



IMO STATE GOVERNMENT OF NIGERIA

RURAL ACCESS AND MOBILITY PROJECT (RAMP2)

**Environmental and Social Management Plan (ESMP)
for**

**Reinstating/Constructing Damaged, Washed Away & Missing 23
nos River Crossings on the Rural Road Network in Imo State**



Final Report
November 2019

Table of Contents

Table of Contents	ii
List of Tables	iv
List of Figures	iv
List of Plates.....	v
List of Annexes	v
LIST OF ABBREVIATIONS AND ACRONYMS	vi
EXECUTIVE SUMMARY	ii
CHAPTER ONE	1
1.1 Project Background	1
1.2 Objective of the ESMP	1
1.3 Approach and Methodology	1
CHAPTER TWO	3
2.1 State and National Environmental Legislation and Institutional Frameworks.....	3
2.2 International Conventions and Agreements.....	5
2.3 World Bank Safeguard Policies Triggered by RAMP 2.....	6
CHAPTER THREE.....	7
3.1 Priority River Crossings.....	7
CHAPTER FOUR.....	11
4.1 Introduction.....	11
4.2 Biophysical Environment	11
4.2.1.1 Soil Physico-Chemical Properties and Quality.....	11
4.2.1.2 Ambient Air Quality	11
4.2.1.3 Physico-Chemical Analysis of the Surface Water Samples	11
4.3 Overview of the Description of the Prioritized River Crossings	13
4.4 Socio-Economic Environment.....	31
CHAPTER FIVE.....	34
5.1 Introduction.....	34
5.2 Potential Environmental and Social Impacts	34
5.2.1 Positive Environmental and Social Impacts	34
5.2.2 Potential Negative Environmental and Social Impacts.....	35
CHAPTER SIX	36
6.1 Introduction	36
6.2 GBV Risk Management Mechanisms	59
6.3 Institutional Arrangements	60

6.4	Capacity Assessment and Training Programme	62
6.5	Monitoring and Reporting.....	63
6.5.1	Monitoring Activities.....	63
6.5.2	Reporting Procedures.....	63
6.5.3	Record Keeping and Control	63
6.6	Implementation Schedule	64
6.8	ESMP Disclosure.....	65
6.9	Cost of Implementing the ESMP	65
CHAPTER SEVEN.....		66
7.1	Introduction.....	66
7.2	Grievance Redress Process.....	67
7.3	Structure of Grievance Redress for the RCs Rehabilitation Works	67
7.4	Setting up a Grievance Redress Committee.....	68
7.4.1	First Level GRM: GRC at the Site/Community Level:	68
7.4.2	Second Level of GRM: GRC at the SPIU Level:	69
7.4.3	Third Level of GRM: GRC at the State Technical Committee Level:	70
7.4.4	Court Resolution of Grievance Matters	71
7.5	Awareness of GRM.....	71
7.6	Reporting:	72
7.7	GRM Jurisdiction:	72
7.8	Expectation When Grievances Arise	72
7.9	Management of Reported Grievances.....	73
7.10	Grievance Log and Response Time	73
CHAPTER EIGHT.....		74
8.1	Introduction.....	74
8.2	Objectives	74
8.3	Stakeholder Engagement Approach.....	75
8.4	Stakeholder KIIs, FGDs, Community Meeting and Interpretation.....	75
CHAPTER NINE.....		81
9.1	Summary.....	81
9.2	Recommendation	81
ANNEXURE.....		83

List of Tables

Table 2.1 State and National Environmental Guidelines and Institutional Frameworks	3
Table 2.2: Safeguard Policies Triggered by RAMP-2	6
Table 3.1: Imo RAMP 2 Priority River Crossing	7
Table 3.2: Imo State RAMP 2 River Crossing Project Activities	8
Table 3.3: Details of Hydraulic Structures	8
Table 3.4: Pavement Layers and Surfacing Types	9
Table 3.5 Geometric and Pavement Data for Approach Roads	9
Table 4.1 Sampling point for Biophysical Environment (soil, surface water and air)	12
Table 4.2: Current Status of the Prioritized Imo RAMP-2 River Crossings (LOT 1)	13
Table 4.3: Current Status of the Prioritized Imo RAMP-2 River Crossings (LOT 2)	18
Table 4.4: Current Status of the Prioritized Imo RAMP-2 River Crossings (LOT 3)	23
Table 4.5: Current Status of Prioritized Imo RAMP-2 River Crossings (LOT 4)	27
Table 4.6 Socio-economic Characteristics of the consulted persons in the Communities	31
Table 5.1: Project implementation phases and associated activities	34
Table 6.1: Environmental and Social Mitigation and Monitoring Plan during the Pre-Construction Phase	37
Table 6.2: Environmental and Social Mitigation and Monitoring Plan during the Construction Phase	47
Table 6.3: Environmental and Social Mitigation and Monitoring Plan during the Post – Construction/Operation Phase	55
Table 6.4: Institutional Arrangement for ESMP Implementation	60
Table 6.5: Institutional Capacity Strengthening Plan	62
Table 6.7: Internal and External Monitoring	63
Table 6.8: ESMP Implementation Schedule	64
Table 6.9: Contractual Measures	65
Table 6.10 Disclosure Procedure	65
Table 6.11 Cost of Implementing the ESMP	65
Table 7.1: Typical Reporting format for Grievance Redress	73
Table 8.1 Summary of Issues Raised at KIIs	75
Table 8.2 Summary of Issues Raised at FGDs	76
Table 8.3 Summary of Issues Raised at Community Meeting	76

List of Figures

Figure 4.1: Prioritized River Crossings in LOT 1	Error! Bookmark not defined.
Figure 4.2: Prioritized River Crossings in LOT 2	Error! Bookmark not defined.
Figure 4.3: Prioritized River Crossings in LOT 3	Error! Bookmark not defined.
Figure 4.4: Prioritized RAMP River Crossings in LOT 4.....	Error! Bookmark not defined.
Figure 6.1 Imo RAMP 2 Grievance Redress Framework	67
Figure 6.2 Grievance Redress Flowchart	Error! Bookmark not defined.

List of Plates

Plate 4.1: River Crossings in LOT 1	17
Plate 4.2: River Crossing in LOT 2	21
Plate 4.3: Boa	22
Plate 4.4: River Crossings in LOT 3	26
Plate 4.5 River Crossings in LOT 4	30

List of Annexes

ANNEX I: TERMS OF REFERENCE	83
ANNEX II: QUESTIONNAIRE	92
ANNEX III: MINUTES OF THE STAKEHOLDERS MEETING	97
ANNEX IV: STAKEHOLDER MEETING ATTENDANCE	106
ANNEX V: LIST OF THE PERSONS MET	107
ANNEX VI: STAKEHOLDER CONSULTATION	108
ANNEX VII: CODE OF CONDUCT TO PREVENT GENDER BASED VIOLENCE DURING THIS PROJECT	110
ANNEX VIII: GRIEVANCE REDRESS FRAMEWORK FOR IMO STATE RAMP	114
ANNEX IX: SUMMARY OF WORLD BANK ENVIRONMENTAL AND SOCIAL SAFEGUARD POLICIES APPLICABLE TO THE RAMP PROJECT	115
ANNEX X: GENERAL ENVIRONMENTAL MANAGEMENT CONDITIONS FOR CONSTRUCTION CONTRACTS	116
ANNEX XI TRAFFIC MANAGEMENT PLAN	120
ANNEX XII: PHYSICAL CULTURAL RESOURCES - MANAGEMENT PLAN (PCR-MP).	121
ANNEX XIV PROJECT OCCUPATIONAL HEALTH AND SAFETY (OHS) PLAN	127
ANNEX XV BORROW PIT REMEDIATION PLAN	131
ANNEX XVI WORKERS' SITE MANAGEMENT PLAN	133
ANNEX XVII WASTE MANAGEMENT PLAN	134
ANNEX XVIII: ENVIRONMENTAL AND SOCIAL SCREENING FOR IMO STATE RAMP2 RIVER CROSSINGS	135
ANNEX XIX RAP SCREENING REPORT FOR RIVER CROSSINGS	137
ANNEX XX PICTURE OF BOA	140
ANNEX XXI LOCATION OF PROPOSED STAGING AREA, BASE CAMP AND PCR	141
ANNEX XXII LABOUR INFLUX MANAGEMENT PLAN	142

LIST OF ABBREVIATIONS AND ACRONYMS

ARAPs	Abbreviated Resettlement Action Plans
AFD	French Development Agency
BOQ	Bill of Quantity
CBOs	Community Based Organizations
CSOs	Civil Society Organizations
CDA	Community Development Associations
EA	Environmental Assessment
EMS	Environmental Management Systems
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
EIA	Environmental Impact Assessment
ESMF	Environmental and Social Management Framework
ESO	Environmental Safeguard Officer
FGN	Federal Government of Nigeria
FGD	Focus Group Discussion
FMEnv	Federal Ministry of Environment
GRC	Grievance Redress Committee
GRM	Grievance Redress Mechanism
ISEPA	Imo State Environmental Protection Agency
IPV	Intimate Partner Violence
KII	Key Informant Interview
LGA	Local Government Authority
MDAs	Ministries Department and Agencies

M&E	Monitoring & Evaluation
NESREA	National Environmental Standards and Regulatory Enforcement Agency
NGOs	Non- Governmental Organizations
NPE	National Policy on Environment
NSME	Nigerian Society of Mining Engineers
OHS	Occupational Health and Safety
OHSMP	Occupational Health and Safety Management Plan
OP	Operational Policy
PAD	Project Appraisal Document
PAP	Project Affected Persons
PC	Project Coordinator
PCN	Project Concept Notes
PDOs	Project Development Objectives
PIM	Project Implementation Manual
RAMP 2	Rural Access and Mobility Project 2
RC	River Crossing
RPF	Resettlement Policy Framework
SPIU	State Project Implementation Unit
ToR	Terms of Reference
WB	World Bank
WHO	World Health Organization

EXECUTIVE SUMMARY

ES 1: Background

The Federal Government of Nigeria has received financing from the World Bank (WB) and French Development Agency (AFD) for the implementation of Second Rural Access and Mobility Project (RAMP2). The RAMP-2 is aimed at improving and enhancing accessibility and mobility in the rural areas of Nigeria. As part of RAMP-2 Activities in Imo State, a total of 23 Nos critical river crossings across several Local Government Areas (LGA) of the state have been prioritized for rehabilitation/construction. The project will involve medium-sized civil engineering works which is envisaged to result in minor negative Environmental and Social impacts thus, triggering the World Bank's Safeguard Policies including Environmental Assessment OP 4.01; Natural Habitats OP 4.04, Involuntary Resettlement OP 4.12 and Physical and Cultural Resources OP 4.11. Consequently, the Imo State RAMP-2 Project Implementation Unit (SPIU) has prepared this Environmental and Social Management Plan (ESMP) to mitigate the likely Environmental and Social impacts that may result from project implementation.

ES 2: Policy, 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 (as amended by EIA Act CAP E12 LFN 2004), and also the World Bank OP 4.01 (Environmental Assessment). Consequently, the project implementation will be guided by the provisions of the National Policy on Environment (1989) and the applicable World Bank operational policies. The legal and regulatory framework is provided in details in chapter 2.

ES 3: Project Description

The project activities include Site preparation, Construction of Box Culverts, Protection Works and Ancillary Works; approach roads, retaining walls, side drains, etc. Table 3.1 lists the rehabilitation/construction works of prioritized River Crossings.

ES 4: Environmental and Social Baseline Information of Project Locations

Some of the existing river crossings which will be rehabilitated, and areas marked for provision of new river crossings are characterized by the presence of various aquatic plants and animals such as bamboo, Plantain and Alligator lizard respectively. Other plants of economic importance located around these areas include palm tree, oil bean and cashew among others. Due to the location of these economic trees, they are likely to be impacted during implementation of civil works. The rivers or streams are the major source of water for domestic use across the priority sites. They also serve other purposes like source of water for fishing and recreation. These activities are likely to be affected during the civil work. There is a shrine in Mgbidi community. The river (Obana) is a deity where fishing is prohibited. The killing of animals such as Boa constrictor is also a prohibited and a taboo in Mgbidi community (see Annex XIII & XXI for more details). The people across the project areas are mainly farmers who are into crop and cash crop cultivation.

ES 5: Potential Environmental and Social Impacts

The potential positive project impacts will include:

- Enhanced access and mobility for the people and movement of agricultural products;
- Creation of jobs for the people of Imo State including new jobs for youth and women;
- Greater diversity in production and in farmers income;

- Access to market-induced increase in production
- Reduction in cost of transportation; and
- Increase inter-communal socio-economic exchange

The envisaged adverse impacts that may result from the project are listed in the table below:

Potential Adverse Impacts	
Social Impacts	Environmental Impacts
<ul style="list-style-type: none"> • Loss of sources of livelihood • Conflict arising potentially from loss of sources of livelihood and access to assets • Exacerbation of the risk of transmission of HIV/AIDS and other STIs due to increase in migrant population. • Damage to shrines and cultural sites (PCR)e.g in Mgbidi community • Occupational health and Safety risks • Respiratory and eye related problems for workers due to exposure to fugitive dusts and gaseous emissions. • Increased security risks due to storage of materials and equipment on site • Threat to community culture, safety and security due to presence of workers and business opportunists. • Increase in vehicular movement may cause traffic congestion and accidents • Risks of occupational and social accidents and injuries in using the new river crossings • Risk to community health and safety • Traffic congestion and diversion during construction works • Risk of drowning in river by workers • Security issues that may lead to stealing of contractor equipment mobilized to site • Threat to community culture due to labour influx • Risk of social conflict and gender-based violence due to labour influx • Increased risk of illicit behavior and crime • Increased burden on and competition for public service provision • Impacts on community dynamics • Child labour and school dropout • Local inflation of prices • Increased pressure on accommodation and rent 	<ul style="list-style-type: none"> • Soil erosion caused by the weight and activities of the heavy-duty machines • Air and water pollution from construction spoils • Noise disturbance from heavy duty machineries • Disruption of access to movement due to excavations • Dust emission due excavation and use of heavy construction machineries • Waste generation from construction spoils • Loss of vegetation due to site clearing • Potential siltation of surface water from eroded and excavated soils • Soil contamination from leakage/ spillage of fuel or oil from equipment and vehicles. • Generation of construction waste and debris • Material sourcing, borrow pit formation and management • Staging area impacts • Risk of flooding during civil work • Wastewater discharges • Increased demand on freshwater resources • Increased use of/demand for natural resources

ES 6: Implementation schedule

The project implementation phase is estimated to be completed in 7 months. The implementation schedule is presented in chapter 6 (Table 6.8).

ES 7: Environmental and Social Management Plan

The ESMP establishes mitigation measures to address all potential adverse environmental and social impacts identified for the proposed project, including responsibility and costs as detailed in Chapter 6, table 6.1. The mitigation costs will be embedded as part of the contractors BOQ. The plan also provides a monitoring program including responsibilities and monitoring frequency to ensure compliance to mitigation measures.

ES 8: Capacity Building Plan

The SPIU has not previously been involved in implementing World Bank assisted projects. As such, their capacity in implementing projects in line with the Bank's policies was assessed to be limited. The capacity building programme in Chapter 6, table 6.5 will therefore be implemented to strengthen institutional capacity in ensuring environmental and social safeguard compliance in the project implementation.

ES 9: ESMP Disclosure

This ESMP shall be disclosed to the public at designated centers in Imo State and published in two national newspapers accessible to the project stakeholders for review, in line with the guidelines of the Federal Ministry of Environment and in the external website of the World Bank.

ES 10: Grievance Redress Mechanism

Similar with other RAMP 2 states, Grievance Redress Mechanism (GRM) shall be set up by the Imo State RAMP SPIU to address complaints arising from the project implementation. The GRM will be established at four tiers; the first tier will be at the community level, the second at the level of the state PIU, the third with support from the Federal PIU and the fourth tier will include seeking court judicial process. Stakeholders and affected persons will also be informed of the various tiers. This committee at the community and in the state will comprise relevant officers of the Imo SPIU, representative of the Ministry of Local Government and Rural Development, representatives of the 23 priority sites who are to be nominated by the traditional heads and Community Development Association (CDA).

ES 11: Budget for Environmental and Social Management Plan Implementation

The implementation cost of the ESMP is *Eleven Million, seven hundred and Sixty-five Thousand and six hundred Naira (Twenty-five thousand, six hundred and seventy-two Dollars)*. The summary of the implementation cost as explained in chapter 5 (table 5.11) is as follows:

Cost of Implementing the ESMP

Heading	Indicative Costing in Naira (N)	Cost Estimate in USD
Cost of Mitigation	4,356,000.00	12,100.00
Capacity Building and Training	1,100,000.00	3,055.56
Monitoring Programme	2,196,000.00	6,100.00
Grievance Redress Mechanism	750,000.00	2,083.33
Sub-total	8,402,000.00	23, 338.89
Contingency	840,200.00	2, 338.89
Total	9,242,200.00	25, 672.78

(1 USD = 360.00)

ES 12: Stakeholders Consultation

The main issues expressed by the stakeholders during the public consultation with regards to the proposed river crossing in their area include:

1. Existence of cultural rites in some communities (Mgbidi). This issue was addressed by the community leaders who gave assurance that all the necessary consultations and rituals will be carried out. The associated costs will be captured in the stand-alone RAP been prepared which will be implemented prior to commencement of the project works. The consultant also notified the community members that physical and cultural resources are usually treated with sensitivity in World Bank funded projects.
2. Request for other river crossings. This issue was resolved by explaining to the beneficiaries that the selected priority roads are the ones considered at this phase and others will be considered in subsequent phases.

3. Bad state of existing access roads. This was resolved by explaining to the beneficiaries that the approach roads to the river crossings will be rehabilitated.

The communities' expectations during construction and operation phases are as follows:

1. Employment of the locals during the construction and operation phases of the project should be prioritized;
2. For safety and security of workers, machinery and equipment, the host communities are willing to be engaged for proper policing;
3. Adequate compensation to people whose properties will be lost due to the intervention, especially along the channel of water distribution. This it was indicated will be captured in RAP report
4. Creation of alternative routes. The beneficiaries were informed that alternative routes will be captured in the engineering designs for all the river crossings

It is expected that the issues raised by stakeholders will be taken into consideration during the implementation of this project. It is expected that the results of the socio-economic impact assessment be communicated to the community through a process of debriefing on results of the study. This will allow the communities to make final input before full project implementation.

CHAPTER ONE

INTRODUCTION

1.1 Project Background

The Federal Government of Nigeria has received financing from the World Bank (WB) and French Development Agency (AFD) for the implementation of Second Rural Access and Mobility Project (RAMP-2). The RAMP-2 is aimed at improving and enhancing accessibility and mobility in the rural areas. Accessibility and mobility are critical issues in the lives of the rural population, considering that majority of them are agriculturalists. Movement of their agricultural inputs and outputs (produce) is hinged on accessibility and mobility. The current dilapidated state of river crossings invariably diminishes their economic empowerment and socio-cultural wellbeing.

As part of RAMP-2 activities in Imo State, a total of 23 Nos critical river crossings across several Local Government Areas (LGA) of the state have been prioritized for rehabilitation/construction. The project will involve medium-sized civil engineering works which are envisaged to result in some negative Environmental and Social impacts thus, triggering the World Bank's Safeguard Policies on Environmental Assessment OP 4.01; Natural Habitats OP 4.04, Involuntary Resettlement OP 4.12 and Physical and Cultural Resources OP 4.11. Consequently, the Imo State RAMP-2 Project Implementation Unit (SPIU) has prepared this Environmental and Social Management Plan (ESMP) to identify measures to mitigate the likely environmental and social impacts that may result from project implementation.

1.2 Objective of the ESMP

The major developmental objective of this ESMP is to facilitate an effective decision-making process and to ensure that during project implementation, the activities are environmentally sound; that community consultation and participation are encouraged; and that social wellbeing is enhanced in ways that are generally sustainable. The specific objectives are to:

- Identify and quantify potential negative and positive environmental and social impacts of the proposed works;
- Recommend mitigating measures (in the form of an Environmental and Social Management Plan, ESMP) to be implemented to avoid these negative environmental and social impacts;
- recommend an appropriate Institutional structure that will ensure sustainable safeguard measures; and
- explore the possibilities for community-based safeguard approach and the Capacity Building needs of the relevant stakeholders.

1.3 Approach and Methodology

The preparation of the ESMP was guided by RAMP 2 Environmental and Social Management Framework (ESMF) and Project Appraisal Document (PAD) alongside other relevant RAMP 2 documents.

Field studies were undertaken between December 12, 2018 – February 10, 2019 in the project location to identify environmental and social sensitivities likely to be affected by the project (biophysical data collection was carried out in December, 2018 while the socio-economic survey and stakeholder consultation were carried out in January and February 2019 respectively).

Socio-economic survey was conducted through Focus Group Discussion (FGD), in-depth interviews and administration of structured questionnaire using random sampling techniques. The FGD targeted the youth, women, men and aged groups in the project area. The sampling of stakeholders for engagement and data collection is based on the following criteria: adequate representation from the relevant social groups in the study location; inclusion of groups and individuals with different population characteristics/socio-economic status; participation of those with access to relevant information; evidence of different types of livelihood activities; and inclusion of males and females where possible. In all, 430 questionnaires were administered (10 questionnaires were administered in each proposed River crossing site to direct potential project affected persons (PAPs) and 26 FGDs, 17 in-depth interviews IDIs and 6 Public forum meetings were organized in the communities (Photos, attendance and minutes can be found in Annex V, III and II respectively).

Public forum meetings were held on the 7th of April, 2019 including direct discussions with key stakeholders in the community and the PIU to determine their views of the proposed intervention project. The outcomes of these were documented and these include how issues and problems raised would be resolved.

CHAPTER TWO

INSTITUTIONAL AND LEGAL FRAMEWORK FOR ENVIRONMENTAL MANAGEMENT

2.1 State and National Environmental Legislation and Institutional Frameworks

Several state and national environmental legislations and institutional frameworks are applicable to the operations of the RAMP 2 intervention in Imo State. They are outlined in table 2.1.

Table 2.1 State and National Environmental Guidelines and Institutional Frameworks

Relevant Imo State Legislations		
Legislation	Year	Mandate
Imo Environmental Protection Agency Law	2008	This law is to ensure that every developmental project in the state adheres to established environmental guidelines
Imo Environmental Transformation Commission (ENTRACO) Law No. 3	2008	To ensure a “clean and green” Imo State including regulating the activities of refuse collectors and operation of an environmental sanitation and traffic court in each Local Government Area of Imo State.
Imo Environmental Sanitation Agency Law 2003	2003	This law is to ensure proper disposal and clearing of wastes in the State
Imo State Institutional Framework		
Imo State Ministry of Petroleum & Environment;		The mandate of the ministry includes: <ul style="list-style-type: none"> • liaising with the Federal Ministry of Environment, FMEnv to achieve a healthy or better management of the environment via development of National Policy on Environment • responsibility for monitoring waste management standards, • responsibility for general environmental matters in the State, and • monitoring the implementation of ESIA studies and other environmental studies for all developmental projects in the State.
Imo State Ministry of Agriculture & Natural Resources,		This ministry is responsible for the promotion of agriculture and ensuring the sustainable exploitation of natural resources in the state
Imo State Ministry of Works and Transport		This ministry is responsible for the execution of public works of the government and the management of transportation infrastructure across the state
Imo State Environmental Protection Agency (ISEPA)		This agency is charged with the responsibility to monitor, evaluate and audit the implementation of the ESMP to ensure that the rehabilitation works and project operations meet “best environmental practices
Relevant National Policies and Legislation	Year	Provisions

The National Policy on Environment (NPE) of 1989	<i>(revised in 1999 and 2016)</i>	The mandates of the NPE include among others: <ul style="list-style-type: none"> • 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 which was adopted in preparing this ESMP.
Other relevant national policies and legislations		
National Policy on Flood and Erosion Control	2006	This policy addresses the need to combat erosion in the country by utilizing the procedures outlined in the National Action Plan for Flood and Erosion Control and Technical Guidelines
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.
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.
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 a legislation against Human

		trafficking since it forbids children from being "separated from parents against their will, except where it is in the best interests 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.
Other Relevant Legislations at the Federal Level		
<i>Criminal Code</i>		The Nigerian Criminal Code makes it an offence punishable with up to 6 months imprisonment for any person who: <ul style="list-style-type: none"> • 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 neighborhood, 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		
<i>The Federal Ministry of Environment (FMEnv)</i>		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
The Imo State Project Implementation Unit (Imo SPIU) RAMP		The Imo State Project Implementation Unit (Imo-SPIU) headed by the State Coordinator and hosted by the Ministry of Local Government and Rural Development is responsible for the coordination of RAMP projects in Imo State. The coordinator is thus directly responsible for coordinating activities of the Site intervention, including the implementation of this ESMP.
Federal Ministry of Agriculture and Rural Development		The Federal Ministry of Agriculture and Rural Development (FMARD) 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.

2.2 International Conventions and Agreements

Applicable international guidelines/conventions/treaties to which Nigeria is a signatory and 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;
- Basel Convention on the prevention of trans-boundary movement of hazardous wastes and their disposal;
- Convention on the prevention of the international trade in endangered species (CITES), 1973;
- Convention on Biodiversity 1992;
- Convention on climate change 1992; and

- World Health Organization (WHO) Health and Safety Component of EIA, 1987.

2.3 World Bank Safeguard Policies Triggered by RAMP 2

The World Bank Environmental and Social Safeguard Policies are a cornerstone of its support to sustainable poverty reduction. The main objective of these policies is to prevent and mitigate undue harm to people and their respective environment in the developmental processes. Four of these policies have been triggered and are discussed briefly in Table 2.2.

Table 2.2: Safeguard Policies Triggered by RAMP-2

S/N	Safeguard Policies	Applicability to project due to	How Project Address Policy Requirements
1	Environmental Assessment (OP/BP 4.01)	Civil works under the project including excavation and construction of river crossings (RCs) will have adverse effect on the environment	An ESMF has been prepared for RAMP 2 and site-specific mitigation measures developed in this ESMP
2	Physical Cultural Resources (OP/BP 4.11)	Civil works under the project, including excavations will most likely not be able to avoid all cultural heritage sites as well as presently unknown sites that can be expected to be found in this area rich of cultural and historical values.	Implement the Chance find procedure within the ESMP or as a standalone document
3	Involuntary Resettlement (OP/BP 4.12)	The activities under the project will require the acquisition of land (some with economic trees and farms) surrounding the Rivers and streams for implementation of the civil works.	A resettlement policy framework (RPF) has been prepared for the RAMP2. Due to the potential impacts to economic trees and farmland located around the intervention sites, standalone RAP(s) will be prepared, and measures implemented before project implementation(See screening checklist in annex XIX).
4	Natural Habitat (OP/BP 4.04)	The project activities may require the conversion of significant areas of natural habitats. This is more so as the project is located in a sensitive ecosystem (wetland) thereby causing disturbance and or damage to these ecosystems.	An ESMF has been prepared for RAMP 2 and site-specific mitigation measures developed in this ESMP

CHAPTER THREE

PROJECT DESCRIPTION

3.1 Priority River Crossings

Rehabilitation/Construction works of prioritized River Crossings are to be carried out in 23 selected River crossing in some prioritized LGAs of Imo State as outlined in Table 3.1.

Table 3.1: Imo RAMP 2 Priority River Crossing

S/N	Name of Priority Site	LGA	X	Y
Lot 1				
1	Agbata-Umuigwe Na Uzoagba	Ikeduru/Mbatoli	5.5471351	7.1456688
2	Okwu-Umuonohor	Ikeduru/Mbatoli	5.5386931	7.1940632
3	Orie Mbieri-Umuomumbieri	Ikeduru/Mbatoli	5.5833629	7.0635892
4	Ekwe-Okwuodor	Njaba/Isu/Nkwere/Nwangele	5.725831	7.0270723
5	Umuduruemghara-Okpala Anara	Isiala Mbano/Ehime Mbano	5.7103055	7.1796244
6	Umuihim Autonomous Community – Umukaku	Isiala Mbano/Ehime Mbano	5.6694058	7.2049614
7	Umuloghoo-Okwuohia	Aniri/Agwu	5.5855616	7.3612385
Lot 2				
1	Uzurunamu-Okwudo Mgbidi	Oru East/Oru West/Orsu	5.7258524	6.8820876
2	Akama-Nansa-Akwa Ihedi	Orsu	5.8850147	7.0069225
3	Igbee-Amaruru	Orsu	5.8895854	6.9687548
4	Ndiuche-Izuogu Uri	Ideato North/South	5.8230743	7.1782618
5	Obinugwu-Umueshi-Okwa	Ideato North/South	5.8355695	7.1244245
6	Dikenafai-Abba Nwagele	Ideato North/South	5.7543142	7.1481708
7	Dimagu-Nkwere	Ideato North/South	5.7847093	7.1120534
Lot 3				
1	Umueziogwu-Uzoagba-Okitankwo-Umunahu	Owerri East/West	5.5139843	7.1066507
2	Umuebee-Umuhu	Owerri East/West	5.5471296	7.1456688
3	Ugbele-Bsc	Ideato South	5.8013891	7.0774081
4	Amugu-Umulebe	Ideato South	5.8603032	7.1424667
Lot 4				
1	Ndikpa Umucheke-Okui	Onuimo	5.7923226	7.1956882
2	Ukolu-Umucheke	Onuimo	5.7817906	7.1951538
3	Umunaa-Uhi Owerre-Okwe	Onuimo	5.797752	7.2101361
4	Umuokpara Ofeiyi-Umuoleche	Okigwe	5.8311087	7.3200808
5	Amano-Umukogwu	Okigwe	5.8538709	7.3192942

3.2 Proposed Intervention Works

The proposed intervention works according to the engineering designs are outlined as follows:

- Project activities (Table 3.2)
- Hydraulic Structure Size and Design Details (Table 3.3)
- Pavement Layers and Surfacing Types (Table 3.4)
- Geometric and Pavement Data for Approach Roads (Table 3.5)

Table 3.2: Imo State RAMP 2 River Crossing Project Activities

Phase	Activity	Description of Activity	Staffing	Support Facilities and services	Schedule
Pre-Construction	<ul style="list-style-type: none"> Sensitization Mobilisation Marking Temporary access culvert Clearing Safety measures Staging area Workers camp Locating borrow pits 	<ul style="list-style-type: none"> Sensitize and inform community members on the time and duration of civil works. Mobilize trucks, vehicles and other equipment and install camp office and workshop. Mark the boundaries of the working areas around the site. Construct a temporary pedestrian access culvert for community members and other users; Clear vegetation covering stream banks and widen banks appropriately Evacuate obstacles such as silt and solid waste along stream Install lighting and relevant road signage and barriers at construction site 	Skilled Labor (5 nos) Unskilled labour (35)	<ul style="list-style-type: none"> Base camp Borrow pit Staging area 	<ul style="list-style-type: none"> 4 weeks or 1 month
Construction	<ul style="list-style-type: none"> Side Drains Culvert works Utilizing borrow pits 	<ul style="list-style-type: none"> Site clearing and excavation Excavation, and stabilization Construction of bed, and concrete screeding; Construction of reinforced concrete wall (Abutments); Construction of deck concrete; Drainage structure and facilities; Retaining walls and earth – filling; Any other ancillary work 	Skilled Labor (10 nos) Unskilled labour (50)	<ul style="list-style-type: none"> Base camp Borrow pit Staging area Priority Work sites/ River crossing corridor 	<ul style="list-style-type: none"> 24 weeks or 6 months
Post-Construction/Operational/Maintenance	<ul style="list-style-type: none"> Maintenance of Culvert, Drains, Stream and access Road Borrow pit reclamation 	<ul style="list-style-type: none"> Regular clearing of culverts, drains and stream of silt and solid waste; Regular checks and maintenance of road surface; Checks and exchange of wearing course after number of years; Exchange of binder course after a number of years; Routine inspections of foundations, joins etc; Routine inspections of pavement 	Skilled Labor (3 nos) Unskilled labour (15)	<ul style="list-style-type: none"> road maintenance workshop road corridor River crossing corridor 	During operation
	<ul style="list-style-type: none"> Maintenance of other ancillary facilities 	<ul style="list-style-type: none"> Maintenance of road restraint systems; Maintenance of traffic control and information systems; Maintenance of fencing walls screens and environmental barriers; and Maintenance of the road verge (including landscaping and rehabilitation). 			

Table 3.3: Details of Hydraulic Structures

S/N	Name of River crossing	Slope	Manning Coefficient	Velocity	Peak flow	Recommended structure
Lot 1						
1	Agbata-Umuigwe Na Uzoagba	249.5	0.15	0.2	16.47	RC
2	Okwu-Umuonohor	220	0.15	0.1	3.40	RC
3	Orie Mbieri-Umuomumbieri	195	0.15	0.1	1.5	RC
4	Ekwe-Okwuodor	67	0.15	2.2	0.22	RC

5	Umuduruemghara-Okpala Anara	248	0.15	0.71	0.15	RC
6	Umuihim Autonomous Community – Umukaku	252.5	0.15	0.4	0.57	RC
7	Umulogho-Okwuohia	214.5	0.15	0.23	2.32	RC
Lot 2						
1	Uzurunamu-Okwudo Mgbidi	211	0.15	19.0	0.06	RC
2	Akama-Nansa-Akwa Ihedi	252.5	0.15	0.4	0.57	RC
3	Igbee-Amaruru	252.5	0.15	0.4	0.57	RC
4	Ndiuche-Izuogu Uri	294.5	0.15	0.85	11.66	RC
5	Obinugwu-Umueshi-Okwa	198	0.15	4.5	0.50	RC
6	Dikenafai-Abba Nwagele	246	0.15	1.52	2.67	RC
7	Dimagu-Nkwere	252.5	0.15	0.4	0.57	RC
Lot 3						
1	Umueziogwu-Uzoagba-Okitankwo-Umunahu	195	0.15	0.1	1.5	RC
2	Umuebee-Umuhu	249.5	0.15	0.2	16.47	20 meters Bridge
3	Ugbele-Bsc	308.5	0.15	0.53	41.07	RC
4	Amugu-Umulebe	168	0.15	5.5	6.5	RC
Lot 4						
1	Ndikpa Umucheke-Okui	235.5	0.15	0.1	41.09	RC
2	Ukolu-Umucheke	245.5	0.15	0.8	11.18	RC
3	Umunaa-Uhi Owerre-Okwe	223	0.15	4.74	0.01	RC
4	Umuokpara Ofeiyi-Umuoleche	198	0.15	4.5	0.50	RC
5	Amano-Umukogwu	252.2	0.15	0.4	0.57	RC

Table 3.4: Pavement Layers and Surfacing Types

S/N	Pavement Layer/Surfacing Type	Description
1	Base Course	Typically, 150mm thick natural granular lateritic base course or crushed-stone base material.
2	Sub-base	Typically, 150mm thick (or nil) natural granular lateritic sub- base course layer of equal subgrade strength.
3	Dust-Suppressants	To suppress/control dust with chemical additives such as Wetting Agents, Salt/Chlorides, Natural Polymers, Wax Agents, etc.
4	Surfaces	Earth
5	Other surfaces	Otta seal and 2-Coat surface dressing

Table 3.5 Geometric and Pavement Data for Approach Roads

S/N	Name of Priority Site	Approach Road Length (m)	Width of road (m)	Pavement Structure (mm)			RC Side drains (mm ²)		Length of Side drain (m)
				Sub Base Course	Base Course	Surface	Right side	Left side	
Lot 1									
1	Agbata-Umuigwe Na Uzoagba	100	7.3	150	150	Earth	750X750	750X750	200
2	Okwu-Umuonohor	100	7.3	150	150	Earth	750X750	750X750	200
3	Orie Mbieri-Umuomumbieri	100	7.3	150	150	Earth	750X750	750X750	200
4	Ekwe-Okwuodor	100	7.3	150	150	Earth	750X750	750X750	200
5	Umuduruemghara-Okpala Anara	100	7.3	150	150	Earth	750X750	750X750	200
6	Umuihim Autonomous Community – Umukaku	100	7.3	150	150	Earth	750X750	750X750	200
7	Umulogho-Okwuohia	100	7.3	150	150	Earth	750X750	750X750	200

Lot 2									
1	Uzurunamu-Okwudo Mgbidi	100	7.3	150	150	Earth	750X750	750X750	200
2	Akama-Nansa-Akwa Ihedi	100	7.3	150	150	Earth	750X750	750X750	200
3	Igbee-Amaruru	100	7.3	150	150	Earth	750X750	750X750	200
4	Ndiuche-Izuogu Uri	100	7.3	150	150	Earth	750X750	750X750	200
5	Obinugwu-Umueshi-Okwa	100	7.3	150	150	Earth	750X750	750X750	200
6	Dikenafai-Abba Nwagele	100	7.3	150	150	Earth	750X750	750X750	200
7	Dimagu-Nkwere	100	7.3	150	150	Earth	750X750	750X750	200
Lot 3									
1	Umueziogwu-Uzoagba-Okitankwo-Umunahu	100	7.3	150	150	Earth	750X750	750X750	200
2	Umuebee-Umuhu	100	7.3	150	150	Earth	750X750	750X750	200
3	Ugbele-Bsc	100	7.3	150	150	Earth	750X750	750X750	200
4	Amugu-Umulebe	100	7.3	150	150	Earth	750X750	750X750	200
Lot 4									
1	Ndikpa Umucheke-Okiu	100	7.3	150	150	Earth	750X750	750X750	200
2	Ukolu-Umucheke	100	7.3	150	150	Earth	750X750	750X750	200
3	Umunaa-Uhi Owerre-Okwe	100	7.3	150	150	Earth	750X750	750X750	200
4	Umuokpara Ofeiyi-Umuoleche	100	7.3	150	150	Earth	750X750	750X750	200
5	Amano-Umukogwu	100	7.3	150	150	Earth	750X750	750X750	200

CHAPTER FOUR

BASELINE ENVIRONMENTAL AND SOCIAL CONDITIONS

4.1 Introduction

Imo State is one of the seven states created by the Federal Military Government on February 3, 1976. It derives its name from Imo River, which takes its course from the Okigwe/Awka upland. The State lies within latitudes 4°45'N and 7°15'N, and longitude 6°50'E and 7°25'E. It occupies the area between the lower River Niger and the upper and middle Imo River. Imo State is bounded on the east by Abia State, on the west by the River Niger and Delta State; and on the north by Anambra State, while Rivers State lies to the south. The State covers an area of about 5,100sq km.

