complaints at each level will be resolved and determined within 10 days from date of receipt of the complaint.

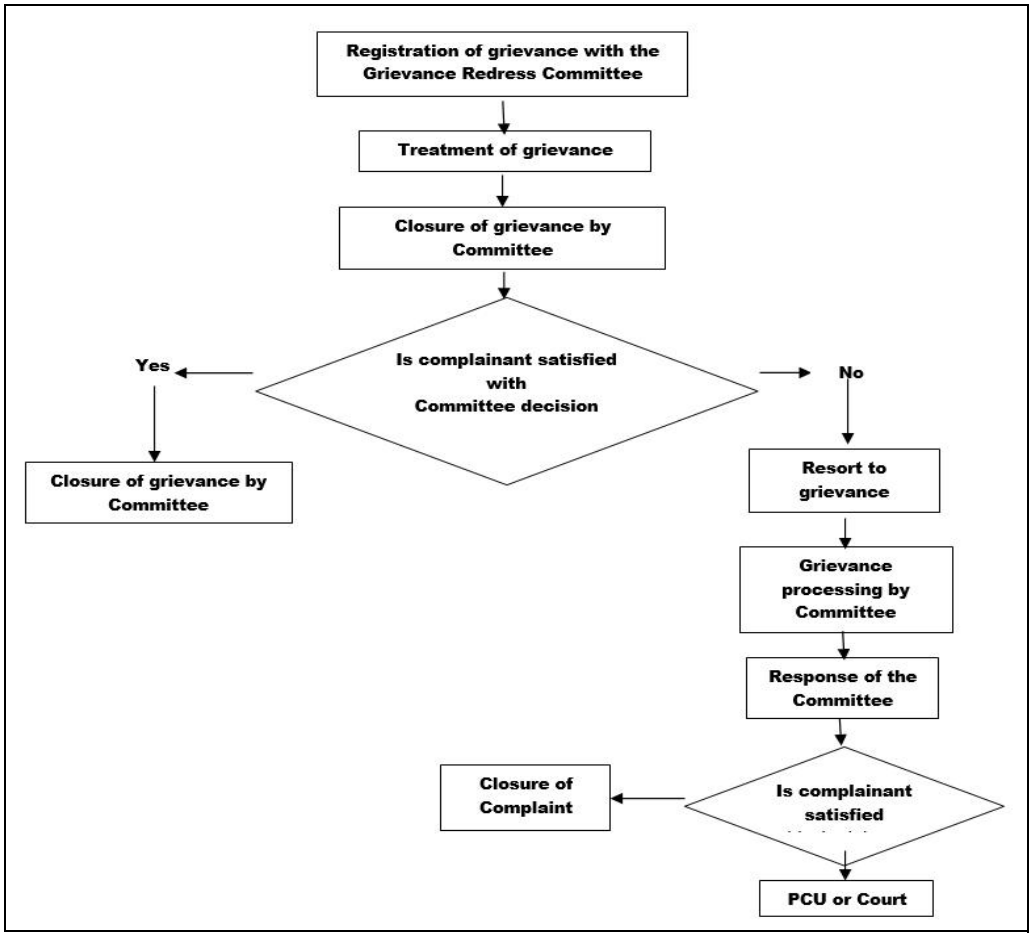

Figure 4: Grievance Log Showing Steps for Grievance Redress

Table 20: Typical Reporting format for Grievance Redress

Community project & Name of Complainant	Type of Grievance	Grievance Resolution

6.9 Gender Based Violence – Grievance Mechanism

Considering the high risk of Gender-Based Violence (GBV) in RAAMP, the project will adopt Model 2 of the GRM document. This model involves connecting the Project's grievance mechanism with a designated intermediary service provider responsible for handling Sexual Exploitation and Abuse/Sexual Harassment (SEA/SH) allegations. The intermediary service provider will be accessible to all members of the communities and stakeholders. SEA/SH allegations can be reported through the project-level grievance mechanism channels or directly to the intermediary service provider. In cases where the formal grievance mechanism receives SEA/SH allegations, the Grievance Mechanism Operator will refer the matter to the intermediary. The intermediary will offer immediate support services within their expertise, such as health or psychosocial support, and then coordinate with the Project's Grievance Mechanism operator on behalf of the survivor with their informed consent. The intermediary will also provide survivors with information about various reporting and response options, including referrals to other existing service providers.

It is essential to respect the survivor's autonomy throughout the process. Survivors can decide whether they want to report through the grievance mechanism or access services without filing a formal grievance. Their decision should be accepted, and at each step, survivors must provide their informed consent, adhering to the established response protocol.

The process for addressing complaints would typically be along the following lines:

• The GRM operator will keep GBV allegation reports confidential and, unless the complaint was received through the GBV Services Provider or other identified reporting channels, refer the survivor immediately to the GBV Service Provider.

• If a case is first received by other GBV Services Provider or through other identified reporting channels, the report will be sent to the GBV Service Provider (also the intermediary) to ensure it is recorded with the consent of the survivor.

• The intermediary GBV Services Provider provides the necessary support to the survivor until it is no longer needed.

• If requested by the survivor, a survivor's representative from the GBV Service Provider will participate in the GBV resolution mechanism, including referral to the police if necessary. The survivor must give the service provider representative consent to participate in the GBV resolution mechanism on her/his behalf.

• As part of the established resolution mechanism, GBV allegations are verified if it's related to the project or not and agreement is reached on a plan for resolution by the committee, as well as the appropriate sanctions for the perpetrator carried out by the contractor, all within the shortest timeframe possible to avoid further trauma to the survivor.

• In consultation with the GBV Services Provider, the contractor is tasked with implementing the agreed upon plan which should always be in accordance with local legislation, the employment contract, and CoC.

• Through the GBV Services Provider, the GBV complaints resolution mechanism advises the GRM operator that the case has been resolved, and it will then be closed in the GRM.

• Kogi RAAMP SPIU and the World Bank will be notified that the case had been closed.

6.10 Financing of the Grievance Redress Mechanism and Cost of Remediation

The proponent shall be responsible for the funding of logistics for the GRC as well as the eventual compensation or resettlement remediation that aggrieved party may be entitled to. The proponent will also be responsible for the cost of the judicial process for cases that result to court for adjudication. The anticipated cost of GRM is 5% *(cost can be reviewed by the SPIU)* of the project mitigation cost. The GRM's implementation plan is shown in Table 21.

Table 21: Implementation Plan for Grievance Mechanism

Steps	Process	Description	Completion Time frame	Responsible Agency/Person

Steps	Process	Description	Completion Time frame	Responsible Agency/Person
1.	Receipt of complaint	Document date of receipt, name of complainant, village, nature of complaint, inform the SPIU	1 day	Secretary to GRC at project level
2.	Acknowledgement of grievance	By letter, email, phone	1-2 days	Social safeguard officer at SPIU
3.	Screen and Establish the Merit of the Grievance	Visit the site; listen to the complainant/community; assess the merit	5-10 days	Social safeguard officer, GRC members & the aggrieved person or his/her representative
4.	Implement and monitor a redress action	Where complaint is justified, carry out resettlement redress in line with the entitlement matrix/OP 4.12	14 days or at a time specified in writing to the aggrieved PAP	PC-PIU and Social safeguard Officer
5.	Extra intervention for a dissatisfied scenario	Review the redress steps and conclusions, provide intervention solution	10 days of receiving status report	PC-PIU
6.	Funding of grievance process	GRC logistics and training, redress compensation, court process	No fixed time	The proponent

CHAPTER SEVEN: ENVIRONMENTAL AND SOCIAL MITIGATION AND MONITORING PLAN

7.1 INTRODUCTION

The identified potential adverse environmental and social impacts of the project activities at the pre-construction, construction and operation phases are presented in table 22-24 indicating the mitigation and monitoring measures, responsibility and frequency for monitoring. The ESMP matrix also provides the costs associated with the implementation of proffered mitigation measures

7. 2 ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING PLAN (ESMMP) FOR EACH OF THE ROAD PROJECTS.

Table 22: Environmental and Social Management and Monitoring Plan – Pre-Construction Phase.

	Potential Impact	Mitigation Measures	Responsibility for Mitigation	Mitigation Cost (₦)	Parameters to be measured	Method of measurement	Performance indicator	Sampling Location	Monitoring Frequency	Institutional Responsibility (Monitoring)	Costs (₦)
A	**PRE-CONSTRUCTION PHASE**										
	Site Clearing and Mobilization										
Environmental Impacts											
1	Increase in amounts of fugitive dust, exhaust fumes and GHGs from movement of heavy-duty vehicles and equipment into work areas.	Sprinkling of water via spraying devices to limit dusts.	Contractor	300,000 ($ 187.5)	Fugitive dust	Visual Observation	Minimal dust on project road	Along the project route	Daily	Supervision Consultant/ Environmental Safeguard Officer (ESO)	240,000 ($150)
		Ensure that vehicles are serviced; undergo vehicle emission testing (VET) and vehicle exhaust screening (VES) as laid down in the NESREA guidelines.	Contractor	300,000 ($ 187.5)	Green house gases Vehicle emission	In-situ Air Quality. Measurement Vehicle emission testing (VET) and vehicle exhaust screening (VES Report	FMEnv air pollutants permissible limit	On-site and nearby community	Monthly	Supervision Consultant/ ESO	
2	Loss of top soil and soil compaction due to movement of vehicles to site and parking of heavy-duty equipment	Limit zone of vehicle and equipment weight impacts (designate an area for parking and stacking equipment)	Contractor	250,000 ($156.25)	Visible demarcation of vehicles and equipment limit zone	Visual observation Soil Compaction test	Visual observation Soil Compaction test	Project camp sites and equipment packing zones	Monthly	Supervision Consultant/ (ESO)	150,000 ($93.75)

	Leakages from parked equipment and subsequent intrusion of oil and chemical substances into soil.	Ensure fastening of loose parts (bolts, nuts); Install impermeable surface at the limit zone to contain potential leakages	Contractor	350,000 ($218.75)	Installation of impermeable platform at limit zone.	Project camp sites and equipment packing zones	Soil quality test	Project camp sites and equipment packing zones	Monthly	Supervision Consultant/ ESO	
3	Increase in noise level above permissible noise level, (90dB) during movement	Equipment should be transported after school hours (3.00pm)/ weekends when it will cause least disturbance Retrofit machines with sound proof	Contractor	Ni	Number and frequency of complaints in project area	In-situ measurement of noise level	Noise level test (Not to exceed 90dB(A) for 8 hours working period	2-3Km Radius of project site	As required	Supervision Consultant/ ESO	150,000 ($93.75)
4	Displacement of soil fauna and damage to flora.	Limit vegetation clearing to minimum area required to create access path. Plant more trees	Contractor	Nil	Radius of cleared path	Visual Observation	Evidence of revegetation	School premises	One-off	Supervision Consultant/ (ESO)	
5	Occupational accidents and injuries from the use of machineries and equipment	• Provision of PPE to workers; • Worker Education • Incident/accident reporting; • Provision of First Aid onsite • Ensure that staging areas for contractor equipment are adequately delineated and cordoned off with reflective tapes and barriers • Any uncovered work pits should have appropriate signage and protection around them; • Workers should get a daily induction/toolbox before going on the site and a refresher of	Contractor	500,000 ($312.5)	Contractors Compliance.	Routine inspection	Use of PPEs by Workers Training Records	Construction site	weekly	ESO, Kogi SMEVNR	SPIU – 150,000 ($93.75) SMENVNR - 50,000 ($31.25)

		what happened on site a day before • appropriate security measures in place to prevent harassment or kidnapping of workers (see appendix 6 for OHS Plan)									
6	Accidents involving vehicles or pedestrians during vehicle and equipment movement to the site.	Training of drivers on safe driving practices Install safety signage Provision of road and pedestrian safety measures for communities near the project intervention, particularly due to presence of schools and children.	Contractor	300,000 ($187.5)	Accident Report	Site Inspection Consultations	Training Report Accident/ Incident Report	Routes through community to the sites School premises	Every 2 weeks	Supervision Consultant ESO Traffic control team FRSC	150,000 ($93.75)
7	Creation, risks and management of Borrow Pits	Limit the need to dig excessive borrow pits Ensure not to exceed approved max. depth of burrowing Comply with the borrow pit management plan in Appendix 7.	Contractor	Nil	Contractors' Compliance	Inspections	Number of borrow pits incidents.	Borrow pit locations	Monthly	ESO Kogi SMENVNR	SPIU – 112,000 ($70) SMENVNR – 48,000 ($30)
Social Impacts											
8	Delay in travel time along the proposed road .	Movement of equipment and machinery should be limited during peak hours Traffic/caution signs at strategic locations ..	Contractor	Nil	No of complaints received within the project area	Site visits and observation	Traffic signs Contractors compliance	Routes through community to the sites especially the Junctions	As required	Social Safeguard Officer (SSO), Project Engineer FRSC LGA Traffic Wardens	100,000 ($62.5)

9	Nuisance to nearby residential areas and school pupil	Retrofit with suitable cost effective vehicle sound proofing materials/ technologies.	Contractor	400,000 ($250)	Number and frequency of complaints in project area	In-situ measurement of noise level	Noise level test (Not to exceed 90dB(A) for 8 hours working period	2-3Km Radius of project site	Weekly	Supervision Consultant/SSO	150,000 ($93.75)
10	Uproar if equipment is not parked at designated location	Ensure equipment is taken straight to the construction Camp where this is not achievable as some point due to extreme condition, adequate communication should be made to the relevant authority.	Contractor	-	Complaints from residents	Site Inspection Consultations	Contractor's compliance	Routes through community to the parking Camp	One-off	Supervision Consultant/SSO/ Project Engineer	100,000 ($62.5)
11	Land Acquisition /transactional issues for borrow pits, camp site staging areas, and ancestral objects/shrines within the ROW.	Fair compensation for affected structures, Shrines, ancestral objects, crops at current market value. Signing of agreement with local authorities and communities. Ensure the ownership of land is effectively established to mitigate the possibilities of taking land owned by women for public interest without ensuring the affected women are provided land for land replacement option.	Contractor	500,000 ($312.5)	No of complaints received	Consultation Review Grievance redress Log	No of cases handled by the GRC	Project area of influence	Continuous	Grievance Redress Committee	200,000 ($125)
12	Labour Influx which could lead to Increase in sexual activities leading to possible spread of STDs/STIs in the project location	Awareness campaign on sexual diseases.	Contractor	See Table 27 on Capacity Building	Level of Awareness and Education No of new STI cases	Rapid health survey	Level of awareness and knowledge of preventive measures. % of reported STI/ STD cases among	Nearby communities Health care facilities	Twice during Construction	SSO GBV Officer	160,000 ($100)

							workforce				
13	Potential risk of Sexual Exploitation and Abuse (SEA)/ Gender Based Violence (GBV) Influx of workers (foreigners) to project location	All contractors workers to be trained on GBV and sign Code of Conduct (CoC) (see appendix 8 for sample CoC) and be sensitized on zero tolerance for sexual integration with students/ community Community leaders/ women group/youth group to sensitize the community members on appropriate conduct with contractors Appoint NGO at the state level to manage social risks associated with GBV/SEA in the project area Provide Referral centres for survivors of GBV/SEA	SPIU GBV Specialist Contractor Management	See Table 27 on Capacity Building	Stakeholders concerns on risk of GBV	Consultations GBV Incident Report	Signed CoCs with the SPIU Conduct of sensitization campaigns	Project communities	Twice during Construction	GBVO SSO/ESO Supervision Consultant	300,000 ($187.5)
14	Child labour and school drop out	• Ensure that children and minors are not employed directly or indirectly on the project. • Communication on hiring criteria, minimum age, and applicable laws should be ensured.	Contractor Supervision Consultant	400,000 ($250)	Visual observation	Routine inspection	No. of cases observed & recorded	Project site	Daily	Social Safeguard Officer	160,000 ($100)
15	Land acquisition and economic displacement at host community, relocation of public utilities such as transformers,	• Implement stand alone RAP prepared for the project.	Contractor Grievance Redress Committee (GRC)	Captured in standalone RAP	No of complaints received	Consultation Review Grievance redress Log	No of cases handled by the GRC	Project area of influence	Continuous	Grievance Redress Committee	150,000 ($93.75)

	electric poles etc										
Sub Total				**3,300,000= ($2,062.5)**							**2,370,000= ($ 1,481.25)**

NB: 1 USD = 1,600 Naira

Table 23: Environmental and Social Management and Monitoring Plan - Construction Phase

Activity	Potential Impact	Mitigation Measures	Responsibility for Mitigation	Mitigation Cost (USD)	Parameters to be measured	Method of measurement	Performance indicator	Sampling Location	Monitoring Frequency	Institutional Responsibility (Monitoring)	Costs (USD)
B	**CONSTRUCTION PHASE**										
	Operation and movement of equipment, Backlog Maintenance and Rehabilitation works										
Environmental Impacts											
1	Fugitive dust Release of exhaust fumes, hazardous gases (NOx, CO, SOx, SPM,), Oxides from machinery GHG Emissions	Sprinkling of water during activities	Contractor	500,000 ($312.5)	Fugitive dust	Visual Observation	Minimal dust	On-site	Daily	Kogi SMEVNR ESO Supervision Consultant	160,000 ($100)
		Fuel switching- Fuel switching from high- to low-carbon content fuels (where available) can be a relatively cost effective means to mitigate GHG emissions during this phase. Energy efficiency- Machines e.g. generator plants could be turned off when not in use, in order to reduce carbon emissions.	Contractor		Gaseous pollutants: SO2, NO2, CO2, CO,VOCs, H2S, TSP	In-situ Air Quality Measurement Vehicle emission testing (VET) and vehicle exhaust screening (VES Report	FMEnv air pollutants permissible limit	Project area	Every two months		
2	Pollution of the environment from open defecation by contractors workers	Contractor to provide mobile toilets for workers Sensitize workers against open defecation	Contractor	1,500,000 ($937.5)	Evidence of feacal waste within the project sites	Site inspection	Absence of feacal waste on-site	Camp sites and working zones	Weekly	Supervision Consultant ESO	160,000 ($100)

Activity	Potential Impact	Mitigation Measures	Responsibility for Mitigation	Mitigation Cost (USD)	Parameters to be measured	Method of measurement	Performance indicator	Sampling Location	Monitoring Frequency	Institutional Responsibility (Monitoring)	Costs (USD)
B	**CONSTRUCTION PHASE**										
3	Surface soil compaction from Movement of heavy vehicles/Stationary vehicles and equipment	Creation of limit zones Minimize compaction during stockpiling by working in the dry state Rip compacted areas to reduce runoff and re-vegetate where necessary	Contractor	($200)	Visible demarcation of vehicles and equipment limit zone	Visual observation Soil Compaction test	Visual observation Soil Compaction test	Project camp sites and equipment packing zones	Monthly	Supervision Consultant ESO Project Engineer	160,000 ($100)
4	Pollution of soil and groundwater contamination by oil spills, lubricants and other chemicals	All oil and lubricants should be sited on an impervious base and should have drip pans The storage area should be far from boreholes, all containers should be clearly labeled	Contractor	400,000 ($250)	Soil quality parameters (especially hydrocarbon contaminants) Compliance with fuel storage procedures	In situ/ Laboratory Analysis Visual Observation	FMEnv soil pollutants permissible limit	Project areas	Twice during constructio n	SMENVNR ESO	160,000 ($100)
5	Vibrations to existing buildings and subsequent building collapse if not attended to	Mitigation at source (for all activities) Implementation of GRM to manage complaints from households A noise barrier or acoustic shield will reduce noise by interrupting the propagation of sound waves. Limiting operation to specific areas where work is carried out	Contractor	350,000 ($218.75)	Presence of affected buildings	Visual inspection	Machinery fitted with acoustic shield	Project areas	Monthly	Supervision Consultant ESO	160,000 ($100)
6	Presence of construction waste on-site which can pollute the environment leading to community and public health issues.	Implement site-specific waste management plan in Appendix 5 Liaise with State Environmental Protection Board for effective waste management and safe handling/disposal of waste.	Contractor	1,000,000 ($625)	Presence of construction waste on-site	Site inspection	Compliance with the site waste management plan Good house keeping	Project areas	Weekly	SMENVNR/ KOSEPB ESO/ Sup. Cons. Project Engineer	320,000 ($200)
7	Air quality deterioration	Suppress dust emission by sprinkling water	Contractor	400,000 ($250)	Fugitive dust	Visual Observation	Emission of noxious gases	Location of work	Daily	Supervision Consultant ESO	160,000 ($100)

Activity	Potential Impact	Mitigation Measures	Responsibility for Mitigation	Mitigation Cost (USD)	Parameters to be measured	Method of measurement	Performance indicator	Sampling Location	Monitoring Frequency	Institutional Responsibility (Monitoring)	Costs (USD)
B	**CONSTRUCTION PHASE**										
8	Increase in noise level above permissible noise level, (90dB) during construction activities and OHS issues	Adequate maintenance of equipment and machineries to reduce noise Retrofit machines with sound proof Implement OHS Plan in Appendix 6	Contractor	-	Number and frequency of complaints in project area	In-situ measurement of noise level	Noise level test (Not to exceed 90dB(A) for 8 hours working period	2-3Km Radius of project site	Weekly	Supervision Consultant ESO SSO	320,000 ($200)
9	Loss of Vegetation cover	Limit clearing to required road RoW Re-plant where it is relevant using 3:1 ratio	Contractor	240,000 ($150)	Vegetation cover within the area	Visual Observation	vegetation at the appropriate outside the RoW	Project RoW	Monthly	Supervision Consultant ESO	160,000 ($100)
	Chance Find during excavation	Adopt the chance find procedures in appendix 13	Contractor	-	Reports	Consultation	Compliance with chance find procedures	Project area	As required	ESO/SSO	-
10	Disruption in flow of stream at stream crossings during culvert works	Construct temporary diversions or re-channel stream temporarily	Contractor	450,000 ($281.25)	Water quality parameters such as TSS, TDS, Conductivity, pH, DO, Oil/Grease	In-situ Water Quality Measurement	Routine testing procedures being conducted	Project Site	Daily	SPIU-ESO	400,000 ($250)
11	Creation, risks and management of Borrow Pits	Limit the need to dig excessive borrow pits Created borrow pits should have appropriate signage and protection around them; Ensure not to exceed approved max. depth of burrowing Comply with the borrow pit management plan in Appendix 7	Contractor	320,000 ($200)	Contractors' Compliance	Inspections	Number of borrow pits incidents.	Borrow pit locations	Monthly	Kogi SMENVNR ESO Project Engineer	160,000 ($100)
12	Risk of occupational accidents (OHS), Injuries and diseases	Implement project OHS Plan in Appendix 6 Provide and enforce usage of appropriate PPE. Demarcate/cordon off construction areas and , lit up adequately at night,	Contractor	1,200,000 ($750) OHS Implementation	OHS Plan Developed Compliance with OHS Plan	Consultations /Visual observation Accident Report	Decrease in Lost Time Injuries (LTI) Zero incident/accide	Project area	Daily	ESO Supervising consultant	250,000 ($156.25)