4.2 Biophysical Environment

This sub-section examines the existing biophysical environment/ conditions of the proposed intervention project area. The baseline information pertinent to the proposed intervention project area are presented here. These include:

- Soil Quality;
- Air Quality;
- Water Quality

4.2.1 Analysis of Bio-Physical Environment

The primary data source for the project is a one-season field sampling carried out through an environmental baseline survey conducted in December, 2018. The sample preservation techniques and chain of custody is shown in the annex. Table 4.1 shows the sampling locations while the detailed result of analyses is presented in Annex XIII. See Annex VI for pictures of sample collection.

4.2.1.1 Soil Physico-Chemical Properties and Quality

Soil samples were collected from each RC project area to represent the project site. Each of the samples was randomly collected at one depth intervals (0 - 15cm of topsoil) using a stainless-steel auger. The soil samples were then stored in plastic buckets and homogenized before sub-sampling. The samples were subsequently stored in on ice (below 4 °C) and transported.

4.2.1.2 Ambient Air Quality

A pre-calibrated air quality meter (GrayWolf AdanceSense TM) and Gray wolf particle counter were used to measure the in-situ air quality parameters. The measured parameters include Carbon monoxide (CO), Carbon dioxide (CO₂), Air temperature, Humidity, Volatile Organic Carbon (VOC), Sulphur dioxide (SO₂), Nitrogen dioxide (NO₂), Hydrogen sulphide (H₂S) and Particulate Matter (PM 0.3-10).

4.2.1.3 Physico-Chemical Analysis of the Surface Water Samples

A pre-calibrated water quality meter (Extech DO 700 meter) was used to measure the in-situ water quality parameters. The concentrations of the parameters were generally compared against the WHO/FMEnv permissible limits for aquatic life and domestic use.

Table 4.1 Sampling point for Biophysical Environment (soil, surface water and air)

S/N	Name of Priority Site	X	Y
Lot 1			
1	Agbata-Umuigwe Na Uzoagba	5.5471351	7.1456688
2	Okwu-Umuonohor	5.5386931	7.1940632
3	Orie Mbieri-Umuomumbieri	5.5833629	7.0635892
4	Ekwe-Okwuodor	5.725831	7.0270723
5	Umuduruemghara-Okpala Anara	5.7103055	7.1796244
6	Umuihim Autonomous Community – Umukaku	5.6694058	7.2049614
7	Umulogho-Okwuohia	5.5855616	7.3612385
Lot 2			
1	Uzurunamu-Okwudo Mgbidi	5.7258524	6.8820876
2	Akama-Nansa-Akwa Ihedi	5.8850147	7.0069225
3	Igbee-Amaruru	5.8895854	6.9687548
4	Ndiuche-Izuogu Uri	5.8230743	7.1782618
5	Obinugwu-Umueshi-Okwa	5.8355695	7.1244245
6	Dikenafai-Abba Nwagele	5.7543142	7.1481708
7	Dimagu-Nkwere	5.7847093	7.1120534
Lot 3			
1	Umueziogwu-Uzoagba-Okitankwo-Umunahu	5.5139843	7.1066507
2	Umuebee-Umuhu	5.5471296	7.1456688
3	Ugbele-Bsc	5.8013891	7.0774081
4	Amugu-Umulebe	5.8603032	7.1424667
Lot 4			
1	Ndikpa Umucheke-Okui	5.7923226	7.1956882
2	Ukolu-Umucheke	5.7817906	7.1951538
3	Umunaa-Uhi Owerre-Okwe	5.797752	7.2101361
4	Umuokpara Ofeiyi-Umuoleche	5.8311087	7.3200808
5	Amano-Umukogwu	5.8538709	7.3192942



4.2.2 Physico-Chemical Analysis of Soil, Water and Air



With regards to the soil, the pH ranges between 6.09 and 7.92 implying that the samples slightly acidic to alkaline. The total nitrogen ranges between 13,412 and 16,750. Conductivity ranges between 1,112 and 1,890. In terms of the air samples, the analysis reveals that SO₂ ranges between 0.00 and 0.01. NO₂ ranges between 0.00 and 0.02. For VOC, the values range between 0.101 and 0.154. The H₂S were all below 0.01 and CO is between 0.0 and 0.2. The CO₂ is between 0.0 and 0.1. Air temperature is between 28.6 and 32.7°C. The range of noise pollution across the project area is between 38.5 dB and 50.4 dB. With respect to the analysis of water samples, the pH is between 6.57 and 7.87. For the conductivity in the water sample, the values ranged between 401 and 689. The Dissolved Oxygen in the samples ranged between 2.53 and 6.92 while the resistivity values ranged between 3.28 and 5.76. All the water samples are clear, odourless with temperature ranging between 30.3°C and 32.1°C. All the samples were within the FMEnv limits. Detail results of the physico-chemical analysis of the soil, water and air samples and the FMEnv limits are outlined in annex XIII.




4.3 Overview of the Description of the Prioritized River Crossings

The current status of the priority sites in each lot are further illustrated in tables 4.2 – 4.5. The table also provides the description of the identified environmental and social issues in the priority sites. Figs. 4.1 – 4.4 shows the map of the priority sites in the four lots while plates 4.1 – 4.5 shows the pictures of the priority sites. The locations of the staging area, base camps and Physical Cultural Resources among others can be found in Annex XXI. It is noted that in all priority sites where economic trees and other sources of livelihood will be impacted, a RAP will be complemented to adequately address these impacts. The sub-project implementation will ensure that avoidance of impacts where feasible, is prioritized to reduce severity of impact in these communities.

Table 4.2: Current Status of the Prioritized Imo RAMP-2 River Crossings (LOT 1)

S/N	Name of priority site/LGA	Size of structure/ Length of RC (m)	Name of River	Status	Environmental Sensitivity	Social Sensitivity	Pictures
1	Agbata-Umuigwe Na Uzoagba (Ikeduru/Mbatoli LGA)	3 (3m X 3.5 m)/10.3	Mba	No existing access bridge across the river.	The River overflows its banks and covers the road during the wet season making it impassable. The project site is surrounded by a wetland with different aquatic plants and animals. The River is about 10m wide and 0.8 m deep	The River at this section is a source of water for domestic use to two communities (Agbata and Umuigwe Na Uzoagba). This may be affected during the site clearing and construction phase. The project site is surrounded by economic trees which may be cut down during site clearing. Impact to these assets will be captured in the standalone RAP that will be prepared. Fishing is the major economic activity carried out in the River. It is however carried out upstream and may not be affected by the project.	
2	Okwu-Umuonohor (Ikeduru/Mbatoli LGA)	3(3m X 3.5 m)/7.3	Onuoma	Dilapidated bridge	The River overflows its banks and covers the bridge during the wet season making it impassable. The project site is surrounded by a wetland with different aquatic plants and	The River at this section provides water supply for domestic use to two communities (Okwu and Umuonohor). This may be impacted during the site clearing and construction phase. Farms can be found along the river bank. They may be affected during site clearance.	

					animals such as Bamboo, Plantain and Alligator lizard respectively.	Fishing is the major economic activity carried out in the River.	
3	Orie Mbieri-Umuomumbieri (Ikeduru/Mbatoli LGA)	2(3m X 3.5 m)/6.0	Okatankpu	No existing culvert	The project site is surrounded by a wetland with different aquatic plants and animals such as Bamboo, Plantain and Alligator lizard respectively. The River overflows its banks and covers the road during the wet season making it impassable	The River at this section provides water supply for domestic use to two communities (Orie Mbieri and Umuomumbieri). This may be affected during the site clearing and construction phase. Sand mining is also carried out in this River. This may affect the sustainability of the RC. The project site is surrounded by economic trees which may be cut down during site clearing. Fishing is the major economic activity carried out in the River. This will be affected during construction	
4	Ekwe-Okwuodor (Njaba/Isu/Nkwere/Nwangele)	(3m X 3.5 m)/2.8	Ikwe	No existing culvert	The project site is surrounded by a wetland with different aquatic plants and animals such as Bamboo, Plantain and Alligator lizard respectively.. The River overflows its banks and covers the road during the wet season making it impassable	The River at this section is a source of water for domestic use to two communities (Ekwe and Okwuodor). This may be affected during the site clearing and construction phase. The project site is surrounded by economic trees which may be cut down during site clearing. Fishing is the major economic activity carried out in the River. It is however carried out downstream and will be affected by the project.	

5	Umuduruemghara-Okpala Anara (Isiala Mbanu/Ehime Mbanu LGA)	(2m X 2 m)/0.6	N/A	<ul style="list-style-type: none"> Existing dilapidated Culvert 1 X 1 single cell No drainage before and after the culvert 	The project site is surrounded by a wetland with different aquatic plants and animals such as Bamboo, Plantain and Alligator lizard respectively. The River overflows its banks and covers the river crossing during the wet season.	The River at this section is a source of water for domestic use to two communities (Umuduruemghara and Okpala). This may be affected during the site clearing and construction phase. Farms can be found along the river bank. They may be affected during site clearance. Fishing is the major economic activity carried out in the River. It is however carried out upstream and may not be affected by the project.	
6	Umuihim Autonomous Community – Umukaku (Isiala Mbanu/Ehime Mbanu LGA)	3(3m X 3.5 m)/7.52	N/A	<ul style="list-style-type: none"> Undersize existing culvert 3 X 2m culvert 	The River overflows its banks and covers the river crossing during the wet season	The River at this section is a source of water for domestic use to two communities (Umuihim Autonomous Community and Umukaku). This may be affected during construction. The project is surrounded by farmlands which may be affected during site clearing. Fishing is the major economic activity carried out in the River. It is however carried out downstream.	
7	Umulogho-Okwuohia (Aniri/Agwu LGA)	4(3m X 3.5 m)/12.0	N/A	No existing culvert	The project site is surrounded by a wetland with different aquatic plants and animals such as Bamboo, Plantain and Alligator lizard respectively. The River overflows its banks and covers the river crossing during the wet season making it impassable	The River at this section is a source of water for domestic use to two communities (Umulogho and Okwuohia). This may be affected during construction. The project is also surrounded by farmlands which may be affected during site clearing. The major economic activity carried out in the River is fishing. It is however carried out downstream and will be affected by the project	

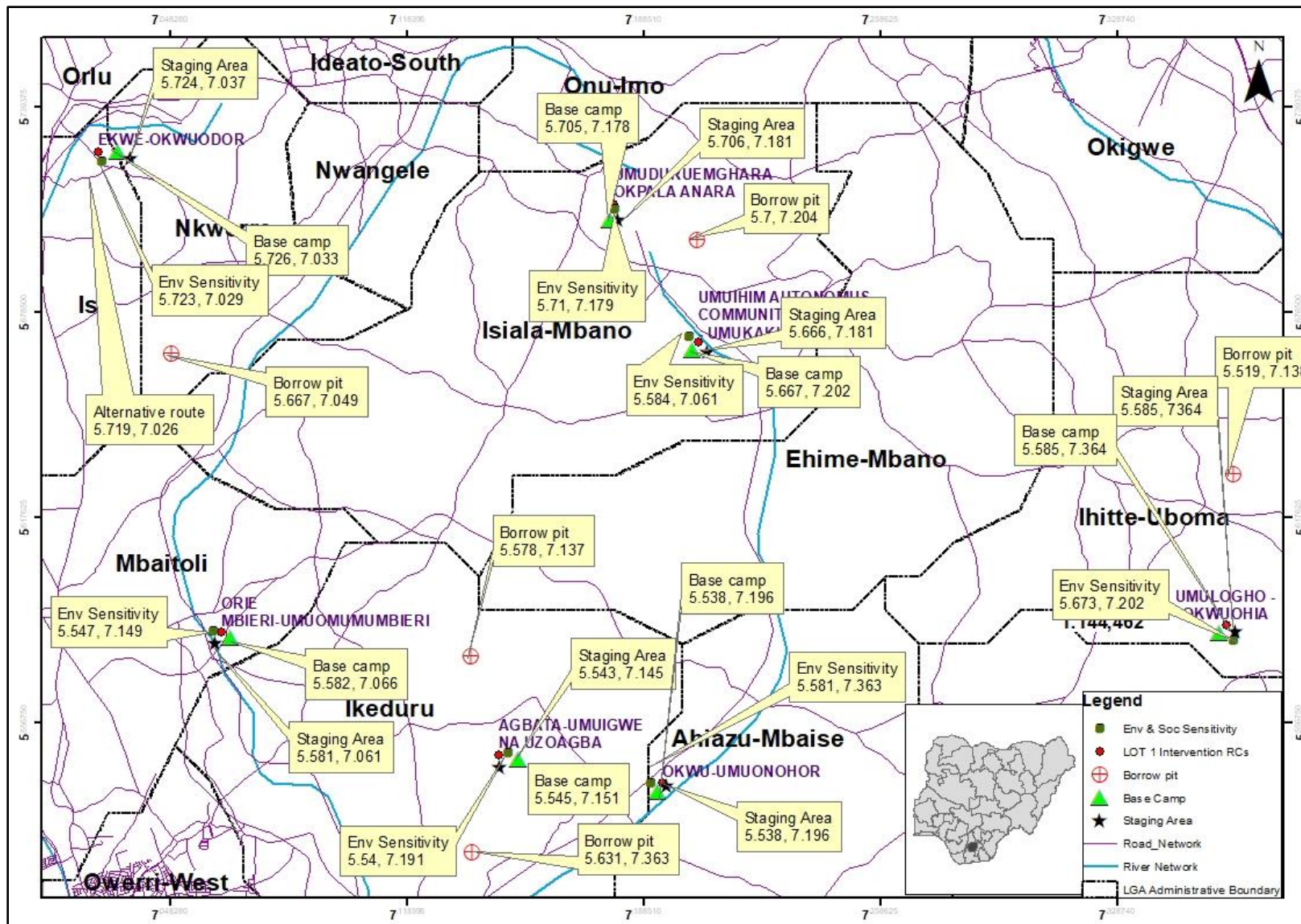


Figure 4.1 Prioritized River Crossings in LOT 1



Umulogho-Okwuohia



Umuduruemghara-Okpala Anara






Ekwe-Okwuodor







Umuebee-Umuhu

Plate 4.1: River Crossings in LOT 1

Table 4.3: Current Status of the Prioritized Imo RAMP-2 River Crossings (LOT 2)

S/N	Name of priority site	Size of structure/ Length of RC (M)	Name of River	Status	Environmental Sensitivity	Social Sensitivity	Pictures
1	Uzurunamu-Okwudo Mgbidi (Oru East/Oru West/Orsu LGA)	4 (3m X 3.5 m)/12.3	Obana	<ul style="list-style-type: none"> No existing access 	The river is shallow but wide. It is surrounded by a wetland with different aquatic plants and animals such as Bamboo, Plantain and Alligator lizard respectively. The area is very swampy with palm trees and bamboo.	The Obana River at this section is a source of water for domestic use for Uzurunamu and Okwudo communities. The River is a deity and fishing in the river is a taboo. Boa constrictors (Plate 4.3 and Annex XX) are also worshipped in this community so they must not be killed. These cultural inhibitions may be affected during site clearance and construction phase. Lots of economic trees (Breadfruit, oil bean and oil palm) can be found along the river bank. These plants may be impacted during site clearance.	
2	Akama-Nansa-Akwa Ihedi (Orsu LGA)	3(3m X 3.5 m)/10.0	Nwangele	<ul style="list-style-type: none"> No existing access 	The river is very wide river (60 meters). It is a wetland with different aquatic plants and animals such as Bamboo, Plantain and Alligator lizard respectively. The area is very swampy.	The River at this section is a source of water for domestic use for the three communities (Akama, Nansa and Akwa Ihedi). This may be affected during the site clearance and construction phase. The project area is also surrounded by farmlands. They may be affected during site clearance. Fishing is the major economic activity carried out in the River. It is however carried out upstream and may not be affected by the project.	
3	Igbee-Amaruru (Orsu LGA)	2(2.0m X 2.0 m)/3.56	Ngwugwo	<ul style="list-style-type: none"> Concrete slab access Boundary between Imo and Anambra state 	The project site is surrounded by a wetland with different aquatic plants and animals such as Bamboo, Plantain and Alligator lizard respectively. The River overflows its banks and covers the bridge during the wet season making it impassable. The river is perennial and the area is swampy with the predominance of bamboo.	The River at this section is a source of water for domestic use for the two communities (Igbee and Amaruru). This may be affected during the site clearing and construction phase. There is predominance of Bamboo in the project site. It is also surrounded by farmlands. They may be affected during site clearance.	

S/N	Name of priority site	Size of structure/ Length of RC (M)	Name of River	Status	Environmental Sensitivity	Social Sensitivity	Pictures
4	Ndiuche-Izuogu Uri (Ideato North/South LGA)	3(2.0m X 3.5 m)/4.5	Uri	<ul style="list-style-type: none"> No existing access 	The project site is surrounded by a wetland with different aquatic plants and animals such as Bamboo, Plantain and Alligator lizard respectively. The River overflows its banks and covers the road during the wet season making it impassable. The river is seasonal	The River at this section is a source of water for domestic use for two communities (Ndiuche and Izuogu Uri). This may be affected during the site clearing and construction phase. There is predominance of Bamboo and other economic trees like oil palm and oil bean. They are also surrounded by farmlands. They may be affected during site clearance. Fishing is the major economic activity carried out in the River. It is however carried out upstream and may not be affected by the project.	
5	Obinugwu-Umueshi-Okwa (Ideato North/South LGA)	3(3m X 3.5 m)/10	Okwa	<ul style="list-style-type: none"> Undersized culvert 2 X 2 cell 	The project site is surrounded by a wetland with different aquatic plants and animals such as Bamboo, Plantain and Alligator lizard respectively. The River overflows its banks and covers the culvert during the wet season making it impassable	The River at this section provides water for domestic use to three communities (Obinugwu, Umueshi and Okwa). This may be affected during the site clearing and construction phase. The project site is also surrounded by farmlands. They may be affected during site clearance.	
6	Dikenafai-Abba Nwagele (Ideato North/South LGA)	3(3m X 3.5 m)/10.3	Nwamurumuru	<ul style="list-style-type: none"> The existing access is a 900 m steel pipe. 	The project site is surrounded by a wetland with different aquatic plants and animals such as Bamboo, Plantain and Alligator lizard respectively.	The River at this section provides water for domestic use to two communities (Dikenafai and Abba Nwagele). It is bordered by a palm oil processing factory (about 200 meters). This may be affected during construction. There are also economic trees (oil palm and Bamboo) very close to the project site. They may also be affected during site clearance. There will be need for a resettlement action plan.	
7	Dimagu-Nkwere (Ideato North/South LGA)	3(3m X 3.5 m)/8.2	Urashi	<ul style="list-style-type: none"> Dilapidated existing bridge 4m X 6M 	The river width is about 7 meters. It is surrounded by a wetland with different aquatic plants and animals such as Bamboo, Plantain and Alligator lizard respectively. The River overflows its banks and covers the bridge during the wet season making it impassable	The River at this section provides water supply for domestic use to two communities (Dimagu and Nkwere). This may be affected during the site clearing and construction phase. Presence of economic trees (oil palm and Bamboo) around the project site. They may be affected during site clearance. Fishing is the major economic activity carried out in the River. It is however carried out downstream and will be affected by the project.	



Uzurunamu-Okwudo Mgbidi



Ndiuche-Izuogu Uri



Umuisu- Umunaga



Igbee-Amaruru




Plate 4.2: River Crossing in LOT 2




Plate 4.3: Boa

Source: Onyeakagbu (2019)

Table 4.4: Current Status of the Prioritized Imo RAMP-2 River Crossings (LOT 3)

S/N	Name of priority site	Size of structure	Name of River	Status	Environmental Sensitivity	Social Sensitivity	Pictures
1	Umueziogwu-Uzoagba-Okitankwo-Umunahu (Owerri East/West LGA)	3(3m X 3.5 m)	Okitankwo	<ul style="list-style-type: none"> Undersize bridge 	<p>The project site is surrounded by a wetland with different aquatic plants and animals such as Bamboo, Plantain and Alligator lizard respectively. The River overflows its banks and covers the road during the wet season making it impassable</p>	<p>The River at this section is a source of water for domestic use to four communities (Umueziogwu-Uzoagba-Okitankwo-Umunahu). This may be affected during the site clearing and construction phase.</p>	
2	Umuebee-Umuhu (Owerri East/West LGA)	6(3m X 3.5 m)	Urashi	<ul style="list-style-type: none"> Existing wooden bridge is damaged River width is about 20 m 	<p>The project site is surrounded by a wetland with different aquatic plants and animals such as Bamboo, Plantain and Alligator lizard respectively. The River overflows its banks and covers the road during the wet season making it impassable. The project site is surrounded by farmlands. They may be affected during site clearance. The River overflows its banks and covers the river crossing during the wet season</p>	<p>The River at this section is a source of water for domestic use for two communities (Umuebee and Umuhu). This may be affected during the site clearing and construction phase. Bamboo trees are predominant around the project site. These may be affected during site clearance.</p>	
3	Ugbele-BSC (Ideato South LGA)	6(3m X 3.5 m)	Ikwe	<ul style="list-style-type: none"> Dilapidated existing iron bridge 	<p>The project site is surrounded by a wetland with different aquatic plants (bamboo and palm tree) and animals. The River overflows its banks and covers the culvert during the wet season making it impassable.</p>	<p>The River at this section is a source of water for domestic use for two communities (Ugbele and BSC). This may be affected during the site clearance and construction phase. The project site is surrounded by farmlands (with cassava, yam and maize</p>	

						as major farm produce). These may be affected during site clearance. Fishing is the major economic activity carried out in the River. It is however carried out upstream and may not be affected by the project.	
4	Amugu-Umulebe (Ideato South LGA)	3(3m X 3.5 m)	Ikwu	<ul style="list-style-type: none"> • Dilapidated existing culvert • 5m X 5m culvert • 2 X 2 cell 	The River overflows its banks and covers the culvert during the wet season making it impassable. Predominance of bamboo around the project site. They may be affected during site clearance.	The River at this section is a source of water for domestic use to two communities (Amugu and Umulebe). This may be affected during the site clearing and construction phase. Fishing is the major economic activity carried out in the River. It is however carried out downstream and will be affected by the project.	

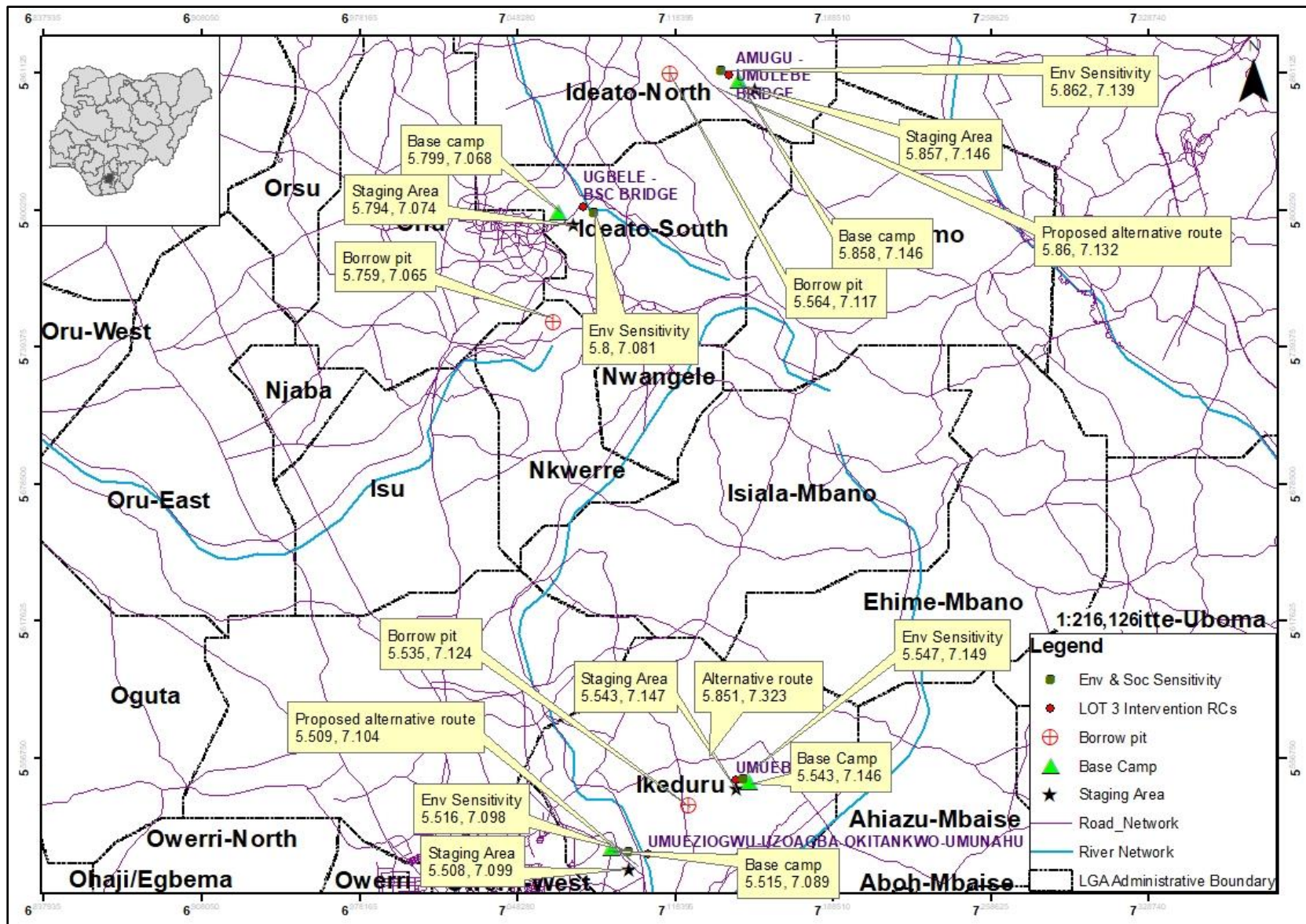


Figure 4.3 Prioritized River Crossings in LOT 3



Ugbele-BSC



Umueziogwu-Uzoagba-Okitankwo-Umunahu






Ikwe Ezelu-Owere Okwe





Umuebee-Umuhu

Plate 4.4: River Crossings in LOT 3

Table 4.5: Current Status of Prioritized Imo RAMP-2 River Crossings (LOT 4)

S/N	Name of priority site/LGA	Size of structure/ Length of RC (M)	Name of River	Status	Environmental Sensitivity	Social Sensitivity	Picture
1	Ndikpa Umucheke-Okui (Onuimo LGA)	2(3m X 3.5m)/ 5.10	Ekwi Ogbo	<ul style="list-style-type: none"> No existing culvert 	The river is seasonal. The River crosses the road during the wet season making it impassable.	The project area is surrounded by some economic trees, which may be affected during site clearance and construction. Fishing is the major economic activity carried out in the River. It is however carried out upstream and may not be affected by the project.	
2	Ukolu-Umucheke (Onuimo LGA)	(3m X 3.5 m)/3.0	Ikwe Umunanama	<ul style="list-style-type: none"> No existing culvert 	The river is seasonal. The River crosses the road during the wet season making it impassable.	The River at this section is a source of water supply for domestic use for two communities (Ukolu and Umucheke). This may be affected during the site clearing and construction phase. The project site is surrounded by Farmlands (with major farm produce such as cassava, yam and maize). They may be affected during site clearance and construction.	
3	Umunaa-Uhi Owerre-Okwe (Onuimo LGA)	3(3m X 3.5 m)/10	N/A	<ul style="list-style-type: none"> Existing dilapidated culvert 2 X 1 single cell culvert 	It is a seasonal river but overflows in wet season. The project site is surrounded by a wetland with different aquatic plants and animals such as Bamboo, Plantain and Alligator lizard respectively. The River overflows its banks and covers the culvert during the wet season making it impassable.	The River at this section is a source of water for domestic use for Umunna and Uhi Owerre-Okwe communities. This may be affected during the site clearing and construction phase. There are economic trees such as Bamboo and palm tree in close proximity to the project site which may be affected during site clearance.	

4	Umuokpara Ofeiyi-Umuoleche (Okigwe LGA)	4(3m X 3.5 m)/12.0	N/A	<ul style="list-style-type: none"> Blocked culvert 	The culvert is blocked due to siltation and is currently causing gully erosion in adjoining areas.	The project site is within the Umuopara Ofeiyi community.	
5	Amano-Umukogwu (Okigwe LGA)	2(3m X 3.5 m)/5.0	N/A	<ul style="list-style-type: none"> Dilapidated bridge 2m X 0.8m 	The project site is surrounded by a wetland with different aquatic plants and animals such as Bamboo, Plantain and Alligator lizard respectively. The River overflows its banks and covers the bridge during the wet season making it impassable. Not suitable for motorized vehicle transport.	The River at this section is a source of water for domestic use for Amano and Umukogwu communities. This may be affected during the site clearing and construction phase. The project site is surrounded by Farmlands (with major farm produce such as cassava, yam and maize which may be affected during site clearance and construction.	

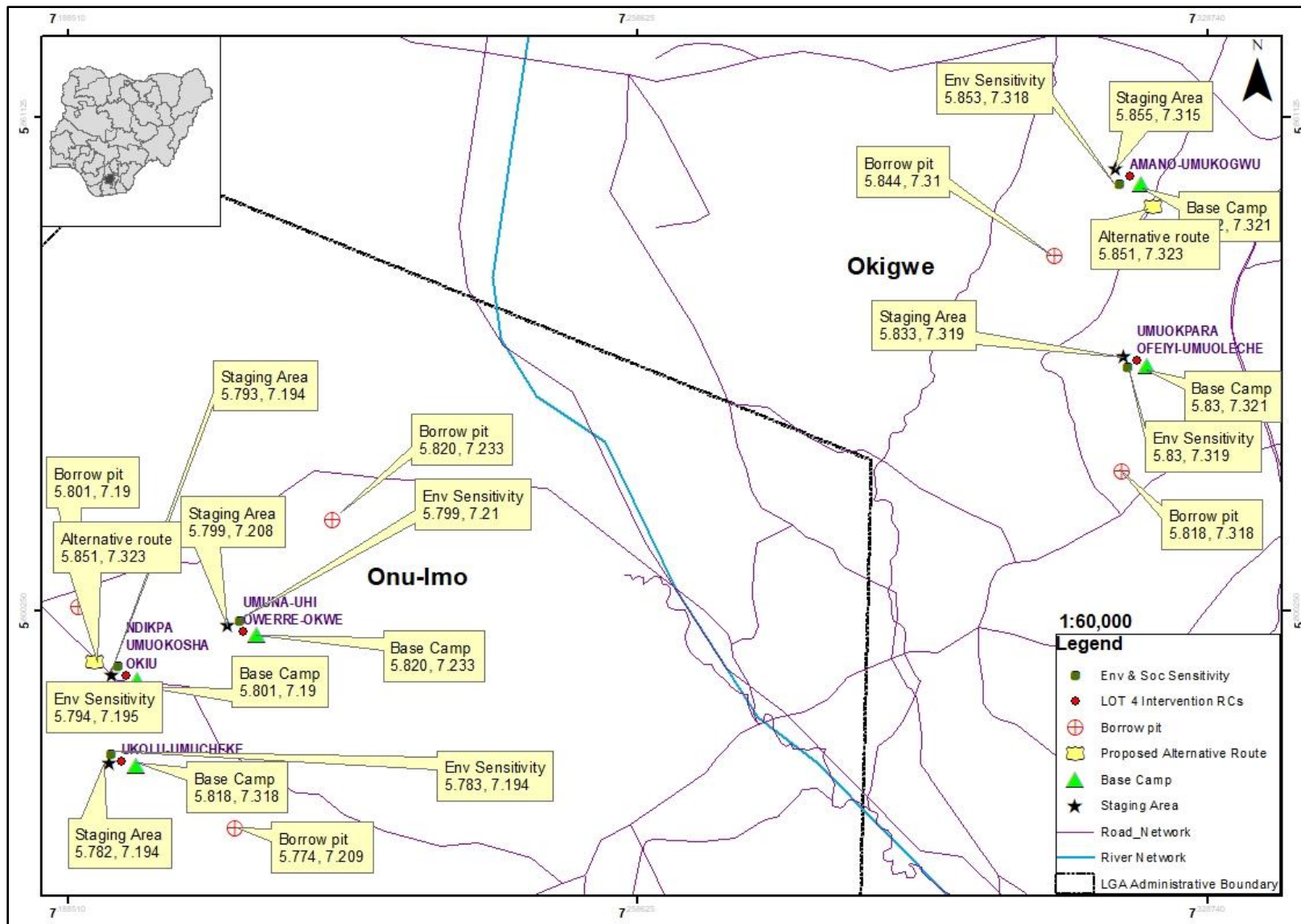


Figure 4.4 Prioritized River Crossings in LOT 4



Umuokpara Ofeiyi-Umuoleche



Ukolu-Umucheke



Umunaa-Uhi Owerre-Okwe



Amano-Umukogwu

Plate 4.5 River Crossings in LOT 4

4.4 Socio-Economic Environment

The result from the socio-economic survey conducted based on the lots is shown in Table 4.6.

Table 4.6 Socio-economic Characteristics of the consulted persons in the Communities

S/N	Socio-Economic Indicator	(LOTS)			
		Lot 1 Ikeduru/Mbatoli/Njaba/Isu/Nkwere/Nwangele/Isiala Mbanu/Ehime Mbanu/Aniri/Agwu	Lot 2 Oru East/Oru West/Orsu/ Ideato North/Ideato South	Lot 3 Owerri East/Owerri West/ Ideato South	Lot 4 Onuimo/ Okigwe
1	Gender	There were more males (52.0%) than females (47.0%) respondents. This implies that the study tried to observe gender balance in the selection of respondents, hence both gender voices were taken into account.	There were more males (57.0%) than females (43.0%) respondents. This implies that the study tried to observe gender balance in the selection of respondents, hence both gender voices were taken into account.	There were more males (54.0%) than females (46.0%) respondents. This implies that the study tried to observe gender balance in the selection of respondents, hence both gender voices were taken into account.	There were more males (51.0%) than females (49.0%) respondents. This implies that the study tried to observe gender balance in the selection of respondents, hence both gender voices were taken into account.
2	Age	The highest proportion of the respondents (55.0%) falls within the age range of 45–65 years. This is followed by 18–44 years (31.0%) and 65 and above (14.0%). This indicates a potential of availability of active work force (labour) in the project areas.	Age groups between 18-45 years constitute the highest proportion of the respondents with 56.0%. 46–65 years age group constitutes 34.0% of the respondents while 66 years and above are about 10.0%. This indicates a potential of available active work force (labour) in the project areas.	Age groups between 18-45 years constitute the highest proportion of the respondents with 66.0%. 46–65 years age group constitutes 24.0% of the respondents while 66 years and above are about 10.0%. This indicates a potential of available active work force (labour) in the project areas.	The highest proportion of the respondents (54.0%) falls within the age range of 45–65 years. This is followed by 18–45 years (31.0%) and 65 and above (15.0%). This indicates a potential of available active work force (labour) in the project areas.
3	Ethnic group	The respondents in these areas belong mainly to the Igbo ethnic group (100%). This points to ethnic homogeneity in the project area and the possible ease of consultation for the project.	The respondents in these areas belong mainly to the Igbo ethnic group (100%). This points to ethnic homogeneity in the project area and the possible ease of consultation for the project.	The respondents in these areas belong mainly to the Igbo ethnic group (100%). This points to ethnic homogeneity in the project area and the possible ease of consultation for the project.	The respondents in these areas belong mainly to the Igbo ethnic group (100%). This points to ethnic homogeneity in the project area and the possible ease of consultation for the project.
4	Literacy level / Language(s) spoken	About 58.5.0% of the respondents in this settlement have a definite form of formal education, basically up to secondary school level, hence they can read and write in English and local Language. This can be related to the potential ease of communication and reduction in conflict which may be caused by poor understanding of the project	Literacy level is high in this settlement with only 72.0% of the respondents with formal education. This contributes similarly to the language spoken as most can read and write in English and their mother language. This can be related to the potential ease of communication and reduction in conflict which may be caused by poor understanding of the project	About 65.0% of the respondents in this settlement have a definite form of formal education, basically up to secondary school level, hence they can read and write in English and local Language. This can be related to the potential ease of communication and reduction in conflict which may be caused by poor understanding of the project	Literacy level is high in this settlement with only 76.0% of the respondents with formal education. This contributes similarly to the language spoken as most can read and write in English and their mother language. This can be related to the potential ease of communication and reduction in conflict which may be caused by poor understanding of the project
5	Marital Status	Most of the respondents (69.0%) are married while 16.0% are single. The widows/widowers (15.0%) are mostly within the aged age group. The predominance of married individuals among the respondents in the project area points to the possibility of population increase. It is also a sign of maturity and responsibility implying that youth restiveness may not be a problem to the project.	Most of the respondents in this settlement are married 70.5% while 22.5% are single. The widows/widowers (7.0%) are mostly within the aged age group. The predominance of married individuals in the project area points to the possibility of population increase. It is also a sign of maturity and responsibility implying that youth restiveness may not be a problem to the project.	Most of the respondents are married 43.0% while 36.0% are single. The widows/widowers (21.0%) are mostly within the aged age group. The predominance of married individuals in the project area points to the possibility of population increase. It is also a sign of maturity and responsibility implying that youth restiveness may not be a problem to the project.	Most of the respondents are married 71.0% while 10.0% are single. The widows/widowers (19.0%) are mostly within the aged age group. The predominance of married individuals in the project area points to the possibility of population increase. It is also a sign of maturity and responsibility implying that youth restiveness may not be a problem to the project.

6	Occupation	Categories of occupation classifications recognized within these communities include: 85.0% are farmers. Others who are engaged in small scale business and trading, make up 15%. This indicates that the respondents are economically empowered. It also shows that care must be taken to reduce the impact of the project on farms as it is the main source of livelihood to most of the respondents	There are two basic occupational groups identified within this settlement. Most of the individuals are farmers (74.0%), while others are self-employed individuals including traders (26.0%). This indicates that the respondents are economically empowered. It also shows that care must be taken to reduce the impact of the project on farms as it is the main source of livelihood to most of the respondents	Categories of occupation classifications recognized within this community include: 65.0% are farmers. Other respondents which are engaged in small scale business and trading make up 35%. This indicates that the respondents are economically empowered. It also shows that care must be taken to reduce the impact of the project on farms as it is the main source of livelihood to most of the respondents	Categories of occupation classifications recognized within this community include: 70.0% are farmers, Others (30%) are engaged in small scale business and trading. This indicates that the respondents are economically empowered. It also shows that care must be taken to reduce the impact of the project on farms as it is the main source of livelihood to most of the respondents
7	Size of Households of the Respondents	This ranged from 1-3 members (19.0%), 4-6 members (31.0%), 7-10 members (38.0%) and above 15 members (12.0%). The average family size is 8 in the communities. With the large family sizes, care must be taken to protect the family's sources of livelihood (farming) from the impact of the project, as the number of people that will be affected are many.	The household size ranged from 1-3 (11.0%), 4-6 (55.0%), 7-10 (15.0%) and above 15 members (19.0%). Hence, the family size tends towards an average of 8. With the large family sizes, care must be taken to protect the family's sources of livelihood (farming) from the impact of the project as the number of people that will be affected are many.	The household size ranged from: 1-3 members (22.0%), 4-6 members (21.0%), 7-10 members (23.0%) and above 15 members (34.0%). The average family size is 8 in the communities. With the large family sizes, care must be taken to protect the family's sources of livelihood (farming) from the impact of the project as the number of people that will be affected are many.	The family sizes in these communities can be classified into four groups. The first group has a minimum of 1-3 members (21.0%), the second group ranges from 4-6 members (25.0%), the third group has a range of 7-10 members (38.0%) and the last group have 15 family members and above (15.0%). The average family size is 8 in the communities. With the large family sizes, care must be taken to protect the family's sources of livelihood (farming) from the impact of the project as the number of people that will be affected are many.
8	Income Level of the respondents	Total income structure of the respondents showed that most (70.0%) earn less than N20,000 a month. 18.0% earn between N20,000-N50,000 a month, while those that earn above N50,000 constitute 12.0% of the population. This indicates that most of the respondents are vibrant individuals who look for every opportunity they get to generate income that will help sustain their families among other endeavors. The proposed intervention will further increase the income level of the respondents especially through participation in the project which improve their mobility and the marketing of their farm produce.	Total income structure of the respondents showed that most (48.5%) earn less than N20,000 a month. 30.0% earn between N20,000 -N50,000 a month while those that earn greater than N50,000 constitute 21.5% of the population. This indicates that most of the respondents are vibrant individuals who look for every opportunity they get to generate income that will help sustain their families among other endeavors. The proposed intervention will further increase the income level of the respondents especially through participation in the project which will improve their mobility and the marketing of their farm produce.	Total income structure of the respondents showed that most (57.0%) earn less than N20,000 a month. 38.0% earn between N20,000-N50,000 a month, while those that earn above N50,000 constitute 5.0% of the population. This indicates that most of the respondents are vibrant individuals who look for every opportunity they get to generate income that will help sustain their families among other endeavors. The proposed intervention will further increase the income level of the respondents especially through participation in the project, which will improve their mobility and the marketing of their farm produce.	Total income structure of the respondents showed that 38% earn less than N20,000 a month. 45.0% earn between N20,000 -N50,000 a month while those that earn greater than N50,000 constitute 22% of the population. This indicates that most of the respondents are vibrant individuals who look for every opportunity they get to generate income that will help sustain their families among other endeavors. The proposed intervention will further increase the income level of the respondent especially through participation in the project, which will improve their mobility and marketing of their farm produce.
0	Waste Management Approaches	Most of the residents which accounts for 46.0%, dispose their waste through the use of community dumpsites. This is followed by 26.0% residents who burn their waste and 28.0% of other that dump their refuse in their backyard or in the stream/river. The dumping of refuse in rivers and streams may have impact on the life span of the proposed RCs by blocking access to waterflow.	Most of the respondents in these communities deposit their waste at the backyard of their houses (60%), while about 20% burn their refuses and 20% dump their refuse in the stream or river. The dumping of refuse in rivers and streams may have impact on the life span of the proposed RCs.	Most of the residents (59%) use the community dumpsites. This is followed by 26% residents who burn their waste while 5% usually dump the refuse in their backyard and 10% in the stream/river. The dumping of refuse in rivers and streams may have impact on the life span of the proposed RCs.	Most of the residents in these communities (about 52%) deposit their waste at the backyard of their houses. While about 10% dump in the river or stream, 38% burn their refuses. The dumping of refuse in rivers and streams may have impact on the life span of the proposed RCs.
10	Sources of Water	Most respondents (95%) in the communities have access to the Rivers in this Lot and thus depend on it as main source of water for drinking, cooking and bathing & washing. Other sources include as rainwater harvesting mainly in the rainy season	Most respondents (97%) in the communities have access to the Rivers in this Lot and thus depend on it as main source of water for drinking, cooking and bathing & washing. Other sources include rainwater harvesting mainly in the rainy season (3%), wells	Most respondents (97%) in the communities have access to the Rivers in this Lot and thus depend on it as main source of water for drinking, cooking and bathing & washing. Other sources include	Most respondents (98%) in the communities have access to the Rivers in this Lot and thus depend on it as main source of water for drinking, cooking and bathing & washing. Other sources include rainwater harvesting mainly in the rainy season (2%), wells and boreholes are also prominent

		(5%), wells and boreholes are also prominent in the community. Care must therefore be taken to protect the River from pollution.	and boreholes are also prominent in the community. Care must therefore be taken to protect the River from pollution	rainwater harvesting mainly in the rainy season (3%), wells and boreholes are also prominent in the community. Care must therefore be taken to protect the River from pollution	in the community. Care must therefore be taken to protect the River from pollution
10	Ethno-cultural Dynamics	In terms of ethnic homogeneity, most of the respondents in the communities (80.0%) reckoned that the settlement is historically homogenous. There are few records of major or deadly ethnic clashes or crises in the communities.	The communities are historically homogenous (87%). There are no records of ethnic clashes or crises in the communities, especially with Fulani cattle herders.	In terms of ethnic homogeneity, most of the respondents (80.0%) reckoned that the communities are historically homogenous but heterogeneous in terms of population. There are no records of major or deadly ethnic clashes or crises in the communities	About 90% of the respondents indicated that the communities are historically homogenous. There are no records of ethnic clashes or crises in the communities.
11	Awareness of the Proposed River crossing	Most of the respondents (80%) claimed they have no prior-knowledge of the project. They are however in support of the scheme and willing to assist in ensuring the success of the project. This indicates that public awareness needs to be carried out to enlighten the communities of the proposed project to reduce potential misconceptions	Most of the respondents (85%) depict poor knowledge of the proposed project. They however claimed to be satisfied with the proposed intervention. This indicates that public awareness needs to be carried out to enlighten the communities of the proposed project to reduce potential misconceptions	Most of the respondents (90%) claimed they have no prior-knowledge of the project. This indicates that public awareness needs to be carried out to enlighten the communities of the proposed project to reduce potential misconceptions	The respondents (80%) depict poor knowledge of the proposed project. They however claimed to be satisfied with the proposed intervention. This indicates that public awareness needs to be carried out to enlighten the communities of the proposed project to reduce potential misconceptions

CHAPTER FIVE POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS

5.1 Introduction

This project is envisaged to make numerous positive contributions to the households, communities and state, however, there are also potential negative impacts associated with project activities as discussed in the subsequent sections. Table 5.1 provides an overview of project activities likely to generate adverse impacts during project implementation and operation.

Table 5.1: Project implementation phases and associated activities

S/N	Project Phase	Activities
1	Pre-Construction	<ul style="list-style-type: none"> • Sensitization • Mobilisation • Site clearing • Clearing Safety measures • Material sourcing • Staging area • Workers camp
2	Construction	<ul style="list-style-type: none"> • Earthworks including excavation and grading • Provision of lateritic sub-base and base course (150mm) • Side Drains • Culvert works • Utilization of borrow pits
3	Post-Construction /Operational /Maintenance	<ul style="list-style-type: none"> • Road usage • Maintenance and Repairs • scheduled and unscheduled integrity checks for bridges and culverts • maintenance and replacement of wearing/faulty/damaged components • repairs of cracks and potholes • Cleaning of drains where and when necessary • Cleaning and vegetation control along the shoulders • Borrow pit reclamation

5.2 Potential Environmental and Social Impacts

5.2.1 Positive Environmental and Social Impacts

5.2.1.1 Positive Environmental Impacts

- Elimination of poor state of the river crossings;
- Rehabilitation of degraded river crossings and their conversion into productive use;
- Improved aesthetics of the environment

5.2.1.2 Positive Social Impacts

- Local sale of food and other items to workers on the site by the host community members;
- Opportunities for locals to supply construction materials;
- Employment of local labour for site clearance, construction and operations;
- Enhanced access and mobility for the people and movement of agricultural products;
- Increase in inter-communal socio-economic exchange;
- Reduction of disaster risks zones in the project area;
- Access to market-induced increase in production;
- Greater diversity in production and in farmers income;

- Reduction in cost of transportation

5.2.2 Potential Negative Environmental and Social Impacts

5.2.2.1 Potential Negative Environmental Impacts

- Ambient air pollution from release of dusts and gaseous emissions
- Loss of soil quality from de-vegetation and erosion
- Vegetation loss from preparation activities such as land clearing
- Generation of vegetal wastes and other cleared materials
- Fauna habitat alteration due to site clearing and construction activities
- Material sourcing, borrow pit formation and management
- Staging area impacts
- Impact on fish habitat
- Noise and vibration from the use of machineries and motorized equipment
- Generation of spoils and other construction wastes
- Slope instability arising from excavation to construct drainages
- Increased surface water run-off due to diversion during construction.
- Predisposition of soil erosion resulting from improper abandonment of borrow pit
- Underground water pollution from spillages & leakages from oil storage tanks.

5.2.2.2 Potential Negative Social Impacts

- Impact on shrines and cultural beliefs/areas
- Loss of farmland and economic trees
- Businesses could be impacted such as the palm oil processing factory that was observed in Dikenafai community
- Poor implementation of occupational health and safety measure which could lead to the risk of workers drowning in the river
- Security issues that may lead to stealing of contractor equipment mobilized to site
- Cultural conflicts due to fetching of water in Obana river on small Orié day
- Increase in vehicular movement may cause traffic congestion and accidents
- Risks of occupational and social accidents and injuries in using the new river crossings
- Risk to community health and safety and exacerbation of the risk of transmission of HIV/AIDS and other STIs due to increase population.
- Increase in crime rate (including prostitution, theft and substance abuse)
- Adverse impacts on community dynamics Threat to community culture due to labour influx
- Increased burden on public service Provision
- Labour influx issues such as: Gender-based violence, including sexual harassment, child abuse and exploitation
- Impact on the livelihood of fishing communities
- Local inflation of prices and crowding out of local consumer
- Increased pressure on accommodation and rents
- Impact on water supply to communities and increased demand on freshwater resources
- Camp related land use, access roads, noise and lights
- Increased use/demand on natural resources
- The impact of dumping of refuse in rivers and streams on the life span of the proposed RCs by blocking access to waterflow.

CHAPTER SIX
ENVIRONMENTAL AND SOCIAL IMPACT MANAGEMENT AND MONITORING
PROGRAMME

6.1 Introduction

As part of this ESMP, a project specific environmental and social management and monitoring plan has been designed. This plan establishes environmental and social action plans with well-defined desired outcomes and actions to address all potential impacts identified for the proposed project. The plan also includes elements such as parameters to be measured, methods of measurement, location of measurement, and with estimates of the resources and responsibilities for monitoring. The plan is presented in Table 6.1.

Table 6.1: Environmental and Social Mitigation and Monitoring Plan during the Pre-Construction Phase

S/N	Activity	Potential Impacts	Mitigation/Enhancement Measures	Mitigation Responsibility (Implementation)	Cost of Mitigation		Indicators/Parameters	Method of Measurement	Sampling Location	Frequency of Monitoring	Monitoring Responsibility (Supervision)	Cost of Monitoring	
					USD\$	NGN						USD\$	NGN
Environmental Impacts													
A1	<ul style="list-style-type: none"> Sensitization Mobilization Site clearing Clearing Safety measures Material sourcing Staging area Workers camp 	Noise and vibration from the use of motorized vehicles and equipment	<ul style="list-style-type: none"> Maintain equipment and machineries adequately to reduce their noise levels Fit machineries and heavy-duty equipment with exhaust mufflers/silencers to minimize noise generation Avoid unnecessary idling of internal combustion engines 	Contractor	320	115,000	<ul style="list-style-type: none"> Noise Levels (Not to exceed 90dB(A)) Records of Equipment Maintenance 	<ul style="list-style-type: none"> In-Situ Measurement Sighting Complaint Register 	Construction Site and surrounding area	Daily	Environmental Safeguards Officer (ESO), SPIU SMEnv	150	54,000
A2		Ambient air pollution from release of dusts and gaseous emissions	<ul style="list-style-type: none"> Suppress dust emissions by appropriate methods such as spraying water on soil Maintain vehicles in good working condition. Ensure exhaust fumes from vehicles conform to applicable National standards and specifications 	Contractor	320	115,000	<ul style="list-style-type: none"> Suspended Particulates (SPM), SO₂, NO_x, CO, THC Vehicle Exhaust Measurements Records of maintenance for all machineries and equipment 	<ul style="list-style-type: none"> In-Situ Measurement 	Construction Site and surrounding area	Daily	ESO SMEnv	100	36,000
A3		Soil contamination from accidental leakage/spillage of fuel, oil and lubricants	<ul style="list-style-type: none"> Ensure fuel storage tanks are leak-proof, checked daily & installed in a bunded area Establish procedures for storage & handling of hazardous materials. Implement emergency response plan as part of 	Contractor	320/	115,000	<ul style="list-style-type: none"> Soil quality parameters (especially hydrocarbon contaminants) Compliance with fuel storage procedures 	<ul style="list-style-type: none"> In situ/ and Laboratory analysis Visual observation 	Project site	Monthly	ESO SMEnv	100	36,000

S/N	Activity	Potential Impacts	Mitigation/Enhancement Measures	Mitigation Responsibility (Implementation)	Cost of Mitigation		Indicators/Parameters	Method of Measurement	Sampling Location	Frequency of Monitoring	Monitoring Responsibility (Supervision)	Cost of Monitoring	
					USD\$	NGN						USD\$	NGN
			OHS Plan to deal with spillage in line with annex XIV										
A4		Loss of soil quality from de-vegetation and erosion	<ul style="list-style-type: none"> Avoid removal of vegetation and trees to the extent possible Protect all vegetation not required to be removed against damage Re-vegetate exposed soil quickly 	Contractor	300	108,000	<ul style="list-style-type: none"> % of Vegetal Loss Revegetated areas 	• Visual estimate	Construction Site and surrounding area	During site clearing and construction	ESO SMEnv	150	54,000
A5		Impact on fish habitat and water quality <ul style="list-style-type: none"> Reduced primary productivity in fisheries, Potential impact on fish spawning and bank-nesting degradation of spawning habitat Habitat loss, fragmentation and degradation leading to potential loss of specie restriction of fish movement and reduced reproductive success 	<ul style="list-style-type: none"> Washing of Project plant and vehicles in watercourses will not be undertaken Avoid direct impacts (i.e. habitat disturbance in the channel) or increases in suspended sediments in the water in the rivers especially in the spawning season Watercourse crossing methods will be developed with the aim of minimising the mobilisation of sediments Daily visual monitoring of turbidity will be undertaken at river crossings while works are being undertaken at that river 	Contractor	150	54,000	<ul style="list-style-type: none"> Records of fish catch Visual monitoring Probe monitoring 	• Complaint Register	Construction Site and surrounding area	During site clearing and construction		50	18,000

S/N	Activity	Potential Impacts	Mitigation/Enhancement Measures	Mitigation Responsibility (Implementation)	Cost of Mitigation		Indicators/Parameters	Method of Measurement	Sampling Location	Frequency of Monitoring	Monitoring Responsibility (Supervision)	Cost of Monitoring	
					USD\$	NGN						USD\$	NGN
			<ul style="list-style-type: none"> • Only essential construction vehicles (as approved by the Company) will be allowed to enter rivers or streams and only with prior examination of the vehicles for fuel/lubricant leaks • Construction traffic will cross watercourses via a flume/culvert (piped bridge), which will be sized so as not to restrict the flow in the watercourse and allow fish and other aquatic organisms to pass through • The river crossing contractor will prepare a plan to respond to an outbreak of pollution, including clean up and remediation for outbreak and liaison with downstream users 										
A6		Generation of vegetal wastes and other cleared materials	<ul style="list-style-type: none"> • Comply with the Waste Management Plan (WMP) in Annex XVII • Promote waste avoidance; reduction; reuse and recycling as applicable • Ensure proper handling, and disposal of wastes 	Contractor	200	72,000	<ul style="list-style-type: none"> • Contractors Compliance to WMP • On-site Waste management techniques 	<ul style="list-style-type: none"> • Visual observation • Waste Tracking Report 	Construction Site and surrounding area	Weekly	ESO SMEnv	100	36,000

S/N	Activity	Potential Impacts	Mitigation/Enhancement Measures	Mitigation Responsibility (Implementation)	Cost of Mitigation		Indicators/Parameters	Method of Measurement	Sampling Location	Frequency of Monitoring	Monitoring Responsibility (Supervision)	Cost of Monitoring		
					USD\$	NGN						USD\$	NGN	
			(especially contaminated soil, concrete, oils, grease, lubricants, metals, etc.)											
Social Mitigation and Monitoring Plan														
	<ul style="list-style-type: none"> • Sensitization • Mobilization • Site clearing • Clearing Safety measures • Material sourcing • Staging area • Workers camp 	Loss of farmland as well as land-based livelihood including economic trees and crops	<ul style="list-style-type: none"> • Implementation of measures outlined in the RAP/ARAP which will outline the mitigation measures and compensation where eligible. 	<ul style="list-style-type: none"> • Imo State RAMP-SPIU; • Imo State Ministry of Land and Survey. 	To be provided by the RAP/ARAP		<ul style="list-style-type: none"> • RAP/ARAP Prepared • Implementations of the requirements of the resettlement instrument 	<ul style="list-style-type: none"> • Assessment by the SPIU to determine if the objectives of the resettlement instrument have been achieved. 	Impacted communities	All issues should be settled before the start of civil works	FPMU Imo State RAMP-SPIU; Imo State Ministry of Land and Survey.	Provided in the RAP/ARAP		
A7		Grievances and conflict arising potentially from members of the community asked to vacate areas allocated for the project especially the drainage channel	<ul style="list-style-type: none"> • Continuous community engagement/consultation • Establishment of grievance redress mechanism (GRM) to receive and address concerns 	<ul style="list-style-type: none"> • Social Safeguard Officers, GRCs 	160	57,600	<ul style="list-style-type: none"> • Regular consultations with stakeholders and members of the communities • Implementation of GRM 	<ul style="list-style-type: none"> • Evidence of consultation, e.g., minute of meetings pictures • Number of complaints received and resolved. 	Impacted communities	Throughout project implementations	FPMU Imo State RAMP-SPIU;	50	18,000	
A8		Security issues that may lead to stealing of contractor equipment mobilized to site	<ul style="list-style-type: none"> • Engage competent security personnel • Provide adequate training of security personnel. • Disclose site security arrangements to the Police and host communities 	Contractor	160	57,600	<ul style="list-style-type: none"> • Regular meetings with community heads 	<ul style="list-style-type: none"> • Log book 	Community/project site	Monthly	Supervision Consultant Imo State RAMP-SPIU;	50	18,000	

S/N	Activity	Potential Impacts	Mitigation/Enhancement Measures	Mitigation Responsibility (Implementation)	Cost of Mitigation		Indicators/Parameters	Method of Measurement	Sampling Location	Frequency of Monitoring	Monitoring Responsibility (Supervision)	Cost of Monitoring	
					USD\$	NGN						USD\$	NGN
A9	<ul style="list-style-type: none"> • Sensitization • Mobilization • Site clearing • Clearing Safety measures • Material sourcing • Staging area • Workers camp 	<ul style="list-style-type: none"> • Threat to community culture due to labour influx • Impact on site of cultural heritage (Obana River) • Impact on intangible cultural heritage (fishing in Obana River and water-fetching on small orie days (market day)) 	<ul style="list-style-type: none"> • Involve local community and opinion leaders in planning process • Develop an induction program including a code of conduct for all workers. • Provide cultural sensitization training to improve awareness of and sensitivity of workers to local cultures, traditions and lifestyles. (Implement the PCRMP annex XII) • Minimize the disruption as a result of the relocation and removal of sacred sites • Where possible, design or re-design Project components to avoid or minimize impacts to known physical cultural heritage resources based on input from cultural heritage specialists. • Avoidance of shrines determined to be very important to the local community. • If shrines considered important to the local community cannot be avoided, consultation with the local community will occur to offer compensation for the loss of the cultural 	Contractor SPIU	350	126,000	<ul style="list-style-type: none"> • Implementation of the requirements of the code of conducts and the cultural sensitization programs • Regular meetings with community heads • RAP/ARAP Prepared 	<ul style="list-style-type: none"> • Log book • Assessment by the SPIU to determine if the objectives of the resettlement instrument have been achieved. 	Community/project site	Monthly	Imo State RAMP-SPIU; Supervision Consultant	100	36,000
					To be provided by the RAP/ARAP	To be provided by the RAP/ARAP				All issues regarding cultural heritage should be settled before the start of civil works		Provided in the RAP/ARAP	Provided in the RAP/ARAP

S/N	Activity	Potential Impacts	Mitigation/Enhancement Measures	Mitigation Responsibility (Implementation)	Cost of Mitigation		Indicators/Parameters	Method of Measurement	Sampling Location	Frequency of Monitoring	Monitoring Responsibility (Supervision)	Cost of Monitoring	
					USD\$	NGN						USD\$	NGN
			<p>resource or to inquire about the possibility of relocating the resource.</p> <ul style="list-style-type: none"> • Sensitize all workers on the restriction of fetching water from Obana River on small Orie day • stakeholder engagement to identify the Boa's habitat, migratory route and routine; • Gaps or buffer will be created to allow the Boa and other wildlife to cross the ROW • Site marking/protection with barriers to restrict the movement of the Boa into project area; • educational, awareness-raising and information programmes, aimed at the general public, in particular construction workers from other communities • identify and define the various elements of this intangible cultural heritage (fetching water on small orie day and fishing) with the participation of communities and relevant non-governmental organizations. 										

S/N	Activity	Potential Impacts	Mitigation/Enhancement Measures	Mitigation Responsibility (Implementation)	Cost of Mitigation		Indicators/Parameters	Method of Measurement	Sampling Location	Frequency of Monitoring	Monitoring Responsibility (Supervision)	Cost of Monitoring	
					USD\$	NGN						USD\$	NGN
			<ul style="list-style-type: none"> • consultation with chief priest and community elders on the required compensation if fish is mistakenly killed or water is fetched on small Orié day; • adopt a general policy of respect aimed at promoting the function of these intangible cultural heritages and at integrating the safeguarding of such heritage into project planning programmes; • Instructions in the chance find procedures on the line of action when the fish is mistakenly killed; and • designate or establish one or more competent bodies for the safeguarding of these intangible cultural heritages; • The community leaders gave assurance that all the necessary rituals will be carried out • This will be further examined through the ARAP study (See Annex XXI) 										

S/N	Activity	Potential Impacts	Mitigation/Enhancement Measures	Mitigation Responsibility (Implementation)	Cost of Mitigation		Indicators/Parameters	Method of Measurement	Sampling Location	Frequency of Monitoring	Monitoring Responsibility (Supervision)	Cost of Monitoring	
					USD\$	NGN						USD\$	NGN
A10		Exposure of workers to occupational hazards	<ul style="list-style-type: none"> Implement site specific OHS Plan: 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 Adequate safety signage on construction sites should be installed to alert community/drivers/pedestrians lighting and/or reflective tapes and signages integrated in all worksites for safety at night appropriate security measures in place to prevent harassment or kidnapping (see OHS plan annex XIV). 	Contractor	250	90,000	<ul style="list-style-type: none"> Contractors Compliance to Occupation safety and Health (OSH)/Health Safety and Environment (HSE) Plan Compliance to use of PPEs HSE Statistics (FAC, LTI, etc.) No of workers trained 	<ul style="list-style-type: none"> Routine Inspection HSE Reports 	Construction Site/ Campsite/ Staging areas/ borrow pit areas	Weekly	ESO SMEnv Supervision Consultant	120	43,200
A11		Risk of diseases arising from indiscriminate waste disposal	<ul style="list-style-type: none"> Develop a site specific HSE plan Comply with the waste management plan in Annex XIV 	Contractor	350	126,000	<ul style="list-style-type: none"> Workers Using PPE HSE Statistics (FAC, LTI, etc.) 	<ul style="list-style-type: none"> Routine Inspection HSE Reports 	Project site	Daily during Pre-Construction	ESO and SSO SMEnv	150	54,000

S/N	Activity	Potential Impacts	Mitigation/Enhancement Measures	Mitigation Responsibility (Implementation)	Cost of Mitigation		Indicators/Parameters	Method of Measurement	Sampling Location	Frequency of Monitoring	Monitoring Responsibility (Supervision)	Cost of Monitoring	
					USD\$	NGN						USD\$	NGN
A12		Conflict arising from the poor employment/engagement of local labour for site clearing	Employment of local labour should be maximized by ensuring the submission of statement of intent to employ local labour as a condition in the procurement document for the contractor.	Contractor	100	36,000	• No. of local labor used	• Log book	Construction Site	Weekly during Pre-Construction	Imo State RAMP-SPIU	100	36,000
A13		Impacts on water supply to communities	<ul style="list-style-type: none"> • Ensure that construction activities do not impact on communities' water use • Arrange drainage around the construction sites to prevent soil erosion and sedimentation into water collection points • Regularly check the River to ensure they are not blocked by construction spoil or waste and if they are affected, provide alternative water collection points • Immediately rehabilitate water collection points if they are damaged by pre-construction or construction activities • Provide alternative domestic water source for the community if water supply to the community will be negatively impacted 	Contractor	100	36,000	Water quality parameters Regular meetings with community heads	<ul style="list-style-type: none"> • In-Situ Measurement • Sighting • Complaint Register 	Community/project site	Weekly during Pre-Construction	Imo State RAMP-SPIU	100	36,000

S/N	Activity	Potential Impacts	Mitigation/Enhancement Measures	Mitigation Responsibility (Implementation)	Cost of Mitigation		Indicators/Parameters	Method of Measurement	Sampling Location	Frequency of Monitoring	Monitoring Responsibility (Supervision)	Cost of Monitoring	
					USD\$	NGN						USD\$	NGN
A14		Impact on livelihood of fishing communities	<ul style="list-style-type: none"> • Ensure that construction activities do not impact on fishermen use of the River for their livelihood • Informing the community and especially the fishermen of the construction schedule at least two weeks before the construction. • Train the fishermen on alternative vocation during preconstruction and construction • Continuous consultation with the local community to ensure that suitable solutions to problems are taken and communities' and fishermen concerns related to construction activities are addressed. 	Contractor	100	36,000	Regular meetings with community heads and heads of fishermen	• Log book	Community/project site	Weekly during Pre-Construction	Imo State RAMP-SPIU	50	18,000
		TOTAL			3,180	1,144,800						1,370	493,200

Table 6.2: Environmental and Social Mitigation and Monitoring Plan during the Construction Phase

S/N	Activity	Potential Impacts	Mitigation/Enhancement Measures	Responsibility (Implementation)	Cost of Mitigation		Indicators/Parameters	Method of Measurement	Sampling Location	Frequency of Monitoring	Responsibility (Supervision)	Cost of Monitoring (USD\$/NGN)	
					(USD\$)	NGN						(USD\$)	NGN
Environmental Mitigation and Monitoring Plan													
B1	<ul style="list-style-type: none"> Earthworks including excavation and grading 	Noise and vibration from the use of motorized vehicles and equipment	See A1	See A1	320	115,200	See A1	See A1	See A1	See A1	See A1	160	57,600
B2	<ul style="list-style-type: none"> Provision of lateritic sub-base and base course (150mm) Side Drains Culvert works Utilization of borrow pits 	Channel/River Bank Failure	<ul style="list-style-type: none"> Heavy duty machinery and filling material should be about 30m away from the channel; Vibration induced machines should be avoided; Lower the overhead before using excavator with a boom of at least 25 meters. 	Contractor	380	13,800	<ul style="list-style-type: none"> Distance of heavy-duty machines from the channel during civil works Overhead position of excavator with boom of at least 25 meters. Vibration level of machinery during civil works. 	Visual observation	Construction Site	Every day, during the construction phase	ESO Engineer – SPIU State Ministry of Works	250	90,000
B3		Ambient air pollution from release of dusts and gaseous emissions during construction	See A2	See A2	350	126,000	<ul style="list-style-type: none"> Suspended Particulates (SPM), SO₂, NOx, CO, THC Vehicle Exhaust Measurements Records of maintenance for all machineries and equipment 	See A2	See A2	See A2	See A2	250	90,000