Activity	Potential Impact	Mitigation Measures	Responsibility for Mitigation	Mitigation Cost (USD)	Parameters to be measured	Method of measurement	Performance indicator	Sampling Location	Monitoring Frequency	Institutional Responsibility (Monitoring)	Costs (USD)
B	**CONSTRUCTION PHASE**										
		Fence out danger zones and keep out of reach. Restricted access to be placed at construction sites using caution signs and manned personnel Use caution tapes. Develop and implement visitors management protocol Ensure that staging areas for contractor equipment are adequately delineated and cordoned off with reflective tapes and barriers Any uncovered work pits should have appropriate signage and protection around them; Workers should get a daily induction/toolbox before going on the site and a refresher of what happened on site a day before Appropriate security measures in place to prevent harassment or kidnapping of workers		700,000 ($437.5) PPE 400,000 ($250) Caution signs, tapes & barricades 500,000 ($312.5) first aid	First aid box		nt report Well stocked first aid box				
Social Impacts											
13	Delay in travel time along the proposed road .	Provision of alternative route/diversion for roads under interventions. Movement of equipment and machinery should be limited during peak hours Traffic/caution signs at strategic locations. See appendix 8 for TMP	Contractor	400,000 ($250)	No of complaints received within the project area	Site visits and observation	Traffic signs Contractors compliance	Routes through community to the sites especially the Junctions	As required	SSO Traffic control team FRSC	320,000 ($200)

Activity	Potential Impact	Mitigation Measures	Responsibility for Mitigation	Mitigation Cost (USD)	Parameters to be measured	Method of measurement	Performance indicator	Sampling Location	Monitoring Frequency	Institutional Responsibility (Monitoring)	Costs (USD)
B	**CONSTRUCTION PHASE**										
14	Grievances and negative perception by community members	Conduct stakeholders consultation with the host community at every phase of the project	Contractor SPIU	500,000 ($312.5)	No of complaints by community persons	Consultations Review grievance log	Minimal number of reported cases	Host communities Health care facilities	Every 2 months	Grievance Committees SSO	320,000 ($200)
15	Increase in sexual activities leading to possible spread of STDs/STIs from influx of workers (foreigners) to project location	Awareness campaign on sexual diseases.	Contractor	See Table 27 on Capacity Building	Level of Awareness and Education No of new STI cases	Rapid health survey	Level of awareness and knowledge of preventive measures. % of reported STI/ STD cases among workforce	Nearby communities Health care facilities	Twice during Construction	SSO Supervision Consultant	100,000 ($62.5)
16	Potential risk of Sexual Exploitation and Abuse (SEA)/ Gender Based Violence (GBV) Influx of workers (foreigners) to project location	All contractors' workers to be trained on GBV and sign Code of Conduct (CoC) see appendix 8 for sample CoC) and be sensitized on zero tolerance for sexual integration with students/ community Community leaders/ women group/youth group to sensitize the community on appropriate conduct with contractors	GBV Consultant/SPIU -GBVO	See Table 27 on Capacity Building	Stakeholders concerns on risk of GBV	Consultations GBV Incident Report	Signed CoCs with the SPIU Conduct of sensitization campaigns	Project communities	Twice during Construction	GBVO SSO ESO	250,000 ($156.25)
17	Cultural integration may be affected by foreigners who do not understand the culture	Adequate sensitization of contractor workers on the cultures of the project area (dos and don'ts, festivals etc.)	Contractor	400,000 ($250)	No of complaints from the host community	Consultation Incident Report	Conduct of sensitization campaigns	Project Communities	One-off	SSO	160,000 ($100)
18	Conflicts between contractor and community members over labour intake	Good work enforcement program Grievance Redress Mechanism Regular consultations	Contractor Grievance Redress Committee (GRC)	400,000 ($250)	No of complaints received	Consultation Review Grievance redress Log	No of cases handled by the GRC	Project area of influence	Continuous	Grievance Redress Committee	400,000 ($250)
19	Increase demand on existing community health and sanitation infrastructure due to influx of	Provide basic amenities (water, sanitation etc to workers)	Contractor	600,000	No of amenities in worker's camp	Visual observation	Availability of all essential amenities in workers' camp	Workers camp site Host community	Monthly	SSO ESO GBVO Supervision	240,000

Activity	Potential Impact	Mitigation Measures	Responsibility for Mitigation	Mitigation Cost (USD)	Parameters to be measured	Method of measurement	Performance indicator	Sampling Location	Monitoring Frequency	Institutional Responsibility (Monitoring)	Costs (USD)
B	**CONSTRUCTION PHASE**										
	temporary workers			($500)						Consultant	($150)
20	Community and public health issues. (People in the project area may be exposed to vehicular or on-site accident)	Contractors should prepare and implement a Community Affairs, Safety, Health, Environment and Security (CASHES) Policy, to coordinate OHS issues during the construction phase. See Appendix 12 for sample CASHES Policy	Contractor	500,000 ($312)	Accident /Incident Report	Reporting and feedback mechanism GRM	No of accidents reported	Project area of influence	Continuous	ESO SSO Supervision Consultant	160,000 ($100)
21	Child labour issues during project construction	• Ensure that children and minors are not employed directly or indirectly on the project. • Communication on hiring criteria, minimum age, and applicable laws should be ensured.	Contractor	200,000 ($125)	Visual observation	Routine inspection	No. of cases observed & recorded	Project site	Daily	SSO Supervision Consultant	150,000 ($93.75
22.	Land acquisition and economic displacement at host community.	• Implement standalone RAP prepared for the project.	Contractor Grievance Redress Committee (GRC)	Captured in standalone RAP	No of complaints received	Consultation Review Grievance redress Log	No of cases handled by the GRC	Project area of influence	Continuous	Grievance Redress Committee	200,000 ($125)
Sub Total				**10,720,000 = ($6,7000)**							**4,870,000= ($3,043.75 =)**

NB: 1 USD = 1,600 Naira

Table 24: Environmental and Social Management and Monitoring Plan –Post – Construction (Demobilization & Operational) Phase

Activity	Potential Impact	Mitigation Measures	Responsibility for Mitigation	Mitigation Cost	Parameters to be measured	Method of measurement	Performance indicator	Sampling Location	Monitoring Frequency	Institutional Responsibility (Monitoring)	Costs (USD)
C	**DEMOBILIZATION PHASE**										
	Demobilization of equipment and construction materials from Site										
Environmental Impacts											
1	Potential oil contamination of soil and water	Cart away all spoils through the relevant authorities Clean out impact areas	Contractor	300,000 ($187.5)	Oil Spillages, Littered construction waste and spoilt equipment/parts	Site inspection	Good house keeping	Workers Camp site	Quarterly for one year	ESO Project Engineer Supervision Consultant	320,000 ($200)
2	Increase in vehicular movements will lead to increase in air pollution from exhaust fumes	In collaboration with the State Government, implement regular sensitization via mass media on the allowable vehicular emission limit and the need for regular vehicle maintenance and the effect of excessive emissions into the atmosphere Routine inspection of motorists' compliance	FRSC; VIO	1,100,000 ($687.5)	Gaseous Pollutants such as SO2, NO2, CO2, CO, VOCs, H2S, TSP, PM 10 and PM 2.5	In-situ measurement of air quality	General compliance	Project site	Quarterly	SMENV NR ESO	400,000 ($250)
3	The drainages may become conveyors for surface debris and improperly disposed wastes during a heavy rain, leading to drainage blockage and disruption of free flow. This may result	Routine maintenance of drainages Proper waste management system in the communities	Kogi State Ministry of Works and Ministry of Environment	600,000 ($375)	Flow rate of water through the drainage systems Adequate waste treatment in the communities	Visual observation	Implementation of proffered mitigation	Project site and community	Quarterly	SMENVNR ESO Project Engineer	450,000 ($281.25)

Activity	Potential Impact	Mitigation Measures	Responsibility for Mitigation	Mitigation Cost	Parameters to be measured	Method of measurement	Performance indicator	Sampling Location	Monitoring Frequency	Institutional Responsibility (Monitoring)	Costs (USD)
C	**DEMOBILIZATION PHASE**										
	in stagnated water, and water contamination downstream.										
4	Possibility of culvert collapse, flooding, or erosion from post construction which may result from poor designs, non-compliance to designs, sub-standard materials, poor maintenance	To follow proper design and best available practices to rural road construction Strict adherence to terms of reference and specifications of engineering design for bridge and road construction Adequate and regular maintenance	Contractor Project Engineer State Ministry of Works and Ministry of Agriculture		Structural and performance integrity of hydraulic features		Efficient Durability of roads and hydraulic structures	Project Sites	Quarterly	ESO SMENVNR	300,000 ($187.5)
	Operation and use of roads under intervention										
Social Impacts											
1	The rural communities will become more accessible and more exposed to people and activities from outside their communities including criminals, armed robbers, kidnappers and terrorist groups like Bandits, Boko Haram etc.	The communities with government support shall constitute community vigilante groups, mobilize the youths and request for police posts for regular surveillance of the communities. The design of local community alertness system shall be useful, to alert neighbours in case of invaders or criminals	NPF Kogi State Command; Community executives and Traditional Leaders	500,000 ($312.5)	Incidence of security breach	Routine interview	Absence of security threat	Communities along project path	Quarterly for 2 years	Nigeria Police Kogi State Command	450,000 ($281.25)

Activity	Potential Impact	Mitigation Measures	Responsibility for Mitigation	Mitigation Cost	Parameters to be measured	Method of measurement	Performance indicator	Sampling Location	Monitoring Frequency	Institutional Responsibility (Monitoring)	Costs (USD)
C	**DEMOBILIZATION PHASE**										
M n2	Accidents involving vehicles or pedestrians are likely to occur as a result of increased vehicle density, operation and increased speed, as community roads	Adequate road signs for motorists and pedestrians. Construction of Protective fences on the front of schools very close to the RoW. Routine maintenance of roads. Routine inspection of motor-able roads and road users. Training of road users on interpretation of road signs	FRSC		Road accidents/animal crushing	Routine interview	No complaints from the community	Communities	Quarterly	Road Marshals	250,000 ($156.25)
3	Discrimination against gender and vulnerable group Gender Based violence Grievance and conflicts amongst members	Continues sensitization and awareness program and ensure that community level programs allow for gender inclusiveness Reporting GBV, SEA VAC cases properly and timely Implement requirements of GRM that addresses such issues	Community project monitoring committee	640,000 ($400)	Reports and awareness	Number of cases indicated	General compliance	communities	Quarterly	NGO Women Affairs GBV/SEA Referral Units	200,000 ($125)
Sub Total				**3,140,000 ($1,962.5)**							**2,370,000 ($1,481.25)**
TOTAL A+B+C				**17,160,000 ($ 10,725)**							**9,610,000 ($6,006.25)**

NB: 1 USD = 1,600 Naira

** Most of the cost is borne by the contractor and the SPIU will ensure it is embedded in their BOQ and will be verified by the SPIU Safeguards team.*

** Mitigation costs are estimates, contractors to review and ensure final costs in the BOQ are realistic and can adequately mitigate stated impacts.*

7.3 Institutional Roles & Responsibilities for Monitoring and Implementing the ESMP

The successful implementation of this ESMP depends on the commitment and capacity of various institutions and stakeholders to implement the ESMP successfully. Therefore, the arrangement as well as the roles and responsibilities of the institutions and persons that will be involved in the implementation, monitoring and review of the ESMP are presented in Table 25 below.
Appendix 4 gives detailed general environmental management conditions during civil works.

Table 25: Institutional Arrangement for ESMP Implementation.

S/N	Category	Roles & Responsibilities
1	Kogi RAAMP SPIU	• Overall responsibility for the implementation and monitoring of the implementation of the ESMP • Monitoring of project/contractor performance and taking appropriate action to ensure ESMP provisions are met. • Inclusion of relevant provisions in the contract. • Safeguards due diligence • Implementation of request for environmental and social protection.
2	Kogi State RAAMP SPIU Safeguards Unit	**Environmental Safeguards** • Analyze potential environmental impacts; • Ensure that project activities that are implemented will be in accordance with best practices and guidelines • Identify and liaise with all stakeholders involved in environment related issues in the project; and be responsible for the overall monitoring of mitigation measures and the impacts of the project during implementation. **Social Safeguards** • Develop, coordinate and ensures the implementation of the social aspects of the proposed project. • Identify and liaise with all stakeholders involved in social related issues during the proposed backlog maintenance and road rehabilitation; • Ensure that project activities that are implemented will be in accordance with best practices and guidelines **GBV Officer** • Implement the GBV action Plan and response framework and provide monthly updates • Prepare internal guidelines defining the approach for the preparation, implementation, monitoring and reporting of SEA/GBV prevention and response on the project; • Coordinate, support and manage the coherent and effective implementation of the SEA / GBV prevention measures in RAAMP; • Supervise the implementation of the codes of conduct, and Management Plans, for SEA prevention and response; • Ensure timely sensitization of contractor workers and project communities on GBV/SEA/SH prevention and code of conducts • Ensure GBV-GRM protocol and referral pathways become operational. • Improve the knowledge and capacity of the GBV-GRM focal point on dealing with survivors and understanding the referral pathway.
3	Technical Assistants on Environment, and Social issues.	• Provide technical assistance, guidance and support during ESMP development and implementation
4	Technical Assistant on Security and Safety issues	• Provide security and safety advice, guidance, cover and support during ESMP development and implementation
5	GBV Specialist (Supervision Consultant)	• Plan and implement all GBV related activities for the project • Development of GBV Grievance Redress Mechanism

6	E&S Consultant	• Development of ESMP • Training of relevant SPIU/RAAMP staff, regulators, MDAs and contractor on ESMP implementation and monitoring.
7	Kogi State Ministry of Environment & Natural Resources	• Oversees environmental compliance at the State level. • Provision of oversight on site assessment and monitoring of ESMP implementation
8	Other relevant State Government MDAs such as Ministry of Women Affairs, Ministry of Works, Kogi State Environmental Protection Board	• Relevant areas or resources under their jurisdiction or management are likely to be affected or implicated by the proposed projects. • Participate in the EA processes and in project decision-making that helps prevent or minimize environmental and social impacts and to mitigate them.
9	Adavi, Kabba Bunu, Mopa Amuro, Dekina, Olamaboro, Igalamela/Odolu & Idah Local Governments	• Provide oversight function across the project(s) in their respective areas for ESMP compliance. • Liaising with the SPIU, engage and encourage carrying out comprehensive and practical awareness campaign for the proposed respective projects amongst the various relevant grass roots interest groups
10	Respective Projects Host Communities	• Promote environmental and social awareness • Project Support amongst the various relevant grass roots interest groups.
11	CDA & CBO	• Ensure Community participation by mobilizing, sensitizing community members;
12	World Bank	• Inclusion of relevant provisions in the Legal Agreements • Provision of advice on expected or likely issues based on Bank experience. • Project monitoring and implementation support to verify compliance with the ESMP and CESMPs
13	FPMU E & S	❖ Provide guidance to the SPIU on E&S compliance ❖ Review of the ESMP and other safeguard instruments to ensure it complies with the WB requirements and the EIA Act ❖ Periodic monitoring and supervision of the ESMP/RAP/GBV activities implementation ❖ Review of monthly safeguards reports and other reports on safeguards activities. • Provision of safeguards training to the SPIU.
14	Contractors	• Compliance to respective BOQ specification in procurement of material and construction • Follow the ESMP provisions during project implementation • Ensure compliance with 'Chance find Procedures' • Establish and maintain communication with respective project host communities through a Community Liaison Officer.
15	Site Engineers/Supervisors	• Provide oversight function during site mobilization, construction and demobilization for each of the projects.

14	Supervision Consultants (Environmental, Social & GBV Specialist).	• Prepare and implement environmental monitoring plan during construction • Supervise each contractor performance of implementation of the Construction Campsite/Staging area Camp Management Plan/C-ESMP • Report any incidents or non-compliance with the C-ESMP to the ESSU-PIU • Ensure adequate training and education of all staff involved in environmental and social safeguard implementation. • Prepare respective monthly safeguards report including recommendations to the RAAMP regarding ESMP performance as part of an overall commitment to continuous improvement . • Organize coordination forums involving service providers and the GRM-GBV focal person to better strengthen collaboration, understand gaps and improve services and ensuring good practice. • Contribute to the development of tools and indicators for monitoring and evaluation.
15	NGOs/CSOs	• Assisting in their respective ways to ensure effective response actions during the respective projects implementation. • Awareness campaigns
16	Others/General Public	• Identify environmental and social issues that could derail the respective proposed projects and support project impacts mitigation measures. • Awareness campaigns

7.4 Contractual Measures

The mitigation measures to be implemented during the proposed backlog maintenance and road rehabilitations shall be the obligation of the respective Contractor for the proposed roads. The actions to be undertaken are presented in Table 26 below.

Table 26: Contractual Measures.

Step	Action	Remarks
1	The measures as described in this ESMP shall be included in each tender documents with appropriate flexibility to adjust these measures to site circumstances and the potential contractor will have to prepare its proposals taking into account these measures	• The non-inclusion of these measures in the proposal will lead to a disqualification of the Proponent. • Each contract with the successful bidder should contain these environmental and social management measures as firm conditions to be complied with.
2	Cost of mitigation measures of 10,725USD (₦17,160,000=) only shall be added to the cost of the contractual document	• Each contactor must take into account and put the cost for the environmental and social requirements specified in the ESMP.

7.5 Capacity Building

Training is crucial to ensure the efficient and effective implementation of the Environmental and Social Management Plan (ESMP) provisions. The SPIU will be responsible for ensuring that all individuals listed in the table 27, who have responsibilities in the ESMP implementation, possess the necessary competence through appropriate education, training, or experience.

Likewise, contractors will be required to conduct general Health, Safety and Environment (HSE) awareness training for their project workforce, and specific training for those whose work could significantly impact the environment. This is to ensure that they have a comprehensive understanding of the relevant aspects of the ESMP and can fulfil their roles effectively.

Before commencing civil works, contractors shall submit their internal HSE training and procedures to the Kogi RAAMP SPIU for approval. Additionally, they shall provide specific training for personnel whose work may significantly affect the environment, including training on appropriate behaviour related to Social and Environmental Assessment (SEA) and Gender Based Violence (GBV). This is to ensure that

their employees are fully aware of the relevant aspects of the ESMP and can carry out their responsibilities adequately.

As a minimum requirement, contractors are obliged to provide the following training to their personnel;

✓ OHS/HSE Induction/Orientation course for all workers to include (site safety rules, PPE requirements, Emergency
Preparedness and Response);
✓ Daily tool box talks for workers at the start of each day's job;
✓ Refresher courses on E&S safeguards as at when required.
✓ Manual Handling Techniques
✓ First Aid Training (for Site First Aiders)
✓ Safe Driving Techniques (for drivers)

A Capacity building plan is presented in Table 27 below.

Table 27: Capacity Building for ESMP Implementation & Monitoring

Training Description	Participants	Duration	Responsibility	Training cost (dollar)	Training cost (₦)
ESMP mitigation measures and procedures for implementation and monitoring	SPIU, Contractor Team lead and Safeguard Officers	1 day	E&S Consultant/ E&S Technical Assistants	312.5	500,000
Training on Code of Conduct, Labour influx, OHS, C-ESMP, GRM, GBV-GRM, stakeholder engagement	SPIU, Supervising Consultants, Contractors, GRCs, relevant institutions stated in the ESMP including NURTW, Traffic Control Team etc.	2 days during preconstruction and refresher training quarterly	E&S Consultant/ E&S Technical Assistants	625	1,000,000
Training of Contractor Drivers and SPIU DRIVERS	SPIU, Contractor drivers, supervising	1 day during pre-construction.	FRSC	375	600,000

	consultants, Traffic Control Team	1 day during construction phase			
Awareness campaign on preventing STI/sexual diseases	Contractor workers, SPIU Officers, SC	1 day during pre-construction. 1 day during construction phase	Healthcare workers	750	1,200,000
Gender and GBV Awareness raising/mainstreaming in project, GBV prevention, mitigation and response	SPIU, Supervising Consultants, Contractors	2 days	GBV Specialist	562.5	900,000
Training on life and fire safety	SPIU, Supervising Consultants, Contractors	2 days	Kogi state emergency fire service	937.5	1,500,000
Total				3,562.5	5,700,000

NB: Capacity Building will occur at the same time for all the projects listed under this ESMP.

7.6 Implementation Schedule

The activities related to environmental and social management and monitoring have to be integrated in the overall backlog maintenance/road rehabilitation schedule. The key elements of the implementation schedule are presented in Table 28 below.

Table 28: Tentative Implementation Schedule

No.	Activity Description	Responsibility	Prior to Contract Award	Pre-Construction	Construction	Operation
1.	Clearance & Disclosure of ESMP	SPIU	√			
2.	Finalization of Engineering Designs	SPIU/Engineering Design Consultant	√			
3.	Inclusion of Environmental & Social Requirements in Bid Documents	SPIU	√			
4.	Allocating Budget for ESMP Implementation	SPIU	√			

5.	Update and Approval of Contractor's ESMP, Waste & Safety Plan	SPIU	√			
6.	Mobilization to site	Contractor		√		
7.	Construction works	Contractor			√	
8.	Implementation of Mitigation Measures	Contractor		√	√	√
9.	Supervising ESMP Implementation	SPIU		√	√	√
10.	Monitoring & Reporting on ESMP Implementation	SPIU/Relevant MDAs		√	√	√
11.	Environmental Social and GBV Training	Environmental, Social and GBV Consultant	√	√	√	

7.7 ESMP Disclosure

Following the ESMP clearance by the World Bank, the ESMP will be disclosed in country and in the World Bank external website. The SPIU shall disclose the ESMP in line with the Nigeria EIA laws for 21 days. This will include a formal registration of the ESMP with the FMEnv and receipt of guidelines for the disclosure from the EA department including the locations to disclose the documents. At a minimum, this will include the following presented in Table 29.

Table 29: ESMP Disclosure

No	Action	Remarks	Cost (₦)	Cost ($)
1.	Registration of the ESMP at the FMEnv	This is based on fixed statutory fees by the FMEnv	50,000.00	31.25
2.	Inhouse technical review	This is based on fixed statutory fees by the FMEnv	200,000.00	195
3.	IMM FMEnv Statutory Cost	This is based on fixed statutory fees by the FMEnv	500,000.00	312.5
4.	Final Access Charges	This is based on fixed statutory fees by the FMEnv	250,000.00	156.25
5.	Disclosure on 2 National Newspapers or as directed by the FMEnv	This entails advert in 2 newspapers (actual costs will be determined at the point of placing the advert and varies depending on the paper)	600,000.00	375
6.	Radio announcement of the ESMP at the state	The SPIU will conduct radio announcement that has state coverage for the ESMP, to air for 10 working days (actual cost will depend on the station)	300,000.00	187.5
7.	Printing of Hard Copies for Display Centres	N20,000 (estimate) X 15 copies	300,000.00	187.5
8.	Disclosure at the World Bank External Website	The ESMP will be disclosed according to the World Bank Disclosure OP17.50	N/A	N/A
	Total	*1 US$ =₦ 1,600	**2,200,000.00**	**1,375**

*Actual costs will be provided at the point of disclosure.

7.8 Indicative Budget for ESMP Implementation

The summary of the cost for the implementation of the ESMP is presented in Table 30 below. The total costs of the ESMP including cost of mitigation, monitoring and capacity building is estimated as **Thirty-Six million, Four hundred and Three thousand and Five Hundred Naira (₦ 36,403,500).**

Table 30: Estimated Budget for the Implementation of ESMP

Item	Responsibility	Cost Estimate in Nigerian Naira (₦)	Cost Estimate in US Dollars (US$)
Mitigation	Contractor	17,160,000	10,725
Monitoring	Kogi RAAMP SPIU, Supervising Consultant, Other relevant MDAs	9,610,000	6,006.25
Capacity building	SPIU (Engineers, Safeguard Officers, Procurement Officer)	5,700,000	3,562.5
ESMP Disclosure	Kogi RAAMP SPIU	**2,200,000**	**1,375**
Sub- Total		34,670,000	21,668.75
Contingency (Add 5% of Sub Total)		1,733,500	1,083.44
Total		**36,403**	**22,752.19**

Currency Unit = Nigerian Naira
US$1 = ₦ 1, 600

7.9 Climate Change Adaptation Plan

The following measures shall be implemented to minimize the climate change impact of the proposed road intervention projects:

- Clearing of vegetation shall be minimal and restricted to the RoW only, to prevent the alteration of the natural carbon pool.
- Good ambient air quality shall be maintained and measures to forestall or reduce the emission of greenhouse gas pollutants (CO_2, Methane, etc.) shall be implemented.
- Use of low-emission construction equipment and vehicles that meet or exceed emission standards to reduce air pollutant emissions.
- Implementation of vehicle idling reduction policies and practices to minimize unnecessary emissions from construction vehicles and equipment.

- ❖ To reduce overall vehicle emissions, encourage carpooling and unnecessary vehicular movement among construction workers.

- ❖ Regardless of the size or type of vehicle, Contractors should implement the manufacturer-recommended engine maintenance programs.

- ❖ Drivers should be instructed on the benefits of driving practices that reduce fuel consumption, including measured acceleration and driving within safe speed limits.

CHAPTER EIGHT PUBLIC CONSULTATION

8.1 Introduction

Views of the project interested and affected persons have been fully taken into account during the preparation of this Environmental and Social Management Plan (ESMP) and shall continue to form a

basis for further engagement in the implementation of the proposed backlog maintenance and road rehabilitation projects. The different channels for communication and consultation are: meetings, filling of questionnaires, public readings and explanations of project ideas and requirements. Publication in print and electronic media, preferably local newspapers, notice boards near each project sites, posters in strategic locations and many public places. The means of communication must also take into consideration the literacy levels in the rural communities by allowing enough time for responses and feedback and putting messages in local language(s).

Consultations were held with government agencies including Ministry of Women Affairs, Ministry of Environment & Natural Resources, LG Council, and traditional rulers, community leaders, women and youths in the Project host Communities across all the 11 proposed road projects. The consultations with women groups were held separately to enable a conducive environment for women to air their views. More than 100 persons participated in the consultations held for the road projects. However, only 42 persons who had functional telephone numbers agreed to be documented. 10 were females while 32 were males.

8.2 Stakeholder Engagement Plan

The stakeholders engaged and consulted for each of the proposed projects include traditional rulers of Host Communities, Women groups, Community Based Organizations, Youth groups, Farmers Associations, Ministries of Environment and Agricultures etc. The consultations took place between the 26th of February, 2024 t the 10th of March, 2024. The strategy for engaging stakeholders throughout the lifecycle of each of the projects is described in Table 31 below. It identifies a broad spectrum of activities and events that will occur at different stages of the life cycle of the project and the targeted stakeholders that are required to be engaged, and how they should be engaged. The aim is to have a clear-cut plan/guideline that the project developer and/or those carrying out services on its behalf can follow to maintain social inclusion and responsiveness.

Table 31: Stakeholder Engagement Plan

Project Phase	Project Activities	Target Group	Method
Preconstruction	▪ Disclosure of project information ▪ Identification of proposed project location and area of influence ▪ Scoping and study ▪ ESMP disclosure	▪ Traditional rulers ▪ Community Union Chairman ▪ Affected/Benefitting communities ▪ NGOs, CBOs ▪ LG Council	▪ Invitation through village heads, youth leaders and head of association ▪ Distribution of background information document (BID) to the locals interpreted in local language ▪ Invitation through LGAs ▪ Stakeholder consultation & engagement ▪ Disclosure of ESMP at LGAs, SME, SPIU, National & Local Dailies.
Construction	▪ Road construction – Civil Works ▪ ESMP Implementation ▪ ESMP Monitoring	▪ Traditional rulers ▪ Community Union Chairman ▪ Affected/Benefitting communities ▪ NGOs, CBOs ▪ Host LG Council Police,	▪ Invitation through the village heads, youth leader, and heads of MDAs ▪ Information via village messenger ▪ Distribution of fliers to the locals printed in English an local languages ▪ Arrangement of monitoring responsibilities to stakeholder Agencies ▪ Follow up calls by SSO/ESO/GBV
Operation	▪ De-mobilization ▪ Audit/ Post construction evaluation ▪ Road Maintenance	▪ Traditional rulers ▪ Community union chairman ▪ Affected/Benefitting communities ▪ NGOs, CBOs ▪ Host LG Council	▪ Community based interview, questionnaire surveys by SPIU ▪ Invitation through the village heads, youth leader, and heads of MDAs ▪ Information via village messenger ▪ Arrangement of monitoring responsibilities to stakeholder Agencies ▪ Follow up calls by SSO/ESO/GBV

8.3 Summary of Public Consultation in Each Project Host Community Across the Eleven Proposed Backlog Maintenance and Road Rehabilitation Projects in Kogi State.

Table 32: Summary of Public Consultation in each Project Host Community

Summary of Public Consultation for Aku Uru – Obajana Road and Aku Uruku – Odoba Road in Adavi LGA (Aku Community)		
Date and venue of Public consultation	Consultation was carried out on 26/02/2024 at the village Square of the Community.	
Stakeholders in attendance	Kogi SPIU, Community Chairman, Adama Ake, Vice Chairman, Hassan Ibori, Secretary, Jimoh Mumuni, Women Leader, Halimat Abocheina, Youth Leader & Farmers Association Chairman, Jimoh Alabi, Youths Association and Women Association	
Language of communication	English and Ebira.	
Introduction	The Team leader of ESMP Consultants introduced the road rehabilitation project to the community and solicited for their support to ensure the success of the project.	
Stakeholders perception about the project	The stakeholders expressed delight that they will be beneficiaries in the proposed project and pledged their support towards the success of the project. The Community Association Chairman and his executives on behalf of the people described the road rehabilitation project as one that would touch the heart of the people and assured the ESMP Team of maximum support. Concerns raised are presented in the section below:	
S/N	**Concerns raised**	**How concerns were addressed**
1	The project contractor should not abandon the project without completion	The project would be carried out to completion stage. The project contract will be monitored and implement by Kogi State SPIU
2	Eligible persons from the community should be considered for employment during the execution of the project.	The project contractors are encouraged to employ workers from the host communities especially for non-skilled labour requirements of the project.
3	Road accidents should be prevented during construction by the use of adequate signs and public sensitizations.	Adequate sensitization would be carried before and during project implementation. Work areas will be cordoned off. Safety officers of the project contractors would be on ground during work activities.

Summary of Public Consultation for Osara – Atami Road in Adavi LGA (Atami Community)		
Date and venue of Public consultation	Consultation was carried out on 26/02/2024 at the community square (under the shade of a giant tree).	
Stakeholders in attendance	Kogi SPIU, Village Head of Osara community, Obadaki Abdulrahman, Women Leader, Mrs Khadijat Salau, Representatives of Atami Community Development Association, Atami Youths Association, Women Groups.	
Language of communication	English and Ebira	
Introduction	The Team leader of ESMP Consultants introduced the road rehabilitation project to the community and solicited for their support to ensure the success of the project.	
Stakeholders perception about the project	The stakeholders expressed delight that they will be beneficiaries in the proposed project and pledged their support towards the success of the project. Concerns raised are presented in the section below:	
S/N	**Concerns raised**	**How concerns were addressed**
1	Road accidents should be prevented during construction by the use of adequate signs and public sensitizations.	Adequate sensitization would be carried before and during project implementation. Work areas will be cordoned off. Safety officers of the project contractors would be on ground during work activities.
2	The project contractor should give due cognizance to native customs and traditions in the execution of the project	The project would be carried out in a socially responsible manner giving cognizance to native customs and traditions.
Summary of Public Consultation for Aiyegunle- Olumode – Daji Farm Road in Kabba-Bunu LGA (Aiyegunle Community)		
Date and venue of Public consultation	Consultation was carried out on 09/03/2024 at the Palace of HRH Oba Sunday Omodamori – the Ariwajoye I fesogbade 1.	

Stakeholders in attendance	Kogi SPIU, HRH Oba Sunday Omodamori, Women Leader Mrs Helen Bayekwusi, Youth Leader, Segun Ehimode, Community Development Association members, Youths and Women Associations.
Language of communication	English and Bunu
Introduction	The Team leader of ESMP Consultants introduced the road rehabilitation project to the community and solicited for their support to ensure the success of the project.
Stakeholders perception about the project	The stakeholders expressed delight that they will be beneficiaries in the proposed project and pledged their support towards the success of the project. HRH Oba Sunday Omodamori described the road rehabilitation project as one that would touch the heart of the people and assured that there will be no issues concerning compensation for land, crops or structure. Concerns raised are presented in the section below:

S/N	Concerns raised	How concerns were addressed
1	The women group expressed hope that project will afford them small business opportunity such as food vendors etc.	People are encouraged to take advantage of legitimate business opportunities which the proposed project offers.
2	Road accidents should be prevented during construction by the use of adequate signs and public sensitizations.	Adequate sensitization would be carried before and during project implementation. Work areas will be cordoned off. Safety officers of the project contractors would be on ground during work activities.
3.	The project contractor should ensure adequate protection of the soil so as not to trigger erosion.	The project would be carried out in an environmentally sustainable and responsible and manner. The soil will be protected from erosion.

Summary of Public Consultation for Eshi Bunu Junction – Ape Road in Kabba-Bunu LGA (Aduratedo Ape Bunu Community)

Date and venue of Public consultation	Consultation was carried out on 09/03/2024 at the Palace of HRH Olusegun Noah- Olu of Ape
Stakeholders in attendance	Kogi SPIU, HRH Olusegun Noah, Hon.Matthew Ayodele, CDA Secretary, Mrs Comfort Oluwatoyin Adebisi, Women Leader, Jethro Okumitemi – Youth Leader, Community Members, Youth and Women Groups
Language of communication	English and Yoruba
Introduction	The Team leader of ESMP Consultants introduced the road rehabilitation project to the community and solicited for their support to ensure the success of the project.
Stakeholders perception about the project	The stakeholders expressed delight that they will be beneficiaries in the proposed project and pledged their support towards the success of the project. They believe that proposed road project will enhance their socio-economic life. Concerns raised are presented in the section below:

S/N	Concerns raised	How concerns were addressed
1	In the execution of the project, drains should not be directed towards peoples gardens, farmland, houses, burial or cultural sites and toward sources of portable water of the community.	The project would be carried out in an environmentally sustainable and socially responsible and inclusive manner. The environmental and social sensitivities of the people will be protected from negative impacts.
2	The women group expressed hope that project will afford them small business opportunity such as food vendors etc	People are encouraged to take advantage of legitimate business opportunities which the proposed project offers.
3	Road accidents especially involving children should be prevented during construction by the use of adequate signs and public sensitizations.	Adequate sensitization would be carried before and during project implementation. Work areas will be cordoned off. Safety officers of the project contractors would be on ground during work activities.

Summary of Public Consultation for Illai – Ifeolukotun road in Mopa Amuro LGA (Illai Community)

Date and venue of Public consultation	Consultation was carried out on 27/02/2024 at the Palace of HRH Oba Ibilaye Abayomi Samuel – The Adetula II
Stakeholders in	Kogi SPIU, HRH Oba Ibilaye Abayomi Samuel, Members of Illai Descendants Development Union,

attendance	Otunba – Chief Teusday Ojo, Youth Leader – Sesan Pariola , Youth and Women Groups
Language of communication	English and Yoruba
Introduction	The Team leader of ESMP Consultants introduced the road rehabilitation project to the community and solicited for their support to ensure the success of the project.
Stakeholders perception about the project	The stakeholders were unanimous in their acceptance of the proposed project and pledged their support towards the success of the project. They believe that proposed road project will enhance their socio-economic life. Concerns raised are presented in the section below:

S/N	Concerns raised	How concerns were addressed
1	The project contractor should give due cognizance to native customs and traditions in the execution of the projects.	The project would be carried out in a socially responsible manner giving cognizance to native customs and traditions.
2	The women group expressed hope that project will afford them small business opportunity such as food vendors etc	People are encouraged to take advantage of legitimate business opportunities which the proposed project offers.
3	Road accidents especially involving children should be prevented during construction by the use of adequate signs and public sensitizations.	Adequate sensitization would be carried before and during project implementation. Work areas will be cordoned off. Safety officers of the project contractors would be on ground during work activities.
4.	In the execution of the project, drains should not be directed towards peoples gardens, farmland, houses, burial or cultural sites and toward sources of portable water of the community.	The project would be carried out in an environmentally sustainable and socially responsible and inclusive manner. The environmental and social sensitivities of the people will be protected from negative impacts.

Summary of Public Consultation for Anyigba – Agala Ate Road in Dekina LGA (Agala Ate Community)	
Date and venue of Public consultation	Consultation was carried out on 28/02/2024 at the Palace of HRH Chief Friday Obaka Atadoga – The Ogohi Ejina Agala III.
Stakeholders in attendance	Kogi SPIU, HRH Chief Friday Obaka Atadoga, Dominic Idakwoji – Gago of Agala Ate, Mr. Iyoma Atadoga – Council of Chiefs Secretary, Rev. Fr. Michael Malladu – Parish Priest, St. Felicity Catholic Church, Agala Ate, Mrs Comfort Abu - Women Leader, Youths Association and Women Association
Language of communication	English and Igala.
Introduction	The Team leader of ESMP Consultants introduced the road rehabilitation project to the community and solicited for their support to ensure the success of the project.
Stakeholders perception about the project	The stakeholders expressed delight that they will be beneficiaries in the proposed project and pledged their support towards the success of the project. The Community assured the ESMP Team of maximum support. Concerns raised are presented in the section below:

S/N	Concerns raised	How concerns were addressed
1	Will there be compensation for structures very close to the road corridor so as to sustain the road design ?	A Resettlement Action Plan study will be carried for the project that will capture all resettlement issues and ensure compensation to affected persons
2	Eligible persons from the community should be considered for employment during the execution of the project.	The project contractors are encouraged to employ workers from the host communities especially for non-skilled labour requirements of the project.
3	The project contractor should not abandon the project without completion	The project would be carried out to completion stage. The project contract will be monitored and implement by Kogi State SPIU
	Remark: Rev. Fr. Michael Malladu assured of the people's support and readiness in issues of compensation	

Summary of Public Consultation for Elubi Etiaja – Ajakwu Road in Dekina LGA (Elubi Etiaja Community)	
Date and venue of Public consultation	Consultation was carried out on 29/02/2024 at the Premises of the Village Head, Abraham Madaki
Stakeholders in attendance	Kogi SPIU, Village Head, Abraham Madaki, Women Leader – Mrs Endure Madaki, Youth Leader – Noah Isaac, Beaded Chief – Kadiri Itodo, Community Secretary – Shehu Shagari, CDA Leader – Anyebe Sab , Youth and Women Groups
Language of	English and Igala

communication		
Introduction	The Team leader of ESMP Consultants introduced the road rehabilitation project to the community and solicited for their support to ensure the success of the project.	
Stakeholders perception about the project	The stakeholders expressed their joy in the proposed project and pledged their support towards the success of the project. Concerns raised are presented in the section below:	
S/N	**Concerns raised**	**How concerns were addressed**
1	The project should not be allowed to be like many abandoned projects in the Country	The project would be carried out to completion stage. The project contract will be monitored and implement by Kogi State SPIU.
2	The women group expressed hope that project will afford them small business opportunity such as food vendors etc	People are encouraged to take advantage of legitimate business opportunities which the proposed project offers.
3	Road accidents especially involving children should be prevented during construction by the use of adequate signs and public sensitizations.	Adequate sensitization would be carried before and during project implementation. Work areas will be cordoned off. Safety officers of the project contractors would be on ground during work activities.
4.	In the execution of the project, drains should not be directed towards peoples gardens, farmland, houses, burial or cultural sites and toward sources of portable water of the community.	The project would be carried out in an environmentally sustainable and socially responsible and inclusive manner. The environmental and social sensitivities of the people will be protected from negative impacts.

Summary of Public Consultation for Odidoko – Ugbamaka Emenyoku Road in Olamaboro LGA. (Odidoko Emenyoku Ogugu Community)		
Date and venue of Public consultation	Consultation was carried out on 29/02/2024 at the premises of the Village Head – Atabo Ogbe.	
Stakeholders in attendance	Kogi SPIU, Village Head – Atabo Ogbe, Community Leader – Andrew Itodo, Women Leader – Hannah Daniel Salifo, Youths Association and Women Association	
Language of communication	English and Igala.	
Introduction	The Team leader of ESMP Consultants introduced the road rehabilitation project to the community and solicited for their support to ensure the success of the project.	
Stakeholders perception about the project	The stakeholders expressed delight that they will be beneficiaries in the proposed project and pledged their support towards the success of the project. The Community assured the ESMP Team of maximum support. Concerns raised are presented in the section below:	
S/N	**Concerns raised**	**How concerns were addressed**
1	In the execution of the project, drains should not be directed towards peoples gardens, farmland, houses, burial or cultural sites and toward sources of portable water of the community.	The project would be carried out in an environmentally sustainable and socially responsible and inclusive manner. The environmental and social sensitivities of the people will be protected from negative impacts.
2	Eligible persons from the community should be considered for employment during the execution of the project.	The project contractors are encouraged to employ workers from the host communities especially for non-skilled labour requirements of the project.
3	The project contractor should not abandon the project without completion	The project would be carried out to completion stage. The project contract will be monitored and implement by Kogi State SPIU

Summary of Public Consultation for Ayikpele – Okochogbe – Etutobo/Ofugu Road in Idah LGA. (Etutobo/Ofugu Community)	
Date and venue of Public consultation	Consultation was carried out on 09/03/2024 at the Home of the Gago (Village Head) – James Audu
Stakeholders in attendance	Kogi SPIU, Gago (Village Head) – James Audu, Women Leader – Mrs Agifa Omika, Youth Leader – Habib Ochimana, Women Association Secretary – Mrs Oteme Ibrahim, Community Secretary – Peter Zekere, Chief Seidu Mamudu, Youth and Women Groups
Language of communication	English and Igala
Introduction	The Team leader of ESMP Consultants introduced the road rehabilitation project to the community and solicited for their support to ensure the success of the project.

Stakeholders perception about the project	The stakeholders were unanimous in their acceptance of the proposed project and pledged their support towards the success of the project. Concerns raised are presented in the section below:	
S/N	**Concerns raised**	**How concerns were addressed**
1	The project contractor should give due cognizance to native customs and traditions in the execution of the projects.	The project would be carried out in a socially responsible manner giving cognizance to native customs and traditions.
2	The women group expressed hope that project will afford them small business opportunity such as food vendors etc	People are encouraged to take advantage of legitimate business opportunities which the proposed project offers.
3	Road accidents especially involving children should be prevented during construction by the use of adequate signs and public sensitizations.	Adequate sensitization would be carried before and during project implementation. Work areas will be cordoned off. Safety officers of the project contractors would be on ground during work activities.
(Ayikpele Community)		
Date and venue of Public consultation	Consultation was carried out on 09/03/2024 at the premises of the Village Head – Mahmud Sani	
Stakeholders in attendance	Kogi SPIU, Village Head – Mahmud Sani, Women Leader – Mrs Rahmatu Sumana Community Members, Youth Leader – Ali Isah, Youth and Women Groups	
Language of communication	English and Igala	
Introduction	The Team leader of ESMP Consultants introduced the road rehabilitation project to the community and solicited for their support to ensure the success of the project.	
Stakeholders perception about the project	The stakeholders were unanimous in their acceptance of the proposed project and pledged their support towards the success of the project. They recounted how erosion had destroyed their access road and the difficulties the community faces with the bad condition of the road Concerns raised are presented in the section below:	
S/N	**Concerns raised**	**How concerns were addressed**
1	The project contractor should give due cognizance to native customs and traditions in the execution of the projects.	The project would be carried out in a socially responsible manner giving cognizance to native customs and traditions.
2	The women group expressed hope that project will afford them small business opportunity such as food vendors etc	People are encouraged to take advantage of legitimate business opportunities which the proposed project offers.
3	Road accidents especially involving children should be prevented during construction by the use of adequate signs and public sensitizations.	Adequate sensitization would be carried before and during project implementation. Work areas will be cordoned off. Safety officers of the project contractors would be on ground during work activities.
4.	In the execution of the project, drains should not be directed towards peoples gardens, farmland, houses, burial or cultural sites and toward sources of portable water of the community.	The project would be carried out in an environmentally sustainable and socially responsible and inclusive manner. The environmental and social sensitivities of the people will be protected from negative impacts.