B4	Increased Siltation and runoff/flooding	<ul style="list-style-type: none"> Desilting of stream channel Enlighten the populace on proper disposal of domestic waste. Enhance proper handling and disposal of wastes (especially contaminated soil or water, concrete, demolition materials, oils, grease, lubricants, metals, etc.) Construct temporary drainage channels with sedimentation traps and/or screens Install sediment silt fences or other similar devices at strategic locations to prevent run-offs of sediment/silt to surface water 	Contractor	250/	90,000	Surface Water Quality (pH, TDS, TSS, BOD, COD, Turbidity)	In-Situ Measurements	Discharge point, midstream and downstream	During construction	ESO, Engineer, SMEnv	100	36,000
B5	Topographic alterations and Slope instability arising from excavation to construct drainages	<ul style="list-style-type: none"> Construction works should be done according to local relief and hydrology; Old drainage systems should be maintained and new ones prioritized; Ensure that engineering designs are designed with 	Contractor	500/	180,000	<ul style="list-style-type: none"> Height of bank stabilization to the local relief Depth and area extent of excavation. Number and area extent of cut and fill Terraced areas (extent) 	Routine Inspection	Construction Site	During construction	ESO Engineer – SPIU State Ministry of Works	320	115,200

			respect to local topography. <ul style="list-style-type: none"> Excavation / scooping should be top down and no down or base cutting with huge rock hanging 										
B6		Loss of soil quality from de-vegetation and erosion	See A3	See A3	350/	126,000	See A3	See A3	See A3	See A3	See A3	200	72,000
B7		Generation of spoils and other construction wastes	See A4	See A4	320/	115,200	See A4	See A4	See A4	See A4	See A4	150	54,000
Social Mitigation and Monitoring Plan													
B8	<ul style="list-style-type: none"> Earthworks including excavation and grading 	Risk of diseases arising from indiscriminate waste disposal	See A10	See A10	350/	126,000	See A10	See A10	See A10	See A10	See A10	150	54,000
B9	<ul style="list-style-type: none"> Provision of lateritic sub-base and base course (150mm) Side Drains Culvert works Utilization of borrow pits 	GBV/SEA risks <ul style="list-style-type: none"> Intimate Partner Violence (IPV) Public harassment including, verbal insults, physical abuse, rape, harmful widowhood practices .Child labour 	<ul style="list-style-type: none"> Commitment / policy to cooperate with law enforcement agencies investigating perpetrators of gender-based violence; Ensure a copy of the code of conduct is presented to all workers and signed by each worker [See Annex VII]. Ensure workers are trained on the content of the code of conduct in 	Contractor, ESO, SSO, GRC, Procurement SPIU, GBV Specialist	Part of construction cost		<ul style="list-style-type: none"> No of workers sensitized. Code of conduct developed for workers Code of conduct signed by Contractor and workers Level of awareness of workers to local cultures Awareness of grievance procedures. No of local workers 	Routine Inspection	Priority Site	During Construction	Supervision Consultant Imo State RAMP-SPIU ESO Police	100	36,000

		<p>English and local language</p> <ul style="list-style-type: none"> • Provide cultural sensitisation training to improve awareness of and sensitivity of workers to local cultures, traditions and lifestyles. • Prohibit child and forced labour. • Establish and implement the GBV-GRM . • Engage competent security personnel • Developing a clear RAMP specific internal “Reporting and Response Protocol” to guide relevant stakeholders in case of GBV/SEA incidents, • Strengthening operational processes of RAMP states project area on GBV/SEA, • Identifying development partners and cultivating pragmatic partnership on GBV/SEA prevention measures and referral services, 			<ul style="list-style-type: none"> • Presence of security personnel 						
--	--	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	--	------------------------------------------------------------------------------------	--	--	--	--	--	--

		<ul style="list-style-type: none"> • Providing financial support implementation of the GBV/SEA actions described herein, including training and awareness building for various stakeholders, • Establishing inter-ministerial committee to advance GBV/SEA actions described above. 										
B10	Conflict arising from the poor employment/engagement of local labour for construction activities	See A11	See A11	350	126,000	See A11	See A11	See A11	See A11	Supervision Consultant See A11	150	54,000
B11	Traffic congestion and increased risk of road traffic accidents and injury	Implement site specific Transport Management Plan (TMP) (Annex XI) and OHS Plan (Annex XIV)	Contractor in conjunction with FRSC	200	72,000	<ul style="list-style-type: none"> • Contractors Compliance • Workers Using Personal Protective Equipment- Health Safety and Environment (PPE-HSE) Statistics/ Incident/accident report 	<ul style="list-style-type: none"> • Routine Inspection 	Priority Site	During Construction	ESO Federal Road Safety Commission	100	36,000
B12	Risks of diseases such as HIV/AIDS, STDs	Develop a site specific HSE plan	Contractor	500	180,000	<ul style="list-style-type: none"> • Contractors Compliance • Workers Using PPE 	<ul style="list-style-type: none"> • Routine Inspection • HSE Reports 	Construction Site	During Construction	Supervision Consultant	150	54,000

						<ul style="list-style-type: none"> HSE Statistics (First Aid Case (FAC), Loss Time Injury (LTI), etc) (Annex XIV) 	<ul style="list-style-type: none"> Record of awareness and theme carried out 			Imo State RAMP-SPIU; Imo State Ministry of Environment and Mineral Resources		
B13	Damage to shrines and cultural sites	<ul style="list-style-type: none"> Adopt chance find procedures as stated in Annex XII 	Contractor	300	108,000	<ul style="list-style-type: none"> Record keeping Expert verification procedures, Chain of custody instructions 	<ul style="list-style-type: none"> Log book Number of chances finds 	Construction Site	During Construction	Supervision Consultant, ESO, SSO, Imo State Ministry of Arts and Culture	200	72,000
B14	Community Health & Safety risks	Implement a site specific HSE plan	Contractor	300	108,000	<ul style="list-style-type: none"> Contractors Compliance Workers Using PPE HSE Statistics (FAC, LTI, etc) 	<ul style="list-style-type: none"> Routine Inspection HSE Reports 	Construction Site	During Construction	Supervision Consultant Imo State RAMP-SPIU; Imo State Ministry of Environment and Mineral Resources	200	72,000
B15	Safety risks associated with falls in poorly managed borrow pits	<ul style="list-style-type: none"> Develop and Implement a borrow pit management and reclamation plan. See annex XV Adequate PPEs must be provided and used by workers All borrow pits must be reclaimed 	Contractor	500	180,000	<ul style="list-style-type: none"> Contractors Compliance to borrow pit management plan Workers Using PPE Report of unreclaim borrow pits from completion audit report 	<ul style="list-style-type: none"> Routine Inspection HSE Reports 	Borrow pit Site	During Construction	ESO SMEnv	350	126,000

		<ul style="list-style-type: none"> Any uncovered work pits should have appropriate signage and protection around them 										
B16	The potential risk of drowning	<ul style="list-style-type: none"> Adequate PPEs (life jackets, buoyancy aid and surf helmets) must be provided and used by workers All river should have appropriate signage and protection around them Design and erect fences or barrier structures around the walking paths Install warning signs and install lighting system around the project sites. Enlighten the public about this drowning risk in the project area Ensure that workers who can swim are engaged. Local members of the community who are able to swim can also be engaged as lifeguards during civil works. Develop a site specific HSE drowning plan 	Contractor	300	108,000	<ul style="list-style-type: none"> Workers Using PPE 	<ul style="list-style-type: none"> Routine Inspection HSE Reports 	River Crossing site	During Construction	Supervision Consultant ESO SMEnv	150	/54,000

B17		Damage to and disruption of services of existing public utility cables and pipes	<ul style="list-style-type: none"> • Employ utility survey maps to identify existing underground facilities before excavation works to prevent / minimize damages and disruption of services • Shut down service if necessary, should be as temporal as possible • Any disruption will be discussed with utility operators and the community beforehand. 	Contractor	200	72,000	Notify Utility Service Providers	<ul style="list-style-type: none"> • Notification Register • Visual Observation 	Construction area	During excavation	ESO Engineer, SPIU PC, SPIU	100	36,000
B18		Uncontrolled sale of food and other items to workers on the site	<ul style="list-style-type: none"> • The HSE officer will ensure that only approved vendors are allowed to sell food. • Access to the site should be restricted to avoid sale of contraband on site • Implement a site specific HSE plan (section 12-Welfare) 	Contractor	200	72,000	<ul style="list-style-type: none"> • HSE Statistics (FAC, LTI, etc) 	<ul style="list-style-type: none"> • Routine Inspection • HSE Reports 	Construction Site	During Construction	Imo State RAMP-SPIU; Imo State Ministry of Environment and Mineral Resources Ministry of Health	100	36,000
B19		Interference from local community causing disruptions to work	<ul style="list-style-type: none"> • Engage members of communities in stakeholder consultation throughout the Lifecycle of the project • Involve local community and 	SSO and ESO Contractor	200	72,000	<ul style="list-style-type: none"> • Regular meetings with community heads 	<ul style="list-style-type: none"> • Log book 	Community/ project site	Monthly	Imo State RAMP-SPIU;	100	36,000

			opinion leaders in planning process <ul style="list-style-type: none"> To minimize the number of foreign workers being brought to the site, the contractor will be required to hire skilled/unskilled labour from local people if they wish to be hired. 										
B20		Impacts on water supply /water quality	<ul style="list-style-type: none"> A12 	A12	100	36,000	<ul style="list-style-type: none"> A12 	<ul style="list-style-type: none"> A12 	A12	A12	A12	100	36,000
B21		Impact on livelihood of fishing communities and fish habitat	<ul style="list-style-type: none"> A13 	A13	100	36,000	<ul style="list-style-type: none"> A13 	<ul style="list-style-type: none"> A13 	A13	A13	A13	50	18,000
B22		Risk of flooding	<ul style="list-style-type: none"> Desilting of stream channel Enlighten the populace on proper disposal of domestic waste Enhance proper handling and disposal of wastes (especially contaminated soil or water, concrete, demolition materials, oils, grease, lubricants, metals, etc.) 	Contractor	100	36,000	<ul style="list-style-type: none"> Record keeping 	<ul style="list-style-type: none"> Log book 	Construction Site	During Construction	Supervision Consultant, ESO, SSO, Imo State Ministry of Arts and Culture	50	18,000
Total					6,170	2,221,200						3,480	1,252,800

Table 6.3: Environmental and Social Mitigation and Monitoring Plan during the Post – Construction/Operation Phase

S/N	Activity	Potential Impacts	Mitigation/Enhancement Measures	Responsibility (Implementation)	Cost of Mitigation		Indicators/Parameters	Method of Measurement	Sampling Location	Frequency of Monitoring	Responsibility (Supervision)	Cost of Monitoring	
					(USD\$)	NGN						(USD\$)	NGN
Environmental Impacts													
C1	<ul style="list-style-type: none"> Road usage and Repairs scheduled and unscheduled integrity checks for bridges and culverts 	Increased air pollution level/dust due to increased vehicular traffic after the renovation of the RC	See A2	See A2	300	108,000	See A2	See A2	See A2	See A2	See A2	150	54,000
C2	<ul style="list-style-type: none"> maintenance and replacement of wearing/faulty/damaged components repairs of cracks and potholes Cleaning of drains where and when necessary 	Soil contamination from accidental leakage/spillage of fuel, oil and lubricants during River crossing maintenance	See A3	See A3	350	126,000	See A3	See A3	See A3	See A3	See A3	100/	36,000
C3	<ul style="list-style-type: none"> Cleaning and vegetation control along the shoulders Borrow pit reclamation 	Contamination of surface water as a result of waste dumping in and around the stream/river during River crossing maintenance	<ul style="list-style-type: none"> Implement the Waste Management Plan (WMP) annex XVII Promote waste avoidance; reduction; reuse and recycling as applicable 	Contractor	400	144,000	Surface Water Quality (pH, TDS, TSS, BOD, COD, Turbidity, THC, Heavy Metals)	<ul style="list-style-type: none"> In-Situ Laboratory Measurements 	Discharge point, midstream & downstream	Monthly	Imo State RAMP-SPIU;	200	72,000
Social Impacts													
C4	<ul style="list-style-type: none"> Road usage and Repairs scheduled and unscheduled integrity 	Exacerbation of the risk of transmission of HIV/AIDS and other STIs due to potential labour influx	<ul style="list-style-type: none"> Conduct sensitization and awareness campaigns Supply health check equipment 	Contractor HSE officer	350	126,000	<ul style="list-style-type: none"> Number of health campaigns and toolbox meetings 	Routine inspection	Project area	Daily	Supervision Consultant, Ministry of Health, Imo State	200	72,000

S/N	Activity	Potential Impacts	Mitigation/Enhancement Measures	Responsibility (Implementation)	Cost of Mitigation		Indicators/Parameters	Method of Measurement	Sampling Location	Frequency of Monitoring	Responsibility (Supervision)	Cost Monitoring		
					(USD\$)	NGN						(USD\$)	NGN	
	<ul style="list-style-type: none"> checks for bridges and culverts • maintenance and replacement of wearing/faulty/damaged components • repairs of cracks and potholes • Cleaning of drains where and when necessary • Cleaning and vegetation control along the shoulders • Borrow pit reclamation 		<ul style="list-style-type: none"> • Ensure compliance to workers' Code of conduct as stated 				<ul style="list-style-type: none"> • Number of health checks 				RAMP-SPIU;			
C5		Risks of occupational and social accidents and injuries in using the new river crossings	<ul style="list-style-type: none"> • Implement the site specific HSE plan • Build concrete or steel barriers at sides of bridge by the river and immediate approach to bridge 	Contractor	300/	108,000	HSE Statistics (FAC, LTI, etc.)	Routine Inspection	Road and drainage	Monthly	Supervision Consultant, Ministry of Work, Imo State RAMP-SPIU;	150	54,000	
C6		Safety risks from abandoned borrow pits after construction	See B14	See B14	200/	72,000	See B14	See B14	See B14	See B14	See B14	See B14	100	36,000
C7		Traffic congestion and increased risk of road traffic accidents and injuries due to increase in traffic on the new RCs	See B10	See B10	250/	90,000	See B10	See B10	See B10	See B10	See B10	See B10	100	36,000
C8		River crossing damage from use	Develop plan for regular maintenance of river crossings	Contractor	350	126,000	Log book	Visual inspection	Project area	Daily	Imo State RAMP-SPIU;	100	36,000	
C9	<ul style="list-style-type: none"> • Contamination of surface water as a result of waste dumping in and around the stream/river 	<ul style="list-style-type: none"> • Implement the Waste Management Plan (WMP) 	Contractor	250	90,000	Contractors Compliance to WMP	Visual Observation	Project area	Weekly	Imo State RAMP-SPIU;	150	54,000		

S/N	Activity	Potential Impacts	Mitigation/Enhancement Measures	Responsibility (Implementation)	Cost of Mitigation		Indicators/Parameters	Method of Measurement	Sampling Location	Frequency of Monitoring	Responsibility (Supervision)	Cost of Monitoring	
					(USD\$)	NGN						(USD\$)	NGN
		<ul style="list-style-type: none"> Waste dumping impact on the life span of the proposed RCs by blocking access to waterflow. 	<ul style="list-style-type: none"> Promote waste avoidance, reduction; reuse and recycling as applicable Ensure proper handling, and disposal of the various types of solid municipal and household wastes Fence off river/stream banks around bridge 				Waste Handling and Disposal	Waste Tracking Report					
		TOTAL			2,750	990,000						1,250	450,000

6.2 GBV Risk Management Mechanisms

A GBV workshop to be conducted to sensitize the SPIU staff on the key principle and specific requirements to address GBV/SEA have been included in the bidding documents ('pre-qualification' and 'employers' requirements'). As such specific measures to reduce and mitigate the risk of GBV/SEA in the project. Such measures will include:

- GBV/SEA assessment of project;
- mandatory contractors' code of conduct on sexual harassment;
- appointment of NGO to monitor GBV/SEA in RAMP-2;
- 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 of the obtainment of this target.

The following **actions** are recommended for immediate implementation:

- Hiring a dedicated GBV/SEA specialist or retraining Social Livelihood Officers (SLOs) for the project,
- Including in the focal NGO's ToR services for managing social risks associated with GBV/SEA in the project,
- Building and improving FPMU/SPIUs, local communities and other relevant stakeholders' capacities to address risks of GBV/SEA by developing and providing guidance, training, awareness, and dissemination of relevant GBV/SEA materials to communities,
 1. Developing a clear RAMP specific internal "Reporting and Response Protocol" to guide relevant stakeholders in case of GBV/SEA incidents,
 2. Strengthening operational processes of RAMP states project area on GBV/SEA,
 3. Identifying development partners and cultivating pragmatic partnership on GBV/SEA prevention measures and referral services,
 4. Developing Codes of Conduct for civil works contractors with prohibitions against GBV/SEA,
- Strengthening consultations and operationalizing GBV/SEA specific grievance redress mechanisms,
 1. Providing financial support implementation of the GBV/SEA actions described herein, including training and awareness building for various stakeholders,
 2. Establishing inter-ministerial committee to advance GBV/SEA actions described above.

Overall, GBV risks in the project target areas might include Intimate Partner Violence (IPV), public harassment including harassment, verbal insults, physical abuse, rape, harmful widowhood practices and women and child trafficking. Targeted support to women under the program could likely exacerbate these risks. Development and implementation of specific GBV risk prevention and mitigation strategies, tailored to local contexts, will be critical. Guidelines for situation analysis of GBV and safe reporting guidelines in line with international best practices will be implemented. Further, all risks related to labour influx will have to be mitigated by participation of project beneficiaries/communities, and involvement of project contractors and contractors' workers and consultant employees, in identifying mitigation and implementing measures, including developing mitigation instruments such as "Labor Influx Management Plan" (Annex XXII) and "Workers Camp Site Management Plan" (Annex XVI).

6.3 Institutional Arrangements

The successful implementation of the mitigation and monitoring program will depend on the commitment and capacity of the Project Implementation Unit (PIU), environmental and social safeguard consultants and other third parties (institutions) to implement the program effectively. The roles and responsibilities of those that will be involved in the implementation and monitoring of this ESMP are discussed in table 6.4.

Table 6.4: Institutional Arrangement for ESMP Implementation

S/N	Category	Roles & Responsibilities
1	Imo State Ministry of Local Government and Rural Development	<ul style="list-style-type: none"> • Environmental monitoring and compliance overseer at the State level • Review of draft ESMP report (in liaison with Federal Ministry of Environment) • Site assessment and monitoring of ESMP implementation.
2	Federal Ministry of Environment/ EIA Department and NESREA	<ul style="list-style-type: none"> • Lead role in the provision of advice on screening, scoping, review of draft ESMP report (in liaison with State Ministry of Environment), receiving comments from stakeholders, public hearing of the project proposals and social liability investigations, monitoring and evaluation of mitigation measures
3.	World Bank	<ul style="list-style-type: none"> • Responsible for the final review, clearance and approval of the safeguard instruments – ESIA/ESMP/RAP
3	FPMU	<ul style="list-style-type: none"> • Maintain an oversight role to ensure compliance with the safeguards policies • Maintain an oversight role on the supervision of the ESMP/ARAP implementation, and may conduct spot checks or audits (if necessary) • Provide overall guidance and recommend additional measures for strengthening the management framework and implementation performance. • Conduct regular supervision missions throughout the project implementation, and monitor the progress of the construction project.
4	FPMU, Environmental & Social Safeguard Units	<ul style="list-style-type: none"> • Review all ESIA/ESMPs/ARAPs/RAPs documents prepared by environmental and social consultants and ensure adequacy under the World Bank Safeguard policies. • Ensure that the project design and specifications adequately reflect the recommendations of the ESIA/ESMPs; • Co-ordinate application, follow up processing and obtain requisite clearances required for the project, if required; • Prepare compliance reports with statutory requirements; • Develop, organize and deliver training program for the PIU staff, the contractors and others involved in the project implementation, in collaboration with the PIU; • Review and approve the Contractor's Implementation Plan for the environmental measures, as per the ESIA/ESMPs and any other supplementary environmental and social studies that may need to be carried out by the PIU; • Liaise with the Contractors and the SPIU / Ministry, Department and Agencies (MDAs) on implementation of the ESIA/ESMPs; • Liaise with various Central and State Government agencies on environmental, resettlement and other regulatory matters; • Review the performance of the project through an assessment of the periodic environmental and social monitoring reports; provide a summary of the same to the Project Manager, and initiate necessary follow-up actions; • Provide support and assistance to the State Government Agencies to supervise the implementation.
5	Safeguard Unit, RAMP 2 (Environmental & Social)	<p>Environmental Safeguards</p> <ul style="list-style-type: none"> • Collate environmental baseline data on relevant environmental characteristics of the selected project sites; • Ensure that project activities are implemented in accordance to best practices and guidelines set out in the ESMP; • 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. <p>Social Safeguards</p> <ul style="list-style-type: none"> • Develop, coordinate and ensures the implementation of the social aspects of the ESMP • Identify and liaise with all stakeholders involved in social related issues in the project; • Conduct impact evaluation and beneficiary's assessment; and • Establish partnerships and liaise with organizations, Community Based Organizations (CBOs) and Civil Society Organizations (CSOs)
6	SPIU	<ul style="list-style-type: none"> • Liaise closely with Imo State Ministry of Local Government and Rural Development in preparing a coordinated response on the environmental and social aspects of project development respectively. • Safeguards due diligence. • The PIU would form and supervise the GRC (Grievance Redress Committee) which would be responsible for addressing and management of grievances

7	Contractor	<ul style="list-style-type: none"> • Compliance to BOQ specification in procurement of material and construction • Implement ESMP during project implementation • Ensure all contractors and workers sign the Code of Conduct (CoC) and are routinely trained on the contents of the CoC • Develop and implement contractor's ESMP (C-ESMP) • Ensure that there are sufficient resources (time, money and people) to manage the environmental issues of the works. • Be responsible for ensuring that all site staff, including sub-contractors and sub-contracted activities will comply with the projects ESMP. • Maintain records of environmental incidents as well as corrective and preventive actions taken. • Ensure that any changes during the construction process that may have a significant environmental and social impact are communicated to the Supervising Engineer/ SPIU in time and manage them accordingly. • Ensure that the Environmental Supervising Engineer is sufficiently informed on contractors monitoring results. • Organizing weekly toolbox/work meetings • Ensure that all construction personnel and subcontractors are trained on the content of the CESMP and are made aware of the required measures for environmental and social compliance and performance • Prepare and implement Campsite, Staging Area management Plan for the pre-construction phase, construction and decommissioning phase • Prepare OHS manual and abide by labor laws as set out in the agreement • Provide adequate basic amenities and PPEs to workers, and ensure that the PPEs are worn by workers during work. • Prepare and maintain records and all required reporting data as stipulated by the ESMP, for submission to the Supervising Consultant
8	Supervising Engineer	<ul style="list-style-type: none"> • Preparation of the engineering designs for the project. • Provides an independent oversight ensuring contractor adhere strictly to the engineering specifications • Prepare and implement Environmental Monitoring Plan during construction • Update the ESMP to reflect changes to the project, area of influence or activities, with Borrower to re-disclose • Inspect and approve contractor's work. • Supervise the contractor's implementation of the works in accordance with the contract requirements and the 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 supervision • Prepare monthly safeguards report including recommendations to the RAMP regarding ESMP performance as part of an overall commitment to continuous improvement
9	Supervision Consultant (Environmental and Social Officers)	<ul style="list-style-type: none"> • Prepare and implement Environmental and Social Monitoring Plan during construction • Supervise contractor performance of implementation of the Construction Campsite/Staging area Camp Management Plan and C-ESMP • Report any incidents or non-compliance with the C-ESMP to the Environmental and Social Safeguard Unit of the SPIU • Ensure adequate training and education of all staff involved in environmental supervision • Prepare monthly safeguards report including recommendations to the RAMP regarding ESMP performance as part of an overall commitment to continuous improvement
10	State Government MDAs	<ul style="list-style-type: none"> • Other MDAs come in as and when relevant areas or resources under their jurisdiction or management are likely to be affected by or implicated projects. • They participate in the EA processes and in project decision-making that helps prevent or minimize impacts and to mitigate them. These institutions may also be required to issue a consent or approval for an aspect of a project; allow an area to be included in a project; or allow impact to a certain extent or impose restrictions or conditions, monitoring responsibility or supervisory oversight.
11	The Imo State Environmental Protection Agency; The Imo State Bureau for Sanitation & Transport;	<ul style="list-style-type: none"> • Inspection of project premises in order to ensure strict compliance with sanitation and waste management standards in Imo State. • Collaboration with other MDAs at the State and Federal level, NGOs and Donor Agencies in environmental protection and management especially in areas of waste recycling etc.
12	LGAs	<ul style="list-style-type: none"> • Provision of oversight function across project within its jurisdiction for ESMP compliance. • Monitoring of activities related to public health, sanitation, waste management amongst others.
13	Affected Community	<ul style="list-style-type: none"> • Promote environmental awareness. • Review environmental and social performance report made available by PIU. • Provide comments, advice and/or complaints on issues of nonconformity. • Attend public meetings organized by the PIU to disseminate information and receive feedback.

14	Grievance Redress Committees (GRCs)	<ul style="list-style-type: none"> • Provide support to project affected persons (PAPs) on problems arising from loss of private properties, business area or any other impact caused by the project • Record the grievance of the PAPs, categorize and prioritize the grievances that need to be resolved by the committee; • Report to the aggrieved parties about the developments regarding their grievances and the decision of the project authorities and • Ensure that grievances are settled locally and in time as much as possible. • Settling the complaints and grievances (if any) and suggest solutions for the outstanding issues to SPIU in improving project implementation.
15	Community Development Association (CDA)	<ul style="list-style-type: none"> • Ensure community participation by mobilizing, sensitizing community members; • Support with provision of necessary infrastructures and engage/ encourage carrying out comprehensive and practical awareness campaign for the proposed projects, amongst the various relevant grass roots interest groups.
16	NGOs/CSOs	<ul style="list-style-type: none"> • Assisting in their respective ways to ensure effective response actions, conducting scientific researches alongside government groups to evolve and devise sustainable environmental strategies and techniques.
17	CBOs	<ul style="list-style-type: none"> • Mobilizing rural communities with a view to maximizing the benefits of the project • Facilitating the selection of the river crossing maintenance group • Monitoring of the progress of the river crossing implementation work • Sensitize community members for community actions
18	World Bank	<ul style="list-style-type: none"> • Overall supervision and provision of technical support and guidance. • Recommend additional measures for strengthening the management framework and implementation performance; • Supervising the application and recommendations of sub- project ESMPs.
19	Others/General Public	<ul style="list-style-type: none"> • Identify issues that could derail the project and support project impacts and mitigation measures, Awareness campaigns.

6.4 Capacity Assessment and Training Programme

The SPIU has not previously been involved in implementing World Bank assisted projects. As such, their capacity in implementing projects in line with the Bank's policies was assessed to be limited. The capacity building programme in table 6.5 will therefore be implemented to strengthen institutional capacity in ensuring environmental and social safeguard compliance in the project implementation.

Table 6.5: Institutional Capacity Strengthening Plan

Schedule	Capacity Need	Target Participants	Duration	Facilitator	Project phase	Cost in \$	Cost in (N)
Day 1	<ul style="list-style-type: none"> • World Bank safeguards policies and Nigerian Extant laws on environmental protection • ESMP implementation, project monitoring and evaluation, environmental management for construction contracts 	PC, ESSU, M&E, Project Engineer, Procurement Officer, Relevant MDAs	7 hours	Environmental Consultant	Pre-construction	1,111.11	400,000.00
Day 2	<ul style="list-style-type: none"> • Hazards in Construction • Incidents: Causation, Investigation & Reporting • Excavation Safety • River Safety • Construction Site Inspection • Personal Protective Equipment • The use of PPEs, management concerns, occupational safety and health 	Contractors, PAP's PIU members, relevant MDAs	7 hours	Engineering Consultant	Pre-construction	1,111.11	400,000.00

Day 3	<ul style="list-style-type: none"> • Training on Code of Conduct • Community and stakeholder engagement roles in RAMP project • GBV/SEA and VAC awareness and prevention • GRM • Basic health awareness on communicable diseases and prevention 	Contractors, Contractor's workers, PAP's PIU members, relevant MDAs	7 hours	Social consultant	Pre-construction	833.33	300,000.00
Total Capacity Building Budget						3,055.55	1,100,000.00

6.5 Monitoring and Reporting

6.5.1 Monitoring Activities

The monitoring plan (Internal and External Monitoring) for the ESMP is presented in Table 6.7. Monitoring results shall be documented with preventive/corrective actions to be implemented.

Table 6.7: Internal and External Monitoring

Monitoring	Action	Responsibility	When	Deliverables
Internal Monitoring	Regular site visit to ensure that the mitigation measures and actions specified in the monitoring plan and as bound by the contract is satisfactorily implemented.	E&S Safeguard Officers from SPIU. FPMU Safeguards Unit	During Preconstruction, Construction and Operation Phases	Monitoring Reports and documentation
	Site visit for monitoring and inspection to ensure contractor adhere strictly to the engineering designs and specifications for the project	Supervision Consultants	During Construction Phase	Observations and Monitoring Reports to be compiled and presented to the SPIU.
External Monitoring	Regular site visit to ensure project is implemented in an environmentally & socially sustainable manner using the monitoring indicators specified in the monitoring plan and other national and international environmental & social requirements	FMEnv, Imo State Ministry of Local Government and Rural Development, Representatives of affected communities, and other relevant MDAs.	During Preconstruction, Construction and Operation Phases	Inspect monitoring reports from Safeguard units and provide feedback on observations. Enforce corrective actions where necessary.

6.5.2 Reporting Procedures

The SPIU shall implement a system of continuous reporting between all parties involved in the ESMP implementation to ensure receipt of timely feedback and to take rapid corrective actions if there are issues of non-conformance.

6.5.3 Record Keeping and Control

The contractor is required to keep records providing evidence of ongoing mitigation activities. Such records may include site monitoring plan, HSE Policy, Site Specific HSE Plan, Waste Management Plan, Traffic Control Plan, Emergency response and preparedness procedures, site instructions, training

records, complaints records, incident report, Inspection, maintenance and equipment calibration records. These documents should be made available to the Safeguard Unit upon request.

The Safeguard Unit is also required to keep records to provide evidence of monitoring activities and effectiveness of the monitoring plan. The site monitoring Plan identified problems/corrective actions and monitoring Reports are to be kept by the Safeguard unit and be made available to relevant regulators upon request. In addition, all significant communications with FMEEnv, Nigerian Society of Mining Engineers (NSME) and other relevant authorities should be documented and kept. These documents are required to track performance in order to achieve and demonstrate compliance with the monitoring plan and applicable regulatory requirements.

6.6 Implementation Schedule

The project implementation phase is estimated to be completed in 7 months. The implementation schedule is presented in Table 6.8 below.

Table 6.8: ESMP Implementation Schedule

S/N	Activity Description	Responsible	Pre-construction (Week)				Construction (Month)						Operation	
			1	2	3	4	1	2	3	4	5	6		
1	Clearance and Formal Disclosure of ESMP	Imo SPIU	█											
2	Inclusion of Environmental & Social Requirements in Bid Docs	Imo SPIU	█											
3	Allocating Budget for ESMP	Imo SPIU	█											
4	Appointing Support Staff for ESMP	Imo SPIU		█										
5	Review & Approval of Contractor's ESMP, Waste & Safety Plan	Imo SPIU		█										
6	Finalization of Engineering Designs	Imo SPIU/Engineering Design Consultant		█										
7	Environmental and Social Training	Environmental and Social Consultant		█										
8	Mobilization to site	Contractor			█									
9	Construction Phase	Contractor				█	█	█	█	█	█			
10	Implementation of Mitigation	Contractor				█	█	█	█	█	█	█		
11	Supervising ESMP Implementation	Imo SPIU				█	█	█	█	█	█	█		
12	Monitoring & Reporting on ESMP Implementation	Imo SPIU/Relevant MDAs					█	█	█	█	█	█		
13	Environmental and Social Auditing	Imo SPIU/Imo State Ministry of Local Government and Rural Development												█

6.7 Contractual Measures

Most of the mitigation measures are the obligation of the Contractor during all phases of the project. Consequently, the potential contractor will have to prepare their proposals taking into account the measures in Table 6.9 as well as the detailed general environmental management conditions during civil works attached as Annex X.

Table 6.9: Contractual Measures

Action	Remarks
The measures as described in this ESMP shall be included in the tender documents with appropriate flexibility to adjust these measures to site circumstances, and that the potential contractor will have to prepare their proposals taking into account these measures.	The non-inclusion of these measures in the proposal will lead to a disqualification of the proponent; The contract with the successful bidder should contain these environmental and social management measures as firm conditions to be complied with.
Specifically, the measures should be translated into a suite of environmental specification that are written in the same language style and format as the rest of the contract document	This approach will ensure that the environmental and social controls integrate seamlessly into the tender document and are presented in a familiar form to the Contractor
Cost of mitigation measures be added to the cost of the contractual document	The contractor must take into account and put the cost for the environmental and social requirements specified in the ESMP.

6.8 ESMP Disclosure

This ESMP has been prepared in consultation with the FPMU, Imo SPIU, relevant stakeholders including communities along the project corridors. The Imo SPIU will disclose the ESMP, in line with the guidelines of the Federal Ministry of Environment and in the external website of the World Bank.

Table 6.10: Disclosure Procedure

S/N	Action	Remarks
1	Disclosure on 2 national newspapers	The FPMU/SPIU will disclose the ESMP as required by the Nigeria EIA public notice and review procedures. This entails advert in 2 newspapers; one national and one local (state) newspaper
2	Disclosure at the Imo State Ministry of Local Government and Rural Development	The SPIU will disclose the ESMP as required by the Nigeria EIA public notice and review procedures
3	Disclosure at the RAMP-2 office	The SPIU will display the ESMP as required by the Nigeria EIA public notice and review procedures
4	Disclosure at respective LGA office & the host communities	The purpose will be to inform stakeholders about the project activities; environmental and social impacts anticipated and proposed environmental and social mitigation measures.
5	Disclosure at the World Bank Info Shop	The ESMP will be disclosed according to the World Bank Disclosure Policy- OP/BP 17.50

6.9 Cost of Implementing the ESMP

The cost of implementing this ESMP is a total of all the individual costs as provided in table 6.11.

Table 6.11 Cost of Implementing the ESMP

Heading	Indicative Costing in Naira (N)	Cost Estimate in USD
Cost of Mitigation	4,356,000.00	12,100.00
Capacity Building and Training	1,100,000.00	3,055.56
Monitoring Programme	2,196,000.00	6,100.00
Grievance Redress Mechanism	750,000.00	2,083.33
Sub-total	8,402,000.00	23,338.89
Contingency	840,200.00	2,338.89
Total	9,242,200.00	25,672.78

(1 USD = 360.00)

CHAPTER SEVEN

GRIEVANCE REDRESS MECHANISM (GRM)

7.1 Introduction

A Grievance Redress Committee will be set up by the Imo State RAMP SPIU to address complaints arising from the project implementation. This committee will comprise relevant officers of the Imo SPIU, representative of the Ministry of Local Government and Rural Development, representatives of the 23 priority sites who are to be nominated by the traditional heads and Community Development Association. The committee shall report to the Chairman, the RAMP Technical Committee who is also the Permanent Secretary, Ministry of Local Government and Rural Development in Imo state. The Grievance Redress Committee (GRC) shall work in synergy with the Site Committees and the Contractors' Health and Safety Officer.

The functions of the GRC are to:

- provide support to Project Affected Persons (PAPs) on problems arising from the pollution of environmental media – water, land and air, arising from the project implementation
- record the grievance of the PAPs, categorize and prioritize the grievances that need to be resolved by the committee; and
- report to the aggrieved parties about the developments regarding their grievances and the decision of the project authorities.

The main objective of this procedure will be to provide a mechanism to mediate conflict and cut down on lengthy litigation, which often delays such developmental projects. It will also provide people who might have objections or concerns about the impacts of the project, a public forum to raise their objections and address these issues adequately.

The committee will provide many opportunities to redress complaints informally, in addition to the existing formal administrative and legal procedures. However, the major grievances that might require mitigation include:

- PAPs at risk of the project impacts;
- Pollution of water bodies in the area from project activities;
- Danger or loss of lives due to inadequate safety measures;
- Insecurity, cases of theft and sexual abuse;
- Conflict of interest between project and the community;
- Delay in response to the concerns of PAPs;
- Project activity impact on land and livelihood; etc.

Imo State RAMP 2 has put in place a Grievance Redress Framework following the World Bank's approach to GRM (Annex VIII). The framework has four levels of addressing grievances (Fig 7.1).