Summary of Public Consultation for Adumu Junction – Adumu Farm Road in Igalamela/Odolu LGA. (Adumu Community)		
Date and venue of Public consultation	Consultation was carried out on 09/03/2024 at the premises of the Village Head – Sunday Usman.	
Stakeholders in attendance	Kogi SPIU, Village Head – Sunday Usman, Women Leader – Mrs Esther Onate, Youth Leader- Yusuf Ukwubile, Madaki – James Amanabo, Community Members, Youths Association and Women Association	
Language of communication	English and Igala.	
Introduction	The Team leader of ESMP Consultants introduced the road rehabilitation project to the community and solicited for their support to ensure the success of the project.	
Stakeholders perception about the project	The stakeholders expressed delight that they will be beneficiaries in the proposed project and were optimistic that their farming activities will be enhanced by the road project upon completion Concerns raised are presented in the section below:	
S/N	**Concerns raised**	**How concerns were addressed**
1	In the execution of the project, drains should not be directed towards peoples gardens, farmland, houses,	The project would be carried out in an environmentally sustainable and socially responsible

	burial or cultural sites and toward sources of portable water of the community.	and inclusive manner. The environmental and social sensitivities of the people will be protected from negative impacts.
2	Eligible persons from the community should be considered for employment during the execution of the project.	The project contractors are encouraged to employ workers from the host communities especially for non-skilled labour requirements of the project.
3	The project contractor should not abandon the project without completion	The project would be carried out to completion stage. The project contract will be monitored and implement by Kogi State SPIU

8.4 Pictures of Consultations

Aku Uru Community

Atami Community

Aiyegunle Community

Ape Bunu Community

Illai Community

Elubi Ajakwu Community

Odidoko Emenyeoku Community

Ofugo#Etutobo Community

Agala Ate Community

Adumu Community

Ayikpele Community

CHAPTER NINE: CONCLUSION AND RECOMMENDATIONS

9.1 Conclusion

The proposed Rural Access and Agricultural Marketing Project (RAAMP) in Kogi State poised to yield significant positive effects on rural communities, enhancing the overall agricultural productivity of the state and, by extension, Nigeria. By facilitating access to farmlands and diminishing post-harvest losses, the project aims to diversify the economy beyond the oil sector, with a primary focus on augmenting agricultural productivity and advancing the marketing of agricultural products. This strategic approach is designed to alleviate rural poverty.

Specifically, the project will establish all-weather access routes connecting rural communities to local agricultural markets and agro-logistics hubs. This initiative aims to enhance rural transportation, minimize the cost of transporting agricultural products to markets, and reduce post-harvest losses. While the project implementation is expected to have certain adverse effects on the biophysical and social environment, these impacts will be localized in spatial extent and short-term. They can be effectively avoided or managed through the application of appropriate mitigation measures proffered in the Environmental and Social Management Plan (ESMP), sound design, adherence to good construction practices, effective maintenance, and robust supervision and enforcement during project implementation.

9.2 Recommendations

Below are some of the recommendations that will enhance the overall sustainability of the proposed project especially during the implementation phase of the project:

- Contractors should be encouraged to recruit local labourers and, when feasible, certain technical workers from project host communities during project implementation. This approach aims to minimize the reliance on migrant workers, thereby mitigating potential threats to community culture, health, safety, and security. Additionally, it is expected to stimulate local socioeconomic activities, enhance livelihoods, and contribute to the reduction of poverty in the affected communities.
- A Grievance Redress Mechanism at the project level should be devised and put into operation to efficiently and promptly address grievances raised by affected individuals.
- A comprehensive induction program, encompassing a code of conduct for all workers, must be formulated. The minimum requirements for the code of conduct should include adherence to the following: respect for local residents; prohibition of hunting or unauthorized acquisition of products or livestock; a strong stance against illegal activities, such as child sexual exploitation, underage sex, prostitution, harassment of women, gender-based violence, and the purchase or use of illegal drugs; clear disciplinary measures and sanctions (e.g., dismissal) for any violations of the code of conduct and/or company rules; and a commitment or policy to collaborate with law enforcement agencies in investigating perpetrators of gender-based violence.
- The SPIU should guarantee the inclusion of both genders in all facets of project implementation and ensure active monitoring to make sure that contractors adhere strictly to the requirements of this ESMP especially in the application of mitigation measures during project implementation.
- Ensure all contractors Establish worker's camp and provide all basic amenities (water, sanitation etc) for all workers. This will ensure protection of community infrastructure and prevent conflict.

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APPENDIX 1 TERMS OF REFERENCE

RURAL ACCESS & AGRICULTURAL MARKETING PROJECT (RAAMP)
CONSULTANCY SERVICES FOR THE ENGAGEMENT OF AN INDIVIDUAL CONSULTANT FOR THE PREPARATION OF ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP) FOR (11NOS – 85.68KM) BACKLOG MAINTENANCE/ REHABILITATION WORKS ACROSS 21 LGAs IN KOGI STATE FOR PHASE 1 INTERVENTION UNDER THE KOGI STATE RAAMP

Background and Context

1. The Federal Government of Nigeria (FGN) has initiated the preparation of the Rural Access and Agricultural Marketing Project (RAAMP), the successor of the Second Rural Access and Mobility Project (RAMP-2). The project will be supported with financing from the World Bank and the French Development Agency (AFD) and will be guided by the Government's Rural Travel and Transport Policy (RTTP). The lead agency for the Federal Government is the Federal Department of Rural Development (FDRD) of the Federal Ministry of Agriculture and Rural Development (FMARD). The Federal Project Management Unit (FPMU) is overseeing the project on behalf of FDRD, while the respective state government of nineteen (19) participating states will implement it. The project development objective of RAAMP is to improve rural access and agricultural marketing in selected participating states whilst strengthening the financing and institutional base for effective development, maintenance and management of the rural road network sustainability. The participating states are: eleven northern states (Bauchi, Gombe, Kaduna Kano, Katsina, Kebbi, kogi, kwara, Niger, Plateau and Sokoto) and eight southern states (Abia, Akwa Ibom, Ebonyi, Ekiti, Ogun, Ondo, Osun and Oyo).

2. The Nigeria road network is relatively dense consisting of about 194,000 km of roads. This includes 34,000 km of federal roads, 30,000 km of state roads and 130,000 km of registered rural roads. The road density is about 0.21 km of roads per square kilometre. In spite of the relatively high road density, the rural accessibility index for Nigeria (defined as the proportion of the rural population living within 2 kilometres away from an all-weather road) is low, at only 25.5 percent, leaving about 92 million rural dwellers unconnected [RAAMP Project Appraisal Document, 2019]. Rural access is limited where the poor population is concentrated. These considerations demand the expansion and improvement of rural road network, and, also, conservation of rural road/transport assets.

3. Furthermore, an improved rural access will enhance the agricultural potentials and marketing opportunities for the agrarian rural communities in Nigeria and, by extension, help in the improvement of livelihoods of the rural population. Out of the total project outlay of US$575 million, the Association, the AFD and the GoN will contribute US$280 million, US$230 million (Euro 200 million equivalent) and US$65 million respectively. These contributions are equivalent to 49 percent, 40 percent and 11 percent of the total costs respectively for the Association, the AFD, and GoN.

4. RAAMP has four components as stated below: -

- **Component A**: Improvement of Rural Access and Trading Infrastructure – The component will have two sub-components: (i) A.1 Major Civil Works: upgrading of rural roads and the construction of short-span (largely up to clear span of 15 meters) cross-drainage structures (culverts/bridges) on rural roads, and the physical improvement of the existing agro-logistics centers (rural markets); and (ii) A.2 Consultancies and Supervision: technical assistance (TA) support to the planning, design, implementation and supervision and consultancy costs linked to the civil works.

- **Component B**: Asset Management, Agro-logistics Performance Enhancement and Sector Reform - This component comprises three sub-components: (i) B.1 Other Civil Works. Support the maintenance and spot improvement of rural roads; (ii) B.2 Support for Improving Agro-logistics Activities. Support to Agro-logistics performance enhancement activities and (iii) B.3 Consultancies Studies and Supervision. This sub-component will provide TA support to state-

level road sector reforms activities, to the establishment of an asset management system, and to the design and supervision of civil works under the component.

- **Component C**: Institutional Development, Project Management and Risk Mitigation - The component has two sub-components. (i) C.1 Institutional Development and Project Management. This sub-component will involve support to institutional development of the rural transport, trading infrastructure and agro-logistics activities, maintenance and management; and (ii) C.2 Risk Mitigation and Resiliency. This sub-component will support project risk mitigation and resiliency activities, including sexual exploitation and abuse (SEA), gender, grievance redressal, rural road safety and climate resiliency of rural roads.
- **Component D**: Contingent Emergency Response - The component will address any unforeseen emergency infrastructure needs following a natural disaster.

However, this Consultancy will be focused on Component A: Improvement of Rural Access and Trading Infrastructure – activities include the upgrading of rural roads, construction of short-span critical cross-drainage structures, improvement of agro-logistics centers and support to the costs of consultancies and supervision of construction activities.

5. Considering the nature of these works, their scope, geographic coverage and client's capacity, the following World Bank's environmental and social safeguards policies are triggered: Environmental Assessment OP/BP 4.01, Natural Habitats OP/BP 4.04, Physical Cultural Resources OP/BP 4.11 and Involuntary Resettlement OP/BP 4.12. The project has been assigned an Environmental Assessment (EA) Screening Category "B". This rating is based on the scope of the project, which indicates limited adverse environmental and social impacts. It is expected that the very limited adverse negative impacts are likely during project implementation; especially as the project does not contemplate constructing new roads and will essentially remain within the existing right-of-way.

6. At project preparation, an Environmental and Social Management Framework (ESMF) and a Resettlement Policy Framework (RPF) was prepared and disclosed in-country on July 30 2018 and at the World Bank website on September 6, 2018. These safeguard instruments are frameworks that need to be translated into specific cost, measurable, and monitorable actions for specific sites intervention through the preparation of site-specific management and action plans. In general, the ESMF specifies the procedures to be used for preparing, approving and implementing (i) environmental/social assessments (ESAs, or alternately both an SA or an EA) and/or (2) environmental/social management plans (ESMPs, or alternately both an EMP and SMP) for individual civil works packages developed for each project.

Goal of the Assignment

7. The goal of the assignment is to identify the potential social and environmental risks and impact by conducting adequate environmental and social assessments and preparing site-specific instruments for managing the negative impacts associated with the Backlog Maintenance/Rehabilitation work packages.

Brief Description of the Project Area

8. The proposed roads and cross drainage system are distributed across the three Senatorial districts of 21 LGAs in Kogi State. Backlog maintenance/rehabilitation intervention covered 7 LGAs (Adavi, Kabba-bunu, Yagba East, Dekina, Igalamela/Odolu, Olamaboro and Idah). Generally, the project areas are rural in nature having many farming terrain and lands that has many economic importances.

The condition of the roads has deteriorated over the years with some portions of some of the roads and hydraulic structures are now impassable for vehicles and motorcycles especially during the wet seasons as a result of muds, floods, gully erosion, failed and narrow portions, bridges with damaged or no hand rails and collapsed wooden bridge which made it difficult to transverse through the end of the road.

Description of Proposed Road Rehabilitation

9. The Kogi State RAAMP proposes to intervene in 11 numbers of roads totaling 85.68km (Backlog maintenance/rehabilitation) as phase 1 roads to be intervened under the phase 1 work package. The work package would involve engineering works such as, but not limited to, the following:

Backlog maintenance/Rehabilitation intervention:

- Site clearance of some roads,
- Drain clearing & desilting, unlined erosion, reshape & lining where necessary,
- Restoring of existing/new drainage works,
- Stone pitching repair,
- Concrete, gabion, scour & chutes and berm repair,
- Restoring of existing/new protection works,
- Culvert cleaning & element repair, stone pitching, marker post & reflector repair/replacement,
- Waterway (Debris/obstacles, water erosion, waterway desilting) where necessary,
- Structure damage,
- Furniture, signs & markings (road furniture, road sign, road marking, rumble strips & speed humps repair/paint/replace) where necessary.

10. These activities have the potential to generate environmental and social impacts including noise and dust generation; Delay in travel time due to traffic obstruction, accident risks to road users, potential pollution to water resources from poor waste management, community health & safety risks such as accidents/spread of STDs, risks of GBV/SEA/SH, traffic congestion, security risks to workers such as kidnapping and banditry amongst others.

11. In line with the RAAMP ESMF, an Environmental and Social Screening was conducted in February,2023 to ascertain the eligibility of the roads based on the environmental and social sensitivities, and the need for preparation of any site-specific instrument or otherwise. The screening identified the need to prepare an Environmental and Social Management Plan (ESMP) to adequately address the site-specific impacts envisaged due to the project activities for the 11 roads.

12. Against this backdrop, Kogi state RAAMP is desirous to engage the services of an individual consultant to prepare an Environmental and Social Management Plan (ESMP) for the Backlog maintenance/rehabilitation roads totaling 85.68Km. (List of Selected roads is provided in Annex 1).

Objectives and scope of the consultancy

13. The objective of the consulting services is to prepare an Environmental and Social Management Plan (ESMP) for the 11 roads (totaling 85.68km) proposed for phase 1 under Kogi state RAAMP in line with the guidelines of the World Bank/IDA and the Nigeria EIA Act. This ESMP will assist to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable levels. The ESMP will also include the measures needed to implement these actions, addressing the adequacy of the monitoring and institutional arrangements for the upper and lower watersheds in the intervention sites.

Objectives of the ESMP

14. The specific objective of the ESMP will be to assess the potential environmental and social impacts of the proposed works as described in the detailed preliminary designs and prepare a detailed Environmental and Social Management Plan (ESMP) and develop appropriate mitigation measures to address the negative impacts. The ESMP will also outline mitigation costs & responsibilities, and a monitoring plan which will include monitoring parameters, frequency, responsibility and costs. The ESMP will advise any required updates to the engineering design based on impacts reduction strategies and mitigation measures, prior to finalization of the engineering design.

Scope of Works

15. The assignment is for the preparation of site specific ESMP for the Backlog maintenance/rehabilitation that should consist of a well-documented set of mitigation measures, monitoring, and institutional actions to be taken before and during implementation to eliminate adverse environmental and social impacts, offset them, or reduce them to acceptable levels. It should also include the measures required to implement these actions, costing, and responsibility, addressing the adequacy of the monitoring and institutional arrangements in the intervention site.

16. The consultant will work in close collaboration with the engineering design consultants and Kogi state RAAMP State Project Implementation Unit's (SPIU) safeguard team, and with other actors as directed by the SPIU. In that respect the sequencing of the technical/feasibility studies and the ESMP will be critical. The consultant will have to consider the technical variants of the proposed activities and also in return inform the technical design consultants of any major constraint that may arise due to the social and environmental situation on ground.

The specific task for the consultancy assignment shall include but not limited to the following:

a) Review the existing PAD, ESMF and RPF prepared for the project;
b) Review of the Project's PIM and Road Intervention Catalogue;
c) Review Environmental and Social Safeguards policies of the World Bank triggered on the project;
d) Review of preliminary engineering designs and technical /feasibility studies for the proposed project locations;
e) Describe the proposed project by providing a description of the project relevant components and presenting schematic diagrams, maps, figures and tables.
f) As appropriate in highly sensitive sites, describe and analyse the physical, biological and human environment conditions in the study area before project implementation. This analysis shall include the interrelations between environmental and social components and the importance that the society and local populations attach to these components, in order to identify the environmental and social components of high value or presenting a particular interest.
    - The following biophysical issues shall be taken into consideration; Climate, Air Quality, erosion/flooding patterns, drainage pattern, water quality (surface and aquifer characteristics), Soil, biological aspects: flora and fauna, endemic and endangered species.
g) Identify the policy, legal and administrative framework relevant to the sub-projects.
h) Define and justify the project study area for the assessment of environmental and social impacts.
i) Assess the potential environmental and social impacts related to project activities;
j) Define appropriate mitigation/enhancement measures to prevent, minimise, mitigate, or compensate for adverse impacts or to enhance the project environmental and social benefits, including responsibilities and associated costs.
k) Review institutional assessment and framework for environmental and social management.
l) Identify responsibilities and actors for the implementation of proposed mitigation measures
m) Assess the capacity available to implement the proposed mitigation measures and identify institutional responsibilities and needs for capacity building, if necessary, to implement the recommendations of the environmental and social assessment and associated costs
n) The following socio-economic issues shall be addressed in the ESMP:
    - Using a mixed methods approach, the study shall establish the social baseline information before project intervention. Social baseline parameters to be determined for the Backlog Maintenance/Rehabilitation sites include;
        - Location
        - Community Organisation and Governance
        - Pattern of social networks and interaction in the project area;
        - Access/Transport preferences of residents of project communities

- population characteristics (number, demographic, literacy levels, other social characteristics, household characteristics, distribution of vulnerability within population around the project sites);
- economy (prevalent occupations, employment rate, income distribution);
- Availability of social services (health, education)
- public services (types, capacity, and adequacy)
- housing type;
- Absorptive capacity of local communities for project-induced labour influx (worker/family).
- Pattern of conflict and conflict resolution mechanisms in project communities
- Factors driving Gender-Based Violence and Sexual Exploitation & Abuse risk in project areas

- A summary of the views of the population including vulnerable groups, determined through documented discussions with local communities.
- Cultural: Summarize the possible effects of the project on historical/archaeological sites, heritage/artefacts, native religious or harvest sites of the affected communities and identification or development of mechanisms for handling chance findings.

o) Carry out consultations with primary and secondary stakeholders in order to obtain their views about the project. These consultations shall occur during the preparation of the ESMP to identify key environmental and social issues and impacts, and after completion of the draft ESMP to obtain comments from stakeholders on the proposed mitigation/enhancement measures

p) The consultant shall also document how to manage risk related to Gender Based Violence (GBV) including Sexual Exploitation and Abuse and sexual harassment taken cognisance of (i) Develop a Labor Influx, (ii) Security issues, (iii) project GBV accountability and response framework. In doing these, the consultant shall develop a labour influx, SEA/SH and Occupational Health and Safety Response Plan

q) Develop a Grievance Redress Mechanism (GRM) which will be applied on the project. A GBV-specific Grievance Mechanism will also be developed to address complaints related to forms of GBV on the project.

r) For ESMPs to capture the socio-economic, cultural and risk context for women, they should consider:
- Existing gender-specific statistics
- Data and/or information on cultural and socio-economic practices for women
- Information obtained from consultations carried out in the preparation of the project.

s) Prepare an Environmental and Social Management Plan (ESMP). The ESMP should identify:
- The potential environmental and social impacts resulting from project activities
- The proposed mitigation measures
- The monitoring indicators
- The institutional responsibilities for monitoring and implementation of mitigation measures
- The costs of mitigation, monitoring activities and implementing the ESMP; and
- A calendar for implementation.

17. In executing the above task, the consultant shall carry out consultations with primary and secondary stakeholders in order to obtain their views about the project. These consultations shall occur during the preparation of the ESMP to identify key environmental and social issues and impacts, and after completion of the draft ESMP to obtain comments from stakeholders on the proposed mitigation/enhancement measures.

18. The following socio-economic issues shall be addressed in the ESMP:

- A summary of the impacted communities for the project: location, access, population (number, demographic and social characteristics); economy (employment rate, income distribution); services (types, capacity, and adequacy) and housing. The concern is the ability to provide workforce, service new development and absorb and adjust to growth (worker/family).
- A summary of the views of the population including vulnerable groups, determined through thoroughly documented discussions with local communities. These meetings and discussions must be documented and should show how issues and problems raised are or will be resolved (note that a Resettlement Action Plan (RAP) could be developed for the Site, and this is covered under separate TORs).
- Cultural: Summarize the possible effects of the project on historical/archaeological sites, heritage/artifacts, native religious or harvest sites of the affected communities and identification or development of mechanisms for handling chance findings.

Information will be gathered from field surveys and secondary data sources (interviews, structured questionnaires, in-depth interviews and focus group discussions.

19. The typical contents of an ESMP Report are presented hereafter in section XV below. It shall be noted that the presentation of the Report may be adapted pending on the nature and specific requirements of the project.

Ethical Requirements

20. Before undertaking any activity, the team will make sure that it understands all ethical considerations related to working GBV (in particular Sexual Exploitation and Abuse). The consultant should not collect any primary data, they should NOT_conduct interviews or research using the SEA survivors and will only make use of secondary sources and data. This is with the objective to minimize harm to women and children.[2]

Qualification of consultant

The ESMP will be prepared by an individual consultant

- The consultant must have a working knowledge of World Bank Environmental and Social Framework, Operational safeguards policies gained through hands-on experience in the preparation and implementation of environmental and social management plans in an urban/rural area.
- Advanced degree in environmental sciences, natural sciences, environmental management
- Minimum of 8 years' experience in safeguards related/civil works contracts requiring Environmental management procedures including mitigation measures
- Proven skill in World Bank (WB) Environmental and Social safeguard policy implementation including addressing cross-cutting issues in development project and must have prepared at least three (3) ESMPs for World Bank funded projects.
- Experience in occupational Health and Safety/HSE and relevant certification
- Excellent communication and report writing skills

Deliverables and Timing

- **Inception Report**: An Inception report (3 hard copies and 2 e-copies) detailing the work plan for execution, review of relevant project documents and preliminary impacts identified shall be submitted to the SPIU one (1) week after contract signing.
- **Draft Report**: A draft ESMP report (3 hard copies and 2 e-copies) shall be submitted to the Kogi SPIU for review two (2) weeks from the date of contract signing.
- **Final Report**: A Final ESMP report (3 hard copies and 2 e-copies) considering all comments from the FPMU and World Bank shall be submitted within four (4) weeks for clearance and No-Objection from the World Bank.

[2] *"A woman may suffer physical harm and other forms of violence if a partner finds out that she has been talking to others about her relationship with him. Because many violent partners control the actions of their girlfriends of wives, even the act of speaking to another person without his permission may trigger a beating." For more information on ethical considerations see: VAWG Resource guide, http://www.vawgresourceguide.org/ethics*

Payment Milestone

20% upon submission of Inception Report
50% upon submission and acceptance of the Draft ESMP Report
30% upon submission of the Final cleared ESMP Report

Project – Specific Background Document

- Environmental and Social Management Framework (ESMF)
- Resettlement Policy Framework (RPF)
- RAAMP Project Appraisal Document (PAD)
- RAAMP Project Implementation Manual (PIM)
- Civil work design report

Conduct of the Consultant

a) The Consultant will, at all times, be expected to carry out the assignment with the highest degree of professionalism and integrity. The Consultant will be expected to conduct his duties in an open and transparent manner.
b) The Consultant will not, under any circumstance, take any actions or be seen to be taking any actions, which may hinder or prevent the Kogi State RAAMP from executing this assignment.
c) The Consultant will study all Kogi State RAAMP guidelines and policies and will be expected to ensure that the assignment is concluded with the strictest adherence to all such policies and regulations.
d) The Consultant will not, under any circumstances, take any material decision pertinent to this assignment without the express permission and written consent Project Coordinator or of an authorized representative of the Kogi State RAAMP
e) The Consultant will not, under any circumstances, discuss, divulge, or use any information regarding this assignment or any other transaction conducted without the express written permission of an authorized representative of Kogi State RAAMP
f) The consultant must not have a conflicting assignment with government agencies, development partners etc. if a conflict of interest is discovered, the contract shall be terminated and the consultant
g) The consultant must avoid all potential conflict of interest situations.

Duration

The duration of the assignment shall be for a period of four (4) Weeks

Report Outline

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LIST OF FIGURES
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ABBREVIATIONS AND ACRONYMS
EXECUTIVE SUMMARY
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- Background
- Description of the proposed intervention
- Scope of the assignment
- Rationale for ESMP
- Objectives of the ESMP

CHAPTER TWO: ADMINISTRATIVE & REGULATORY FRAMEWORK

- Discussion of the World Bank safeguard policies triggered by RAAMP and the proposed activity
- Summary of relevant local and federal policy, legal, regulatory, and administrative frameworks

CHAPTER THREE: PROJECT DESCRIPTION

- Description of the Proposed Project, Project Component and Activities

CHAPTER FOUR: DESCRIPTION OF PROJECT ENVIRONMENT

- Description of the area of influence and environmental baseline conditions including climate, air quality, erosion/flooding patterns (Vulnerability assessment), drainage pattern, water quality (surface and aquifer characteristics), soil, biological aspects: flora and fauna, endemic and endangered species.
- Analysis of socio-economic baseline conditions including livelihoods, economic opportunities, income, gender characteristics, age profile, health, transport access, existing community structures - at community, household, and individual levels

CHAPTER FIVE: POTENTIAL IMPACTS AND MITIGATION

- Methods and techniques used in assessing and analyzing the environmental and social impacts of the proposed project
- Discussion of the potentially significant adverse environmental and social impacts of the proposed project
- Discuss the Climate Change Impact and its Mitigation Measures
- Labour influx
- Description of the GBV risk (including a GBV Action Plan), and more broadly the ESHS expectations, and include appropriate mitigation measures. The basis of the GBV Action Plan should be provided as part of the ESMP.[3]

CHAPTER SIX: GRIEVANCE REDRESS MECHANISM

- Description of grievance redress mechanism (in alignment with the ESMP and Project Implementation Manual) to address situations of conflicts or disagreements about some of the project activities

CHAPTER SEVEN: ENVIRONMENTAL & SOCIAL MANAGEMENT PLAN[4]

- Discussion of the proposed mitigation measures
- ESMP table
- Institutional responsibilities and accountabilities
- Capacity building plan
- Climate Change Adaptation Plan
- Monitoring and evaluation plan, including suitable indicators for the proposed project
- Costs of implementing the ESMP

CHAPTER EIGHT: PUBLIC CONSULTATION

- Public consultation plan
- Presentation of consultations with relevant stakeholders and affected persons

CHAPTER NINE: CONCLUSION AND RECOMMENDATIONS

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APPENDIX 2: SOCIO-ECONOMIC DATA COLLECTION INSTRUMENTS

APPENDIX 3: ATTENDANCE AT COMMUNITY CONSULTATIONS

APPENDIX 4: GENERAL ENVIRONMENTAL MANAGEMENT CONDITIONS FOR CONSTRUCTION CONTRACTS

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APPENDIX 13: SAMPLE CHANCE FIND PROCEDURE FOR THE PROTECTION OF PHYSICAL RESOURCES

APPENDIX 14: SAMPLE OUTLINE FOR SECURITY RISK MANAGEMENT PLAN

ANNEX A LIST OF ROADS 11 nos- Backlog Maintenance/Rehabilitation Roads (85.68km)

S/N	ROAD NAME	LGA	ROAD LENGTH (KM)	LOT
1.	Aku Uru-Obajana Rd	Adavi	19.55	1
2.	Aku Uruku-Odoba Rd	Adavi	2.41	1
3.	Osara-Atami Rd	Adavi	6.59	1
4.	Ayegunle-Olumode-Daji Farm Rd	Kabba-Bunu	4.65	2
5.	Eshi Bunu Junction-Aherin Ape Rd	Kabba-Bunu	4.10	2
6.	Illai-Ife olukotun Rd	Mopa Amuro	24.1	2
7.	Ayingba-Agala Ate Rd	Dekina	4.05	3
8.	Elubi-Etiaja-Ajakwu	Dekina	6.83	3
9.	Odidoko-Ugbamaka-Ugbaja-Oloye	Olamaboro	4.13	3
10.	Ayikpele-Okochobe-Etulobo-Ufugu	Igalamela/Odolu	6.64	3
11.	Adumu Junction-Adum Farm Rd	Idah	2.63	3
		Total	**85.68KM**	

APPENDIX 2 SOCIO ECONOMIC ASSESSMENT INSTRUMENT

SPECIMEN QUESTIONNAIRE ON SOCIO ECONOMIC CHARACTERISTICS OF SETTLEMENT(S)

SECTION A:

1. Project Name…….
2. Date…….
3. Name of community……..
4. Name of local government Area……
5. State……..
6. Name of major community Association……..
7. Names of Executive members of the Association……
8. Functions of Association……..

SECTION B:

HISTORY, TRADITIONAL AND ADMINISTRATIVE STRUCTURE OF COMMUNITY/GROUPS OF COMMUNITIES

9. Is the village part of a clan? Yes/No.
   Name of clan, if yes……
10. Name the ethnic group(s) that founded the village……..

11. When was the village founded?.....
12. Who is the overall/highest traditional and administrative ruler of the community……
    ……..
13. Where does he reside?.....
14. Traditional chiefs of the village/group of villages in order of hierarchy. Provide titles, names and ranks.
15. Is there a council of chiefs? Yes /No.
16. State functions of the council of chiefs
17. Is there an executive council? Yes /No
18. Is there a village head? Yes/No

Name……
Title……..

SECTION C:
CULTURE, RELIGION AND ARCHAEOLOGY

20. Name of shrine/deity Worshipped in the community……..
21. Name of sacred forest and their locations. ……..
22. Religious and social festivals celebrated by the community. ……
23. Name the forest reserve(s) within or near the community……
……..
24. Name lakes……
25. Name rivers……..
26. Name sites of archaeological interest e.g for digging ground to study culture of the area……
27. Name social clubs in community……..
28. Name community based improvement schemes/organizations including community bank or monthly contributions paid per household.
……..
……..
29. Give estimate of religious worshippers in community.

SECTION D: DEMOGRAPHY

30. Give estimate of:
    a. village population
    males…….females……children…….total……
    b. Ethnic population of the community……
31. major crops farmed in community……..
32. Major livestock bred in community…….
33. List the different occupation/employment profile of community and income. What is the percentage/ number of the unemployed in community?.....

SECTION E: INDUSTRIES PRESENT

34. Name companies/industries present in the area. ……
35. Names and location/addresses of estates present in the area……..
36. Names and addresses/location of hotels and guest houses present within or near the community…….
37. Name of bank(s) in or near the community…….

SECTION F: EDUCATION

38. Names, addresses and ownership of educational institutions in the area.

39. Give estimate of literacy level in the community for primary, secondary and tertiary levels…….

SECTION G: INFRASTRUCTURE PROVISION

40. Names and ownership of health facilities in the community…….

41. What are the main health problems? Give % of total population. E.g Aids/HIV, chicken pox, diarrhea, Malaria, leprosy, meningitis, diabetes, pneumonia, skin infection, asthma, pregnancy related, hepatitis, guinea worm infection, round worm infection etc

42. give approximate % of toilet facilities used in community: viz

a. pit toilet …… b. bush …… c. water closet (wc)
d. river. ……
43. What is the general form of houses for people to live in.
* ownership of dwelling: give % of total
i. owned by occupier……
ii. Rented……..
iii. Supplied free by employer…….
44. What is the method of disposal of solid wastes/ garbage?.....
45. Water supply sources……
46. Roads and drainage…….
47. Electricity supply……..
48. Fuel used by households…….

SECTION H: ENVIRONMENTAL IMPACT

49. State how the project will affect your community…….
50. State major environmental problems of the area……

APPENDIX 3 ATTENDANCE AT COMMUNITY CONSULTATIONS

S/N	Name	Telephone No.	S/N	Name	Telephone No.
	Aku Community			**Agala Ate Community**	
	Adamo Ake (Chairman0	08132336350		HRH Chief Friday Obaka Atadoga (Ogohi Ejina Agalaa III	08075680582
	Hassan Ibori (V. Chairman)	08065609735		Dominic Idakwoji (Gago Village Head)	08069603827
	Jimoh Mumuni (Secretary)	08100267750		Rev. Fr. Michael Malladu (Priest, St. Felicity Cath. Church)	07034973459
	Halimat Abocheina (Women Leader)	08169894754		Mrs Abu Comfort (Women Leader)	08135863784
	Isiaka Balogun (Treasurer)	080664772957		Alhaji Mohammed Ichapi	08064604794
	Atami Community			**Elubi Ajakwu Communiuty**	
	Obadaki Abdulrahman (Village Head)	08072146491		Anyebe Sabo (CDA Chairman)	08070624928
	Khadijat Salau (Women Leader)	07053898318		Kadiri Itodo (Beaded Chief)	07052369468
	Saliu Ajagu	08069844226		Mrs Endure Madaki(Women Leader)	07050266755
	Aiyegunle Egun Bunu			Noah Isaac (Youth Leader)	08070624906
	HRH Oba Sunday Omodamori (Trad. Ruler)	08033895437		Abraham Madaki (Village Head)	08070802633
	Segun Ehimode (Youth Leader)	08075920409		**Odidoko Emanyoku Ogugu Community**	
	Helen Bayekwusi (Women Leader)	08036529521		Chief David Amen	09155514419
	Folorunsho Dada (Palace Secretary)	08039415810		Mrs Grace Agbo (Women Leader)	08150959540
	Aduratedo Ape Bunu			Sani Sunday	08110128983
	HRH Olusegun Noah (Olu of Ape)	08078626155		**Ayikpele Egun Bunu Community**	

S/N	Name	Telephone No.	S/N	Name	Telephone No.
	Hon. Mathias Ayodele (Secretary)	09068358937		Alih Isah ((Youth Leader)	08079486214
	Kehinde Comfort Omolade (Women Leader)	08151056839		Mahmud Sani (Gago – Village Head)	No Phone No.
	Illai Community			Rahmatu Sumana (Women Leader)	09051704061
	HRH Oba Samuel Abayomi Ibiloye	08050484853		**Etutobo Ofugo Community**	
	Sesan Pariola (Youth Leader)	08154873637		James Audu (Gago – Village Head)	08037334249
	Roseline Alao (Treasurer)	09057618679		Mrs Amika Agija (Women Leader)	07056601556
	Isaac Adewumi	08057130789		Habib Oshimana (Youth Leader)	08076200393
	Adumu Communiuty			Chief Seidu Mamudu (Madaki)	09155026275
	Sunday Usman (Gago – Village Head)	07053934931		Peter Zekere (Community secretary	08070719235
	Esther Onate (Women Leader)	08116088194			
	Yusuf Ukwubile (Youth Leader)	07051246000			

APPENDIX 4 GENERAL ENVIRONMENTAL MANAGEMENT CONDITIONS FOR CONSTRUCTION CONTRACTS

General

1. In addition to these general conditions, the Contractor shall comply with any specific Environmental and Social Management Plan (ESMP) for the works he is responsible for. The Contractor shall prepare his work strategy and plan to fully take into account relevant provisions of that ESMP. If the Contractor fails to implement the approved ESMP after written instruction by the State Project Implementation Unit (SPIU) to fulfil his obligation within the requested time, the FPMU reserves the right to arrange through the SPIU for execution of the missing action by a third party on account of the Contractor.

2. Notwithstanding the Contractor's obligation under the above clause, the Contractor shall implement all measures necessary to avoid undesirable adverse environmental and social impacts wherever possible, restore work sites to acceptable standards, and abide by any environmental performance requirements specified in an ESMP. In general, these measures shall include but not be limited to:

(a) Minimize the effect of dust on the surrounding environment resulting from earth mixing sites, asphalt mixing sites, dispersing coal ashes, vibrating equipment, temporary access roads, etc. to ensure safety, health and the protection of workers and communities living in the vicinity of dust producing activities.

(b) Ensure that noise levels emanating from machinery, vehicles and noisy construction activities (e.g. excavation, blasting) are kept at a minimum for the safety, health and protection of workers within the vicinity of high noise levels and nearby communities.

(c) Ensure that existing water flow regimes in rivers, streams and other natural or irrigation channels is maintained and/or re-established where they are disrupted due to works being carried out.

(d) Prevent bitumen, oils, lubricants and waste water used or produced during the execution of works from entering into rivers, streams, irrigation channels and other natural water bodies/reservoirs, and also ensure that stagnant water in uncovered borrow pits is treated in the best way to avoid creating possible breeding grounds for mosquitoes.

(e) Prevent and minimize the impacts of quarrying, earth borrowing, piling and building of temporary construction camps and access roads on the biophysical environment including protected areas and arable lands; local communities and their settlements. In as much as possible restore/rehabilitate all sites to acceptable standards.
(f) Upon discovery of ancient heritage, relics or anything that might or believed to be of archaeological or historical importance during the execution of works, immediately report such findings to the SE so that the appropriate authorities may be expeditiously contacted for fulfilment of the measures aimed at protecting such historical or archaeological resources.
(g) Discourage construction workers from engaging in the exploitation of natural resources such as hunting, fishing, and collection of forest products or any other activity that might have a negative impact on the social and economic welfare of the local communities.
(h) Implement soil erosion control measures in order to avoid surface run off and prevents siltation, etc.
(i) Ensure that garbage, sanitation and drinking water facilities are provided in construction workers camps.
(j) Ensure that, in as much as possible, local materials are used to avoid importation of foreign material and long distance transportation.
(k) Ensure public safety, and meet traffic safety requirements for the operation of work to avoid accidents.

3. The Contractor shall indicate the period within which he/she shall maintain status on site after completion of civil works to ensure that significant adverse impacts arising from such works have been appropriately addressed.

4. The Contractor shall adhere to the proposed activity implementation schedule and the monitoring plan / strategy to ensure effective feedback of monitoring information to project management so that impact management can be implemented properly, and if necessary, adapt to changing and unforeseen conditions.

5. Besides the regular inspection of the sites by the SPIU for adherence to the contract conditions and specifications, the FPMU shall appoint an Inspector to oversee the compliance with these environmental conditions and any proposed mitigation measures. State environmental authorities may carry out similar inspection duties. In all cases, as directed by the SPIU, the Contractor shall comply with directives from such inspectors to implement measures required to ensure the adequacy of rehabilitation measures carried out on the bio-physical environment and compensation for socio-economic disruption resulting from implementation of any works.

Worksite/Campsite Waste Management
6. All vessels (drums, containers, bags, etc.) containing oil/fuel/surfacing materials and other hazardous chemicals shall be enclosed in a bund wall in order to contain spillage. All waste containers, litter and any other waste generated during the construction shall be collected and disposed off at designated disposal sites in line with applicable government waste management regulations.

7. All drainage and effluent from storage areas, workshops and camp sites shall be captured and treated before being discharged into the drainage system in line with applicable government water pollution control regulations.
8. Used oil from maintenance shall be collected and disposed off appropriately at designated sites or be re-used or sold for re-use locally.
9. Entry of runoff to the site shall be restricted by constructing diversion channels or holding structures such as banks, drains, dams, etc. to reduce the potential of soil erosion and water pollution.
10. Construction waste shall not be left in stockpiles along the road, but removed and reused or disposed of on a daily basis.

11. If disposal sites for clean spoil are necessary, they shall be located in areas, approved by the SPIU, of low land use value and where they will not result in material being easily washed into drainage channels. Whenever possible, spoil materials shall be placed in low-lying areas and shall be compacted and planted with species indigenous to the locality.

Material Excavation and Deposit

12. The Contractor shall obtain appropriate licenses/permits from relevant authorities to operate quarries or borrow areas.

13. The location of quarries and borrow areas shall be subject to approval by relevant local and national authorities, including traditional authorities if the land on which the quarry or borrow areas fall in traditional land.

14. New extraction sites:

a) Shall not be located in the vicinity of settlement areas, cultural sites, wetlands or any other valued ecosystem component, or on high or steep ground or in areas of high scenic value, and shall not be located less than 1km from such areas.

b) Shall not be located adjacent to stream channels wherever possible to avoid siltation of river channels. Where they are located near water sources, borrow pits and perimeter drains shall surround quarry sites.

c) Shall not be located in archaeological areas. Excavations in the vicinity of such areas shall proceed with great care and shall be done in the presence of government authorities having a mandate for their protection.

d) Shall not be located in forest reserves. However, where there are no other alternatives, permission shall be obtained from the appropriate authorities and an environmental impact study shall be conducted.

e) Shall be easily rehabilitated. Areas with minimal vegetation cover such as flat and bare ground, or areas covered with grass only or covered with shrubs less than 1.5m in height, are preferred.

f) Shall have clearly demarcated and marked boundaries to minimize vegetation clearing.

15. Vegetation clearing shall be restricted to the area required for safe operation of construction work. Vegetation clearing shall not be done more than two months in advance of operations.

16. Stockpile areas shall be located in areas where trees can act as buffers to prevent dust pollution. Perimeter drains shall be built around stockpile areas. Sediment and other pollutant traps shall be located at drainage exits from workings.

17. The Contractor shall deposit any excess material in accordance with the principles of these general conditions, and any applicable ESMP, in areas approved by local authorities and/or the SPIU.

18. Areas for depositing hazardous materials such as contaminated liquid and solid materials shall be approved by the SPIU and appropriate local and/or national authorities before the commencement of work. Use of existing, approved sites shall be preferred over the establishment of new sites.

Rehabilitation and Soil Erosion Prevention

19. To the extent practicable, the Contractor shall rehabilitate the site progressively so that the rate of rehabilitation is similar to the rate of construction.

20. Always remove and retain topsoil for subsequent rehabilitation. Soils shall not be stripped when they are wet as this can lead to soil compaction and loss of structure.

21. Topsoil shall not be stored in large heaps. Low mounds of no more than 1 to 2m high are recommended.

22. Re-vegetate stockpiles to protect the soil from erosion, discourage weeds and maintain an active population of beneficial soil micro-organisms.

23. Locate stockpiles where they will not be disturbed by future construction activities.

24. To the extent practicable, reinstate natural drainage patterns where they have been altered or impaired.

25. Remove toxic materials and dispose of them in designated sites. Backfill excavated areas with soils or overburden that is free of foreign material that could pollute groundwater and soil.
26. Identify potentially toxic overburden and screen with suitable material to prevent mobilization of toxins.
27. Ensure reshaped land is formed so as to be inherently stable, adequately drained and suitable for the desired long-term land use, and allow natural regeneration of vegetation.
28. Minimize the long-term visual impact by creating landforms that are compatible with the adjacent landscape.
29. Minimize erosion by wind and water both during and after the process of reinstatement.
30. Compacted surfaces shall be deep ripped to relieve compaction unless subsurface conditions dictate otherwise.
31. Revegetate with plant species that will control erosion, provide vegetative diversity and, through succession, contribute to a resilient ecosystem. The choice of plant species for rehabilitation shall be done in consultation with local research institutions, forest department and the local people.

Water Resources Management
32. The Contractor shall at all costs avoid conflicting with water demands of local communities.
33. Abstraction of both surface and underground water shall only be done with the consultation of the local community and after obtaining a permit from the relevant Water Authority.
34. Abstraction of water from wetlands shall be avoided. Where necessary, authority has to be obtained from relevant authorities.
35. Temporary damming of streams and rivers shall be done in such a way avoids disrupting water supplies to communities down stream, and maintains the ecological balance of the river system.
36. No construction water containing spoils or site effluent, especially cement and oil, shall be allowed to flow into natural water drainage courses.
37. Wash water from washing out of equipment shall not be discharged into water courses or road drains.
38. Site spoils and temporary stockpiles shall be located away from the drainage system, and surface run off shall be directed away from stockpiles to prevent erosion.

Traffic Management
39. Location of access roads/detours shall be done in consultation with the local community especially in important or sensitive environments. Access roads shall not traverse wetland areas.
40. Upon the completion of civil works, all access roads shall be ripped and rehabilitated.
41. Access roads shall be sprinkled with sufficient water at least five times a day in settled areas, and three times in unsettled areas, to suppress dust emissions.

Blasting
42. Blasting activities shall not take place less than 2km from settlement areas, cultural sites, or wetlands without the permission of the SPIU.
43. Blasting activities shall be done during working hours, and local communities shall be consulted on the proposed blasting times.
44. Noise levels reaching the communities from blasting activities shall not exceed 90 decibels.

Disposal of Unusable Elements
45. Unusable materials and construction elements such as electro-mechanical equipment, pipes, accessories and demolished structures will be disposed of in a manner approved by the SPIU. The Contractor has to agree with the SPIU which elements are to be surrendered to the Client's premises, which will be recycled or reused, and which will be disposed of at approved landfill sites.
46. As far as possible, abandoned pipelines shall remain in place. Where for any reason no alternative alignment for the new pipeline is possible, the old pipes shall be safely removed and stored at a safe place to be agreed upon with the SPIU and the local authorities concerned.

47. AC-pipes as well as broken parts thereof have to be treated as hazardous material and disposed of as specified above.
48. Unsuitable and demolished elements shall be dismantled to a size fitting on ordinary trucks for transport.

Health and Safety
49. In advance of the construction work, the Contractor shall embark upon an awareness and hygiene campaign. Workers and local residents shall be sensitized on health risks particularly of AIDS.
50. Adequate road signs to warn pedestrians and motorists of construction activities, diversions, etc. shall be provided at appropriate points.
51. Construction vehicles shall not exceed maximum speed limit of 40km per hour.

Repair of Private Property
52. Should the Contractor, deliberately or accidentally, damage private property, he shall repair the property to the owner's satisfaction and at his own cost. For each repair, the Contractor shall obtain from the SPIU, a certificate that the damage has been made good satisfactorily in order to indemnify the Client from subsequent claims.
53. In cases where compensation for inconveniences, damage of crops etc. are claimed by the owner, the FPMU has to be informed by the Contractor through the SPIU.

Contractor's Environment, Health and Safety Management Plan (EHS-MP)
54. Within 6 weeks of signing the Contract, the Contractor shall prepare an EHS-MP to ensure the adequate management of the health, safety, environmental and social aspects of the works, including implementation of the requirements of these general conditions and any specific requirements of an EMP for the works. The Contractor's EHS-MP will serve two main purposes:

For the Contractor, for internal purposes, to ensure that all measures are in place for adequate EHS management, and as an operational manual for his staff.

For the Client, supported where necessary by a SE, to ensure that the Contractor is fully prepared for the adequate management of the EHS aspects of the project, and as a basis for monitoring of the Contractor's EHS performance.

55. The Contractor's EHS-MP shall provide at least:

a description of procedures and methods for complying with these general environmental management conditions, and any specific conditions specified in an EMP;

a description of specific mitigation measures that will be implemented in order to minimize adverse impacts;

a description of all planned monitoring activities (e.g. sediment discharges from borrow areas) and the reporting thereof; and

the internal organizational, management and reporting mechanisms put in place for such.
56.The Contractor's EHS-MP will be reviewed and approved by the Client before start of the works. This review should demonstrate if the Contractor's EHS-MP covers all of the identified impacts, and has defined appropriate measures to counteract any potential impacts.