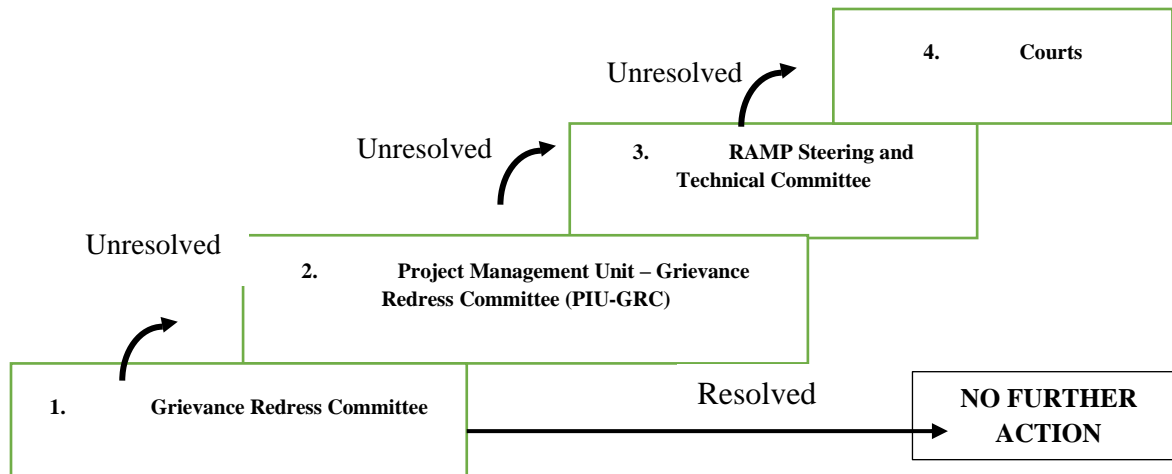


Fig. 7.1 Imo RAMP 2 Grievance Redress Framework

As shown in the framework, Level 1; Grievance Redress Committee (GRC), Level 2; Project Implementation Unit – Grievance Redress Committee (SPIU-GRC), Level 3; RAMP Steering and Technical Committee and Level 4; is the Courts). Effort will be made to ensure that grievances are addressed at the First Level. It will only move on to Second Level if the first level agreement was not accepted by the party involved and then to third then to the fourth under similar situation. If a party is not satisfied with the outcomes of Levels I, 2, and 3 then he/she can take the case to the Law Courts (the 4th Level).

7.2 Grievance Redress Process

There is no ideal model or one-size-fits-all approach to grievance resolution. The best solutions to conflicts are generally achieved through localized mechanisms that take account of the specific issues, cultural context, local customs, and project conditions and scale.

In its simplest form, grievance mechanisms can be broken down into the following primary components:

- Receiving and registering a complaint.
- Screening and assessing the complaint.
- Formulating a response.
- Selecting a resolution approach.
- Implementing the approach.
- Announcing the result.
- Tracking and evaluating the results.
- Learning from the experience and communicate back to all parties involved.
- Preparing a timely report to management on the nature and resolution of grievances.

7.3 Structure of Grievance Redress for the RCs Rehabilitation Works

This grievance procedure is prepared in line with the provision of the RPF of the RAMP 2. The need to provide a forum locally to receive, hear and resolve disputes is in the best interest of all parties to forestall

the lengthy process of litigation, which could affect the progress of project. Therefore, the setting of Grievance Redress Committee (GRC) early during project implementation is desirable.

The RAMP 2 Grievance Redress Mechanism (GRM) shall receive and act upon complaints from stakeholders or PAPs in relation to any occurrences for which the Project is directly responsible (or believed to be responsible), and which are perceived by the aggrieved party to have involved corrupt, illegal, unjust, or unfair activities, omissions, or behavior.

For the purposes of the RAMP 2, a complaint is a notification (in written, verbal or electronic form) regarding project activities and/or conduct of staff, consultants, partners and/or sub- contractors, directly or indirectly supporting the project or associated with its implementation, which the complainant believes is wrong, either under the law or on the grounds of unacceptable behavior.

The complainant(s) need not be personally aggrieved or impacted, and may be acting merely in accordance with a sense of civic duty in bringing an occurrence to the attention of project authorities.

In defining the levels of grievance redress, priority was given to aligning with the existing mechanism and strengthening same as required, which was designed based on consultation and stakeholder inclusion during the preparation of the ESMP. Defining the GRM process took into account the specific issues, cultural context, local customs, industry standards and project conditions. The functioning of the GRM system, how to register complaints (written, by phone, or in person), where to go and hours of service, all should be clearly explained in local language during initial public consultations on the project.

7.4 Setting up a Grievance Redress Committee

The best solutions to conflicts are generally achieved through localized mechanisms that take account of the specific issues, cultural context, local customs, and project conditions and scale. Three levels of grievance redress channels have been identified:

7.4.1 First Level GRM: GRC at the Site/Community Level:

Complaints regarding project implementation and activities arising from the project area shall be channeled 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, 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 provincial level would be as follows:

- a) Respective LGAs;
- b) Community Townhall
- c) Designated spots along the RCs
- d) Traditional Ruler's Palace
- e) Social safeguards/GBV Officers at SPIU

After registering the complaint in the Grievance Redressal Registration and Monitoring Sheet, the social safeguards officer of SPCU 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 groups) 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.

7.4.2 Second Level of GRM: GRC at the SPIU Level:

The PIU shall receive, hear and address complaints arising from the project implementation. The Project Coordinator (PC) shall head this committee while membership of the committee shall be as follows:

- Project Coordinator- Chairman
- Internal Auditor
- Monitoring and Evaluation officer
- Social Safeguard Officer- Secretary
- Environmental officer

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

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 Chairman 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.

7.4.3 Third Level of GRM: GRC at the State Technical Committee Level:

Any unresolved matter at the SPIU level will be channeled to the Project Technical Committee. The committee at this level shall be headed by the Permanent Secretary ImoState Ministry of Water Resources while the PC shall serve as the secretary of the committee.

Finally, if the complainant is not satisfied with the Community or SPIU response or has a complaint about the overall RAMP II, or there is a time delay of more than a month in solving the issue, the complainant can opt to consider taking it to overall Technical Committee GRC (TC-GRC) facilitated by the State Ministry of Water Resources. This committee shall convene on a case-by case basis, arbitrate the issue based on the guidelines established, and convene the necessary stakeholders if necessary. All the stakeholders, including state and non-state actors shall be able to lodge a complaint with the TC-GRC.

The TC-GRC will be constituted as the Third Level of Redressal to look into the problems not solved in the Second Level. Membership of the GRC at this level shall constitute as follows:

- The Permanent Secretary-Chairman;
- Director Ministry of Environment
- Director Bureau of Lands & Survey
- The Project Coordinator of RAMP 2
- A witnessing NGO

The Traditional/Community Leaders and the Commissioner of Local Government of the project Community will be the invitees to the Committee meetings to enable the TC-GRC to understand the deliberations of the Community Level GRC.

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 decisions of the TC-GRC would be final from the Project side and the Complainant may decide to take a legal or any other recourse if he /she is not satisfied with the resolutions due to the deliberations of the Third Level GRC. The Complainant has also the option of approaching the Donor (World Bank), if they find that the established GRM cannot resolve the issue.

7.4.4 Court Resolution of Grievance Matters

The possibility of seeking for grievance resolution in the court may be a last resort and should be expected, especially, where the complainant felt dissatisfied with resolution of the GRC.

The provision of the RPF for RAMP 2 on this matter is that grievances concerning non-fulfilment of contracts, levels of compensation, or seizure of assets without compensation shall be addressed to the state local courts system of administration of justice. The court hierarchy would in ascending order therefore, be land dispute tribunals/chiefs, followed by magistrate courts and then finally the high courts. The high court of the state is being designated as the highest appellate court to settle grievances.

This, admittedly, is a costly and time-consuming procedure. Nevertheless, affected persons will be exempted from administrative and legal fees incurred pursuant to this grievance redress procedure.

7.5 Awareness of GRM

GRM should be given a wide publicity among stakeholder groups such as affected parties, government agencies, and civil society organizations. 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 centers, hospitals and health clinics of the area.

Similarly, 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.

7.6 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 TC-GRC 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 worked out and recommended to State Level Steering Committee for consideration and needful action.

7.7 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.

7.8 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

7.9 Management of Reported Grievances

- The procedure for managing grievances should be as follows:
- The affected person files his/ her grievance, relating to any issue associated with the resettlement process or compensation, in writing or phone to the project Resettlement and Compensation committee (Phone numbers will be provided by the SPMU). Where it is written, the grievance note should be signed and dated by the aggrieved person. And where it is phone, the receiver should document every detail.
- A selected member of the Site Committee will act as the Project Liaison Officer who will be the direct liaison with PAPs in collaboration with an independent agency/NGO person to ensure objectivity in the grievance process.
- Where the affected person is unable to write, the local Project Liaison Officer will write the note on the aggrieved person’s behalf.
- Any informal grievances will also be documented

7.10 Grievance Log and Response Time

The process of grievance redress will start with registration of the grievance(s) to be addressed, for reference purposes and to enable progress updates of the cases. Thus, the person affected by the project will file a Grievance Form with the Grievance Redress Committee. The Form (See table 21) should contain a record of the person responsible for an individual complaint, and records dates for the date the complaint was reported; date the Grievance Log was uploaded onto the project database; date information on proposed corrective action sent to complainant (if appropriate), the date the complaint was closed out and the date response was sent to complainant.

The Project Liaison Officer working with the local Government Desk Officer in recording all grievances will ensure that each complaint has an individual reference number, and is appropriately tracked and recorded actions are completed.

The response time will depend on the issue to be addressed but it should be addressed with efficiency. The Grievance committee will act on it within 10 working days of receipt of grievances. If no amicable solution is reached, or the affected person does not receive a response within 15 working days, the affected person can appeal to the SLO in the SPMU, which should act on the grievance within 15 working days of its filing.

Table 7.1: Typical Reporting format for Grievance Redress

Community project & Name of Complainant	Type of Grievance	Grievance Resolution
-----------------------------------------	-------------------	----------------------

CHAPTER EIGHT STAKEHOLDER CONSULTATION

8.1 Introduction

Public consultation for the proposed river crossings entails the process of informing stakeholders on the need to carry out the ESMP of the project with respect to the project's environment; the scope and the need for the community to own and safeguard the project as beneficiaries. Public consultation should be a continuous process and would be an ongoing activity throughout the project lifespan. Public participation and consultation were carried out as necessary through meetings, requests for written proposals/comments, filling of questionnaires, explanations of project to the locals, making public documents available at the state and local levels at all stage of the project. At the local level, the stakeholder consultation was carried out at the project sites and in the community town halls/open grounds. The consultation measures took into account the low literacy levels prevailing in these rural communities by allowing an adequate amount of time for responses and feedback. Nevertheless, details of public consultation are discussed.

8.2 Objectives

Stakeholders' engagement is essential in achieving the major objectives of any project implementation and sustainable development. Participatory approaches in project planning and implementation enhances project policy, ownership and sustainability and also empower targeted beneficiaries. The objectives for stakeholders' engagement and sensitization include but not limited to the following;

- i. To create general public awareness and understanding of the project, and ensure its acceptance;
- ii. To develop and maintain avenues of communication between the project proponent, stakeholders and PAPs in order to ensure that their views and concerns are incorporated into the project design and implementation with the objectives of reducing, mitigating or offsetting negative impacts and enhancing benefits from the project;
- iii. To inform and discuss about the nature and scale of possible adverse impacts of the rehabilitation work and to identify and prioritize the mitigation measures for the impacts in a more transparent and direct manner;
- iv. To document the concerns raised by stakeholders and PAPs so that their views and proposals are mainstreamed to formulate mitigation and benefit enhancement measures;
- v. To sensitize other MDAs, local authorities, Non-governmental Organizations (NGOs) and Community Based Organizations (CBOs) about the project and solicit their views and discuss their share of responsibility for the smooth functioning of the overall project operations; and
- vi. To reduce potential conflict between stakeholders, project proponents PAPs.
- vii. To develop stakeholder's capacity in the areas sustainable project management.

In summary, it goes to spell out the role of stakeholders in the project planning, implementation and monitoring. Involving stakeholders in monitoring service delivery, revenues, budget execution, procurement, contract awards, and reform policies can increase transparency, improve efficiency of service delivery or budget execution, and reduce opportunities for corruption. Some mechanisms for stakeholders-led monitoring include public expenditure tracking surveys, social audits, or stakeholder report cards.

8.3 Stakeholder Engagement Approach

8.3.1 Consultations in the Study Area

For the ESMP, the consultant visited Imo state between 7th January and 13th April, 2019. Informal interactive sessions with the various stakeholders were carried out as necessary. The gathering provided insights into the state of the proposed river crossing, hierarchy of traditional rulers in the study area, community life style and dispute resolution system amongst others. Present at the interactive stakeholder consultation meetings were:

- Community Traditional rulers or President Generals at Umuoleche, Okpuala, Mgbidi, BSC, Umuomumu and Umuezedike
- Imo RAMP Environmental safeguard officer
- Imo RAMP Social safeguard officer,
- Community Women leaders
- Community Youth leaders
- General public (people living at the host communities).

8.4 Stakeholder KIIs, FGDs, Community Meeting and Interpretation

In all interactions, stakeholders present comprised of the State PIU’s environmental and social safeguard officers, representatives/leadership of the host communities, and Heads of community/ households. Information provided in this section is completely based on responses from stakeholders, documented reports in state and physical site observations.

Key Informant Interview (KII) and Focus Group Discussions (FGDs) were carried out to obtain the stakeholders’ views on the project. The groups consulted include, The Elders, Women and youths in the Communities. other groups include Fishermen, farmers and hunters. The project engineer in Imo State RAMP and desk officer in Imo State Ministry of Local Government and Rural Development. Questions asked include efforts of the state/community to ensure accessibility, knowledge of the potential environmental and social impacts of the proposed sub-project activities, presence or absence of community conflict, community associations and cultural heritage that might be impinged upon by the project. This section attracts a large populace of the host communities as shown in Annex 3, 4 and 6. Summary of the IDIs and FGDs are provided in table 8.1 and 8.2, whereas site specific consultations are provided in table 8.3.

Table 8.1 Summary of Issues Raised at KIIs

Date of Consultation		13/04/2019	
Name of Stakeholders		All priority sites	
Language		Pidgin-English, English and Igbo	
Questions	Stakeholders comments and views	Consultant’s Response	
<ul style="list-style-type: none"> • Description of the means of livelihood of the community • How will the construction affect the economic activities of the people in the community? • Suggested measures to mitigate the negative environmental and socio- 	<ul style="list-style-type: none"> • The main occupation of the residents of the communities is farming • The impact of the intervention on the economy of the people will be mainly positive as it will improve their finances and social interaction 	Explanations were offered by the ESMP team: <ul style="list-style-type: none"> • It was explained to them that another team of consultant will prepare the Resettlement Action Plan (RAP) to access and value structures that would be affected by the proposed intervention based on the designed engineering drawing. 	

economic impacts of the civil works	<ul style="list-style-type: none"> • The members of the communities must be efficiently consulted and carried along to make them own the project • Sufficient compensation must be paid to those whose properties will be affected • Local workers must be employed especially for non-skilled positions 	<ul style="list-style-type: none"> • It was also indicated that compensation would be paid to people whose building/sources of livelihood would be affected by the project implementation. • The youth in the community were assured that they would first be considered for employment before skilled and unskilled labour will be sought from other places.
-------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

Table 8.2 Summary of Issues Raised at FGDs

Date of Consultation		13/04/2019
Name of Stakeholders	All Priority Sites	
Language	Pidgin-English, English and Igbo	
Items	Stakeholders comments and views	
<ul style="list-style-type: none"> • Description of the means of livelihood of the community • Description of the health status of members of the community • How the intervention will impact on the health of the people of the community • How will the construction affect the economic activities of the people in the community? • Effect of the construction on the accessibility to the community • Effect of the construction on vulnerable groups • How will the construction affect men and women differently? • What will be the effect of the construction on those whose livelihood are tied to the route? • Suggested measures to mitigate the negative environmental and socio-economic impacts of the civil works 	<ul style="list-style-type: none"> • Most of the residents are farmers, depending solely on agriculture as their means of livelihood • Members of the community were said to be of reasonably good health, with the common ailment such as malaria and cough. • Youths make up the predominant portion of the community, followed by the middle aged and the elderly. • Many youths in the community are artisans and can provide the workforce if needed. • Some residents listed headache, cough, catarrh, and fever as the common ailments that would likely surface during the period of construction because of the dust and fumes that will accompany the construction. • Some residents said vulnerable members of the community would be assisted to cope with the difficulties during the period of construction. • The overwhelming majority said that women would be more affected because they do more work in caring for children and using the water from the River for domestic purposes. They are usually responsible for purchase of food stuffs and other household goods, and are usually weaker than men. • A few respondents feel it would have the same effects since both sexes are plying the same route. • Traders would also face the difficulty of conveying their goods to their various points of businesses. Respondents recommended the provision of a pedestrian bridge during the construction that will be strong, not too high and would also have rail guards to protect the elderly, school children and the handicapped. • The contractor was encouraged to wet the road with water during construction in the dry season to reduce dust. • Some residents are scared that the river which is their main source of water may be affected during construction. 	

Table 8.3 Summary of Issues Raised at Community Meeting

Date of Consultation		13/04/2019
Stakeholders in Attendance	Elders, Women and Youth, other members of the communities, Imo RAMP2 Social Safeguard Officer, ESMP Consultant	
Locations where consultations took place	Umuoleche Community, Umuokpara Ofeiyi-Umuoleche (Okigwe LGA)	
Language	Pidgin-English, English and Igbo	
Items	Stakeholders comments and views	Response to comments & views
Concerns/Complaints/Remarks/Recommendations	<ul style="list-style-type: none"> • On culture and tradition, it was noted that there is no archaeological site/ shrine located within and around the project site; • It was also mentioned that contractors/visitors are not allowed to make advances to married women in the community. • Some of the stakeholders asked what their lots would be should their farms and other properties get affected by the proposed intervention. 	<p>Explanations were offered by the ESMP team:</p> <ul style="list-style-type: none"> • With regards to making advances to women and underage girls, the community members were assured that their views and concerns will be recorded and communicated to the contractors and other consultants that will be visiting

	<ul style="list-style-type: none"> The youth, especially the artisans among them enquired if they would be employed by the contractors They asked for more River crossing projects for the community. Specifically, they feel Amagu-Umulebe bridge and Okorobi-Umuju-Amaikpa bridge are of higher priority than the selected one. They pleaded that as part of the project, RAMP should help complete their health centre and improve their school 	<ul style="list-style-type: none"> The youth in the community were assured that they would first be considered for employment before skilled and unskilled labour will be sought from other places. It was explained to them that another team of consultants will prepare a Resettlement Action Plan (RAP) which will access and value structures that would be affected by the proposed intervention based on the designed engineering drawing. It was also indicated that compensation would be paid to people whose building/assets would be affected by the project implementation. It was also noted that the RAMP project is focused essentially on rural accessibility (roads and River crossings). The community members were therefore advised to visit the office of the World Bank supported CSDP programme for assistance on project related to health, school among others.
Date of Consultation 13/04/2019		
Stakeholders in Attendance	Elders, Women and Youth, other members of the communities, Imo RAMP2 Social Safeguard Officer, ESMP Consultant	
Locations where consultations took place	Okpuala Community, Umuduru Emghara-Okpuala Anara (Isiala Mbano/Ehime Mbano)	
Language	Pidgin-English, English and Igbo	
Items	Stakeholders comments and views	Response to comments & views
Concerns/Complaints/Remarks/Recommendations	<ul style="list-style-type: none"> There are no cultural issues in the community that may hinder the implementation of the project They expressed their happiness about the intervention and look forward to seeing the contractors on site. The nature of the intervention was also enquired. Is it a bridge or a culvert? What is its capacity? Is it a single lane or dual carriage river crossing? Will the road be constructed too? 	<p>Explanations were offered by the ESMP team:</p> <ul style="list-style-type: none"> The ESMP consultant gave the dimension of the RC as 20 meters long and 8 meters wide. He also indicated that there will be an approach road which will be 7.3 meters wide with side drains (750X750) on both sides of the road It was also indicated that compensation would be paid to people whose building would be affected by the project implementation.
Date of Consultation 12/04/2019		
Stakeholders in Attendance	Elders, Women and Youth, other members of the communities, Imo RAMP2 Social Safeguard Officer, ESMP Consultant	
Locations where consultations took place	Umuomumu Community, Orié Mbieri-Umuomumu Mbieri (Ikeduru/Mbatoli)	
Language	Pidgin-English, English and Igbo	
Items	STAKEHOLDERS COMMENTS AND VIEWS	RESPONSE TO COMMENTS & VIEWS
Concerns/Complaints/Remarks/Recommendations	<ul style="list-style-type: none"> The ESMP team was welcomed by the Community's leader who expressed his joy about the proposed River crossing across the Okitankwo stream. Several/past communal and individual efforts to improve accessibility were enumerated by them; Some of the locals expressed their skepticism about the seriousness of the proposed RAMP 2 intervention owing to their past experiences; while some of the participants noted that the 	<ul style="list-style-type: none"> Explanations were offered by the ESMP team: <ul style="list-style-type: none"> The team assured the community of the genuineness of the project. They were also assured that their concern on the flow of the River will be communicated to the Project Engineer It was explained to them that another team of consultant will prepare a Resettlement Action Plan (RAP) which will access and value structures that would be affected by the proposed intervention based on the designed engineering drawing. The consultant explained that based on the World Bank procedure, representatives of the community will be part of the

	<p>visit was their first time knowing about the RAMP 2;</p> <ul style="list-style-type: none"> • They requested that the flow of the stream should be enhanced during the construction of the River crossing as it is currently silted. • RAMP 2 to carry them along in the process of executing the project. • They do not want the project to be hijacked by politicians; • In all, they expressed their happiness about the intervention and look forward to seeing contractors on site. • It was also mentioned that contractors/visitors are not allowed to make advances to married women in the community. 	<p>Project Implementation team. The fear of project hijack should therefore not be entertained</p> <ul style="list-style-type: none"> ○ With regards to making advances to women and underage girls, the community members were assured that their views and concerns will be recorded and communicated to the contractors and other consultants that will be visiting
Date of Consultation	13/04/2019	
Location	Uzuruanamu community, Uzurunamu-Okwudo Mgbidi (Oru east/Oru west/Orsu)	
Stakeholders in Attendance	Elders, Women and Youth, other members of the communities, Imo RAMP2 Social Safeguard Officer, ESMP Consultant	
Language	Pidgin-English, English and Igbo	
Items	Stakeholders Comments and Views	Response to Comments & Views
Concerns/Complaints/Remarks/Recommendations	<ul style="list-style-type: none"> • It was indicated that the community council constructed a bridge over the River in the past. • Some of the stakeholders asked what their lots would be should their farms and other properties get affected by the proposed intervention. • On their culture and tradition, it was noted that there is a shrine located within and around the project site. It is the Obana River; a deity where no fishing is allowed. • The Boa is also a deity. They are harmless and should not be killed • Sexual relationship with underage or unmarried girls especially teenagers is not allowed. Any girl who gets pregnant before the Fattening process would be ostracized for life and her family shamed. • Nobody is expected to take the water from the Obana River home on small Orie days (market day). • The community leaders gave assurance that all the necessary rituals will be carried out without major cost implication before the commencement of the project. 	<p>Explanations were offered by the ESMP team:</p> <ul style="list-style-type: none"> • On the issue of Obana River and the deified Boa constrictors, the community members were assured that their concerns will be documented and communicated to the contractor and other consultants • It was explained to them that another team of consultant will prepare a Resettlement Action Plan (RAP) to access and value structures and all other cultural activities that would be affected by the proposed intervention based on the designed engineering drawing. • They were assured that cultural areas are special in all World Bank supported projects and will be paid extra attention • With regards to making advances to women and underage girls, the community members were assured that their views and concerns will be recorded and communicated to the contractors and other consultants that will be visiting • It was also indicated that compensation would be paid to people whose building would be affected by the project implementation. • On the issue of water use, the consultant indicated that this will be documented and conveyed to the contractor (See Sec 5.2.2.2 and section A9 of the ESMP Matrix)
Date of Consultation	13/04/2019	
Location	Obinugwu Community, Ugbele-Bsc (Ideato South)	
Stakeholders in Attendance	Elders, Women and Youth, other members of the communities, Imo RAMP2 Social Safeguard Officer, ESMP Consultant	
Language	Pidgin-English, English and Igbo	
Items	Stakeholders comments and views	Response to comments & views
Concerns/Complaints/Remarks/Recommendations	<ul style="list-style-type: none"> • Some of the stakeholders asked what their lots would be should their farms and other 	<p>Explanations were offered by the ESMP team:</p>

	<p>properties get affected by the proposed intervention.</p> <ul style="list-style-type: none"> •The nature of the intervention was also enquired. Is it a bridge or a culvert? What is its capacity? Is it a single lane or dual carriage river crossing? •Will the road be constructed too? 	<ul style="list-style-type: none"> • The ESMP consultant gave the dimension of the RC as a culvert. The dimension of the RC as 20 meters long and 8 meters wide. He also indicated that there will be an approach road which will be 7.3 meters wide with side drains (750X750) on both sides of the road He also indicated that there will be an approach road which based on the engineering design is an earth road. It is also a single lane road. • It was explained to them that another team of consultant will prepare a Resettlement Action Plan (RAP) to access and value structures that would be affected by the proposed intervention based on the designed engineering drawing. • It was also noted that the RAMP project is focused essentially on rural accessibility (roads and River crossings). The community members were therefore advised to visit the office of the World Bank supported CSDP programme for assistance on project related to health, school among others
Date of Consultation	13/04/2019	
Location	Umuezedike Community, Umuokpara Ofeiyi-Umuoleche (Okigwe)	
Stakeholders in Attendance	Elders, Women and Youth, other members of the communities, Imo RAMP2 Social Safeguard Officer, ESMP Consultant	
Language	Pidgin-English, English and Igbo	
Items	Stakeholders comments and views	Response to comments & views
Concerns/Complaints/Remarks/Recommendations	<ul style="list-style-type: none"> •Some of the stakeholders asked what the lots would be should their farms and other properties get affected by the proposed intervention. •The youth, especially the artisans among them enquired if they would be employed by the contractors •They asked for more River crossing projects for the community. •They pleaded that as part of the project, RAMP should help complete their health centre and improve their school 	<p>Explanations were offered by the ESMP team:</p> <ul style="list-style-type: none"> • It was explained to them that another team of consultant will prepare a Resettlement Action Plan (RAP) to access and value structures that would be affected by the proposed intervention based on the designed engineering drawing. • The youth in the community were assured that they would first be considered for employment before skilled and unskilled labour will be sought from other places. • With regards to their request for more RCs, the community members were assured that their request will be communicated to the SPIU. It was noted that the selected priority roads are the ones considered at this phase and others will be considered in subsequent phases. • It was also explained that the RAMP project is focused essentially on rural accessibility (roads and River crossings). The community members were therefore advised to visit the office of the World Bank supported CSDP programme for assistance on project related to health, school among others

The main issues expressed by the stakeholders during the public consultation with regards to the proposed river crossing in their project locations include:

1. **Existence of cultural rites in some communities (Mgbidi).** This issue was addressed by the community leaders who gave assurance that all the necessary rituals, consultations, compensation will be carried out before the commencement of the project. The consultant further explained that the World Bank OP 4.11 addresses such issues of physical and cultural resources and a PCR plan is provided in Annex XII

2. **Request for other river crossings.** This issue was resolved by explaining to the beneficiaries that the selected priority roads are the ones considered at this phase and others will be considered in subsequent phases.
3. **Bad state of existing access roads.** This was resolved by explaining to the beneficiaries that the approach roads to the river crossings will be rehabilitated/constructed
4. **Zero tolerance to sexual relations with underage and married women.** The community members were assured that their concerns will be communicated to the contractor and other visitors
5. **Possible pollution of rivers during construction.** This was resolved by explaining to the members of the communities that adequate mitigation measures will be put in place to forestall the pollution

The communities' expectations during construction and operation phases are as follows:

1. Employment of the local during construction and operation phases of the project should be prioritized;
2. For safety and security of workers, machinery and equipment, the host communities are willing to be engaged for proper policing;
3. Adequate compensation to people whose properties will be lost due to the intervention, especially along the channel of water distribution. This will be captured in RAP report
4. With regards to the creation of alternative routes, the beneficiaries were informed that alternative routes will be captured in the engineering designs for all the river crossings to ease their movement during construction.
5. The potential impact of construction on the River was raised. The beneficiaries were informed that mitigation measures will be developed to reduce this impact. This also applies to other environmental impacts connected to the project

In general, the host communities are peace-loving people. Also, the communities assured the ESMP team of total cooperation with the State's coordinators, contractors and consultants. They promised adequate security and protection of lives, properties and equipment during construction and operation phases. Plates in Annex 6 show the consultation sessions/meetings with the communities.

CHAPTER NINE

SUMMARY AND RECOMMENDATIONS

9.1 Summary

The study assessed the basic biophysical and social baseline information of the proposed intervention site, identified susceptible environmental parameters, which may be positively and or negatively impacted upon at the different phases of the project. It also presented the necessary mitigation measures for such identified impacts. An assessment of the ground state of affairs illustrates that the nature and extent of accessibility is poor within the project sites. The proposed intervention works will therefore positively impact on human lives and improve their productivity. Similarly, the residents of the communities within the project sites have also expressed their acceptance for the intervention. Hence, the proposed intervention project is a welcome development to the affected communities.

9.2 Recommendation

The following recommendations are for the consideration of the Imo State RAMP SPIU. The recommendations are geared towards ensuring the improvement of decisions and filling of gaps identified by the ESMP study.

- There is the need for more public consultation and awareness to ensure the buy-in and ownership of the proposed projects by the host communities.
- There is a need to create more awareness on the anthropogenic causes of soil erosion and flooding with a bid to ensure project sustainability after the river crossing rehabilitation works.
- Waste management is also a serious issue in the area as residents tend to dump their refuse in the drainages. These should be discouraged and programme designed to enlighten them on best practice for refuse disposal.
- All managers must 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 must 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 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 personnel trained on survival centered approach in handling GBV issues 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).
- 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.
- The construction site will be fenced off with temporary fencing to all surrounds. Site fencing will prevent any access from un-authorized entry to site. Construction site access is through site entry only.
- The construction vehicle site entry will be via the Road and will make use of driveway access then flowing across a vacant allotment to an existing bitumen paved parking area. This makes use of the of the existing site conditions and reduces the impact to the adjoining facilities. All of the construction deliveries and access will be via this entry.
- Clear signage will be erected outlining the construction entry. Construction pedestrian / workers access will be separated from vehicle access by way of separate pedestrian entry from adjoining footpath. Workers will have a direct footpath access to site amenities from pedestrian entry gate.
- A delivery area will be located within the site compound - All material deliveries for the works will be made via the entry/entry via the Road. Vehicular movements around the building will be managed by trained traffic management operatives. All vehicles will enter and exit the construction site in forward facing direction.
- Tower crane will generally be used to unload heavy material and equipment directly from the truck. They are to be lifted to the designated location or on to loading platform. Traffic control during loading and unloading inside the construction site will be carried out by contractor's representative.
- A man and materials hoist will be used to provide safe access on the floors and the movement of smaller materials. A safe pedestrian access will be provided to the hoist location.
- The Contractor shall be required to provide appropriate information, training, instruction or supervision necessary to protect all persons from risks to their health and safety.
- The Contractor must also ensure construction induction training is provided to workers who carry out construction work.
- Use water suppression to prevent dust emission
- Maintain vehicles and machineries to reduce emission
- Maintain low speed to reduce dust and gaseous emission
- Vegetal waste shall be supplied to farmers for use as compost.

ANNEXURE

ANNEX 1: TERMS OF REFERENCE

DETAILED ASSESSMENT, PRIORITISATION, ENGINEERING DESIGN, AND ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN FOR REINSTATING/CONSTRUCTING DAMAGED, WASHED AWAY AND MISSING RIVER CROSSINGS ON THE RURAL ROAD NETWORK IN IMO STATE

1.0 Background

The Second Rural Access and Mobility Project (RAMP-2) is a World Bank (WB) and French Development Agency (AFD) assisted project in support of the implementation of the National Rural Travel and Transport Policy (RTTP) in Imo State. The project is being coordinated by the State Project Implementation Unit (SPIU) under the Imo State Ministry of Local Government and Rural Development. The main objective of the project is to improve transport conditions and bring sustained access to the rural population through constructing/rehabilitating and maintaining key rural transport infrastructure in a sustainable manner.

Imo State Government intends to apply part of the RAMP-2 financing towards the detailed assessment, prioritization, engineering design, and environmental and social management plan for reinstating/constructing damaged, washed away and missing river crossings on the rural road network in Imo State. The SPIU on behalf of Imo State Government proposes to commission the services of a qualified and experienced consultant firm (hereinafter called “the Consultant”) to undertake the assignment. (hereinafter called “the Services”) herein described.

2.0 Objectives of Consultancy Service

The objectives of the Services are as follows:

- To carry out an initial assessment of the condition, size and approximate construction/rehabilitation cost associated with each candidate on the long-list provided (attached as Annex I), together with the reported reasons for failure and for local prioritization, while also rating their apparent priority based on an agreed framework of broad socioeconomic criteria. And develop an initial short-list of approximately eighty (80) candidates for further prioritization.
- To carry out a detailed assessment of the condition of the identified/short-listed river crossings, evaluate the relative economic and social importance and benefits of the river crossings, and carry out the prioritization and ranking of the river crossings, for approval.
- To carry out the detailed engineering design and production of full bidding documents for about twenty-three (23) of the prioritized river crossings (generally including but not limited to culverts and small bridges with total spans not exceeding 15.0m) with all associated Works.
- To prepare the Environmental and Social Impact Assessment (ESIA), the Environmental and Social Management Plan (ESMP), and, if necessary, the Abbreviated Resettlement Action Plans (ARAPs) for the proposed interventions.

3.0 Project Description

The SPIU has compiled a long list of river crossings, which have been identified by the Local Government Authorities as requiring such Works. The list of roads about eighty (80) river crossings have been identified is attached as Annex I of the TOR. These river crossings are by no means exhaustive. Over and above these identified crossings the Consultant shall allow for the inclusion of about twenty (20) additional river crossings. These will be identified by the SPIU and the Consultant for consideration during the assessment phase and will consist of those river crossings that are deemed to be critical for network coherence and the establishment of proper access for the affected rural communities as well as alignment with the objectives of the Nigeria Agricultural Transformation Agenda (NATA).

The provision of the consultancy services will then entail:

- **Initial Assessment:** An initial on-the-ground assessment of the condition, size and approximate construction/rehabilitation cost associated with each candidate on the long-list provided (attached as Annex I), together with the reported reasons for failure and for local prioritization, while also rating their apparent priority based on an agreed framework of broad socioeconomic criteria. And develop an initial short-list of approximately 50 candidates for further prioritization.
- **Prioritization:** A more extensive visit to the identified/short-listed river crossings to further assess their condition and detailed rehabilitation/construction requirements, together with collection of socioeconomic data of the project areas so as to enable the prioritization and ranking of the river crossings in order of their socioeconomic importance and alignment with the goals of the Nigeria Agricultural Transformation Agenda.
- **Engineering Design and Production of Bidding Documents:** The detailed engineering design of all the Works associated with the construction/rehabilitation of the priority river crossings, together with Preparation of the associated Bidding Documents.
- **Preparation of the Environmental and Social Impact Assessment (ESIA),** the Environmental and Social Management Plan (ESMP), and, if necessary, the Abbreviated Resettlement Action Plans (ARAPs) for the proposed interventions.

4.0 Scope of Services

The scope of the consultancy services shall include the following;

A. INITIAL ASSESSMENT.

- 4.1 Carry out an initial on-the-ground assessment of the condition, size and approximate rehabilitation/construction cost associated with each candidate on the long-list provided (attached as Annex I), together with the reported reasons for failure and for local prioritization, while also rating their apparent priority based on an agreed framework of broad socioeconomic criteria. And develop an initial short-list of approximately fifty (50) candidates for possible prioritization

B. PRIORITIZATION

4.2 Data collection and desk study

The Consultants shall collect and review all relevant existing data as available in respect of the candidates short-listed through the initial assessment, including but not limited to: maps and aerial photographs if available/necessary; any as-built drawings for the candidate river crossings; traffic surveys; geology/stream morphology, hydrological/hydraulic data (water levels & scouring); locations of any existing and proposed utilities, present condition of the crossing, their banks, abutments, roads and river training works (character and shape including existing soils forming the embankments) etc.

4.3 Detailed Condition Assessment

The Consultant shall then complete the existing data and collect the following information:

- GPS reading for each of the identified sites/location
- Traffic levels and composition

- Show on a separate road map, based on the GPS readings, for each Local Government Area, the position of the identified river crossings and the respective road links and the class of road involved and its condition.
- Basic measurements and arrangements of the structures (type, length, height, skew, spans, number and diameter/size of pipes/culverts and small bridges etc). Where structures are completely washed away, the Consultant shall note this accordingly.
 1. Condition of the structure, preliminary scope of works and key cause for required works.
 2. Comprehensive Digital Photographs.
 3. The nature and condition of the existing alignment and approaches.
 4. Prepare preliminary cost estimates for the proposed remedial works and/or hydraulic structures
 5. Recommend appropriate type and size of hydraulic structure for crossings without any existing structures.
 6. Classify the various structures in terms of size, type, associated additional necessary works; and costs.

4.4 Economic and Social Evaluation

The Consultant shall also:

- Collect and review data relating to the demography, agricultural activities, land use characteristics and social amenities in the proposed project corridors.
- Evaluate the data collected and assess the benefits that will accrue to the communities due to the proposed works.

4.5 Prioritization and Ranking

Based on the data collected from the above activities, the Consultant shall carry out a Multi Criteria Analysis (MCA) based on the following criteria:

- **Social Criteria:** These include estimated population of settlements located along each route, number of health facilities and schools to be served by each identified or selected river crossing.
- **Economic Criteria:** These include the observed traffic and the previously recorded traffic, the number of markets and cottage industries, volume of agricultural output that are found along or connected by each link.
- **Accessibility Criteria:** These include average cost of transportation per kilometer and road density within the local government area in which each link is located.
- **Cost Criteria:** The estimated cost of the proposed works to be carried out at the identified locations; and the budgetary impact.

The Consultant shall propose weightings for the foregoing criteria and any additional criteria with justification.

The Consultant may also propose variations to the evaluation method with adequate justification for the Client's consideration for approval during the course of the assignment but well ahead of the prioritization.

The Consultant shall thereafter produce a list of the short-listed river crossings, showing the results of socioeconomic evaluation and the costs of the proposed works, with details, arranged in the order of priority/ranking, with the cumulative costs also shown. This shall then be presented for approval, prior to proceeding with the detailed design.

C. ENGINEERING DESIGN & PREPARATION OF BIDDING DOCUMENTS

4.6 General

This phase shall focus on the agreed prioritized of the structures (and their associated works) selected for immediate repair/rehabilitation and replacement. The Services shall include the engineering design, completion of drawings where required (Standards drawings should be used as far as possible), preparation of detailed cost estimates and bidding documents.

- All identified structures larger than small bridges (maximum span 15.0m) shall not be included in this phase.
- The services as detailed below are required for a total number of about 25 river crossings of varying sizes and spread out over the entire Imo State. Should the final agreed number differ substantially (by more than 30%), such difference would form the basis of an addendum.

4.7 Engineering Assessment and Design

- i) The first phase of assessment should be confirmed in terms of requirements to complete the required engineering design to reinstate the structures at the identified river crossings. It is expected that the need for additional inspections would be minimal and focused only on the larger structures (larger culverts and small bridges) included in this phase.
Where the affected road crosses a low-lying area that is prone to seasonal flooding, the intention is to provide both the river crossing and approaches that will enable all-weather use of the road link.
- ii) The Consultant shall assess the seasonal traffic volume prevalent at the time. For determining the annual and other seasonal traffic patterns standard procedures, of using existing data to project traffic patterns shall be applied.
- iii) Execute topographic and geotechnical field work to establish the necessary data and basic drawings for the detailed design at appropriate scale to determine location, elevation, foundation levels and sizes of the new and, as needed, of the existing structures. Special attention shall be given to the required information for hydraulic dimensioning of the structures and the protective measures for the watercourses. If elevations cannot be referred to the official level system permanent benchmarks have to be placed and secured which will permit to re-establish the reference height at each structure. Access ramps and modified road sections shall be included to the extent, which permits proper adoption of the existing alignment to the new situation.

The scales of the design drawings shall be:

- Site Plan including approach roads (scale: 1/1000)
 - Longitudinal (vertical) and transverse alignment (scale: 1/500)
 - River profiles (cross section; scale:1/100-1/250) of the present and potential crossing points marked with high water, flood water, and low water level
 - Standard cross section of approach roads (scale: 1/100)
 - General Plan/View and cross section of proposed bridges or culverts (scale:1/50 - 1/100)
 - Structural details of the bridge and culverts (scale: 1/10 - 1/50), etc.
- iv) Undertake detailed structural design and calculation using British Standards (BS) or any other internationally recognized code of practice. The loading must in any case be identical with those regularly applied for the respective types of roads in Nigeria.

- v) Detailed design of erosion and scouring protection and control for each structure.
- vi) The scales of the design drawings shall be 1/50 - 1/100. The detailed design drawings for the agreed structures shall include detailed drawings for erosion and scouring protection and protection measures.
- vii) Verify the hydraulic effectiveness of the proposed dimensions of all structures included in the programme.
- viii) Ensure compliance with the Environmental and Social Management Plan being developed in parallel with the design of the Works.
- ix) Prepare the detailed design drawings for the agreed structures and the agreed associated Works, where applicable to include the approach road sections at appropriate scales and in such a detail that contractors may confidently bid and execute all construction work without further design except for workshop drawings for formwork, scaffolding and other auxiliary installations. Particular attention shall be paid to the elaboration of essential standard details as transition joints, bearing, railings, etc., which shall be serviceable and easy to be maintained. Where applicable, the safety of all structural parts shall be verified by static and foundation engineering analysis (for computer-based calculations the type of computer and the programmes used shall be mentioned) using British Standards (BS) or any other internationally recognized code of practice. The loading must in any case be identical with those regularly applied for the respective types of roads in Nigeria.
- x) Prepare Bills of Quantities and actual cost estimates based on unit prices broken down in local currency. Tax and duty elements shall be presented separately. The estimate for the right-of-way acquisition, if any, shall be furnished by the SPIU for each land property used.
- xi) Draw up Bid Lots by grouping the structures according to geographical location, magnitude and nature of work etc.
- xii) Prepare a detailed Time schedule for the programme based on the proposed packaging and the individual construction time for each structure assuming a practical sequence of activities under given climatic conditions and taking into account the time needed for tendering, contract negotiations and award, mobilisation, etc. The expected Cash Flow shall also be indicated.

4.8 Preparation of Bidding Documents.

The Consultant shall prepare bidding documents for the Civil Works contracts for each Lot, conforming to the World Bank’s “Standard Bidding Documents for Procurement of Works”. A draft of the proposed final documents shall be furnished to the SPIU as scheduled in section 4.9 below.

Final complete bidding documents including instruction to bidders, detailed engineering plans and drawings, standard technical specifications, specifications of particular applications, model contract, special conditions of contract, and bills of quantities, shall also be furnished to the SPIU as scheduled in section 4.9 below. The ESMP shall be included as an annex to the bidding documents.

D. Environmental and Social Impact Assessment

For the short-listed sites, the Consultant shall conduct an Environmental and Social Impact Assessment (ESIA) in line with World Bank Operational Policy OP4.01 to identify, quantify and to the extent possible monetize the likely negative and positive environmental and social impacts of the proposed works, and suggest the required mitigating

measures (in the form of an Environmental and Social Management Plan, ESMP) to be implemented to avoid these negative impacts. As needed, the ESIA and the ESMP will also include “chance find procedures” as per the World Bank Operational Policy for Physical Cultural Resources (OP/BP 4.11). The ESIA shall among others: (i) Recommend an appropriate Institutional structure for safeguard in the rural roads that will guarantee sustainable safeguard measures system; (ii) Explore the possibilities for community-based safeguard approach and the Capacity Building needs of the relevant stakeholders; and (iii) Explore and recommend alternative safeguard measures/models.

The ESMP shall contain the following:

- i) Summary of Environmental Impact
- iv) Environmental and Social Impact Mitigation Measures (At Design, Construction and Operation phases)
- v) Environmental Monitoring Plan (At Construction and Operation phases)
- vi) Cost Estimates for Mitigation and Monitoring
- vii) Costs for implementation of monitoring

As needed, Resettlement Action Plan (RAP) or Abbreviated Resettlement Action Plan (ARAP) in line with World Bank Operational Policy OP4.12, to ensure that the eventual Project Affected Persons (PAPs) are adequately compensated or provided assistance. However, it is not anticipated that land acquisition or resettlement will be undertaken as all project physical activities would be carried out at on the existing right of way (ROW).

In preparing the ESIA, and if necessary, the RAP/ARAP, the Consultant shall take cognizance of the issues highlighted in the existing Environmental and Social Management Framework (ESMF) and the Resettlement Policy Framework (RPF) for RAMP-2.

The ESIA and ESMP shall be comprehensive and cover all social risks, including: (a) Labor including care of contractors’ workers, restriction of the use of child labor and prevention of child sex abuse that could be caused by the influx of workers; (b) Safety at construction sites and safety of the local community; and (c) Health aspects, including risks affecting sanitation and general health of the local community and prevention of HIV/AIDS. The ESIA shall assess and document the economic and social benefits of the project to the local community and identify initiatives that will help resolve the challenges confronting the social and economic well-being of the community, gender inequality, and ultimately reduce poverty and enhance shared growth. The safeguards assessment and monitoring during implementation will include the possible impacts generated by the influx of works (Labor influx) to be involved in the construction and mechanized maintenance.

4.9 Reporting Requirements

The following reports are required:

- **Inception Report** providing details of the Consultant’s establishment and mobilization; the extent of provision of a suitable counterpart and all the data stipulated under section 5.0 herein; the Consultant’s initial findings; the proposed methodology and implementation programme plus details needed or actions to be taken by SPIU to enable the assignment to be completed. The report shall be submitted in four (4) copies (two hard and two electronic) to SPIU within two (2) weeks of commencement of the assignment.
- **Initial Assessment and Short-Listing Report** with necessary preliminary assessment and the initial prioritization/short-listing of candidates, maps and the initial major findings of the Initial Assessment phase of the study. The report shall be submitted to SPIU in four (4) copies (two hard and two electronic) for review and necessary approval prior to commencement of the Detailed Assessment and Prioritization Phase. This report shall be submitted within six (6) weeks of the start of the assignment, and shall be submitted to SPIU in four (4) copies (two hard and two electronic) for review, comment and approval to proceed.
- **Detailed Assessment and Prioritization Report** including all the comments of the Client shall be furnished to the SPIU not later than ten (10) weeks after the start of the assignment. Ten sets of documents (Eight hard

and two electronic copies) shall be prepared and submitted. The Consultant shall include with the Final Prioritization Report, in electronic format, inter alia, the socio-economic data, maps, and GPS data.

- **Draft Design Report and Sample Bidding Document, the latter to include instruction to bidders,** preliminary engineering plans and drawings, standard technical specifications, specifications of particular applications, model contract, special conditions of contract, and bills of quantities. The Draft Design Report and the Sample Bidding Document shall be furnished to the SPIU within twelve (12) weeks of the start of the assignment. Three hard and two electronic copies shall be prepared and submitted to SPIU for review and approval.
- **ESIA:** The Consultant shall also submit within twelve (12) weeks of the start of assignment four (4) hard copies and two electronic copies of the ESIA and if needed the RAP/ARAP to the SPIU for review and onward disclosure.
- **Final Design Report and full Bidding Documents (for each Lot)** shall be submitted to SPIU, including instruction to bidders, detailed engineering plans and drawings, standard technical specifications, specifications of particular applications, form of contract, special conditions of contract, bills of quantities. These shall be furnished to the SPIU no later than fifteen (15) weeks after the start of the assignment. Ten sets of documents (eight hard and two electronic) shall be prepared and submitted for each Lot. Together with 10 (ten) copies of the Final Design Report (eight hard and two electronic copies).

Report Schedule	Due date (N=commencement of contract)
Inception Report	N+2 weeks
Initial Assessment & Short-Listing Report	N+6weeks
Allow for SPIU agreement/approval	N+6 weeks
Detailed Assessment & Prioritization Report	N+10weeks
Allow for SPIU agreement/approval	N+11 weeks
Draft Design Report & Sample Bid Document	N+12 weeks
ESMP	N+12 weeks
Allow for SPIU agreement/approval	N+13weeks
Final Design Report and Full Bid Documents	N+15weeks

5.0 Services to be provided by the Client

5.1 At the commencement of the Services, the Client will provide the Consultant with the Long-List of candidate river crossings and any other structures to be considered. The Client will also make available details (if available) of each of the river crossings before they were damaged, the cause of damage, and copies of standard design drawings for small span bridges (up to 15m span), single and multiple reinforced concrete Box Culverts, single and multiple pipe culverts, river training works, and the different class of road structures. In addition, the Client will make available: The Agricultural Transformation Agenda (ATA); the existing Environmental and Social Management Framework (ESMF) for RAMP2; and Resettlement Policy Framework (RPF). And, for the duration of the initial assessment phase, the Client will make available a counterpart to serve as a guide to the Consultant to ensure the candidate river crossings are properly located and the local administrations are contacted for input.

All the information, data and reports obtained from the SPIU in the execution of the Services of the Consultant shall be properly reviewed and analyzed by the Consultant. The responsibility for the correctness of using such data shall rest with the Consultant. All such information, data and reports shall be treated as confidential.

The Consultant shall be responsible for arranging necessary office and living accommodations, transportation, equipment, supplies, surveys, investigations, testing, secretarial services and all other input required for the purpose of the works. The Consultant shall make his own arrangements for document reproduction, printing and reproduction of all study reports during the course of the assignment.

5.2 Liaison with the SPIU.

Consultants shall be free to consult the SPIU for further explanation and clarification concerning these Terms of Reference.

5.3 Conduct of the Consultancy

The Consultant shall be based in Owerri Imo State Capital and shall manage the Services from their Owerri offices. The SPIU will oversee the consultancy services. The study will commence with a briefing from the SPIU. The Consultant shall work closely with SPIU and road authorities.

5.4 Ownership of Data and Third-Party Usage

All the computer software, maps, data and information provided, developed and collected during this exercise shall belong to the Client. No use shall be made of them outside of the project without the formal prior authorization from the Client. At the end of the Services, the Consultant shall relinquish all data, maps, software and information to the Client and shall make no use of them in any other study without prior authority from the Client.

5.5 Estimated Organizational Setup of the Assignment and Staffing.

The Consultant is solely responsible for proposing an organizational setup of the assignment which in his view is appropriate for carrying out the assignment, fulfilling the Terms of Reference and producing the required outputs. As a general guide, the organizational setup should reflect (i) the expectations of the Client, (ii) the knowledge of the situation and desired outcomes, and (iii) the time frame for the delivery of outputs.

Time frame: It is expected that the Services shall be carried out within four (4) months. The estimated Consultant input is about 24 person-months.

The table showing the estimated 24 person-month to be inserted here

The Consultants shall provide the following key staff to carry out the Services as described above:

- * Team Leader: a qualified engineer with BSc degree in civil engineering with a minimum of 15 years project management experience with management of emergency assessments and experience in bridge works an added advantage. The Team Leader may be one of the engineering experts listed below.
- * Structural Engineer: a qualified engineer with BSc degree in bridge/structural Engineering and a minimum of 15 years relevant experience in similar project, at least five must be in the region.
- * Geotechnical Engineer: a qualified engineer with BSc degree in foundation engineering and a minimum of 10 years relevant experience.
- * Hydraulic Engineer: a qualified engineer with BSc degree in Civil engineering or equivalent with minimum of 10 years relevant experience in similar projects.

- * Transport Economist: a qualified transport economist with Bachelor of Arts in Economics degree or equivalent with minimum of 10 years relevant experience;
- * Environmental Specialist: a qualified environmental specialist with Bachelor of Science degree or equivalent, in an appropriate field and with 10-years relevant experience in similar assignments.
- * Social Safeguard Specialist: a qualified social scientist or social safeguard expert with Bachelor of Science degree or equivalent, in an appropriate field and with 10-years relevant experience in similar assignments.
- * Senior Land Surveyor: Bachelor of Science degree (BSc) in Land Surveying or relevant discipline. Minimum experience shall be Ten (10) years, with a minimum specific experience of five (5) years in road projects. The candidate shall also be computer literate and fluent in the written, spoken and reading use of the English language.
- * Quantity surveyor: Bachelor of Science degree (BSc) in Civil Engineering or relevant discipline, and professionally registered. Minimum experience shall be eight (8) years, with specific experience in Building and Infrastructure Projects/Facilities Quantities. The candidate shall also be computer literate and fluent in the written, spoken and reading use of the English language.

ANNEX II: QUESTIONNAIRE

IMO RAMP 2 INTERVENTION PROJECT

Dear Respondent,

Thank you for taking the time to complete the following survey. The purpose of this survey is to gain valuable insight on proposed IMO RAMP RIVER CROSSING INTERVENTION PROJECT. This provides you the opportunity to contribute to the environmental and social components of the project implementation.

NOTE:

Please read each question carefully. Your answers are completely confidential and will be included only in summaries where individual answers cannot be identified. Unless otherwise instructed, please tick appropriate answer category that best describes your opinion. It will take approximately 20 minutes to complete this questionnaire.

Settlement/Community:....Lot.No...../L.G.A:.....Date:.....

SECTION A: Household data

- Gender of Respondent: (a) Male (b) Female
- Age: (a) Below 18 yrs (b) 18-45 yrs (c) 46-65 yrs (d) Above 66 yrs
- Marital Status: (a) Single (b) Married (c) Divorced/Separated (e) Widowed
- Occupation: (a) Farmer (b) Daily Labourer (c) Trading & Shop Keeping (d) Artisans (e) Employed (salary) (f) Self Employed (g) Social Support (h) unemployed (i) Others specify.....
- Residential Status: (a) Permanent Resident (b) Back Home (Returnee) (c) Non-Resident, Visiting
- Ethnic Group: (a) Igbo (b) Yoruba (c) Hausa (d) Ijaw (e) Itsekiri (h) Others, specify.....
- Religion: (a) Christianity (b) Islam (c) Traditional
- Relationship to Household Head (HH): (a) Self (b) Spouse (c) Child (d) Parent (e) Other, specify.....
- Size of the HH

No. of Adults (Above 18)	Men	Women
No. of Children (below 18)	Boys	Girls

- How long have you been living in this area? (a) 0-2 yrs (b) 3-5 yrs (c) 6-9 yrs (d) 10 yrs and Above
- If non-resident, please state your actual location: (Location/LGA/State)
- Education: (a) No formal education (b) Primary School (c) Secondary School (d) Tertiary (Excluding University) (e) University Graduate (f) University Post Graduate

Education of young household member

12.1 Does anyone in your household currently attend school (<i>If no, skip to 2</i>)	A	Yes	b	No
12.2 What level of education are they? (<i>Place name</i>)	A	Primary	b	Junior High
	C	Senior High/ Tech/ Voc	d	Post-Secondary
12.3. How long does it take to get to school? (<i>Note response to each school accessed</i>)	A	<5 mins	b	5-15 mins
	C	15-30 mins	d	30-60 mins
	E	60+ mins		
12.4. What method of transport is used to get to school? (<i>Note response to each school accessed</i>)	A	Foot	b	Bicycle
	C	Mini bus	d	Taxi
	E	Private Car	f	Okada
	G	Tri-cycle		

- Are you in anyway affected by the poor state of the River crossing in this community (a) yes (b) no
- If question 11 is yes, how (a) damage to Agric/farmland (b) Damage to building/property

- (c) loss of landed / Building property (d) Damage to household utensils/personal belonging
 (e) economic loss due to inability to access or operate means of livelihoods (f) others specify.....

15. Does the state of the River crossing prevent children from going to school?

(a) Yes (b) No

16. If question 15 is yes, how regular is the occurrence? (a) Often (b) frequently (c) rarely

SECTION B: Health Status

1. Is your present state of health affected in any way by the state of the River crossing?

(a) Yes (b) No

2. If yes, in what way? (a) Skin diseases (b) Cough (c) Catarrh (d) Malaria (e) Water-borne diseases (f) Other, Specify.....

3. Does the prevalence / occurrence of the disease(s) become severe during flood periods (a) Yes (b) No

4. How do you manage your health conditions when sick? (a) Attend hospital/clinic (b) Buys drugs from nearby chemist (c) Traditional medicine (d) None (e) Others Specify.....

5. If you do attend hospital/clinic, when last did you visit one? (a) last six months (b) last one year (c) last five years (d) more than five years ago (e) Never visited one.

6. Do you think your health condition will be affected by the proposed intervention by IMO RAMP? (a) Yes (b) No

7. If yes, how? (a) Contamination of ground water (b) Contamination of surface water (c) Provide breeding site for disease vectors (d) Noise/air pollution (e) Others, specify:.....

8. Please suggest how this can be averted during construction and implementation.....

SECTION C. Standard of Living / Socio-Economic Activities

1. Assets

1.1 Do you have any of the following items			
Item	Quantity	Item	Quantity
a. radio / tape recorder		k. beds	
b. television		l. furniture set	
c. DVD player		m. fan	
d. telephone (land line)		n. computer	
e. mobile phone		o. generator	
f. stove		p. mosquito nets	
g. fridge		q. insect screens	
h. hunting trap		r. other (specify)	

1.2 What sort of transport does your family own			
Item	Quantity	Item	Quantity
a. bicycle		f. car	
b. motorcycle/okada		g. truck	
c. canoe		h. taxi	
d. boat		i. bus	
e. tri-cycle		j. other (specify)	

1.3 What mode of transport do you frequently use			
Item	Quantity	Item	Quantity
a. bicycle		f. car	
b. motorcycle/okada		g. truck	
c. canoe		h. taxi	

d. boat		i. bus	
e. tri-cycle		j. other (specify)	

1.4 What sort of housing does your household live in?					
a. Construction material - Walls		Plastered mud	c. Number of rooms		
		Cement blocks			
		Other (specify)			
b. Construction material - roofing		Corrugated roofing	d. Other structures on plot		
		Aluminium			
		Asbestos			
		Tile			
		Other (specify)			
e. Construction material - floor		Earthen	Animal Pen		
		Concretes		Granary	
		Tiles			Shops
		Other (specify)			
f. Toilet Facility		Pit latrine	Other (specify)		
		Water closet			
		Toilet facility outside dwelling			
		Pier latrine			
		Other (specify)			
		None			
g. Tenure of housing		Owned			
		Rented			
		Occupied rent free			
		Other			
h. Tenure of land		Owned			
		Rented			
		Occupied rent free			
		Lease hold			
		Others specify			

2. Indicate household refuse disposal for solid waste? (Multiple options) (a) Depositing refuse at backyard of the house (b) Dumping in water body (c) Dumping in community refuse/garbage pit/dumpsite (d) Burning after gathering together (e) Waste collector (f) Other specify.....

2.0 Household Services

2.1 Rank in order of availability and usability the source(s) of lighting for the household? (please use 1, 2,...in hierarchical order with 1 indicating the most available and used source)

(a) PHCN	(b) Generator	(c) Lantern	(d) Candle	(e) Palm Oil Lamp	(f) Torchlight Battery	(g) Wood	(h) Kerosene	(i) Gas
----------	---------------	-------------	------------	-------------------	------------------------	----------	--------------	---------

2.2 Using the method in 2.1, indicate major source of energy for cooking?

(a) Fire Wood	(b) Coal	(c) Kerosene	(d) Electricity	(e) Animal dropping	(f) Gas	(g) Crop Residue/saw dust	Others
---------------	----------	--------------	-----------------	---------------------	---------	---------------------------	--------

3.0 Sources of Water

	for drinking		for cooking		for bathing and washing	
Well	Yes	No	Yes	No	Yes	No
Borehole	Yes	No	Yes	No	Yes	No
Water pump	Yes	No	Yes	No	Yes	No

Community tap	Yes	No	Yes	No	Yes	No
Piped water outside dwelling	Yes	No	Yes	No	Yes	No
River	Yes	No	Yes	No	Yes	No
h. Rain harvesting	Yes	No	Yes	No	Yes	No
i. Water vendor	Yes	No	Yes	No	Yes	No
j. Tanked water	Yes	No	Yes	No	Yes	No
Other (specify)	Yes	No	Yes	No	Yes	No

4.0 Income

State your main income per month ₦

4.1 Remittances

1. Does anyone in the family who lives elsewhere send money to you?

1	Yes	2	No
---	-----	---	----

2. If yes, how much (per month) ₦

5.0 Other Income

1. Do you have other income streams

Yes	No
-----	----

2. If yes, please specify the amount? ₦

6. Total Income

1 What is the total household monthly income (all activities)? ₦

7. In your opinion, how has the standard of living of your household changed over the previous three years?

(a) Same (b) Better (c) Worse

8. Is the option in 7 propelled by the poor state of the River crossing (a) Yes (b) No

9. If 8 is yes, do you think the proposed intervention will improve the situation? (a) Yes (b) No

10. If 9 is yes specify how the project will improve the situation

11. How do you ensure gender equity in the community? (a) Women are elected in public office (b) Females are given equal opportunity and access to education and employment (c) Quotas on genders are ensures in leadership of community-based organizations (d) Others specify

SECTION D: Resources/ Cultural Property

1. Please indicate the environmental problems which your settlement/community experiences and whose cause can be linked to the poor state of the River crossing? (a) Soil infertility (b) Poor drainage system (c) Bad road (d) Bad lands (e) environmental degradation (f) Degraded land (i) Destruction of infrastructures (j) Others (specify)

2. Please indicate the environmental problems which your settlement/community would likely experience and whose cause can be linked to the proposed intervention project during construction? (a) Soil infertility (b) Poor drainage system (c) Bad road (d) Low visibility (e) Erosion Problems (f) Flooding (g) Environmental degradation (g) Destruction of infrastructures (h) encroachment of land properties (i) Pollution (air, surface water, ground water, noise) (j) Others (specify)

3. Please indicate the environmental problems which your settlement/community would likely experience and whose cause can be linked to the proposed intervention project during operation? (a) Soil infertility (b) Poor drainage system (c) Bad road (d) Low visibility (e) Erosion Problems (f) Flooding (g) Environmental degradation (h) Destruction of infrastructures (i) encroachment of land properties (j) Pollution (air, surface water, ground water, noise) (k) Others (specify)

4. Do you think the proposed intervention project will affect any valued resource/cultural/archaeological property in your area? (a) Yes (b) No

5. If yes mention the name(s) of the valued resource/cultural/archaeological property

6. How will valued resource/cultural/archaeological property be affected? (a) Displacement of such valued cultural properties (b) Vandalisation of sacred items/locations (c) Possible theft of sacred/archaeological items (d) Others, specify:

SECTION E: Intervention Project Activities Impact Evaluation

Are you aware of the proposed intervention by IMO RAMP (a) Yes (b) No

If yes, from which source (a) Community meetings (b) Media (TV, Radio, Newspaper, Internet)
(c) Others specify.....

Do you think the project can cause restiveness in your community? (a) Yes (b) No

If 3 is yes how will the proposed intervention result in restiveness? (a) Disrespect of norms and culture by contractors (b) loss of farmland / Property (c) Possible theft of sacred/archaeological items
(d) local people not employed during construction (e) Others, specify:

5. How will the proposed intervention project impact on your livelihood and environment?

Positive impacts	Negative impacts
(a)	
(b)	
(c)	
(d)	
(e)	
(f)	

6. Can you name some of the animals and other habitat at the River crossing site that may be affected by the proposed intervention project?

.....

7. What do you expect from the activities of IMO RAMP intervention? (a) employment of Locals during construction (b) compensation for those whose properties will be affected (c) capacity building for maintenance during implementation (d) community input into final engineering design (e)Others please specify.....

8. Are there any other issue(s) of concern as regards the intervention project in your area, please state clearly?

Section F: Rural Mobility and Expectation from the Project

1. Is there any existing River crossing that links this community to others? (a) Yes (b) No (c) I don't know

2. Which mode of transport do you use to access river crossings? (a) Buses (b) Bicycle (c) Motorcycle(d) Pick-up Vans (e) Timber Logging Truck (f) others, specify.....

3. How efficient is the mobility on the road? (a) very good (b) Good (c) Fair (d) Poor (e) Very Poor

4. What are the factors influencing the mobility efficiency? Write as many as applicable

5. In what way would you benefit most if a River crossing is constructed via this community? (a) Enhanced mobility of people and farm produce (b) Improvement in commercial activities (c) Enhancement of Social activities (d) Others, specify.....

6. Would you allow it if the River crossing construction affect your landed property or part thereof? (a) Yes (b) No

7. How would you like to be compensated if your property is affected? (a) Cash (b) To be given another land (c) To be provided with another building (d) Cash plus another land/building (e) Others, specify.....

8. What other things do you want Government to do for your community?
.....

9. Who do you think should negotiate with Government on behalf of your community? (a) Traditional Chief (b) Community Chairman (c) Youth Leader (d) Religious Leader (E) Others
specify.....

ANNEX III: MINUTES OF THE STAKEHOLDERS MEETING

LOT 1 - ORIE MBIERI-UMUOMUMU MBIERI (IKEDURU/MBATOLI)

Items	Description
Name of Stakeholder:	General Stakeholder Consultation
Date:	12/04/2019
Venue:	Community Open Ground, Umuomumu Community
Language of Communication:	Pidgin-English, English and Igbo
In attendance	<ul style="list-style-type: none"> • The traditional leader, Umuomumu Community; • The Secretary Umuomumu Community; • The Youth President, Umuomumu community; • The Women Leader, Umuomumu Community; • Imo RAMP environmental safeguard officer; • Imo RAMP social safeguard officer • The ESMP consultant team; • Community Members. <p>Attendance (Annex III) Photo (Annex V)</p>
Opening Remarks	The purpose of the meeting was clearly introduced by the environmental and social safeguard officers.
ESMP Consultant's Remarks	The ESMP consultant explained in details the need for the ESMP in preparation for the project execution. He noted that soil, water and air samples would be collected all around the community to assess the current state of the environment. These, according to him, would also serve as the baseline data to assess the impact of the intervention project on the environment in the future He also emphasized the need for public consultation which was designed to elicit from the residents and their perception of the proposed project. He finally thanked the members of the communities for their expected cooperation.
Issues Raised	<ul style="list-style-type: none"> • The ESMP team was welcomed by the Community's leader who expressed his joy about the proposed River crossing across the Okatankwo stream. • He noted that this will also facilitate the easy movement of agricultural product cultivated in the community to the neighbouring markets thereby improving the living standards of the people • When asked about their (community's) knowledge of the RAMP 2, greater percentage (including the traditional leader of the Umuomumu Residents Association) indicated that they were not aware of the existence of the RAMP 2 and its proposed intervention in their community. • Several/past communal and individual efforts to improve accessibility were enumerated by them; • Some of the locals expressed their skepticism about the seriousness of the proposed RAMP 2 intervention owing to their past experiences; while some of the participants noted that the visit was their first time knowing about the RAMP 2; • Mrs Rose Akudie from the women group expressed her joy over the proposed project as it is a sign that more development is coming to their community • Chief C.G. Nwaonu from the Elders group requested that the flow of the stream should be enhanced during the construction of the River crossing as it is currently silted. • Chief Oliver Eke from the Elders group asked for clarification on the part the members of the community are expected to play in the project • The community leader particularly the Chairman wants the RAMP 2 to carry them along in the process of executing the project; They do not want the project to be hijacked by politicians; • In all, they expressed their happiness about the intervention and look forward to seeing contractors on site. <p>Cultural and Social Issues</p> <ul style="list-style-type: none"> • Inhabitants are mainly farmers who cultivate cassava and yam; • They also engage in the cultivation of economic trees especially oil palm and cashew trees

	<ul style="list-style-type: none"> On culture and tradition, it was noted that there is no archaeological site/ shrine located within and around the project site as the people are now majorly Christians; It was also mentioned that contractors/visitors are not allowed to make advances to married women in the community.
Question\Comment	<ul style="list-style-type: none"> Some of the stakeholders asked what their lots would be should their farms and other properties get affected by the proposed intervention. The youth, especially the artisans among them enquired if they would be employed by the contractors Businessmen asked if they can supply construction material to the contractors
Response	<p>Explanations were offered by the ESMP team:</p> <ul style="list-style-type: none"> It was explained to them that another team of consultant known as Resettlement Action Plan (RAP) would be coming to access and value structures that would be affected by the proposed intervention based on the designed engineering drawing. It was also indicated that compensation would be paid to people whose assets and livelihoods would be affected by the project implementation. The youth in the community were assured that they would first be considered for employment before skilled and unskilled labour will be sought from other places
Community Needs	<ul style="list-style-type: none"> Training in engineering skill Public schools; Good Roads; and Comprehensive Health Facility.
Closing Remark	The people were eager to see contractors mobilized to site. Community elders and Chairman expressed their joy and thanked the ESMP team while reaffirming their readiness to support the proposed intervention to a logical conclusion.