EHS Reporting
57. The Contractor shall prepare bi-weekly progress reports to the SE on compliance with these general conditions, the project EMP if any, and his own EHS-MP. An example format for a Contractor EHS report is portrayed below. It is expected that the
Contractor's reports will include information on:
EHS management actions/measures taken, including approvals sought from local or national authorities;

Problems encountered in relation to EHS aspects (incidents, including delays, cost consequences, etc. as a result thereof); Lack of compliance with contract requirements on the part of the Contractor;

Changes of assumptions, conditions, measures, designs and actual works in relation to EHS aspects; and Observations, concerns raised and/or decisions taken with regard to EHS management during site meetings.

58. It is advisable that reporting of significant EHS incidents be done "as soon as practicable". Such incident reporting shall therefore be done individually. Also, it is advisable that the Contractor keep his own records on health, safety and welfare of persons, and damage to property. It is advisable to include such records, as well as copies of incident reports, as appendixes to the bi-weekly reports. A sample format for an incident notification is shown below. Details of EHS performance will be reported to the Client through the SE's reports to the Client.

Training of Contractor's Personnel

59. The Contractor shall provide sufficient training to his own personnel to ensure that they are all aware of the relevant aspects of these general conditions, any project EMP, and his own EHS-MP, and are able to fulfill their expected roles and functions. Specific training should be provided to those employees that have particular responsibilities associated with the implementation of the EHS-MP. General topics should be:
    EHS in general (working
    procedures); emergency
    procedures; and

social and cultural aspects (awareness raising on social issues).

Cost of Compliance

60.It is expected that compliance with these conditions is already part of standard good workmanship and state of art as generally required under this Contract. The item "Compliance with Environmental Management Conditions" in the Bill of Quantities covers this cost. No other payments will be made to the Contractor for compliance with any request to avoid and/or mitigate an avoidable EHS impact.

3. **Example Format: EHS Report**

Contract: **Period of reporting:**

EHS management actions/measures:

Summarize EHS management actions/measures taken during period of reporting, including planning and management activities (e.g. risk and impact assessments), EHS training, specific design and work measures taken, etc.

EHS incidents:

Report on any problems encountered in relation to EHS aspects, including its consequences (delays, costs) and corrective measures taken. Include relevant incident reports.

EHS compliance:

Report on compliance with Contract EHS conditions, including any cases of non-compliance.

Changes:

Report on any changes of assumptions, conditions, measures, designs and actual works in relation to EHS aspects.

Concerns and observations:

Report on any observations, concerns raised and/or decisions taken with regard to EHS management during site meetings and visits.

Signature (Name, Title Date):

Contractor Representative

4. Example Format: EHS Incident Notification

EHS Incident Notification

Provide within 24 hrs to the Supervising Engineer

Originators Reference No:.....

Date of Incident:..... Time:.....

Location of incident:.....

Name of Person(s) involved:.....
Employing Company:.....
Type of Incident:.....
Description of Incident:
Where, when, what, how, who, operation in progress at the time (only factual)
Immediate Action:
Immediate remedial action and actions taken to prevent reoccurrence or escalation

Signature (Name, Title, Date):.....

APPENDIX 5 WASTE MANAGEMENT PLAN

A sample Waste Management Plan is presented below. Waste management costs will be in line with the measures and budget provided in the ESMP matrix table in Table 22-24

Aspects	Waste Types	classification	Proposed Reuse/Recycling /Disposal
Demolition / Site Clearing	Vegetation (logs, mulched timber, weeds)	General solid waste (non-putrescible)	Beneficial -reuse onsite for erosion and sediment control and landscaping mulch. Offsite re-use as millable timber Weeds buried on site
	Concrete, asphalt and gravel	General solid waste (non-putrescible	Recycling of concrete for use in access tracks, landscape mounds and other applications where suitable. Recycling of asphalt pavement in new asphalt pavement (if applicable)
	Scrap metal	General solid waste (non-putrescible)	Recycling
Bulk Earthworks	ENM (Excavated Natural Material) Potentially Contaminated Soils VENM (Virgin Excavated Natural Material)	If material is taken off site classification will be carried out, based on soil tests carried out pre-construction	Beneficial reuse onsite (such as noise mounds). Balance cut and fill earthworks, where possible, to optimise reuse. Off-site disposal at an approved facility
Road Construction	Steel Reinforcing	General solid waste (non-putrescible)	Recycling
	Conduits and pipes	General solid waste (non-putrescible)	Disposal
	Concrete (solids and washouts) and asphalt	General solid waste (non-putrescible)	Disposal
	Timber formwork	General solid waste (non-putrescible)	Disposal/recycled where applicable
	Packaging Materials, including wood, plastic, cardboard and metals	General solid waste (non-putrescible)	Disposal
	Empty oil and other drums	General solid waste (non-putrescible)	Disposal
	Metals and electrical cabling	General solid waste (non-putrescible	Disposal
Compounds and Workshop Operation	Waste generated by the maintenance of equipment including air and oil filters and rags	General solid waste (non-putrescible)	Disposal
	Tyres	Special waste	Disposal
	Oils, grease, fuel, chemicals and other fluids	Liquid	Recycling/Disposal where applicable
	Batteries	Hazardous waste	Recycling
	Radiator Fluid	Hazardous waste	Disposal

Aspects	Waste Types	classification	Proposed Reuse/Recycling /Disposal
	Hydraulic fluid	Hazardous waste	Disposal
	Domestic waste generated by workers	General solid waste (putrescible)	Disposal
	Sewage	General solid waste (putrescible)	Disposal
Office operation	Paper, cardboard and plastic	General solid waste (non-putrescible)	Recycling
	Glass bottles and aluminium cans	General solid waste (non-putrescible)	Recycling
	Ink cartridges	General solid waste (non-putrescible)	Recycling
	Food Waste	General solid waste	Disposal

**A written record of type, amount, transportation and final disposal site shall be kept to avoid dumping waste in open and on uncertified sites*.*

APPENDIX 6 PROJECT OCCCUPATIONAL HEALTH AND SAFETY (OHS) PLAN

In order to maintain the desired health safety standards, it is necessary to actively pursue an accident prevention program through all levels (from management through all employees). Health and safety are functional responsibilities of each supervisor.

Health and safety are of vital interest to everyone in the company. Compliance with safety and health rules is taken very seriously. This means that failure to comply is sufficient ground for disciplinary action or for termination of employment. The goal is to protect employees from injury while at work. This must receive top priority from everyone.

General Workplace Safety Rules

h) Report unsafe conditions to your immediate supervisor.

i) Promptly report all accidents/injuries/incidents to your immediate supervisor.

j) Use eye and face protection where there is danger from flying objects or particles or from hazardous splashes.

k) Dress properly. Wear appropriate work clothes, gloves, and shoes or boots. Loose clothing and jewellery shall not be worn.

l) Operate machines or other equipment only when all guards and safety devices are in place and in proper operating condition.

m) Keep all equipment in safe working condition. Never use defective tools or equipment. Report any defective tools or equipment to immediate supervisor.

n) Properly care for and be responsible for all personal protective equipment (PPE). Wear or use any such PPE when required.

o) Lockout or tag out or disconnect power on any equipment or machines before any maintenance and adjustments are made.

p) Practice good housekeeping at all times.

q) Training on equipment is required prior to unsupervised operation.

r) Compliance with all governmental regulations/rules and all company safety rules is required.

Inspection Guideline

This listing includes items and categories for health and safety inspections on the job. It provides a guideline of areas to be surveyed or developed into a checklist for use during the inspection.

i. First aid safety and health equipment.

ii. Posters, signs required by Workers' Safety and health and safety practices.
iii. Accident reporting records.
iv. Employee training provided, such as health and safety talks, worker orientation.
v. Protective guards and devices - availability, use, proper maintenance and operating condition.
vi. Housekeeping, maintaining clean work areas free of trash/debris accumulation, tripping and slipping hazards.
vii. Lighting: for adequacy and safety.
viii. Sanitation: water, toilets for cleanliness and proper operation.
ix. Noise hazards, hearing protection.
x. Availability of personal protective equipment: Hard hats/head protection, respirators, fall protection equipment, safety belts, life lines, safety shoes, eye protection, gloves.
xi. Fire protection, prevention and control, use of fire protection equipment.
xii. Temporary buildings, trailers, sheds.
xiii. Open yard storage.
xiv. Storage of flammable and combustible liquids including service and refueling areas for vehicles.
xv. Temporary heating devices.
xvi Fall protection requirements: In place and in use.
xvii. Electrical system and devices; condition and use of cords; ground fault protection or assured grounding conductor protection.
xviii. Materials - handling equipment and elevators..
xix. Hazard communication program and material safety data sheets (MSDS).
xx. Excavations and trenches: protective systems.
xxi Other items as appropriate.

APPENDIX 7 BORROW PIT MANAGEMENT PLAN.

The contractor is also required to prepare a borrow pit management plan which takes account of these activities and follows them through to handing over. These plans need to take account of the potential environmental & social impact and health & safety hazard; including drowning hazards, water-borne disease vectors, impact on local land holdings, land-use and visual impacts.

The borrow pit management plan will include restoration measures for the site after decommissioning, such as removal and stockpiling of topsoil layers. Where borrow pits are to be left open, for their use in regular maintenance programs, the responsibility for their management should be assigned to the government entity / local authority in charge of road maintenance and compliance with the borrow pit management plan monitored.

Stage	Activities and features	Measures/mitigation	Responsibility
Site selection	Complete a preliminary site assessment prior to undertaking excavation	• Outreach to the community leadership (e.g., operation, hazards, restoration) • Written approval from community leadership for use of the proposed site • Liaise with the local community on the option of retaining quarry pits as water collection ponds for watering cattle, irrigating crops or similar uses. Highlight issues of disease transmission and the need to prohibit its use for drinking, bathing, and clothes washing	Contractor
		• When siting borrow pit areas, avoid using sensitive areas or sites that drain directly into a sensitive area • Borrow pits will not be located in wetland or densely vegetated areas	Contractor
		• Test pits/excavations to confirm the quantity and quality of material in the proposed site • Determine presence of any groundwater	Contractor

Stage	Activities and features	Measures/mitigation	Responsibility
		• Map of the location and a plan of the site, including buffer zone, perimeter berm, stockpiles, operational area • Borrow pit design must comply with standards defined (above), • Photographic record of the site in its undisturbed state	Contractor
Excavation Operation	Excavation will consider the following measures	• Ensure that excavation is accompanied by well-engineered drainage • Topsoil is stripped and stockpiled away from other materials and is to be used only for reinstatement, once pit operations are complete • Overburden soil (layer between topsoil and material of interest) to be used as a perimeter berm to direct drainage or stockpiled separately to backfill the pit • Pit excavations maximum 6 metres in depth, with a vertical slope of 2:1 • Excavation below the water table is not permitted • Heavy machinery access and operation • Carry out necessary preliminary geotechnical investigation to confirm the quality and extent of materials. • Carry out hydrological assessment to determine the presence and depth of aquifer. • The contractor shall ensure that topsoil (150m-500m) is stripped and stockpiled at a separate location and preserved for future reclamation activities.	Contractor
	Site access and safety	• Barrier (e.g., warning tape, perimeter berms, fencing) to control or discourage public access to the pit • Install signposts warning of danger and no trespassing, at no more than 50 meters' distance from the pit • Community awareness and outreach on the dangers of borrow pits and that trespassing is prohibited.	Contractor
	Vegetation	• Avoid or reduce to a minimum vegetation clearance • Existing vegetation within the buffer area should provide some visual and physical screening of the pit operations	Contractor
	Water	• If water is required for borrow pit operation, a water extraction point (e.g. borehole) will be established within the site are and will be planned for use by the community once the site is reinstated • Drainage structures or pumping will remove any standing water in the borrow pit. Alternatively any pits with 0.75 metres or more of standing water will be fenced • Overburden soil can be used as a perimeter berm to direct water drainage away from the site • Use drainage features in flatter areas, such as mitre drains and sumps, to remove water from around the road ditches • Community members are not allowed to use water at an active borrow pit, for any purpose	Contractor
	Erosion	• Erosion control measures undertaken in all aspects of the borrow-pit operation, including: reduced slopes, seeding, etc • Protect topsoil stockpiles from wind and water erosion by reducing slopes, using a cover, and/or spraying with water	Contractor
	Dust and noise	• If a rock crusher is used, dust control measures shall be put in place (water truck or sprinklers on crushing equipment) • Vegetation within the buffer area will screen noise of pit operations	Contractor
Reinstatement of Borrow Pits	Reinstatement of borrow pits will be completed prior to handover of the site	• Fill excavated site with suitable materials • Spread topsoil on top of the overburden	Contractor
		• Develop/construct suitable surface slopes, drainage ditches and conduits to prevent water from collecting at the sites • Scarify the borrow pit operational site to encourage vegetation cover • Establish a vegetation cover corresponding to at least 75% of the cover present prior to excavation (supporting photographs) and maintain following the first rains after reinstatement • Minimize erosion by focusing vegetation cover on side slopes of the excavated area • Any required seeding will make use of local plant varieties	Contractor
Review	Ensure the Borrow pit management plan implementation	• Review borrow pit management / monitoring reports • Review reinstated borrow pit areas prior to handover of completed road sections • Engage local community authorities to take responsibility for long-term borrow pits in their areas • Ensure that the responsibility for management of borrow pits left open is assigned to	PIU

Stage	Activities and features	Measures/mitigation	Responsibility
		the government entity / local authority • Verify conformance with Borrow Pit Management Plan	

APPENDIX 8 TRAFFIC MANAGEMENT PLAN

Design and layout of Road Systems

The Site Manager & Employed Staff Must: -

a) Plan traffic routes to give the safest route between places within the project route

b) Make traffic routes wide enough for safe movement of the largest vehicle using them.

c) Ensure all drops and falls are adequately protected.

d) Avoid traffic routes passing close to vulnerable areas such as fuel tanks.

e) Ensure there are designated safe areas for loading, unloading and plant maintenance.

f) Avoid sharp corners or blind bends, if these cannot be avoided install mirrors.

g) Road crossings and junctions, should be clearly signed and marked.

h) Make entrances and gates wide enough.

i) Set speed limits and clearly mark on traffic routes; (5mph).

j) Give prominent warning of limited headroom and overhead cables.

Deliveries

Deliveries will not be permitted between the hours of 07:00 – 09:30 and 15:30-19:00 respectively. This information MUST be transmitted to all sub-contractors.

Pedestrians

For pedestrians the Site Manager & employed staff will:

a) Provide separate routes for pedestrians and where needed provide suitable barriers.

b) If traffic routes are used by both they should be wide enough.

c) Provide suitable well marked crossing points.

Signage

All signage wherever possible should be of standard road traffic sign design to avoid confusion.

a) Suitable warning signs should indicate potential hazards on traffic routes. This will include road junctions, sharp bends, crossings, blind corners and steep gradients.

b) Similar signs may be necessary to inform pedestrians of potential hazards.

c) Where signs need to be visible at night, they will need to be illuminated and / or reflectorized.

Control of Traffic Movements on/off site

• Designated competent persons will be tasked with the role of Traffic Marshall. These Marshalls will be responsible for the management of traffic movements on and off of site. They will ensure the interface between the site vehicles and the public is controlled.

• All Traffic movements will be booked to site by the project manager and the site TMP will be communicated to the drivers.

• Traffic Marshalls will be distinguishable from other trades by way of their labelled PPE. Their job role will be written on their 'hi' visibility vests or jackets.

Emergency Action Plan

• In case of a fire or other serious emergency on the site vehicles are to be left, in their current positions and all staff, visitors, site users, are to walk to the designated emergency meeting point, standing clear of the road way ensuring not to delay access by the emergency services.

• The Site Manager and Health and Safety Manager or Officer will monitor the vehicle movements on site reporting any near misses that may occur.
• Where near misses are noted. Then the Health and Safety Manager/Officer will review the traffic management plan and make necessary changes.
The contractor shall ensure that all construction activities are performed in accordance with the approved Traffic Management Plan.

APPENDIX 9 CODE OF CONDUCT FOR GENDER BASED VIOLENCE

Company's Code of Conduct

Preventing Gender Based Violence and Violence Against Children

The company is committed to creating and maintaining an environment in which gender-based violence (GBV) and violence against children (VAC) have no place, and where they will not be tolerated by any employee, associate, or representative of the company. Therefore, in order to ensure that all those engaged in the project are aware of this commitment, and in order to prevent, be aware of, and respond to any allegations of GBV and VAC, the company commits to the following core principles and minimum standards of behavior that will apply to all company employees, associates, and representatives including sub-contractors, without exception:

The company—and therefore all employees, associates, and representatives—commit to treating women, children (persons under the age of 18), and men with respect regardless of race, color, language, religion, political or other opinion, national, ethnic or social origin, property, disability, birth or other status. Acts of GBV and VAC are in violation of this commitment.

Demeaning, threatening, harassing, abusive, culturally inappropriate, or sexually provocative language and behavior are prohibited among all company employees, associates, and its representatives.

Acts of GBV or VAC constitute gross misconduct and are therefore grounds for sanctions, which may include penalties and/or termination of employment. All forms of GBV and VAC, including grooming are unacceptable, regardless of whether they take place on the work site, the work site surroundings, at worker's camps or at worker's homes.

In addition to company sanctions, legal prosecution of those who commit acts of GBV or VAC will be pursued if appropriate.

Sexual contact or activity with children under 18—including through digital media—is prohibited. Mistaken belief regarding the age of a child is not a defense. Consent from the child is also not a defense or excuse.

Sexual favors—for instance, making promises or favorable treatment dependent on sexual acts—or other forms of humiliating, degrading or exploitative behavior are prohibited.

Unless there is full consent5 by all parties involved in the sexual act, sexual interactions between the company's employees (at any level) and members of the communities surrounding the workplace are prohibited. This includes relationships involving the withholding/promise of actual provision of benefit (monetary or non-monetary) to community members in exchange for sex—such sexual activity is considered "non-consensual" within the scope of this Code.

All employees, including volunteers and sub-contractors are highly encouraged to report suspected or actual acts of GBV and/or VAC by a fellow worker, whether in the same company or not. Reports must be made in accordance with GBV and VAC Allegation Procedures.

5 Consent is defined as the informed choice underlying an individual's free and voluntary intention, acceptance or agreement to do something. No consent can be found when such acceptance or agreement is obtained through the use of threats, force or other forms of coercion, abduction, fraud, deception, or misrepresentation. In accordance with the United Nations Convention on the Rights of the Child, the World Bank considers that consent cannot be given by children under the age of 18, even in the event that national legislation of the country into which the Code of Conduct is introduced has a lower age. Mistaken belief regarding the age of the child and consent from the child is not a defense.

Managers are required to report suspected or actual acts of GBV and/or VAC as they have a responsibility to uphold company commitments and hold their direct reports responsible.

To ensure that the above principles are implemented effectively the company commits to ensuring that:

All managers sign the 'Manager's Code of Conduct' detailing their responsibilities for implementing the company's commitments and enforcing the responsibilities in the 'Individual Code of Conduct'.

All employees sign the project's 'Individual Code of Conduct' confirming their agreement not to engage in activities resulting in GBV or VAC.

Displaying the Company and Individual Codes of Conduct prominently and in clear view at workers' camps, offices, and in in public areas of the work space. Examples of areas include waiting, rest and lobby areas of sites, canteen areas, health clinics.

Ensure that posted and distributed copies of the Company and Individual Codes of Conduct are translated into the appropriate language of use in the work site areas as well as for any international staff in their native language.

An appropriate person is nominated as the company's 'Focal Point' for addressing GBV and VAC issues, including representing the company on the GBV and VAC Compliance Team (GCCT) which is comprised of representatives from the client, contractor(s), the supervision consultant, and local service provider(s).

Ensuring that an effective Action Plan is developed in consultation with the GCCT which includes as a minimum:

GBV and VAC Allegation Procedure to report GBV and VAC issues through the project Grievance Redress Mechanism (GRM);

Accountability Measures to protect confidentiality of all involved; and,

Response Protocol applicable to GBV and VAC survivors and perpetrators.

That the company effectively implements the Action Plan, providing feedback to the GCCT for improvements and updates as appropriate.

All employees attend an induction training course prior to commencing work on site to ensure they are familiar with the company's commitments and the project's GBV and VAC Codes of Conduct.

All employees attend a mandatory training course once a month for the duration of the contract starting from the first induction training prior to commencement of work to reinforce the understanding of the project's GBV and VAC Code of Conduct.

I do hereby acknowledge that I have read the foregoing Company Code of Conduct, and on behalf of the company agree to comply with the standards contained therein. I understand my role and responsibilities to prevent and respond to GBV and VAC. I understand that any action inconsistent with this Company Code of Conduct or failure to take action mandated by this Company Code of Conduct may result in disciplinary action.

Company name: _____

Signature: _____

Printed Name: _____

Title: _____

Date: _____

Manager's Code of Conduct

Preventing Gender Based Violence and Violence Against Children

Managers at all levels have particular responsibilities to uphold the company's commitment to preventing and addressing GBV and VAC. This means that managers have an acute responsibility to create and maintain an environment that prevents GBV and VAC. Managers need to support and promote the implementation of the Company Code of Conduct. To that end, managers must adhere this Manager's Code of Conduct and also sign the Individual Code of Conduct. This commits them to

supporting and developing systems that facilitate the implementation of the Action Plan and maintain a GBV-free and VAC-free environment at the workplace and in the local community. These responsibilities include but are not limited to:

Implementation

To ensure maximum effectiveness of the Company and Individual Codes of Conduct:

Prominently displaying the Company and Individual Codes of Conduct in clear view at workers' camps, offices, and in in public areas of the workspace. Examples of areas include waiting, rest and lobby areas of sites, canteen areas, health clinics.

Ensuring all posted and distributed copies of the Company and Individual Codes of Conduct are translated into the appropriate language of use in the work site areas as well as for any international staff in their native language.

Verbally and in writing explain the Company and Individual Codes of Conduct to all staff.

Ensure that:

All direct reports sign the 'Individual Code of Conduct', including acknowledgment that they have read and agree with the Code of Conduct.

Staff lists and signed copies of the Individual Code of Conduct are provided to the GCCT and the client.

Participate in training and ensure that staff also participate as outlined below.

Staff are familiar with the Grievance Redress Mechanism (GRM) and that they can use it to anonymously report concerns of GBV or VAC incidents.

Staff are encouraged to report suspected or actual GBV or VAC through the GRM by raising awareness about GBV and VAC issues, emphasizing the staff's responsibility to the Company and the country hosting their employment, and emphasizing the respect for confidentiality.

In compliance with applicable laws and to the best of your abilities, prevent perpetrators of sexual exploitation and abuse from being hired, re-hired or deployed. Use background and criminal reference checks for all employees.

Ensure that when engaging in partnership, sub-contractor or similar agreements, these agreements:

Incorporate the GBV and VAC Codes of Conduct as an attachment.

Include the appropriate language requiring such contracting entities and individuals, and their employees and volunteers, to comply with the Individual Codes of Conduct.

expressly state that the failure of those entities or individuals, as appropriate, to take preventive measures against GBV and VAC, to investigate allegations thereof, or to take corrective actions when GBV or VAC has occurred, shall constitute grounds for sanctions and penalties in accordance with the Individual Codes of Conduct.

Provide support and resources to the GCCT to create and disseminate internal sensitization initiatives through the awareness-raising strategy under the Action Plan.

Ensure that any GBV or VAC issue warranting police action is reported to the client and the World Bank immediately.

Training

All managers are required to attend an induction manager training course prior to commencing work on site to ensure that they are familiar with their roles and responsibilities in upholding the GBV and VAC Codes of Conduct. This training will be separate from the induction training course required of all employees and will provide managers with the necessary understanding and technical support needed to begin to develop the Action Plan for addressing GBV and VAC issues.

Ensure that time is provided during work hours and that staff attend the mandatory project facilitated induction training on GBV and VAC required of all employees prior to commencing work on site.

Ensure that staff attend the monthly mandatory refresher training course required of all employees to combat increased risk of GBV and VAC during civil works.

Managers are required to attend and assist with the project facilitated monthly training courses for all employees. Managers will be required to introduce the trainings and announce the self-evaluations.

Collect satisfaction surveys to evaluate training experiences and provide advice on improving the effectiveness of training.

Response

Managers will be required to provide input to the GBV and VAC Allegation Procedures and Response Protocol developed by the GCCT as part of the final cleared Action Plan.
Once adopted by the Company, managers will uphold the Accountability Measures set forth in the Action Plan to maintain the confidentiality of all employees who report or (allegedly) perpetrate incidences of GBV and VAC (unless a breach of confidentiality is required to protect persons or property from serious harm or where required by law).
If a manager develops concerns or suspicions regarding any form of GBV or VAC by one of his/her direct reports, or by an employee working for another contractor on the same work site, s/he is required to report the case using the GRM.
Once a sanction has been determined, the relevant manager(s) is/are expected to be personally responsible for ensuring that the measure is effectively enforced, within a maximum timeframe of 14 days from the date on which the decision to sanction was made.
Managers failing to report or comply with such provision can in turn be subject to disciplinary measures, to be determined and enacted by the company's CEO, Managing Director or equivalent highest-ranking manager. Those measures may include:
Informal warning.
Formal warning.
Additional Training.
Loss of up to one week's salary.
Suspension of employment (without payment of salary), for a minimum period of 1 month up to a maximum of 6 months.
Termination of employment.
Ultimately, failure to effectively respond to GBV and VAC cases on the work site by the company's managers or CEO may provide grounds for legal actions by authorities.
I do hereby acknowledge that I have read the foregoing Manager's Code of Conduct, do agree to comply with the standards contained therein and understand my roles and responsibilities to prevent and respond to GBV and VAC. I understand that any action inconsistent with this Manager's Code of Conduct or failure to take action mandated by this Manager's Code of Conduct may result in disciplinary action.

Signature: _____
Printed Name: _____
Title: _____
Date: _____

Individual Code of Conduct

Preventing Gender Based Violence and Violence Against Children

I, _____, acknowledge that preventing gender-based violence (GBV) and violence against children (VAC) is important. The company considers that GBV or VAC activities constitute acts of gross misconduct and are therefore grounds for sanctions, penalties or potential termination of employment. All forms of GBV or VAC are unacceptable be it on the work site, the work site surroundings, or at worker's camps. Prosecution of those who commit GBV or VAC may be pursued if appropriate.
I agree that while working on the project I will:
Consent to police background check.
Treat women, children (persons under the age of 18), and men with respect regardless of race, color, language, religion, political or other opinion, national, ethnic or social origin, property, disability, birth or other status.

Not use language or behavior towards women, children or men that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate.
Not participate in sexual contact or activity with children—including grooming or contact through digital media. Mistaken belief regarding the age of a child is not a defense. Consent from the child is also not a defense or excuse.
Not engage in sexual favors—for instance, making promises or favorable treatment dependent on sexual acts—or other forms of humiliating, degrading or exploitative behavior.
Unless there is the full consent6 by all parties involved, I will not have sexual interactions with members of the surrounding communities. This includes relationships involving the withholding or promise of actual provision of benefit (monetary or non-monetary) to community members in exchange for sex—such sexual activity is considered "non-consensual" within the scope of this Code.
Attend and actively partake in training courses related to HIV/AIDS, GBV and VAC as requested by my employer.
Consider reporting through the GRM or to my manager any suspected or actual GBV or VAC by a fellow worker, whether employed by my company or not, or any breaches of this Code of Conduct.

With regard to children under the age of 18:

Wherever possible, ensure that another adult is present when working in the proximity of children.
Not invite unaccompanied children unrelated to my family into my home, unless they are at immediate risk of injury or in physical danger.
Not sleep close to unsupervised children unless absolutely necessary, in which case I must obtain my supervisor's permission, and ensure that another adult is present if possible.
Use any computers, mobile phones, or video and digital cameras appropriately, and never to exploit or harass children or to access child pornography through any medium (see also "Use of children's images for work related purposes" below).
Refrain from physical punishment or discipline of children.
Refrain from hiring children for domestic or other labour which is inappropriate given their age or developmental stage, which interferes with their time available for education and recreational activities, or which places them at significant risk of injury.
Comply with all relevant local legislation, including labour laws in relation to child labour.
Use of children's images for work related purposes
When photographing or filming a child for work related purposes, I must:
Before photographing or filming a child, assess and endeavour to comply with local traditions or restrictions for reproducing personal images.
Before photographing or filming a child, obtain informed consent from the child and a parent or guardian of the child. As part of this I must explain how the photograph or film will be used.
Ensure photographs, films, videos and DVDs present children in a dignified and respectful manner and not in a vulnerable or submissive manner. Children should be adequately clothed and not in poses that could be seen as sexually suggestive.
Ensure images are honest representations of the context and the facts.
Ensure file labels do not reveal identifying information about a child when sending images electronically.

Sanctions

6 Consent is defined as the informed choice underlying an individual's free and voluntary intention, acceptance or agreement to do something. No consent can be found when such acceptance or agreement is obtained through the use of threats, force or other forms of coercion, abduction, fraud, deception, or misrepresentation. In accordance with the United Nations Convention on the Rights of the Child, the World Bank considers that consent cannot be given by children under the age of 18, even in the event that national legislation of the country into which the Code of Conduct is introduced has a lower age. Mistaken belief regarding the age of the child and consent from the child is not a defense.

I understand that if I breach this Individual Code of Conduct, my employer will take disciplinary action which could include:
Informal warning.
Formal warning.
Additional Training.
Loss of up to one week's salary.
Suspension of employment (without payment of salary), for a minimum period of 1 month up to a maximum of 6 months.
Termination of employment.
Report to the police if warranted.

I understand that it is my responsibility to avoid actions or behaviors that could be construed as GBV or VAC or breach this Individual Code of Conduct. I do hereby acknowledge that I have read the foregoing Individual Code of Conduct, do agree to comply with the standards contained therein and understand my roles and responsibilities to prevent and respond to GBV and VAC. I understand that any action inconsistent with this Individual Code of Conduct or failure to take action mandated by this Individual Code of Conduct may result in disciplinary action and may affect my ongoing employment.

Signature: _____
Printed Name: _____
Title: _____
Date: _____

APPENDIX 10 SAMPLE CAMP MANAGEMENT PLAN

The Workers Camp Site Management Plan for the project should address specific activity that will be undertaken to minimize the impacts resulting from siting a workers camp on the local project communities. Elements for managing risks associated with the Workers Campsite under the proposed project include:

- The Contractor shall ensure to site workers camp at a designated location approved by the SPIU
- **On-site Social and Health Care Facilities:** Provision of basic on-site social and medical facilities such as first aid, basic health care center, recreational center, food service, etc. in order to reduce pressure on community facility
- **Campsite Safety and Security:** Provision of 24 hours security stationed at the Campsite to ensure the security and safety of construction workforce and construction equipment
- **Campsite Waste Management:** Adequate waste management of sewage and other forms of waste within the campsite. The Campsite shall be equipped with independent toilet facilities for male and female workers respectively, in order to discourage irregular waste disposal. Furthermore, standards must be instituted for personal and public hygiene among project workers. Additionally, project workers shall be properly trained on personal hygiene
- **Establishment of and Training on Workers on Code of Conduct:** The Supervising Engineer and Safeguards Unit shall ensure that Contractors establish a workers' Code of Conduct (CoC). The CoC will help mitigate some of the social and environmental impacts of labour influx such as risk of social conflict, Increased risk of illicit behaviour and crime, Increased burden on and competition for public service provision, Wastewater discharges, Increased demand on freshwater resources, and Inadequate waste disposal and illegal waste disposal sites etc., will help keep workers (local/foreign)

in check on the rules and regulations binding their engagement. Contractors to ensure provision of training to workforce on code of conduct and ensure strict compliance. Measures provided for in the ESMP to deter illicit behaviour and other social vices are adequately enforced

- **Training programs:** Conduct and ensure key staff, including contractors, receive training regarding the likelihood, significance and management of influx-related issues such as HIV/AIDS, GBV, SEA, VAC etc.
- **Carry out Regular Monitoring:** The SPIU shall monitor for change throughout the project cycle to ensure compliance and on mitigation effectiveness from projects/contractors. Ensure a documented monitoring program that tracks key social outcomes, changes and issues at regular intervals throughout the project lifecycle

Management and Monitoring

Aspect	Potential Impact	Mitigation & Management	Monitoring	Frequency	Responsibility
Community Relations	Unauthorised movements of construction workers (during and after working hours) could result in trespassing, damage to local land and property and create amongst local residents a sense of their privacy being invaded. Residents may feel vulnerable and there may be increasing incidents of crime and or violence (GBV etc) and threats to the safety of community members. Disparity of pay, increase in disposable income and potential availability of illegal substances, illicit or culturally inappropriate lifestyle choices, leading to increased tension between local	1. Contractor shall enforce a 'closed' camp policy unless otherwise agreed and approved by Company. Workers will comply with the agreed camp closure hours. 2. Contractor shall implement suitable measures to maintain the closed camp policy which may include perimeter security fences, security controls and guard houses, monitoring transfer of goods into and out of camps for contraband and stolen goods. Contractor should refer to the Project Security Management Plan. 3. Contractor, as appropriate, shall	Monitoring Verification Verification Verification Notification Verification Verification Verification Verification	On-going Every 3 months Every 6 months On-going On-going On-going Every 3 months On-going Every 3 months	1. Contractor 2. Contractor 3. Contractor 4. Contractor 5. Contractor and FPMU/SPIU 6. Contractor and FPMU/SPIU 7. Contractor and FPMU/SPIU 8. Contractor and FPMU/SPIU 9. Contractor and FPMU/SPIU

	communities and the workers at camps.	provide adequate recreation facilities for workers to reduce incentive for leaving camps during leisure time. 4. Contractor shall limit workers interaction with the community when outside the camp e.g., by organising transport directly to and from the worksite. 5. If community members or local businesses express grievances in relation to camp related activities/operations, the Project shall respond to the grievance in accordance with the Grievance Redress Mechanism contained in the ESMF. 6. FPMU/SPIU may request that camp related activities/operations be amended to address community grievances. Contractor shall comply with these requests. 7. Workers shall abide by camp rules which include a disciplinary process to be developed by the contractor once appointed. 8. The Project shall, be cognisant of			

		the environment in which it works and shall, where practicable, respect local cultural events such as religious events, funerals and the like. 9. The Project shall provide training to all workers on camp management including: a. A briefing on camp rules, including closed camp policy, behaviour between fellow workers and the community; b. Procedures for dealing with camp related complaints, worker issues and community issues and c. Community relations orientation. The objective of this orientation will be to increase awareness about the local area and cultural sensitivities.			
Health	Potential interaction between workers, persons engaged in illicit activities and the community increases the risk of spreading communicable diseases,	1. Contractor shall comply with the Minimum Health Requirements for Project Execution and the Community Health and Safety Management Plan which set out requirements and management	Verification	1. Every three months 2. On-going 3. Every three months	Contractor

	particularly in more remote communities. Camp operations have the potential to develop favourable conditions for pests and disease, which could impact the health of workers and the community, as well as affect community livelihoods (e.g. rodent infestation affecting crops).	measures on controlling communicable diseases within camps and to outside communities 2. Contractor shall enforce the closed camp policy to limit interaction with community 3. The Contractor shall develop a Pathogen and Pest Management Plan to prevent pathogens and pests from entering the camps and spreading outside the camps. 4. Posters and informational sessions will be conducted to raise awareness among the workforce and communities locally around the worker camps.			
Waste management, pollution and environmental impacts	Camp has the potential to have off site pollution impacts from waste disposal, emissions and spills. Camp operations may also cause environmental issues including deteriorating water quality, erosion, sedimentation, noise and air quality issues. These factors have the potential to affect the community if not adequately managed.	1. Contractor shall exercise all reasonable due diligence to conduct its operations in a manner that will minimize pollution. 2. Contractor shall comply with the Waste Management Plan and Hazardous Materials Management Plan which define requirements to contain, transport, handle and dispose of camp wastes and hazardous materials to avoid impacts to human	4. Verification 5. Verification 6. Notification	On-going	Contractor

		health and the environment. 3. Contractor shall also apply appropriate mitigation measures as contained in this ESMF.			
Community resources	• Any infrastructure, services or resources used by camps (e.g. water abstraction) that result in reductions/ shortage/interruptions for the local community will have a negative impact. • There is potential for social envy and increased resentment from the community towards the Project and project team if camp facilities are perceived to be superior to those in the community. Services of note include camp health facilities, power supply, clean running water. Restricted ability to access these services may increase frustration at the level of the services available to them.	1. Contractor shall utilise water sources for camp use in a manner that minimises impacts on local supply and use. Where necessary, water supply should be sought outside of the community source(s). 2. The Project shall routinely monitor quality and supply of water source used by camp through quarterly sampling exercises. 3. Contractors shall be encouraged to extend Corporate Social Responsibility projects to host communities.	6. Verification 7. On-going 8. Verification	1. Prior to establishing the camps 2. Every 3 months 3. Annual	2. Contractor 3. Contractor 4. Contractor & SPIU

Procurement and supply of goods	Increased demand for food and other provisions may deplete natural resources e.g. agriculture, fisheries, etc. potentially causing shortages of supply in the local community, and/or increasing the price of goods, affecting affordability for local communities.	The Project shall not purchase products in the local community unless through formal contracts with approved suppliers.	Verification	On-going	Contractor
Camp location	• Siting of camps may result in displacement of residents, loss of productive lands and the resources upon these lands. Camps may also restrict or impede access to areas for the local community. • Construction camps may result in a noticeable increase in traffic, noise, air emissions and light intrusion which could negatively affect the amenity and lifestyle of nearby communities and pose a potential safety issue.	1. Potential camp locations will be selected in consultation with FPMU/SPIU and affected communities will be subsequently consulted. Necessary permits will be obtained from the relevant Local Authorities for the approved camp location. 2. The Project shall refer to those Environmental & Social Management Plan's (ESMP) that include mitigation/avoidance measures that relate to the local community, including: • Noise and Vibration Management Plan; • Air Emissions Management Plan; and • Waste Management Plan.		1. Prior to establishing the camp 2. On-going	Contractor and/or Company
Labour Influx	There is a likelihood of influx	• Contractor shall enforce a 'closed'	Verification	On-going	Contractor and FPMU/SPIU

	of non local labour into areas around the construction camps. However, people from outside of the local area may migrate into existing settlements or develop new settlements in proximity to camps and the Project area. Labour Influx can result in disputes and sometimes violence between the new settlers and the resident community. Migrants moving into existing settlements may increase demand and inflate prices for housing, goods and services. Increased population and development of new and uncontrolled settlements increase pressure on infrastructure, services and resources. Major labour influx related risks include workers' sexual relations with minors and resulting pregnancies, presence of sex workers in the community, the spread of HIV/AIDS,	camp policy. This is intended to deter individuals setting up near camp. • Contractor shall develop a Labour Influx Management Plan. • Contractor is to coordinate with Local government to ensure that no illegal and unsafe settlements develop. • Contractor shall eview and ensure adherence to labour influx management plan.			

	sexual harassment of female employees, child labour and abuse, increased drop out rates from school, poor labour practice and lack of road safety.				
Worker welfare and living conditions	Construction workers living in camps may encounter stresses and discomforts that negatively impact their health and welfare. These stressors or discomforts may be caused by Poor living conditions (accommodation, ablution and sanitary, health, recreation catering and laundry).	Contractor shall comply with minimum standards for camp buildings, facilities and services in line with the Bank standard or as contained in the Project Invitation to Tender (ITT) requirements.	Verification	On-going	Contractor
	Cultural issues (nationality, religion, discrimination, GBV and harassment, etc.).	• Contractor shall ensure that applicable ESMF mitigation measures for specific issues are applied. • Contractor may provide prayer rooms and other facilities, as necessary and to the extent practicable, to satisfy the religious needs and customs of its workforce. • Contractor's personnel shall not engage in any discrimination, GBV, SEA or harassing behaviour. Contractor shall establish an Equal	Verification	On-going	Contractor

		Opportunity Policy to promote non-discrimination in accordance with Labour and Worker Conditions Management Plan. • Contractor shall implement a worker grievance procedure to address grievances between workers. .			
	Mental health issues (morale, isolation, family attachments, boredom).	1. Camps will be treated as closed camps. Camp rules in relation to alcohol consumption and drug prohibition will be complied with. 2. Contractor shall provide recreational facilities where practicable. 3. Contractor will provide counselling for all workers, with no discrimination by race, sex or religion.	Verification	1. On-going 2. Every 6 months	Contractor
	Personal security (crime, and emergencies).	• Camps will be controlled by security to avoid intrusions from outside community. • Work Site Security Plan to be developed by Contractor shall include security measures to be provided at the camps which may include fencing, locks, alarms, pass card systems, badge and pass system, access points, safe transport of personnel as	Verification	Prior to establishing camp	Contractor

		appropriate. • Contractor shall develop an Emergency Response Plan that meets requirements set out in ITT package			
	Environmental stress (climate, noise etc.).	Contractor shall comply with Minimum Health requirements for Project Execution including the following: • Accommodation will be designed to suit climatic conditions; • Accommodation and surroundings shall be constructed so that noise does not interfere with sleep to the extent that is reasonably practicable; and • Health and hygiene inspections shall be carried out.	Verification	On-going	Contractor
Decommissioning	Decommissioning of camps has several potential impacts: • Local employment and provision of local goods and services at camps will no longer be required; • Locals employed and previously accommodated in camps will no longer have access to services and benefits available at camps (e.g. health services, recreation facilities); and	• Contractor is to follow retrenchment procedure contained in Labour and Worker Conditions Management Plan (if available) • Where Community requests, some infrastructure and services may be retained as advised by the FPMU and the World Bank: ○ Disturbed areas will be reinstated; ○ Where practicable, Contractor will	Verification	On-going	Contractor and FPMU/SPIU

	• Infrastructure which provides benefits to communities may no longer be maintained (e.g. roads, camp boreholes) and may be decommissioned and removed.	return camp areas to former landforms; ○ No facilities will be maintained in or near especially environmentally or socially sensitive areas; and ○ Where there are negative consequences of induced access, the facility will also be decommissioned, and the area reinstated.			

APPENDIX 11 LABOUR INFLUX MANAGEMENT PLAN

This plan identifies labour requirements and sets out the procedures for addressing labour conditions and risks associated with the proposed project, which is aimed at helping Kogi State RAAMP to determine the resources necessary to address project labour issues.

Sub-Category	Worker Impacts\Risks	Project Impacts\Risks	Mitigation Measures	Monitoring	Monitoring Frequency	Responsibility
Employment	Influx of many foreigners into project community	Competition on livelihood and job opportunity with locals	60% of unskilled labour shall be from the project community. Where possible qualified skilled workers on contract shall also be sourced within the community	Verify	Onset of Project and bi-weekly	ESO; SSO
Housekeeping.	The general appearance of the camp deteriorates making camp life unpleasant.	The overall camp experience is compromised which in turn leaves workers demoralised and unproductive.	Ensure that camp grounds and common areas are routinely cleaned and organised with appropriate signage in place, and that grounds are maintained (e.g., grassed areas are regularly mown). Establish easily	Verify	Monthly	ESO; SSO

Sub-Category	Worker Impacts\Risks	Project Impacts\Risks	Mitigation Measures	Monitoring	Monitoring Frequency	Responsibility
			accessible, designated smoking areas which are clearly highlighted and regularly cleaned.			
Recreation.	Workers spend most of their time in the camps and could become disenchanted and bored. They may want to leave the camps and go into the local towns and villages in search of recreation.	Tensions arise from the local communities as workers impact their activities in search of recreation. An increase in alcohol consumption and prostitution could result due to the influx of workers into local communities.	Provide appropriate recreational facilities and activities. These should be discussed with the camp residents committee.	Assessment	Quarterly	ESO; SSO
Spiritual /Religion.	Workers will want access to places of worship for their chosen religion. They may leave the camps and go into the local towns and villages in search of an appropriate place of worship.	Tensions arise from the local communities as workers impact their activities.	Provide appropriate places of worship where residents express a need for this in accordance with cultural sensitivities, and assess transport arrangements on a case-by-case basis. Ensure that equipment and facilities are kept clean and well maintained.	Assessment	Quarterly	ESO; SSO

Sub-Category	Worker Impacts\Risks	Project Impacts\Risks	Mitigation Measures	Monitoring	Monitoring Frequency	Responsibility
Security.	Inconsistent and aggressive behaviour of security personnel towards workers can result in tensions and conflict in the workplace and a perception of human rights abuses.	Insufficient training and control of security personnel can lead to the inappropriate use of force, while protecting Project workers and assets, or inappropriate behaviour towards local populations, resulting in human rights claims.	Ensure that camp security personnel meet at least the following requirements: • Have not been implicated in past abuses • Are trained in appropriate conduct towards workers and community members including: o Exercising constraint and caution and understand how force may be used o Respecting human rights o Behaving consistently o Knowing and abiding by applicable laws o Fostering good community relations through their interaction and behaviour towards the workforce and communities	Assessment	Quarterly	ESO; SSO
Community relations.	Communities are negatively impacted by camp activities: noise, waste, traffic, lighting and so forth. This may result in negative actions towards camp	Workers are stopped from going to work, which affects productivity.	Implement control measures to avoid and minimise the impacts of camp and living conditions on communities. Limit foreign worker interaction with communities	Assessment	Quarterly	ESO; SSO

Sub-Category	Worker Impacts\Risks	Project Impacts\Risks	Mitigation Measures	Monitoring	Monitoring Frequency	Responsibility
	operations such as road closures and the prevention of workers or suppliers from entering the worksite.		and provide cultural sensitivity awareness training to facilitate appropriate interaction with communities.			