LOT 4: UMUOKPARA OFEIYI-UMUOLECHE (OKIGWE)

Minutes of the Stakeholders Meeting Held at the Umuezedike Community Square

Items	Description
Name of Stakeholder:	General Stakeholder Consultation
Date:	12/04/2019
Venue:	Community Open Ground, Umuezedike Community
Language of Communication:	Pidgin-English, English and Igbo
In attendance	<p>The Community leader, Umuezedike Community;</p> <p>The Secretary Umuezedike Community;</p> <ul style="list-style-type: none"> The Youth President, Umuezedike Community; The Women Leader, Umuezedike Community; Imo RAMP environmental safeguard officer; Imo RAMP social safeguard officer The ESMP consultant team; Community Members. <p>Attendance (Annex III) Photo (Annex V)</p>
Opening Remarks	The purpose of the meeting was clearly introduced by the environmental and social safeguard officers.
ESMP Consultant's Remarks	The ESMP consultant explained in details the need for the ESMP in preparation for the project execution. He noted that soil, water and air samples would be collected all around the community to assess the current state of the environment. These, according to him, would also serve as the baseline data to assess the impact of the intervention project on the environment in the future He also emphasized the need for public consultation which was designed to elicit from the

	residents and their perception of the proposed project. He finally thanked the members of the communities for their expected cooperation.
Issues Raised	<ul style="list-style-type: none"> The ESMP team was welcomed by the Community's leader (Chief Samuel Udoji) who expressed his joy about the proposed River crossing. He noted that this will also facilitate the easy movement of agricultural product cultivated in the community to the neighbouring markets thereby improving the living standards of the people When asked about their (community's) knowledge of the RAMP 2, greater percentage (including the traditional leader of the Umuezedike community) indicated that they were not aware of the existence of the RAMP 2 and its proposed intervention in their community. Mr Sunday Ugochukwu from the Elders group noted that Umuezedike is a peaceful community. He promised that the lives and machinery of the contractor are safe in the community. He also promised to provide accommodation to the contractors when they come The community leader particularly the Chairman wants the RAMP 2 to carry them along in the process of executing the project; They do not want the project to be hijacked by politicians; In all, they expressed their happiness about the intervention and look forward to seeing contractors on site. <p>Cultural and Social Issues</p> <ul style="list-style-type: none"> Inhabitants are mainly farmers who cultivate cassava and yam; They also engage in the cultivation of economic trees especially oil palm and cashew trees On culture and tradition, it was noted that there is no archaeological site/ shrine located within and around the project site as the people are now majorly Christians;
Question\Comment	<ul style="list-style-type: none"> Some of the stakeholders asked what their lots would be should their farms and other properties get affected by the proposed intervention. Mrs Theresa Owina from the women group enquired if the proposed intervention is a bridge or a culvert The youth, especially the artisans among them enquired if they would be employed by the contractors Mr Nchehari Nnoham from the youth group asked for more River crossing projects for the community. Mrs Angela Umunna from the women group pleaded that as part of the project, RAMP should help complete their health centre and improve their school It was also mentioned that contractors/visitors are not allowed to make advances to married women in the community.
Response	<p>Explanations were offered by the ESMP team:</p> <ul style="list-style-type: none"> It was explained to them that another team of consultant known as Resettlement Action Plan (RAP) would be coming to access and value structures that would be affected by the proposed intervention based on the designed engineering drawing. It was also indicated that compensation would be paid to people whose building would be affected by the project implementation. The ESMP consultant gave the dimension of the RC as 20 meters long and 8 meters wide. He also indicated that there will be an approach road which will be 7.3 meters wide with side drains (750X750) on both sides of the road The youth in the community were assured that they would first be considered for employment before skilled and unskilled labour will be sought from other places The consultant also explained to the beneficiaries that the selected priority roads are the ones considered at this phase and others will be considered in subsequent phases. Their request will however be communicated the SPIU It was also noted that the RAMP project is focused essentially on rural accessibility (roads and River crossings). The community members were therefore advised to visit the office of the World Bank supported CSDP programme for assistance on project related to health, school among others On the issue of making advances to married women and underage girls, the consultant assured the community members that their concerns have been documented and will be communicated to the contractor and other visitors
Community Needs	<ul style="list-style-type: none"> Amagu-Umulebe bridge; Okorobi-Umuju-Amaikpa bridge Good Roads; School; and Comprehensive Health Facility.

Closing Remark	<ul style="list-style-type: none"> The people were eager to see contractors mobilized to site. Community elders and Chairman expressed their joy and thanked the ESMP team while reaffirming their readiness to support the proposed intervention to a logical conclusion.
----------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

LOT 2: UZURUNAMU-OKWUDO MGBIDI (ORU EAST/ORU WEST/ORSU)

Minutes of the Stakeholders Meeting Held at the Uzuruanamu Community Open Ground

Items	Description
Name of Stakeholder:	General Stakeholder Consultation
Date:	13/04/2019
Venue:	Community Open Ground, Uzuruanamu Autonomous Community
Language of Communication:	Pidgin-English, English and Igbo
In attendance	<ul style="list-style-type: none"> The PG Uzuruanamu Autonomous Community; The Secretary Uzuruanamu Autonomous Community; The Youth President, Uzuruanamu Autonomous Community; The Women Leader, Uzuruanamu Autonomous Community; Imo RAMP environmental safeguard officer; Imo RAMP social safeguard officer The ESMP consultant team; Community Members. <p>Attendance (Annex III) Photo (Annex V)</p>
Opening Remarks	The purpose of the meeting was clearly introduced by the environmental and social safeguard officers.
ESMP Consultant's Remarks	The ESMP consultant explained in details the need for the ESMP in preparation for the project execution. He noted that soil, water and air samples would be collected all around the community to assess the current state of the environment. These, according to him, would also serve as the baseline data to assess the impact of the intervention project on the environment in the future He also emphasized the need for public consultation which was designed to elicit from the residents and their perception of the proposed project. He finally thanked the members of the communities for their expected cooperation.
Issues Raised	<p>The ESMP team was welcomed by the Community's President General (Chief Sunday Umannah) who expressed his joy about the proposed River crossing.</p> <ul style="list-style-type: none"> He noted that the bridge will improve the commercial and socio-economic life of the people When asked about their (community's) knowledge of the RAMP 2, greater percentage (including the traditional leader of the Uzuruanamu Residents Association) indicated that they were not aware of the existence of the RAMP 2 and its proposed intervention in their community. It was indicated that the community council constructed a bridge over the River in the past. In all, they expressed their happiness about the intervention and look forward to seeing the contractors on site. <p>Cultural and Social Issues</p> <ul style="list-style-type: none"> Inhabitants are mainly farmers who cultivate cassava and yam; They also engage in the cultivation of economic trees especially oil palm and cashew trees On their culture and tradition, it was noted that there is a shrine located within and around the project The Obana River is a deity where no fishing is allowed. The Boa is also a deity. They are harmless and should not be killed (see picture in Plate 4.3 and Annex XX and text in Annex XX) Sexual relationship with underage or unmarried girls especially teenagers is not allowed. Any girl who gets pregnant before the Fattening process would be ostracised for life and her family shamed. Nobody is expected to take the water from the Obana River home on small Orié days

Question/Comment	<p>Some of the stakeholders asked what their lots would be should their farms and other properties get affected by the proposed intervention.</p> <p>The nature of the intervention was also enquired. Is it a bridge or a culvert? What is its capacity? Is it a single lane or dual carriage river crossing?</p> <p>Will the road be constructed too?</p>
Response	<ul style="list-style-type: none"> • Explanations were offered by the ESMP team: • On the issue of Obana River and the Boa, the community members were assured that their concerns will be documented and communicated to the contractor and other consultants • It was explained to them that another team of consultant will prepare a Resettlement Action Plan (RAP) to access and value structures and all other cultural activities that would be affected by the proposed intervention based on the designed engineering drawing. • They were assured that cultural areas are special in all World Bank projects and will be given extra attention. The consultant further explained that the World Bank OP 4.11 addresses such issues of physical and cultural resources and a PCR plan is provided in Annex XII • With regards to making advances to women and underage girls, the community members were assured that their views and concerns will be recorded and communicated to the contractors and other consultants that will be visiting • On the issue of water use, the consultant indicated that this will be documented and conveyed to the contractor (Section 5.2.2.2 and section A9 of the ESMP Matrix) • The ESMP consultant gave the dimension of the RC as 20 meters long and 8 meters wide. He also indicated that there will be an approach road which will be 7.3 meters wide with side drains (750X750) on both sides of the road
Community Needs	<ul style="list-style-type: none"> • A good road to access the bridge • Engagement of youths of the community • Establishment of skill acquisition centres
Closing Remark	<ul style="list-style-type: none"> • The people were eager to see contractors mobilized to site. • Community elders and Chairman expressed their joy and thanked the ESMP team while reaffirming their readiness to support the proposed intervention to a logical conclusion.

LOT 3: UGBELE-BSC (IDEATO SOUTH LGA)

Minutes of the Stakeholders Meeting Held at the Obinugwu Town hall, Ugbelle

Items	Description
Name of Stakeholder:	General Stakeholder Consultation
Date:	13/04/2019
Venue:	Community Town hall, Obinugwu
Language of Communication:	Pidgin-English, English and Igbo
In attendance	<ul style="list-style-type: none"> • The community leader, Obinugwu Community; • the Secretary Obinugwu Community; • The Youth President, Obinugwu Community, • The Women Leader, Obinugwu Community, • Imo RAMP environmental safeguard officer, • Imo RAMP social safeguard officer, • The ESMP consultant team, • Community Members, <p>Attendance (Annex III) Photo (Annex V)</p>

Opening Remarks	The purpose of the meeting was clearly introduced by the environmental and social safeguard officers.
ESMP Consultant's Remarks	The ESMP consultant explained in details the need for the ESMP in preparation for the project execution. He noted that soil, water and air samples would be collected all around the community to assess the current state of the environment. These, according to him, would also serve as the baseline data to assess the impact of the intervention project on the environment in the future He also emphasized the need for public consultation which was designed to elicit from the residents and their perception of the proposed project. He finally thanked the members of the communities for their expected cooperation.
Issues Raised	<ul style="list-style-type: none"> • The ESMP team was welcomed by the Obinugwu traditional leader (High Chief David Aliakor) who expressed his joy about the proposed rehabilitation of the Urashi River crossing. • He noted that this will also facilitate the easy movement of agricultural product cultivated in the community to the neighbouring markets thereby improving the living standards of the people • When asked about their (community's) knowledge of the RAMP 2, greater percentage (including the traditional leader of the Obinugwu community) indicated that they were not aware of the existence of the RAMP 2 and its proposed intervention in their community. • Mr Sunday Ugochukwu from the Elders group noted that Obinugwu is a peaceful community. He promised that the lives and properties of the contractor are safe in the community. • The community leader wants the RAMP 2 to carry them along in the process of executing the project; They do not want the project to be hijacked by politicians; • In all, they expressed their happiness about the intervention and look forward to seeing contractors on site. <p>Cultural and Social Issues</p> <ul style="list-style-type: none"> • Inhabitants are mainly farmers who cultivate cassava and yam; • They also engage in the cultivation of economic trees especially oil palm and cashew trees • On culture and tradition, it was noted that there is no archaeological site/ shrine located within and around the project site as the people are now majorly Christians;
Question\Comment	<p>Some of the stakeholders asked what their lots would be should their farms and other properties get affected by the proposed intervention</p> <p>It was also mentioned that contractors/visitors are not allowed to make advances to married women in the community.</p>
Response	<ul style="list-style-type: none"> • Explanations were offered by the ESMP team: • It was explained to them that another team of consultant known as Resettlement Action Plan (RAP) would be coming to access and value structures that would be affected by the proposed intervention based on the designed engineering drawing. • It was also indicated that compensation would be paid to people whose building would be affected by the project implementation. • With regards to making advances to women and underage girls, the community members were assured that their views and concerns will be recorded and communicated to the contractors and other consultants that will be visiting
Community Needs	<p>Good road accessibility</p> <p>Standard road crossing that will stand the test of time</p>
Closing Remark	<p>The people were eager to see contractors mobilized to site.</p> <p>Community elders and youths expressed their joy and thanked the ESMP team while reaffirming their readiness to support the proposed intervention to a logical conclusion.</p>

LOT 1: UMUDURU EMGHARA-OKPUALA ANARA (ISIALA MBANO/EHIME MBANO)

Minutes of the Stakeholders Meeting Held at the Okpuala Community Open Ground

Items	Description
Name of Stakeholder:	General Stakeholder Consultation
Date:	13/04/2019
Venue:	Community Open Ground, Okpuala Community
Language of Communication:	Pidgin-English, English and Igbo
In attendance	<ul style="list-style-type: none"> • The PG Okpuala Community; • The Secretary Okpuala Community; • The Youth President, Okpuala Community; • The Women Leader, Okpuala Community; • Imo RAMP environmental safeguard officer; • Imo RAMP social safeguard officer • The ESMP consultant team; • Community Members. <p>Attendance (Annex III) Photo (Annex V)</p>
Opening Remarks	The purpose of the meeting was clearly introduced by the environmental and social safeguard officers.
ESMP Consultant's Remarks	<p>The ESMP consultant explained in details the need for the ESMP in preparation for the project execution. He noted that soil, water and air samples would be collected all around the community to assess the current state of the environment. These, according to him, would also serve as the baseline data to assess the impact of the intervention project on the environment in the future He also emphasized the need for public consultation which was designed to elicit from the residents and their perception of the proposed project. He finally thanked the members of the communities for their expected cooperation. The issues raised for discussion are:</p> <ul style="list-style-type: none"> • The building of culverts on Okpuala road which has dilapidated over the years • The co-operation of the community in seeing that the project is carried out without any hindrance or molestation by the community members. • assurance that the community welcomes the initiative by RAMP for the benefit of the entire community. • the project is only concerned with rehabilitation of the culverts and not construction of Okpuala road
Issues Raised	<ul style="list-style-type: none"> • The ESMP team was welcomed by the Community's President General who expressed his joy about the proposed River crossing. • He noted that the bridge will improve the commercial and socio-economic life of the people • When asked about their (community's) knowledge of the RAMP 2, greater percentage (including the traditional leader of the Okpuala Residents Association) indicated that they were not aware of the existence of the RAMP 2 and its proposed intervention in their community. • In all, they expressed their happiness about the intervention and look forward to seeing the contractors on site.
Question\Comment	<ul style="list-style-type: none"> • Some of the stakeholders asked what their lots would be should their farms and other properties get affected by the proposed intervention. • The nature of the intervention was also enquired. Is it a bridge or a culvert? What is its capacity? Is it a single lane or dual carriage river crossing? • Will the road be constructed too?
Response	<ul style="list-style-type: none"> • Explanations were offered by the ESMP team: • It was explained to them that another team of consultant known as Resettlement Action Plan (RAP) would be coming to access and value structures that would be affected by the proposed intervention based on the designed engineering drawing.

	<ul style="list-style-type: none"> • It was also indicated that compensation would be paid to people whose building would be affected by the project implementation. • It was also noted that the RAMP project is focused essentially on rural accessibility (roads and River crossings). • The ESMP consultant gave the dimension of the RC as 20 meters long and 8 meters wide. He also indicated that there will be an approach road which will be 7.3 meters wide with side drains (750X750) on both sides of the road
Community Needs	<ul style="list-style-type: none"> • A good road to access the bridge • Engagement of youths of the community • Establishment of skill acquisition centres
Closing Remark	The people were eager to see contractors mobilized to site. Community elders and Chairman expressed their joy and thanked the ESMP team while reaffirming their readiness to support the proposed intervention to a logical conclusion.

LOT 4: UMUOKPARA OFEIYI-UMUOLECHE (OKIGWE)

Minutes of the Stakeholders Meeting Held at the Umuoleche Community Open Ground

Items	Description
Name of Stakeholder:	General Stakeholder Consultation
Date:	13/04/2019
Venue:	Community Open Ground, Umuoleche Community
Language of Communication:	Pidgin-English, English and Igbo
In attendance	<ul style="list-style-type: none"> • The community leader, Umuoleche Community; • The Secretary Umuoleche Community; • The Youth President, Umuoleche Community; • The Women Leader, Umuoleche Community; • Imo RAMP environmental safeguard officer; • Imo RAMP social safeguard officer • The ESMP consultant team; • Community Members. • Attendance (Annex III) Photo (Annex V)
Opening Remarks	The purpose of the meeting was clearly introduced by the environmental and social safeguard officers.
ESMP Consultant's Remarks	The ESMP consultant explained in details the need for the ESMP in preparation for the project execution. He noted that soil, water and air samples would be collected all around the community to assess the current state of the environment. These, according to him, would also serve as the baseline data to assess the impact of the intervention project on the environment in the future He also emphasized the need for public consultation which was designed to elicit from the residents and their perception of the proposed project. He finally thanked the members of the communities for their expected cooperation.
Issues Raised	<ul style="list-style-type: none"> • The people assured them that they do not kill human beings neither are they hostile to visitors. • The village informed them that they do not desire to have any of them turn to thieves or armed robbers. The river is known as EFE river; it has no taboo or evil effect on anyone. • Efe river is one that does not harbour shrine or deity. • The village UMUOLOCHE, therefore desire and ask for your assistance to give us a viable bridge. • There are no armed robbers in this village.

	<ul style="list-style-type: none"> • They assured the ESMP team that there will be no obstruction in term of the construction bridges, roads and electricity. • The community will help to provide security for the builders and otherwise to ensure that the work progresses. • It is a taboo for a man to force or rape a woman in the village.
Question\Comment	<ul style="list-style-type: none"> • Some of the stakeholders asked what their lots would be should their farms and other properties get affected by the proposed intervention. • The nature of the intervention was also enquired. Is it a bridge or a culvert? What is its capacity? Is it a single lane or dual carriage river crossing? • Will be road be constructed too?
Response	<p>Explanations were offered by the ESMP team:</p> <ul style="list-style-type: none"> • It was explained to them that another team of consultant known as Resettlement Action Plan (RAP) would be coming to access and value structures that would be affected by the proposed intervention based on the designed engineering drawing. • It was also indicated that compensation would be paid to people whose building would be affected by the project implementation. • The ESMP consultant gave the dimension of the RC as 20 meters long and 8 meters wide. He also indicated that there will be an approach road which will be 7.3 meters wide with side drains (750X750) on both sides of the road.
Community Needs	<p>A good road to access the bridge Engagement of youths of the community Establishment of skill acquisition centres</p>
Closing Remark	<p>Community elders and Chairman expressed their joy and thanked the ESMP team while reaffirming their readiness to support the proposed intervention to a logical conclusion.</p>

ANNEX V: LIST OF THE PERSONS MET

S/N	NAME	POSITION	PHONE NO
1	Mr Okpara Patrick	P.G. Umucheke Autonomous Community	08033815692
2	Mr Ibeke Edwin	Sec General Umucheke Autonomous Community	07061690502
3	Mr Okpara James	Community member	07031840848
4	Mr Melody Obi	Community member	08068149685
5	Hon Boniface Ugochukwu	Umuobom community member	08030799637
6	Mr Fredman Mbama	Okwudor community member	08137419091
7	Mr Njoku Emmanuel	Umueze autonomous community member	08060080242
8	Mr Benson Okpara	Umueze autonomous community member	08038667669
9	Mr Chibike Okonkwo	Okwudor community member	08107847953
10	Mr Micheal Amoku	Okwudor community member	09038239905
11	Mr Christian Ukaga	Umueziogwu community member	08067176544
12	Mr Samuel Akujobi	Uzagba community member	08133906249
13	Mr Uzoma Akujobi	Uzagba community member	08177242644
14	Mr Ndubuisi Akakuru	Uzagba community member	N/A
15	Mr Uchenna Akujobi	Umueziogwu community member	07031885563
16	Mr Ndubuisi Ama	Umueziogwu community member	08136590269

ANNEX VI: STAKEHOLDER CONSULTATION

QUESTIONNAIRE ADMINISTRATION, KII AND FGD
LOT 1 & 2

LOT 3 & 4



CROSS-SECTION OF THE CONSULTATION AT ORIE-MBIERI – UMUOMUMU MBIERI



CROSS-SECTION OF CONSULTATION AT UGBELE – BSC ROAD



CROSS-SECTION OF CONSULTATION AT AMAGU-UMUNEBE



CROSS-SECTION OF CONSULTATION AT UZUNANMU COMMUNITY, MGBIDI



CROSS-SECTION OF CONSULTATION AT UMUKPARA OFEIYI-UMUOLOCHE



CROSS-SECTION OF CONSULTATION AT UMUDURUEMAGHARA-OKPARA



ANNEX VII: CODE OF CONDUCT TO PREVENT GENDER BASED VIOLENCE DURING THIS PROJECT

Company Code of Conduct on Preventing Gender Based Violence (GBV) and Violence Against Children (VAC)

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 behaviour 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, colour, 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 behaviour 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 defence. Consent from the child is also not a defence or excuse.
- Sexual favours—for instance, making promises or favourable treatment dependent on sexual acts—or other forms of humiliating, degrading or exploitative behaviour are prohibited.
- Unless there is full consent¹ 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 work place 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.
- 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 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:
 1. **GBV and VAC Allegation Procedure** to report GBV and VAC issues through the project Grievance Redress Mechanism (GRM);
 2. **Accountability Measures** to protect confidentiality of all involved; and,
 3. **Response Protocol** applicable to GBV and VAC survivors and perpetrators.

¹ **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 defence.

- 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 on 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:
 1. Prominently displaying the Company and Individual Codes of Conduct in clear view at workers' camps, offices, and in public areas of the work space. Examples of areas include waiting, rest and lobby areas of sites, canteen areas, health clinics.
 2. 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:
 1. All direct reports sign the 'Individual Code of Conduct', including acknowledgment that they have read and agree with the Code of Conduct.
 2. Staff lists and signed copies of the Individual Code of Conduct are provided to the GCCT and the client.
 3. Participate in training and ensure that staff also participate as outlined below.
 4. Staff are familiar with the Grievance Redress Mechanism (GRM) and that they can use it to anonymously report concerns of GBV or VAC incidents.
 5. 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:
 1. Incorporate the GBV and VAC Codes of Conduct as an attachment.
 2. Include the appropriate language requiring such contracting entities and individuals, and their employees and volunteers, to comply with the Individual Codes of Conduct.
 3. 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:
 1. Informal warning.
 2. Formal warning.
 3. Additional Training.
 4. Loss of up to one week’s salary.
 5. Suspension of employment (without payment of salary), for a minimum period of 1 month up to a maximum of 6 months.
 6. 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 on Preventing Gender Based Violence and Violence Against Children (VAC)

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 consent² 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

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 behaviours 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: _____

² **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 defence.

ANNEX VIII: GRIEVANCE REDRESS FRAMEWORK FOR IMO STATE RAMP

Grievances may arise from any of the following: 1) involuntary resettlement and compensation issues, 2) gender based violence/SEA issues, 3) exclusion from project benefits and non-compliance of the contractor to the agreement reached with RAMP or the community, 4) Poor construction waste handling, 5) lack of alternative route for movement during construction, etc.

A Grievance Redress Mechanism (GRM) will be implemented to ensure that all complaints from local communities are dealt with appropriately, with corrective actions being implemented, and the complainant being informed of the outcome. It will be applied to all complaints from affected parties. The SPIU will maintain a Complaints Database, which will contain all the information on complaints or grievances received from the communities or other stakeholders. This would include: the type of complaint, location, time, actions to address these complaints, and final outcome.

The SPIU, shall set-up a grievance redress committee that will address any complaints during project implementation. This will be treated in two folds; 1) GBV related GRM and 2) non GBV related GRM. A classified procedure for confidentiality is required in the cases of GBV and thus, a GBV risk management plan is prepared separate for this project. Grievance Redress Committees (GRCs) shall be constituted at various levels to implement the GRM for the project including community level, SPIU level, FPMU level, World Bank Grievance Redress System. It is noteworthy to state that a detailed GRM is been developed for RAMP, thus Imo RAMP will align its processes to the framework.

The Grievance Redress Committee will be responsible for:

- Communicating with the Affected persons (AP's) and evaluate if they are entitled to recompense;
- Making the list of affected persons public and the established grievance redress procedure.
- Recommending to the Social Safeguard Officer of the SPIU solutions to such grievances from affected persons;

Communicating the decisions to the AP's; to acknowledge appeals from persons, households or groups who rightfully will not be affected by the project, but claim to be, and to recommend to the SPIU whether such persons should be recognized as AP's, and to communicate back the decisions to the Claimants.

Expectation When Grievances Arise

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.

Structure and Protocols for Reporting and Managing Grievances

The SPC will set up a grievance redress committee to look into escalated grievances. This shall be established in various levels as follows:

First Level GRM: GRC at the Site/Community Level	Composed at the community level, easily accessible to community people, village head and representative of women shall be part of the committee among other identified persons. This committee will be expected to report to the SPIU. In addition, complaint box will be placed in the Community leader's palace and other locations such as markets, civic centers etc. that will encourage aggrieved parties drop their complaints.
Second Level of GRM: GRC at the SPIU Level	This committee shall comprise of PIU members including the Project Coordinator, Social Safeguard Officer among others, and other state level representative from within the State Project Monitoring Committees. If the complainant does not accept the solution offered by the SPIU-GRC, then the complaint is referred by the SPC to the SPMC.
Third Level of GRM: GRC at the FPMU Level	The Federal Project Management Unit (FPMU) will be required to intervene in grievances beyond the state level resolution.
Court Redress of Grievances	While the purposes of GRM put in place by this Project is to resolve all issues caused by the project implementation out of court and to save time which is usually involved in litigation matters, it is not out of place to anticipate a scenario where aggrieved person is not satisfied with the process and judgment given by the grievance redress committee(s). Therefore, SPIU shall inform aggrieved persons of their right to seek for redress in the court of law as the final resort.

ANNEX IX: SUMMARY OF WORLD BANK ENVIRONMENTAL AND SOCIAL SAFEGUARD POLICIES APPLICABLE TO THE RAMP PROJECT

Environmental Assessment (OP 4.01). Outlines Bank policy and procedure for the environmental assessment of Bank lending operations. The Bank undertakes environmental screening of each proposed project to determine the appropriate extent and type of EA process.

Natural Habitats (OP 4.04). The conservation of natural habitats, like other measures that protect and enhance the environment, is essential for long-term sustainable development. The Bank does not support projects involving the significant conversion of natural habitats unless there are no feasible alternatives for the project and its siting, and comprehensive analysis demonstrates that overall benefits from the project substantially outweigh the environmental costs. If the environmental assessment indicates that a project would significantly convert or degrade natural habitats, the project includes mitigation measures acceptable to the Bank.

Involuntary Resettlement (OP 4.12). This policy 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 ESMF and RPF reports discuss the applicability of this policy in detail.

Physical Cultural Resources OP. 4.11 This policy addresses physical cultural resources,¹ which are defined as movable or immovable objects, sites, structures, groups of structures, and natural features and landscapes that have archaeological, paleontological, historical, architectural, religious, aesthetic, or other cultural significance. Physical cultural resources may be located in urban or rural settings, and may be above or below ground, or under water. Their cultural interest may be at the local, provincial or national level, or within the international community.

ANNEX X: 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 inform himself about such an EMP, and prepare his work strategy and plan to fully take into account relevant provisions of that EMP. If the Contractor fails to implement the approved EMP after written instruction by the Supervising Engineer (SE) to fulfil his obligation within the requested time, the Owner reserves the right to arrange through the SE 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 EMP. 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 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, 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 SE for adherence to the contract conditions and specifications, the Owner may 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 SE, the Contractor shall comply with directives from such inspectors to implement measures required to ensure the adequacy 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 bonded in order to contain spillage. All waste containers, litter and any other waste generated during the construction shall be collected and disposed 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 of appropriately at designated sites or be reused 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 SE, of low land use value and where they will not result in material being easily washed into drainage channels. Whenever possible, spoil materials should be placed in low-lying areas and should 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. 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.
15. 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.
16. The Contractor shall deposit any excess material in accordance with the principles of the general conditions, and any applicable EMP, in areas approved by local authorities and/or the SE.
17. Areas for depositing hazardous materials such as contaminated liquid and solid materials shall be approved by the SE 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

18. To the extent practicable, the Contractor shall rehabilitate the site progressively so that the rate of rehabilitation is similar to the rate of construction.
19. 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.
20. Topsoil shall not be stored in large heaps. Low mounds of no more than 1 to 2m high are recommended.
21. Re-vegetate stockpiles to protect the soil from erosion, discourage weeds and maintain an active population of beneficial soil microbes.
22. Locate stockpiles where they will not be disturbed by future construction activities.
23. To the extent practicable, reinstate natural drainage patterns where they have been altered or impaired.
24. 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.
25. Identify potentially toxic overburden and screen with suitable material to prevent mobilization of toxins.
26. Ensure reshaped land is formed so as to be inherently stable, adequately drained and suitable for the desired long-term land and allow natural regeneration of vegetation.
27. Minimize the long-term visual impact by creating landforms that are compatible with the adjacent landscape.
28. Minimize erosion by wind and water both during and after the process of reinstatement.
29. Compacted surfaces shall be deep ripped to relieve compaction unless subsurface conditions dictate otherwise.
30. Re-vegetate 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

31. The Contractor shall at all costs avoid conflicting with water demands of local communities.
32. 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.
33. Abstraction of water from wetlands shall be avoided. Where necessary, authority has to be obtained from relevant authorities.
34. Temporary damming of streams and rivers shall be done in such a way avoids disrupting water supplies to communities downstream, and maintains the ecological balance of the river system.
35. No construction water containing spoils or site effluent, especially cement and oil, shall be allowed to flow into natural water drainage courses.
36. Wash water from washing out of equipment shall not be discharged into water courses or road drains.
37. 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

38. 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.
39. Upon the completion of civil works, all access roads shall be ripped and rehabilitated.
40. Access roads shall be sprinkled with water at least five times a day in settled areas, and three times in unsettled areas, to suppress dust emissions.

Blasting

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

Disposal of Unusable Elements

44. 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 SE. The Contractor has to agree with the SE 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.
45. 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 SE and the local authorities concerned.
46. AC-pipes as well as broken parts thereof have to be treated as hazardous material and disposed of as specified above.
47. Unsuitable and demolished elements shall be dismantled to a size fitting on ordinary trucks for transport.

Health and Safety

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

Repair of Private Property

51. 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 owner a certificate that the damage has been made good satisfactorily in order to indemnify the Client from subsequent claims.
52. In cases where compensation for inconveniences, damage of crops etc. are claimed by the owner, the Client has to be informed by the Contractor through the SE. This compensation is in general settled under the responsibility of the Client before signing the Contract. In unforeseeable cases, the respective administrative entities of the Client will take care of compensation.

Contractor's Environment, Health and Safety Management Plan (EHS-MP)

53. 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.
54. 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.
55. 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

56. 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 given 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.

Training of Contractor's Personnel

57. 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 fulfil 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 (raise awareness on social issues).

Cost of Compliance

58. 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.

ANNEX XI TRAFFIC MANAGEMENT PLAN

A site-specific Traffic Management Plan for construction activities that will describe the deliveries traffic path, pedestrian path, internal traffic path will be issued prior to commencing construction. The Traffic Management Plan will include information on the following:

- Overview
- Traffic Management inside the Construction Site
- Traffic Management for construction delivery
- Traffic Management for pedestrian
- Any effect on existing neighbouring property traffic or access.

• Site fencing / Hoardings

The construction site will be fenced off with temporary fencing to all surrounds. Site fencing will prevent any access from un-authorised entry to site. Construction site access is through site entry only.

• Construction site entry

The construction vehicle site entry must be indicated by the contractor and will make use of driveway access then flowing across a vacant allotment to a paved parking area. This makes use of the existing site conditions and reduces the impact to the adjoining facilities. All of the construction deliveries and access will be via this entry. Clear signage will be erected outlining the construction entry. Construction pedestrian / workers access will be separated from vehicle access by way of separate pedestrian entry from adjoining footpath. Workers will have a direct footpath access to site amenities from pedestrian entry gate.

• Deliveries & Traffic Management

A delivery area will be located within the site compound - All material deliveries for the works will be made via the entry/entry via the designated entry road. Vehicular movements around the building will be managed by trained traffic management operatives. All vehicles will enter and exit the construction site in forward facing direction.

• Tower Crane

Tower crane will generally be used to unload heavy material and equipment directly from the truck. They are to be lifted to the designated location or on to loading platform. Traffic control during loading and unloading inside the construction site will be carried out by contractor's representative.

• Man Materials hoist

A man and materials hoist will be used to provide safe access on the floors and the movement of smaller materials. A safe pedestrian access will be provided to the hoist location.

The Contractor shall be required to provide appropriate information, training, instruction or supervision necessary to protect all persons from risks to their health and safety. The Contractor must also ensure construction induction training is provided to workers who carry out construction work.

- The Imo State RAMP will place speed limits and appropriate road signage along all Project roads;
- The Imo State RAMP will enforce speed limits for safety, air quality, and noise purposes both on the Project site and beyond;
- All drivers should be trained by a road safety specialist; and,
- All vehicles should be properly maintained and undergo periodic safety inspections.
- Observance of speed limits by contractor's vehicles / drivers should be part of the contractual agreement

ANNEX XII: PHYSICAL CULTURAL RESOURCES - MANAGEMENT PLAN (PCR-MP).

Purpose of the Physical Cultural Resources Management Plan (PCRMP)

The PCRMP is a project-specific procedure that outlines actions required to protect cultural areas and to serve as guidelines if previously unknown heritage resources, particularly archaeological resources, are encountered during project construction or operation.

Project Context

The proposed project will be located in Riverine areas. The ESMP mentioned that except in Mgbidi (Obana River) the other project sites are not within archeologically or culturally significant areas.

Specifically, the potential impact of the project on Physical Cultural Resources include the following:

- Relocation of the shrine
- Killing of fish in Obana River
- Restricting the movement of worshippers
- Killing of the Boa
- Fetching of water from the Obana River on small Orie days

However, before starting the construction works, ESMP recommends that the civil contractors should be taken on a guided tour to the site to acquaint themselves on the physical and cultural resources. The contractors need to be made aware of the chance find procedure enabling them on specific actions to in case deified animals (Boa), burials and any other culturally significant objects could be observed.

Scope

In case during site clearing and construction, the contractor comes across or unearths materials/objects/animals that are considered to be of significance in terms of the fact that;

- they are culturally sensitive objects such as burials, trees or stones
- the community in the area uphold and respect them (as is the case of the Boa in Mgbidi town)
- they are of archeological importance;

Then the PCRMP should be followed:

General PCRMP

If any person discovers a physical cultural resource, such as (but not limited to) archaeological sites, deified animals, historical sites, remains and objects, or a cemetery and/or individual graves during excavation or construction, the following steps shall be taken:

1. Stop all works in the vicinity of the find, until a solution is found for the preservation of these artefacts, or advice from the relevant authorities is obtained;
2. Immediately notify a foreman. The foreman will then notify the Construction Manager and the Environment Officer (EO)/Environmental Manager (EM);
3. The knowledge of local communities is particularly important for identifying cultural heritage that may be tied to the natural environment and not evident to outsiders. Therefore, in this case, the civil contractors should have the presence of mind to act upon any doubtful objects that will surfaced in the excavation work.
4. Record details in Incident Report and take photos of the find;

5. Delineate the discovered site or area; secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be arranged until the responsible local authorities take over;
6. Preliminary evaluation of the findings by archaeologists. The archaeologist must make a rapid assessment of the site or find to determine its importance. Based on this assessment the appropriate strategy can be implemented. The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage such as aesthetic, historic, scientific or research, social and economic values of the find;
7. Sites of minor significance (such as isolated or unclear features, and isolated finds) should be recorded immediately by the archaeologist, thus causing a minimum disruption to the work schedule of the Contractor. The results of all archaeological work must be reported to the Ministry/Agency, once completed.
8. In case of burials, the contractor should consult the Grievance Committee members and should be in touch with the relevant family members, before they are dealt with. In consultation with the family members the contractor should provide all necessary assistance to protect the burials in situ (by erecting a fence around the area) or to translocate same with consent of the family members after paying compensation if required.
9. Areas to be protected on the advice of the stakeholders should be adhered to by the contractor and the project developer. Such areas should be demarcated and specific management practices should be adopted.
10. In case of significant find the Agency/Ministry (Agency for Protection of National Heritage or Archaeological Research Centre, hereinafter referred to as Heritage team) should be informed immediately and in writing within 7 days from the find (ref. law on heritage protection).
11. The onsite archaeologist provides the Heritage team with photos, other information as relevant for identification and assessment of the significance of heritage items.
12. The Ministry must investigate the fact within 2 weeks from the date of notification and provide response in writing.
13. Decisions on how to handle the finding shall be taken by the responsible authorities. This could include changes in the layout (such as when finding an irremovable remain of cultural or archaeological importance) conservation, preservation, restoration and salvage;
14. Construction works could resume only after permission is granted from the responsible authorities.
15. In case no response received within the 2 weeks period mentioned above, this is considered as authorization to proceed with suspended construction works.

One of the main requirements of the procedure is record keeping. All finds must be registered. Photolog, copies of communication with decision making authorities, conclusions and recommendations/guidance, implementation reports – kept.

Additional information management options for archaeological and cultural site

- **Site avoidance.** If the boundaries of the site have been delineated attempt must be made to redesign the proposed development to avoid the site. (The fastest and most cost-effective management option)
- **Mitigation.** If it is not feasible to avoid the site through redesign, it will be necessary to sample it using data collection program prior to its loss. This could include surface collection and/or excavation. (The most expensive and time-consuming management option.)
- **Site Protection.** It may be possible to protect the site through the installation of barriers during the time of the development and/or possibly for a longer term. This could include the erection of high visibility fencing around the site or covering the site area with a geotextile and then capping it with fill. The exact prescription would be site- specific.