APPENDIX 12 COMMUNITY AFFAIRS, SAFETY, HEALTH, ENVIRONMENT AND SECURITY (CASHES) POLICY STATEMENT.

The company recognizes that failure to perform its duties with the highest sense of responsibility and in line with laid down procedures, regulations and standards could result in accidents, incidents or dire consequences. It is the company's belief that good CASHES performance is an integral part of efficient and profitable business management. We shall therefore:

- Provide and maintain safe and healthy working environment and conditions, taking account of any statutory requirement of our client and the national regulatory agencies.
- Ensure that no activity shall be carried out unless it is safe to the environment, workers and third parties.
- Provide training and instruction to enable employees to perform their job safely and efficiently.
- Make available all necessary safety devices and protective equipment and enforce their use.
- Maintain a constant and continuing interest in environment, health and safety matters application to the company's activities, in particular by consulting and involving employees and clients where ever possible.
- Ensure that there exist adequate facilities and avenues for consultation between our company and clients/projects host communities.
- The company will give full backing to this policy and to the company HSE Officer, whose function it shall be to monitor and operate this policy.

A sample generic CASHES Plan is presented below:

Potential Risk	Mitigation Plan
Disturbance from project activities such as noise, emissions, movement of vehicles/equipment	• Contractors to minimise noise by retrofitting equipment with noise mufflers • Contractors to maintain equipment regularly and use BAT/BEP technologies to minimise emissions • Water roads in built up areas frequently to reduce dust • Avoid construction activities before 8.00am and after 7.00pm • Project SPIU to establish and implement an effective GRM to enable timely receipt and resolution of complaints

Increased risks of accidents from project activities	• Contractors to demarcate/cordon off construction areas and lit up adequately at night, fence out danger zones and keep out of reach. • Restricted access to be placed at construction sites using caution signs and manned personnel • Adequate road signs to warn pedestrians and motorists of construction activities, diversions, etc. shall be provided at appropriate points. • Drivers should be competent and trained by FRSC • Ensure the use of flagmen at strategic locations such as junctions, pedestrian crossings, near schools and other public facilities etc. • Implement associated plans including Traffic Management Plan, Burrow pit reclamation plan, OHS plan, WMP etc.
Exposure to social risks such as theft, vandalism, STIs/STDs, GBV/SEA/SH, child labor	• Contractor to strictly implement the code of conduct for all workers • Contractor shall enforce a 'closed' camp policy unless otherwise agreed and approved by Company. Workers will comply with the agreed camp closure hours • Ensure that children and minors are not employed directly or indirectly on the project
Increased risk of COVID-19 contamination	• COVID-19 prevention mechanisms shall also be put in place including access to handwashing, regular health checks and reporting. • Minimise the need for public gatherings and where required safe practices such as use of nose masks, handwashing/sanitisers should be used • Workers to comply with the COVID-19 regulations in Appendix 12
Competition for scarce resources such as water	• Contractors to provide alternative source of water for construction, staging area and campsite. • Community sources of water will not be exploited by the contractors
Pollution of the environment from different waste categories	• Contractor to sensitise workers on the provisions and implementation of the WMP and monitor compliance • Contractor to avoid littering the project areas with spoils/unsuitable and shall not restrict access to community assets with waste.

APPENDIX 13 SAMPLE CHANCE FIND PROCEDURE FOR THE PROTECTION OF PHYSICAL CULTURAL RESOURCES.

Procedures to adopt in the event of chance find:

In the event of chance finds of items of physical and cultural significance, all forms of excavation in and around the site will be stopped. Subsequently, experienced archaeologist and anthropologist would be recruited by the SPIU to carry out an investigation and proposed plans for the preservation of such cultural artefacts.

During the project site induction meeting, all contractors will be aware of the presence of an on-site archaeologist who will monitor earthmoving and excavation activities.

The following procedure is to be executed in the event that archaeological material is discovered:

- All construction activity in the vicinity of the find/feature/site will cease immediately
- Delineate the discovered find/ feature/ site will be delineated
- Record the find location, and all remains are to be left in place
- Secure the area to prevent any damage or loss of removable objects
- The on-site archaeologist will assess, record and photograph the find/feature/ site

- The on-site archaeologist will undertake the inspection process in accordance with all project health and safety protocols under direction of the Health and Safety Officer.

In consultation with the statutory authorities the on-site and Project Archaeologist will determine the appropriate course of action to take.

APPENDIX 14 SECURITY RISK MANAGEMENT PLAN

The contractor shall pay necessary attention to ensuring security of life & property during the execution of this contract according to the scope of works. In ensuring that this role is carried out, the following will be given priority:

1. Management Commitment and Responsibilities

Management is committed to ensuring that the following are in place:

- Providing up to date information regarding the security management mechanism, tools & updates in and around the work sites
- Ensure necessary early warning system is deployed to respond to security emergencies in the workplace by:
- Development of a specific step-by-step approach to security response
- Establish a security task force to respond to specific hazards, which is to be deployed in the case of security emergency (kidnapping, insurgency etc.)
- Employing the appropriate personnel for the role of security personnel/advisor(s) and security staff
- Prioritize training of security personnel
- Enforcing disciplinary actions as needed to enforce security compliance
- Promoting interaction and assistance with regulatory and response agencies such as the Nigerian Police Force & Nigerian Military armed forces.

2. Threat Assessment and Analysis

A vital component of this Security Management Plan is the identification of internal and external threats. The mechanisms for identifying threats shall comprise but will not be limited to:

- Have in place and periodically update a threat matrix that will be submitted to management for review and approval.
- Undertake periodic drills that will include responses to:
    - Bomb threats
    - A violence in the workplace situation – potential or actual
    - Domestic violence occurring within our facilities
    - General evacuation requirements due to a technical, human or natural threat Others as may be determined by the General Manager or Security Management Committee

Threats will be qualified utilizing a threat matrix, or other tool that compares operations to threats, and their likelihood and severity. Where possible, mitigating actions and recommendations will be initiated.

3. The Role of the Security Focal Person or Manager

In the minimum, the contractor will have a security manager or focal staff that will be responsible for all security related issues in the workplace. The role of this security focal person includes:

- Lead role in threat assessments
- Program maintenance and updates
- Incident response and coordination
- Chair of the Security Program Committee
- Training Responsibilities
- Coordination with other Departments
- Coordination with agencies and response units

4. Employee security education and training

The company-training security program will ensure:

- Employee duties and responsibilities
- Event-specific responsibilities

- Threat or event reporting
- Back-to-work/check-in requirements
- Potential disciplinary actions
- Dealing with the media, regulatory agencies, or other entities outside the company

5. Management and Supervisor Education and Training

For Managers and Supervisors, our program focuses upon:

- Individual or Department duties
- Knowledge and deployment of response protocols
- Assuring employee and other constituent welfare
- Threat or event reporting
- Back-to-work/check-in requirements
- Potential disciplinary actions
- Dealing with the media, regulatory agencies, or other entities outside the company

Program Exercises and Drills

The training and education activities that will be undertaken for the purposes of implementing this Security Management Plan shall be one of the following: case studies, desktop exercises, or small and/or large-scale exercises involving response pattern to adopt in the face of clear and present threats e.g. insurgent attacks.

Appendix 15

Ground Water Analysis Results

AKU URU BOREHOLE SAMPLE ANALYSIS RESULTS.

S/N	PARAMETERS	WHO (2004) Limit	NIS LIMITS FOR DRINKING WATER	Result of Analysis
A	**Physico-Chemical Tests**			
1	Appearance	NG	Clear & Colourless	Clear & Colorless
2	Odour	NG	Unobjectionable	Odourless
3	pH	NG	6.5-8.5	6.75
4	Conductivity (µS/cm)	NG	100	82

5	True Colour (Pt. Co Unit)	15	15	11
6	Turbidity (NTU)	NG	-	-
7	Total Dissolved Solids (mg/l)	NG	500	20
8	Total Suspended Solids (mg/l)	NG	NS	10
9	Chloride (mg/l)	NG	250	25.0
10	Phosphate (mg/l)	NG	NS	0.58
11	Sulphate (mg/l)	NG	100	3.5
12	Iron (mg/l)	NG	0.3	1.50
13	Calcium (mg/l)	NG	NS	140.0
14	Total Hardness (mg/l)	NG	150	-
15	Magnesium (mg/l)	NG	0.2	2.50
16	Zinc (mg/l)	5.0	3.0	0.41
17	Copper (mg/l)	1.0	1.0	<0.001
18	Cadmium (mg/l)	0.003	0.003	ND
19	Lead (mg/l)	0.01	0.01	ND
20	Dissolved Oxygen (mg/l)	NG	NS	2.90
21	Oil & Grease (mg/l)	NG	NS	ND
22	Nickel (mg/l)	NG	0.02	ND
23	Barium (mg/l)	NG	NS	ND
24	Mercury (mg/l)	NG	-	ND
25	Vanadium (mg/l)	NG	-	ND
B	**Microbiological Tests**			
1	Total Plate Count (cfu/100 ml)	NG	100	18
2	*E. coli* (cfu/100 ml)	Nil	0	Nil

Source: Labchemnec Jans Ltd.

Note: cfu = Colony-forming unit; NG = No Guideline Value; NTU = Nephelometric Turbidity Unit
WHO = World Health Organisation – Drinking Water Guidelines, Revised Edition (2004);
NIS = Nigeria Institute for Standards

AIYEGUNLE BOREHOLE SAMPLE ANALYSIS RESULTS.

S/N	PARAMETERS	WHO (2004) Limit	NIS LIMITS FOR DRINKING WATER	Result of Analysis
A	**Physico-Chemical Tests**			
1	Appearance	NG	Clear & Colourless	Clear & Colorless
2	Odour	NG	Unobjectionable	Odourless
3	pH	NG	6.5-8.5	6.92
4	Conductivity (µS/cm)	NG	100	90
5	True Colour (Pt. Co Unit)	15	15	12
6	Turbidity (NTU)	NG	-	-
7	Total Dissolved Solids (mg/l)	NG	500	25
8	Total Suspended Solids (mg/l)	NG	NS	11

9	Chloride (mg/l)	NG	250	24.50
10	Phosphate (mg/l)	NG	NS	1.34
11	Sulphate (mg/l)	NG	100	1.2
12	Iron (mg/l)	NG	0.3	0.50
13	Calcium (mg/l)	NG	NS	128.0
14	Total Hardness (mg/l)	NG	150	-
15	Magnesium (mg/l)	NG	0.2	0.5
16	Zinc (mg/l)	5.0	3.0	2.50
17	Copper (mg/l)	1.0	1.0	<0.001
18	Cadmium (mg/l)	0.003	0.003	ND
19	Lead (mg/l)	0.01	0.01	ND
20	Dissolved Oxygen (mg/l)	NG	NS	3.30
21	Oil & Grease (mg/l)	NG	NS	ND
22	Nickel (mg/l)	NG	0.02	ND
23	Barium (mg/l)	NG	NS	ND
24	Mercury (mg/l)	NG	-	ND
25	Vanadium (mg/l)	NG	-	ND
B	**Microbiological Tests**			
1	Total Plate Count (cfu/100 ml)	NG	100	14
2	*E. coli* (cfu/100 ml)	Nil	0	Nil

Source: Source: Labchemnec Jans Ltd.

Note: cfu = Colony-forming unit; NG = No Guideline Value; NTU = Nephelometric Turbidity Unit
WHO = World Health Organisation – Drinking Water Guidelines, Revised Edition (2004);
NIS = Nigeria Institute for Standards.

ESHI BUNU OPEN WELL SAMPLE ANALYSIS RESULTS.

S/N	**PARAMETERS**	**WHO (2004) Limit**	**NIS LIMITS FOR DRINKING WATER**	**Result of Analysis**
				PAT/KOG/001
A	**Physico-Chemical Tests**			
1	Appearance	NG	Clear & Colourless	Clear & Colorless
2	Odour	NG	Unobjectionable	Odourless
3	pH	NG	6.5-8.5	6.88
4	Conductivity (µS/cm)	NG	100	88
5	True Colour (Pt. Co Unit)	15	15	10
6	Turbidity (NTU)	NG	-	-
7	Total Dissolved Solids (mg/l)	NG	500	22
8	Total Suspended Solids (mg/l)	NG	NS	8

9	Chloride (mg/l)	NG	250	15.80
10	Phosphate (mg/l)	NG	NS	1.50
11	Sulphate (mg/l)	NG	100	3.8
12	Iron (mg/l)	NG	0.3	1.50
13	Calcium (mg/l)	NG	NS	150.0
14	Total Hardness (mg/l)	NG	150	-
15	Magnesium (mg/l)	NG	0.2	0.5
16	Zinc (mg/l)	5.0	3.0	2.80
17	Copper (mg/l)	1.0	1.0	<0.001
18	Cadmium (mg/l)	0.003	0.003	ND
19	Lead (mg/l)	0.01	0.01	ND
20	Dissolved Oxygen (mg/l)	NG	NS	2.95
21	Oil & Grease (mg/l)	NG	NS	ND
22	Nickel (mg/l)	NG	0.02	ND
23	Barium (mg/l)	NG	NS	ND
24	Mercury (mg/l)	NG	-	ND
25	Vanadium (mg/l)	NG	-	ND
B	**Microbiological Tests**			
1	Total Plate Count (cfu/100 ml)	NG	100	118
2.	*E. coli* (cfu/100 ml)	Nil	0	Nil

Source: Source: Labchemnec Jans Ltd.

Note: cfu = Colony-forming unit; NG = No Guideline Value; NTU = Nephelometric Turbidity Unit
WHO = World Health Organisation – Drinking Water Guidelines, Revised Edition (2004);
NIS = Nigeria Institute for Standards.

Appendix 16

Letters of Engagement to Kogi State Government Ministries.

KOGI STATE RURAL ACCESS & AGRICULTURAL MARKETIING PROJECT (KG-RAAMP)

Address:
Beside New State Secretariat Complex,
Zone 8, Lokoja,
Kogi State

E-mail: kogiraamp212@gmail.com
kogi-RAAMP@hotmail.com
Tel: 08036085517, 07014046165

25 June, 2024.

The Commissioner,
Ministry of Women Affairs & Social Development,
Lokoja,
Kogi State,
Nigeria.

Dear Sir/Ma,

NOTIFICATION FOR THE PREPARATION OF AN ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP) FOR THE PROPOSED RURAL ROADS ON BACKLOG MAINTENANCE/REHABILITATION INTERVENTION (PHASE 1).

We humbly write to notify your office that in line with the mandate of Kogi RAAMP project the following rural roads have been thoroughly screened and selected for further preparation of an Environmental and Social Management Plan (ESMP).

1. Aku Uro-Obajana Rd (19.56km)
2. Aku Uruku-Odoba Farm Rd (2.41km)
3. Osara-Atami Rd (6.59km)
4. Ayegunle-Olunigde-Daji Farm Rd (4.65km)
5. Eshi Bunu Junction-Aherin Ape Rd (4.10km)
6. Ilai-Ifeolukotun Rd (24.1km)
7. Ayingba-Agala Ate Rd (4.05km)
8. Elubi-Etiaja-Ajakwu Rd (6.83km)
9. Odidoko-Ugbamaka-Ugbaja-Olcye Rd (4.13km)
10. Ayikpele-Okochogbe-Ofuge-Etutobo Rd (6.64km)
11. Adumu Junction Adum Farm Rd (2.63km)

The specific objective of this ESMP is to;

- Assess the potential environmental and social impacts of the proposed works as described in the detailed preliminary designs and develop appropriate mitigation measures to address the negative impacts.

- Outline mitigation costs & responsibilities and a monitoring plan which includes monitoring parameters, frequency, responsibility and costs.
- Advise any required updates to the engineering design based on impacts reduction strategies and mitigation measures, prior to finalization of the engineering design. Furthermore, the costs for mitigation of this ESMP which is due to the contractor will be embedded in Bill 1 in the standard bidding documents for contractors to enable adequate consideration and costing for E&S management in their bids.

We solicit your support and cooperation in ensuring the overall outcome of the listed rural roads. It is our hope that the projects will improve rural access and agricultural marketing in the host communities thus contribute to the economic development of our dear State.

Yours Faithfully,

Engr. Sheidu Obansa
State Project Coordinator

KOGI STATE RURAL ACCESS & AGRICULTURAL MARKETIING PROJECT (KG-RAAMP)

Address:
Beside New State Secretariat Complex,
Zone B, Lokoja,
Kogi State

E-mail: kogiraamp212@gmail.com
kogi.RAAMP@hotmail.com
Tel: 08036085317, 07014046165

4th June, 2024.

The Commissioner,
Ministry of Environment and Natural Resources,
Lokoja,
Kogi State,
Nigeria.

Dear Sir/Ma,

NOTIFICATION FOR THE PREPARATION OF AN ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP) FOR THE PROPOSED RURAL ROADS ON BACKLOG MAINTENANCE/REHABILITATION INTERVENTION (PHASE 1).

We humbly write to notify your office that in line with the mandate of Kogi RAAMP project the following rural roads have been thoroughly screened and selected for further preparation of an Environmental and Social Management Plan (ESMP);

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3. Osara-Atami Rd (6.59km)
4. Ayegunle-Olumode-Daji Farm Rd (4.65km)
5. Eshi Buru Junction-Ahemi Ape Rd (4.10km)
6. Ilai-Ifeoluketun Rd (24.1km)
7. Ayingba-Agala Ajo Rd (4.05km)
8. Etubi-Etiaja-Ajakwu Rd (6.83km)
9. Odidoko-Ugbamaka-Ugbaja-Oloye Rd (4.13km)
10. Ayikpele-Okochogbe-Ofugo-Etutobo Rd (6.84km)
11. Adumu Junction-Adum Farm Rd (2.63km)

The specific objective of this ESMP is to;

- Assess the potential environmental and social impacts of the proposed works as described in the detailed preliminary designs and develop appropriate mitigation measures to address the negative impacts.

- Outline mitigation costs & responsibilities, and a monitoring plan which includes monitoring parameters, frequency, responsibility and costs.
- Advise any required updates to the engineering design based on impacts reduction strategies and mitigation measures, prior to finalization of the engineering design. Furthermore, the costs for mitigation of this ESMP which is due to the contractor will be embedded in Bill 1 in the standard bidding documents for contractors to enable adequate consideration and costing for E&S management in their bids.

We solicit your support and cooperation in ensuring the overall outcome of the listed rural roads. It is our hope that the projects will improve rural access and agricultural marketing in the host communities thus contribute to the economic development of our dear State.

Yours Faithfully,

Engr. Sheidu Obansa
State Project Coordinator

KOGI STATE RURAL ACCESS & AGRICULTURAL MARKETIING PROJECT (KG-RAAMP)

Address:
Beside New State Secretariat Complex,
Zone 8, Lokoja,
Kogi State

E-mail: kogiraamp212@gmail.com
kogi RAAMP@hotmail.com
Tel: 08036085517, 07014046165

4th June, 2024.

The Commissioner,
Ministry of Agriculture,
Lokoja,
Kogi State,
Nigeria.

Dear Sir/Ma,

NOTIFICATION FOR THE PREPARATION OF AN ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP) FOR THE PROPOSED RURAL ROADS ON BACKLOG MAINTENANCE/REHABILITATION INTERVENTION (PHASE 1).

We humbly write to notify your office that in line with the mandate of Kogi RAAMP project the following rural roads have been thoroughly screened and selected for further preparation of an Environmental and Social Management Plan (ESMP).

1. Aku Uro-Obajana Rd (19.55km)
2. Aku Uruko-Odoba Farm Rd (2.41km)
3. Osara-Atami Rd (6.59km)
4. Ayegunle-Olumoje-Daji Farm Rd (4.65km)
5. Eshi Bunu Junction-Aherin Ape Rd (4.10km)
6. Illai-Ifeclukotun Rd (24.1km)
7. Ayingba-Agala Ate Rd (4.05km)
8. Elubi-Etiaja-Ajakwu Rd (6.83km)
9. Oddoko-Ugbamaka-Ugbaja-Oloye Rd (4.13km)
10. Ayikpele-Okocnogbe-Ofugo-Etutobo Rd (6.64km)
11. Adumu Junction-Adum Farm Rd (2.63km)

The specific objective of this ESMP is to;

- Assess the potential environmental and social impacts of the proposed works as described in the detailed preliminary designs and develop appropriate mitigation measures to address the negative impacts

- Outline mitigation costs & responsibilities, and a monitoring plan which includes monitoring parameters, frequency, responsibility and costs.
- Advise any required updates to the engineering design based on impacts reduction strategies and mitigation measures, prior to finalization of the engineering design. Furthermore, the costs for mitigation of this ESMP which is due to the contractor will be embedded in Bill 1 in the standard bidding documents for contractors to enable adequate consideration and costing for E&S management in their bids.

We solicit your support and cooperation in ensuring the overall outcome of the listed rural roads. It is our hope that the projects will improve rural access and agricultural marketing in the host communities thus conribute to the economic development of our dear State.

Yours Faithfully,

Engr. Sheidu Obansa
State Project Coordinator

KOGI STATE RURAL ACCESS & AGRICULTURAL MARKETIING PROJECT (KG-RAAMP)

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4th June, 2024.

The Commissioner,
Ministry of Energy & Rural Development,
Lokoja,
Kogi State,
Nigeria.

Dear Sir/Ma,

NOTIFICATION FOR THE PREPARATION OF AN ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP) FOR THE PROPOSED RURAL ROADS ON BACKLOG MAINTENANCE/REHABILITATION INTERVENTION (PHASE 1).

We humbly write to notify your office that in line with the mandate of Kogi RAAMP project the following rural roads have been thoroughly screened and selected for further preparation of an Environmental and Social Management Plan (ESMP).

1. Aku Uro Obajana Rd (13.55km)
2. Aku Uruko-Odoba Farm Rd (2.41km)
3. Osara-Atami Rd (6.59km)
4. Ayegunle-Olumeje-Daji Farm Rd (4.65km)
5. Eshi Bunu Junction-Aherin Ape Rd (4.10km)
6. Illai-Ifeolukotun Rd (24.1km)
7. Ayingba-Agala Ate Rd (4.05km)
8. Elub -Etiaja-Ajakwu Rd (9.83km)
9. Ododoko-Ugbamaka-Ugbaja-Obaye Rd (4.13km)
10. Ayikpele-Okochogbe-Olugo-Elutobo Rd (6.84km)
11. Adumu Junction-Adum Farm Rd (2.63km)

The specific objective of this ESMP is to;

- Assess the potential environmental and social impacts of the proposed works as described in the detailed preliminary designs and develop appropriate mitigation measures to address the negative impacts.

- Outline mitigation costs & responsibilities, and a monitoring plan which includes monitoring parameters, frequency, responsibility and costs.
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We solicit your support and cooperation in ensuring the overall outcome of the listed rural roads. It is our hope that the projects will improve rural access and agricultural marketing in the host communities thus contribute to the economic development of our dear State.

Yours Faithfully,

Engr. Sheidu Obansa
State Project Coordinator