Specific PCRMP

Tangible Cultural Heritage (**Replicable heritage**)

Obana shrine

Obana shrine was regarded as a tangible cultural heritage that is replicable³. For this cultural heritage, the following mitigation hierarchy will be applied:

- Educate the contractors and sub-contractors about the shrine or sacred site based on a previous specialist review;
- Engage with stakeholder and members of the community to determine the shrine's level of importance;
- Avoid shrines determined to be very important to the local community.
- Where possible, design or re-design Project components to avoid or minimize impacts to known physical cultural heritage resources based on input from cultural heritage specialists.
- Consult with the local community if shrines considered important to the local community cannot be avoided and offer compensation for the loss of the cultural resource or to inquire about the possibility of relocating the resource;
- Integrate locational data from mapping survey and shrine importance information from stakeholder engagement data into the Project's cultural heritage GIS database.
- Minimize impacts to traditional religious observances associated with removal/relocation of sacred sites through ongoing stakeholder engagement; and
- Solicit input from and provide information to local communities, traditional rulers, National Commission for Museum and Monuments (NCMM), and national and international scientific community on heritage issues, work, and concerns throughout construction and notify these groups of relevant Chance Finds as needed.

Non-replicable cultural heritage

The Boa

The Boa constrictor is regarded as a tangible non-replicable cultural heritage in Mgbidi town. For this cultural heritage, the following mitigation hierarchy should be applied:

- stakeholder engagement to identify the Boa's habitat, migratory route and routine;
- Gaps or buffer will be created to allow the Boa and other wildlife to cross the ROW
- Site marking/protection with barriers to restrict the movement of the Boa into project area;
- Reduced working strip to reduce the possibility of encroaching the Boa's habitat.
- construction scheduling based on the Boa's route and routine to avoid contact;
- consultation with chief priest and community elders on the required compensation if Boa is mistakenly killed;
- Instructions in worker's Code of Conduct on the line of action when the Boa is seen on site;

Nonreplicable cultural heritage⁴ must not be removed unless all of the following conditions are met:

³ Replicable cultural heritage is defined as tangible forms of cultural heritage that can themselves be moved to another location or that can be replaced by a similar structure or natural features to which the cultural values can be transferred by appropriate measures. Archaeological or historical sites may be considered replicable where the particular eras and cultural values they represent are well represented by other sites and/or structures.

⁴ Nonreplicable cultural heritage may relate to the social, economic, cultural, environmental, and climatic conditions of past peoples, their evolving ecologies, adaptive strategies, and early forms of environmental management, where the (i) cultural heritage is unique or relatively unique for the period it represents, or (ii) cultural heritage is unique or relatively unique in linking several periods in the same site. Examples of non-replicable cultural heritage may include an ancient city or temple, or a site unique in the period that it represents.

There are no technically or financially feasible alternatives to removal;

- Any removal of cultural heritage must be conducted using the best available technique advised by relevant authority and supervised by a zoologist in this case of the Boa, with inputs from the chief priest and elders.

Human Remains Management Options

The handling of human remains believed to be archaeological in nature requires communication according to the same procedure described above.

There are two possible courses of action:

- **Avoid.** The development project is redesigned to completely avoid the found remains. An assessment should be made as to whether the remains may be affected by residual or accumulative impacts associated with the development, and properly addressed by a comprehensive management plan.
- **Exhume.** Exhumation of the remains in a manner considered appropriate by decision makers. This will involve the predetermination of a site suitable for the reburial of the remains. Certain ceremonies or procedures may need to be followed before development activities can recommence in the area of the discovery.

Intangible Cultural heritage

Restriction on Fishing and fetching water from Obana River on Small Orié days

- educational, awareness-raising and information programmes, aimed at the general public, in particular construction workers from other communities
- identify and define the various elements of this intangible cultural heritage (fetching water on small orie day and fishing) with the participation of communities and relevant non-governmental organizations.
- consultation with chief priest and community elders on the required compensation if fish is mistakenly killed or water is fetched on small Orié day;
- adopt a general policy of respect aimed at promoting the function of these intangible cultural heritages and at integrating the safeguarding of such heritage into project planning programmes;
- Instructions in worker's Code of Conduct on the line of action when the fish is mistakenly killed; and
- designate or establish one or more competent bodies for the safeguarding of these intangible cultural heritages;

EMERGENCY CONTACTS Ministry of Information and Culture

ANNEX XIII: ANALYSIS OF THE BIO-PHYSICAL ENVIRONMENT

S/N	Name of Priority Site	Soil			Air								Surface Water						
		Ph	Total Nitrogen	Cond	SO ₂	NO ₂	VOC	H ₂ S	CO	CO ₂	Air Temp	Noise	pH	Cond	DO	Res	Colour	Odour	Temp
LOT 1																			
1	Agbata-Umuigwe Na Uzoagba	6.54	15,253	1,612	<0.01	0.01	0.104	<0.01	0.2	0.01	32.7	43.2	7.15	554	6.92	5.76	Clear	Odourless	31.3
2	Okwu-Umuonohor	6.61	16,218	1,810	<0.01	0.02	0.145	<0.01	0.2	0.01	32.0	44.0	7.23	558	5.71	3.96	Clear	Odourless	30.4
3	Orie Mbieri-Umuomumumbi eri	6.09	16,863	1,720	<0.01	0.01	0.101	<0.01	0.1	0.01	30.5	39.4	6.75	541	2.53	4.37	Clear	Odourless	31.7
4	Ekwe-Okwuodor	7.65	16,331	2,220	<0.01	0.01	0.131	<0.01	0.1	0.01	31.1	50.4	6.82	476	3.39	4.21	Clear	Odourless	31.2
5	Umuduruemghara-Okpala Anara	7.77	16,265	1,865	<0.01	0.01	0.104	<0.01	0.0	0.01	30.5	38.5	7.51	589	5.42	3.54	Clear	Odourless	31.9
6	Umuihim Autonomous Community – Umukaku	7.67	16,183	1,432	<0.01	0.02	0.125	<0.01	0.0	0.01	30.7	45.2	6.93	490	4.47	5.78	Clear	Odourless	31.7
7	Umulogho-Okwuohia	7.89	15,341	1,211	<0.01	0.01	0.111	<0.01	0.1	0.01	30.9	47.8	7.22	471	5.76	4.72	Clear	Odourless	30.6
LOT 2																			
1	Uzurunamu-Okwudo Mgbidi	7.91	15,421	1,198	<0.01	0.02	0.141	<0.01	0.0	0.01	31.3	43.2	7.23	540	5.22	4.37	Clear	Odourless	30.9
2	Akama-Nansa-Akwa Ihedi	6.09	15,239	1,211	<0.01	0.00	0.133	<0.01	0.0	0.01	31.2	43.5	7.43	556	5.43	4.80	Clear	Odourless	30.3
3	Igbee-Amaruru	7.68	15,538	1,120	<0.01	0.00	0.123	<0.01	0.1	0.01	30.5	49.3	7.50	532	3.47	3.35	Clear	Odourless	30.6
4	Ndiuche-Izuogu Uri	6.99	16,290	1,112	<0.01	0.02	0.125	<0.01	0.0	0.01	31.3	42.1	7.01	454	3.28	5.65	Clear	Odourless	31.1
5	Obinugwu-Umueshi-Okwa	6.53	16,439	1,210	<0.01	0.01	0.154	<0.01	0.1	0.01	31.7	38.5	6.72	541	5.24	4.55	Clear	Odourless	31.3
6	Dikenafai-Abba Nwagele	6.59	16,300	1,325	<0.01	0.01	0.130	<0.01	0.2	0.01	31.9	41.2	6.99	498	5.12	4.51	Clear	Odourless	30.4
7	Dimagu-Nkwere	6.94	16,750	1,614	<0.01	0.00	0.152	<0.01	0.2	0.01	30.8	47.8	6.57	401	5.76	4.21	Clear	Odourless	31.8
LOT 3																			

1	Umueziogwu-Uzoagba-Okitankwo-Umunahu	6.59	15,950	1,512	<0.01	0.01	0.101	<0.01	0.0	0.01	30.1	38.5	6.65	534	6.65	4.52	Clear	Odourless	32.1
2	Umuebee-Umuhu	7.92	16,301	1,810	<0.01	0.01	0.121	<0.01	0.0	0.01	30.5	41.2	7.11	403	5.90	4.67	Clear	Odourless	31.3
3	Ugbele-Bsc	6.76	16,458	1,720	<0.01	0.01	0.114	<0.01	0.1	0.01	31.3	39.4	7.79	520	2.87	3.44	Clear	Odourless	31.6
4	Amugu-Umulebe	7.61	16,109	1,720	<0.01	0.01	0.105	<0.01	0.0	0.01	30.7	40.4	6.67	450	4.66	4.87	Clear	Odourless	30.9
LOT 4																			
1	Ndikpa Umucheke-Okui	6.90	16,340	1,112	<0.01	0.01	0.121	<0.01	0.0	0.01	30.5	41.1	6.76	601	6.11	4.65	Clear	Odourless	30.9
2	Ukolu-Umucheke	6.64	16,180	1,715	<0.01	0.02	0.138	<0.01	0.0	0.01	28.6	42.3	7.87	579	5.43	4.11	Clear	Odourless	31.7
3	Umunaa-Uhi Owerre-Okwe	7.79	16,341	1,890	<0.01	0.01	0.137	<0.01	0.1	0.01	31.2	38.7	7.45	523	4.76	4.94	Clear	Odourless	31.6
4	Umuokpara Ofeiyi-Umuoleche	6.78	16,280	1,437	<0.01	0.01	0.112	<0.01	0.0	0.01	30.9	45.2	7.05	411	3.39	5.27	Clear	Odourless	30.6
5	Amano-Umukogwu	7.05	16,653	1,202	<0.01	0.02	0.123	<0.01	0.1	0.01	32.2	38.5	7.11	689	4.54	3.56	Clear	Odourless	31.2
FMEnv Limits		N/S	N/S	N/S	0.1	0.04-0.06	N/S	N/S	10	N/S	N/S	90	6.5-8.5	1000	N/S	N/S	Clear	Odourless	>45

Source: Fieldwork, 2019

ANNEX XIV PROJECT OCCUPATIONAL HEALTH AND SAFETY (OHS) PLAN

1.0 INTRODUCTION

Every project poses its HSE risks. This plan was necessitated to meet up with OHS standards and to achieve the objectives set for the proposed project. The project team shall undertake to ensure high performance standards and conformity with contract requirements by managing the works in a systematic and thorough manner.

2.0 PROJECT DESCRIPTION

2.1 Purpose The purpose of this document is to describe the Project Occupational Health and Safety (OHS) plan for the proposed bridge reconstruction and the specific management controls, risk control systems and workplace precautions required to ensure compliance with Occupational Health and Safety Laws and Standards.

2.2 HSE Objectives

The Objectives for this plan are to:

- Adopt a positive Health & Safety Culture.
- Adopt the principles of prevention to avoid risk.
- Complete the project without incident (Zero fatalities, Zero Lost Time Injury (LTI) or occupational illness).

2.3 Scope of Work

The Project Occupational Health and Safety (OHS) plan covers the scope of works defined in the contract. This includes Preconstruction, Construction, Operation & Maintenance and Decommissioning phases.

2.4 Policy Statement In addition to the existing HSE policy, other policies shall be developed which includes:

- Substance Abuse Policy – Prohibiting the consumption or possession of narcotics, drugs, alcohol and other banned substances
- Emergency Response Policy – Stating commitment to ensure adequate resources and arrangement are in place in the case an emergency.
- Community Affairs Policy – Stating commitment to foster healthy relationships with communities through observance of the highest standard of conduct.
- Road Safety Policy–Stating commitment to complying with Road Traffic regulations and continuously improving its road safety performance by implementing a Road Safety Management Plan (RSMP)

3.0 KEY RESPONSIBILITIES

Involvement of all in implementing, maintaining and continually improving OHS processes is the key to successful completion and achievement of quality objectives set by the management. All project personnel shall therefore be required to be familiar with the content of this OHS plan and shall participate in implementing, maintaining and improving the management system. It is the responsibility of the project manager and all key personnel to ensure that the requirements for quality are fulfilled for works under their responsibility. All new staff and staff who are given new responsibilities are to be inducted into the requirements set out in this plan in general and into their function and responsibilities in particular.

3.1 Project Manager Responsibilities

- Set good example in HSE issues.
- Ensure the availability of resources essential to establish, implement, maintain and improve the OHS Management System.
- Define, document and communicate roles, allocate responsibilities and accountabilities, delegating authorities, to facilitate effective OHS management.
- Ensure that all of the activities undertaken in the Project conform to Nigerian legislation, client requirements or international standards when applicable.
- Review objectives achievements throughout the year.

3.2 Project Supervisors Responsibilities

- Enforcing all phases of the established HSE plan.

- Set good example in HSE issues.
- Preparing Job Hazard Analysis when required.
- Ensuring the safety of all workers associated with the site.
- Conducting HSE inspections.
- Ensuring workers are competent for their allocated tasks.
- Attending and participating in HSE meetings.
- Participating in accident investigations.

3.3 HSE Manager/Supervisor Responsibilities

- Prepare relevant OHS documentation and procedures.
- Monitor the efficient implementation of OHS requirements.
- Participate and organize the OHS risk assessments.
- Advise management of compliance and of conditions requiring attention.
- Conduct regular HSE inspections.
- Make thorough analysis of statistical data and inspections; delineates problem areas; and makes recommendation for solutions.
- Take part in the review of all OHS incidents and assist in investigating incident.
- Monitor the efficient implementation of the Project's OHS requirements.
- Organize the Project's OHS risk assessment exercises.
- Check on the use of all types of personal protective equipment specifies the use of appropriate PPE for the various work activities. Evaluates their effectiveness and suggests improvements where indicated.

3.4 HSE Advisor Responsibilities

- Check on the use of all types of personal protective equipment specifies the use of appropriate PPE for the various work activities. Evaluates their effectiveness and suggests improvements.
- Conduct independent inspections to observe conformance with established OHS Plan and determines the effectiveness of individual elements of the plan (pre-task briefing, weekly toolbox talk, etc)
- Establish contact with Subcontractors with the objective of maintaining good relations and coordination of accident prevention activities and compliance with the established OHS plan. • Correct unsafe acts and unsafe conditions.
- Deliver HSE induction/orientation course to all employees, including subcontractors. • Deliver HSE awareness course and toolbox talk. • Advise employees on OHS matters.

3.5 All employees Responsibilities

- Take all reasonable and practical steps to care for their own health and safety and avoid affecting the health and safety of coworkers and the general public.
- Follow all instructions and use the equipment properly
- Not interfere with any safety arrangements.
- Report any circumstances which may not comply with the project's OHS management system.

4.0 Competency

All personnel required to operate or work with any equipment or machine must be competent, be tested for each equipment that he/she shall be operating. All personnel who as part of their profession require licensing or certification must obtain the necessary certification before he/she shall be allowed to work on the site.

5.0 Fitness

All personnel working on site shall be required to be certified medically fit to do so by an approved medical facility or Medical Doctor (pre-employment medical examination)

6.0 HSE Training

6.1 Induction/Orientation

Every new or rehired employee and Subcontractors employees must undergo mandatory OHS orientation / induction. The purpose of the Induction is to educate workers and make them aware of the major potential hazards he or she shall come into contact with while working on the site; also, it is one more opportunity to stress the importance of HSE being the first priority in the operations. The content of the HSE orientation / induction shall cover the following subjects:

- Site safety rules.
- Personnel protective equipment requirements (PPE).
- Environmental sensitivity and protection.
- Preparation and planning of the job (Daily Pre-task talk).
- Emergency plan and muster points.

6.2 Project Specific HSE Training

In addition to the HSE orientation /induction, there shall be specific site HSE trainings which shall cover the following topics:

- Manual handling.
- Electrical Safety
- Emergency Prevention, Preparedness and Response
- Work at height training • First Aid training (for site First Aiders)
- Lifting and Rigging
- Safe Driving techniques (for drivers)

7.0 Hazard identification & HSE risk assessment

7.1 Project HSE Risk Assessment

The project HSE risk assessment shall be developed and recorded. The Project's HSE risk assessment shall be conducted by a team consisting of HSE Manager/ Supervisor and technical managers/supervisors. It must be approved by the Project manager.

7.2 Fire Risk Assessment

A fire risk assessment shall be developed and recorded. A fire safety plan shall be in place in the site.

7.3 Job Hazard Analysis

Job hazard analysis is required when the hazards and risks associated with a specific task is to be identified so as to implement control measures. The HSE department together with the technical managers/supervisors shall develop a job hazard analysis when applicable.

8.0 EMERGENCY PREPAREDNESS AND RESPONSE

Emergency procedures and evacuation plan shall be developed by the HSE Department and displayed on the notice board. These procedures shall be communicated to all staff. Also, each section/department shall have at least a trained first aider at all times.

9.0 HSE IMPLEMENTATION AND PERFORMANCE MONITORING

9.1 HSE Meetings HSE management meetings shall be held once a month. The meeting is to help identify safety problems, develop solutions, review incident reports, provide training and evaluate the effectiveness of our safety program. Some of the meetings shall be:

- Project/Site Management HSE Meeting for management and supervision (Monthly).
- Tool box talk meetings for all workforce (Weekly).
- Pre-task briefing for all workforces (Daily).
- Special situation meeting (As required).

9.2 HSE Reporting

All incidents and illnesses must be reported to site supervisor after which investigation shall commence and recorded so that appropriate corrective actions shall be implemented to prevent any re-occurrence and report findings shall be forwarded to management for review. Reporting requirements shall include notification of incident, investigation report, and monthly report. Notification of Incident form shall be developed which shall be filled and submitted to HSE department for investigation.

9.3 HSE Inspection and Audits

For continual improvement of HSE management system, HSE inspection and audit shall be conducted. An inspection checklist shall be developed. This is to ensure that the HSE management system is being adhered to. The inspection shall be conducted by the HSE department together with site management.

9.4 Corrective and Preventive Actions and Non-Conformities

During the course of inspections, concerns raised shall be addressed and closed out. It is expected that in a period of two weeks, a close out inspection shall take place to verify that the corrective actions have been closed.

10.0 Project HSE Rules

The project HSE rules shall be developed and supervision shall develop specific rules and procedures when necessary. The following site rules shall be implemented at all times. The Site Manager shall draw these rules to the attention of their own workmen or staff. All sub-contractors must ensure that these rules are drawn to the attention of their workmen and staff. The Principal Contractor may implement additional site rules during the contract programme. Any such additional rules shall be notified to all personnel engaged on the project prior to their implementation. The HSE rules shall include but not limited to:

1. Personal Protective Equipment must be worn at all times.
2. All instructions issued by the Site Manager regarding the storage, handling or cleaning of materials, plant and equipment must be followed.
3. All vehicles must be parked in the designated areas.
4. Any workman suffering from a medical condition that might affect his work and/or that could require specific Medical treatment must inform the supervisor before commencing work.
5. All site tools shall either be battery operated or 110 volts.
6. No one shall be permitted on site if it is believed that they are under the influence of alcohol or drugs.
7. Vehicles must not reverse without a banksman in attendance.
8. All visitors to site must undergo a site-specific induction and operative Identity badges must be worn at all times.
9. All excavations must be secured.
10. Smoking and eating shall only be permitted in the designated area. This area shall be identified during induction.
11. All food and drink vendors on site shall be registered.
12. The variant of food and drink to be sold in the sites must be approved by the HSE officer
13. No hot works operations are permitted without a hot work permit in place.
14. There shall be no radios or other music playing devices on site.
15. Good housekeeping practices to be adopted.
16. Compliance with all Ethical Power Permit to Work systems
17. The site keyed access procedure must be strictly adhered to.
18. All Contractors must comply with Site Health & Safety Guidelines / Site Safety Method Statement
19. No untrained worker shall be permitted to operate heavy machineries.

11.0 SAFE WORK PRACTICES

Implementing safe work practices is one of the keys to achieving our HSE objectives and some of these safe work practices include:

11.1 Personal Protective Equipment (PPE)

The basic PPE required for the project shall be Safety Glasses, Safety Boots, Hand Gloves, Hard Hat and Coverall. Any other PPE shall be used as applicable. Management is responsible for the provision of PPE and usage shall be enforced at all time. PPE shall be provided in circumstances where exposure to hazards cannot be avoided by other means or to supplement existing control measures identified by a risk assessment. An assessment shall be made to ensure that the PPE is suitable for purpose and is appropriate to the risk involved. Information, instruction & training shall be given to all employees on safe use, maintenance and storage of PPE. Employees shall, in accordance with instructions given, make full use of all PPE provided and maintain it in a serviceable condition and report its loss or defect immediately to the maintenance department where it shall be replaced. PPE shall be replaced when it is no longer serviceable and returned on a new for old basis. Employees shall sign to state that they have received PPE when issued.

12.0 WELFARE FACILITIES

The provision of welfare facilities on the site shall be communicated to all operatives at site induction. A cleaning regime shall be implemented and maintained for the duration of the construction phase to ensure the site welfare facilities remain in a clean and tidy condition.

- If mains drinking water becomes unavailable during the construction phase bottled water shall be brought to site for all operatives for the necessary period.
- All food and drink vendors on site shall be registered.
- The HSE officer will ensure that only approved vendors are allowed to sell food.
- The variant of food and drink to be sold on the sites must be approved by the HSE officer
- Access to the site should be restricted to avoid sale of contraband on site
- Smoking and eating shall only be permitted in the designated area. This area shall be identified during induction.

13.0 SIGNAGE

Adequate provision for warning and directional signs shall be made.

14.0 PROJECT HSE PROCEDURES OHS procedures shall be developed. Project activities shall generally be controlled in accordance with OHS Procedures. These procedures shall include:

- Lifting and Rigging Procedure
- HSE Reporting Procedure
- Working at Height Procedure.
- Emergency Procedure.

ANNEX XV BORROW PIT REMEDIATION PLAN

(A) Siting

Specific locations of borrow areas to be used will be identified by contractor based on the recommendations of the ESIA report. In case the contractor or the contractor wants to open any new borrow areas other than mentioned in this report, and then the selection and recommendations for borrow areas will be based on environmental as well as civil engineering considerations.

Certain precautions have to be taken to restrict unauthorised borrowing by the contractor and the contractor. No borrow area shall be opened without permission of the Engineer.

Table 1: Probable Borrow Area along the Project Corridor

Sample no.	Name of Village	Material type	Site identification			Approximate Quantity (Cum)				Available Land Terrain	Surrounding Land Terrain	Remarks
			Nearest Chainage (Km.)	Left / Right	Offset from nearest Chainage (m)	Length (m)	Breadth (m)	Depth (m)	Total (Cum)			

(B) Criteria for Evaluation of Borrow Areas

- Existing land use (Agricultural / Barren / Scrub / grazing / any other type)
- Vegetation / trees to be removed
- Erosion/degradation potential
- Distance and name of the nearest settlement
- Distance from the nearest surface water body
- Drainage pattern of the area

- vii. Distance of the nearest Reserve Forest (if any)
- viii. Distance of the nearest Sacred Tree (if any)
- ix. Distance from the nearest school / hospital / primary health centre
- x. Daily / Occasional use of borrow area by the community
- xi. Any schemes or avenues for generation of income for adjoining community

(C) Documentation of Borrow Pit

The contractor must ensure that following data based must be documented for each identified borrow areas that provide the basis of the redevelopment plan.

- Chainage along with offset distance
- Area (in Sq m)
- Type of Access/width from carriageway
- Soil Type
- Slope / Drainage Characteristics
- Water Table of the area or identify from nearest well etc/ask people
- Existing Land-use such as barren/agricultural/grazing land
- Location/Name/Population of Nearest Settlement/Community & distance from Borrow Area/Type and characteristics of settlement
- Daily / occasional use of the Borrow Area by the community, if any
- Identification of any other community facility in the vicinity of the borrow pit

(D) Guidelines for Stripping, Stocking, Preservation of Top Soil

During the excavation of the borrowing material contractor must ensure that the topsoil from all areas of cutting and all areas to be permanently covered shall be stripped to a specified depth of 150mm and stored in stockpiles. At least 10% of the temporarily acquired area shall be earmarked for storing topsoil. The stockpile shall be designed such that the slope does not exceed 1:2 (vertical to horizontal), and the height of the pile is restricted to 2m.

(E) Guidelines for Enhancement

As far as possible borrow area selected for enhancement shall be on government / community land in the vicinity of settlement. The contractor must ensure that any enhancement design proposed should be workable, maintenance free and preferably worked out in consultation with the community and proposed enhancement materials should be locally available. The borrow area can be developed either of the following:

Vegetative Cover:

- Vegetative cover must be established on all affected land.
- Topsoil must be placed, seeded, and mulched within 30 days of final grading if it is within a current growing season or within 30 days of the start of the next growing season.
- Vegetative material used in reclamation must consist of grasses, legumes, herbaceous, or woody plants or a mixture thereof.
- Plant material must be planted during the first growing season following the reclamation phase.
- Selection and use of vegetative cover must take into account soil and site characteristics such as drainage, pH, nutrient availability, and climate to ensure permanent growth.
- The vegetative cover is acceptable if within one growing season of seeding:
- The planting of trees and shrubs results in a permanent stand, or regeneration and succession rate, sufficient to assure a 75% survival rate;
- The planting results in 90% ground coverage.
- The site shall be inspected when the planting is completed and again at one year to ensure compliance with the reclamation plan.

Certificate of Completion of Reclamation

- Contractors have to obtained certificate of satisfaction from the landowner and submit it to the Engineer before final payment is to done.

(F) Drawings to be Prepared

- The contractor has to prepared the drawings showing both cross-section as well as plan of the identified borrow areas incorporating following inputs:
- Contours if any, depth if any
- Location of trees, height, foliage spread and afternoon shaded area on ground
- Any other existing details at the road / property interface such as signage/railing/etc.
- Details of immediate surrounding for at least 5m on either side.

(G) Photographs to be Include

The contractor must ensure that photographs are to be taken before and after the excavation of borrow materials and also after the implementation of redevelopment plan, incorporating the following:

- Overall View from access side
- Any other community resource in the vicinity
- All spots to be detailed such as access to borrow pit /cluster of existing trees etc.

(H) OUTPUTS

The contractor must ensure based on the above-mentioned guidelines following outcomes must be evolved:

- Working plan
- Cross Section
- Longitudinal Section/Elevation of Site
- Details of all proposed Enhancements including signage etc.
- BoQ

ANNEX XVI WORKERS' SITE MANAGEMENT PLAN

(A) SITING

The contractor based on the following guidelines shall identify the location of the construction site. The construction site shall be located:

- The construction camps will be located at least 500 m away from habitations at identified sites. The living accommodation and ancillary facilities for labour shall be erected and maintained to standards and scales approved by the resident engineer.
- On non-agricultural lands, as far as possible
- Not within 1000m of either side of locations of Forest areas.
- All sites used for camps must be adequately drained. They must not be subject to periodic flooding, nor located within 300 feet of pools, sink holes or other surface collections of water unless such water surface can be subjected to mosquito control measures.
- The camps must be located such that the drainage from and through the camps will not endanger any domestic or public water supply.
- All sites must be graded, ditched and rendered free from depressions such that water may get stagnant and become a nuisance.

(B) LAYOUT

A conceptual layout of a typical construction site has been presented in Figure A. The Contractor during the progress of work will provide, erect and maintain necessary (temporary) living accommodation and ancillary facilities for labour to standards and scales approved by the engineer. All temporary accommodation must be constructed and maintained in such a fashion that uncontaminated water is available for drinking, cooking and washing. Safe drinking water should be provided to the dwellers of the construction camps. Adequate washing and bathing places shall be provided, and kept in clean and drained condition. Construction camps are to be sited

away from vulnerable people and adequate health care is to be provided for the work force.

Sanitation Facilities: Construction camps shall be provided sanitary latrines and urinals. Sewerage drains should be provided for the flow of used water outside the camp. Drains and ditches should be treated with bleaching powder on a regular basis. The sewage system for the camp must be properly designed, built and operated so that no health hazard occurs and no pollution to the air, ground or adjacent watercourses takes place. Compliance with the relevant legislation must be strictly adhered to. Garbage bins must be provided in the camp and regularly emptied and the garbage disposed off in a hygienic manner

Shelter at Workplace: At every workplace, there shall be provided free of cost, four suitable shelters, two for meals and two others for rest, separately for use of men and women labourers. The height of shelter shall not be less than 3m from floor level to lowest part of the roof. Sheds shall be kept clean and the space provided shall be on the basis of at least 0.5m² per head.

Canteen Facilities: A cooked food canteen on a moderate scale shall be provided for the benefit of workers wherever it is considered necessary. The contractor shall conform generally to sanitary requirements of local medical, health and municipal authorities and at all times adopt such precautions as may be necessary to prevent soil pollution of the site.

First aid facilities: At every workplace, a readily available first-aid unit including an adequate supply of sterilized dressing materials and appliances will be provided as per the Factory Rules. Workplaces remote and far away from regular hospitals will have indoor health units with one bed for every 250 workers. Suitable transport will be provided to facilitate taking injured and ill persons to the nearest hospital. At every workplace an ambulance room containing the prescribed equipment and nursing staff will be provided.

Health Care Facilities: Health problems of the workers should be taken care of by providing basic health care facilities through health centres temporarily set up for the construction camp. The health centre should have at least a doctor, nurses, duty staff, medicines and minimum medical facilities to tackle first-aid requirements or minor accidental cases, linkage with nearest higher order hospital to refer patients of major illnesses or critical cases.

The health centre should have MCW (Mother and Child Welfare) units for treating mothers and children in the camp. Apart from this, the health centre should provide with regular vaccinations required for children.

ANNEX XVII WASTE MANAGEMENT PLAN

S/N	Potential Source	Waste Type	Waste Streams	Management
A PRECONSTRUCTION				
1	Movement of vehicles on unpaved surface and engine exhaust	Emission	COx, SOx, NOx, CO, Dust	Use water suppression to prevent dust emission Maintain vehicles and machineries to reduce emission Maintain low speed to reduce dust and gaseous emission Allow aerial dispersal over a large area.
2	Site Clearing and Installation of temporary workers camp and offices and workshops	Non-Hazardous	<ul style="list-style-type: none"> □ Vegetal Waste □ Industrial Waste: Metal scraps, packaging waste 	Vegetal waste shall be supplied to farmers for use as compost. Woody vegetal shall be supplied to host communities for domestic uses including as fuel wood for cooking. Segregated and stored on site to be collected at least once a
3	Workers' camp	Domestic and Sanitary	<ul style="list-style-type: none"> □ Food remnant, kitchen wastes. Food packaging etc □ Domestic Sewage 	facilities. To be transferred to locals for use as compost and animal feed. Plastic and other packaging to be recycled through licensed recycling third parties. Temporary stored and transferred to licensed carrier for disposal
B CONSTRUCTION				
1	Movement of vehicles on unpaved surface and engine exhaust	Emission	COx, SOx, NOx, CO, Dust	See A1
2	Civil works	Non-Hazardous /Industrial	<ul style="list-style-type: none"> □ Spoils □ Waste Packaging and Dunnage such as scrap wood, scrap metal, steel, glass, plastic, paper and cardboard empty metal containers, access concrete, broken equipment, or components □ Domestic-type waste: wastepaper and food scraps, metal cans 	Reuse spoils as fill materials as much as possible Segregated and kept securely in closed containers on site. To be transferred to approved recycling third parties for reuse/recycling. Non-recyclables to be removed by approved waste contractor for onward disposal at approved sites. To be transferred to locals for use as compost and animal feed.
3	Workers' camp/offices	Hazardous Waste	<ul style="list-style-type: none"> □ Domestic-type waste: wastepaper and food scraps, metal cans <p>Solid Wastes: used batteries, chemical containers, concrete etc</p> <p>Liquid Waste: spent lubricating oils, hydraulic fluids, brake fluids, battery electrolyte, and dielectric</p>	recycling third parties. Store on site in closed containers with secondary containment and transferred to a registered waste contractor with off-site permitted hazardous waste treatment storage, or disposal facilities

1. ANNEX XVIII: ENVIRONMENTAL AND SOCIAL SCREENING FOR IMO STATE RAMP2 RIVER CROSSINGS						
B General Information/Project Brief						
1.	Name of Project			Agbata-Umuigwe Na Uzoagba /3(3m x 3.5m)		
2.	Location of Hydraulic Structures			See Final Prioritization Report		
3.	Dimensions of Hydraulic Structures			3(3m x 3.5m)		
B. SCREENING QUESTIONS						
Project Location						
1.	What is the nearest habitation? Name type of premises					House
2.	Approximate distance to the nearest premises					300m
3.	Is the proposed road on a slope?			X		
4.	Adjacent to or within any Environmentally Sensitive Area					
	4.1: Protected Area				X	
	4.2: Wetland/Floodplains			X		
	4.3: Buffer Zone of Protected Area				X	
	4.4: Special Area for Protecting Biodiversity				X	
	4.5: Bay/Lagoon				X	
	4.6: Rivers/Waterways/Canals			X		
	4.7: Coastal Zone				X	
5.	Affect to Natural Biological Environment					
	5.1: Wildlife Habitat				X	
	5.2: Ecology of Fisheries				X	
	5.3: Threatened and Endangered Species				X	
	5.4: Trees on Proposed Road RoW			X		
6.	Adjacent to or Within any Historic Culturally Important Site				X	
7.	Any Health Centre in the Community?				X	
	Name of Place	Location (Chainage)	Existing conditions, problems and causes of problems:	Potential problem from road works:		
	Villages along the route	Villages along the route	Dust and noise from construction activities may affect health of community and health centre patients-	Dust and noise from construction activities may not affect health of community and health centre patients		
8.	Any Displacement/Resettlement of Activities? Compensation Issues?				X	
9.	Economics and Environment (List)				X	
	9.1: Might the proposed activity cause elimination or relocation				X	
	9.2: Might the activity cause generation of employment?			X		
	9.3: Might the activity cause reduction in employment?				X	
	9.4: Might the proposed activity cause generation of social conflicts?				X	
10.	General (Positive Impacts). Will the project create:					
	10.1: Create job opportunities to support the enhancement of living standard of the community			X		

	10.2: Contribute to poverty reduction in the project areas	X			
	10.3: Contribute to sustainable development	X			
11.	Soil and Water Resources				
	11.1: Surface Water Hydrology		X		
	11.2: Surface Water Quality		X		
	11.3: Ground Water Quality		X		
	11.4: Soil Erosion		X		
	11.5: Geology		X		
	11.6: Climate		X		
12.	Environmental Hazard or Pollution Threat				
	12.1: Might the activity cause an increase or probability of increase of Environmental hazard		X		
	12.2: Might the activity be susceptible to environmental hazard due its location		X		
	12.3: Might the activity affect the quality of water resources within, adjacent to or near the project area		X		
	12.4: Might the activity result in a deleterious effect on the quality of any water resources/watershed area	X			
13.	Resources Conservation and Use				
	13.1: Might the activity affect commercial fisheries or aquaculture resources or production	X			
	13.1: Might the activity affect cultural activities and/or resources		X		
14.	Air Quality and Atmospheric Environment				
	14.1: If the activity results in the generation of dust, will it affect the project area, immediate adjacent areas? Who readily?	X			
	14.2: If the activity results in the generation of noise, will it affect the project area, immediate adjacent areas? Who readily?		X		
15.	Community Facilities/Services/Open Spaces/Recreations				
	15.1: Might the proposed activity result in change in community facilities, services or institutions?		X		
	15.2: Might any impacts to existing community structures/business enterprises or housing?		X		
	15.3: Will the activity result in impact to lifestyle values system?		X		
	15.4: Might any site/open space/use of access or recreation areas significance be affected?		X		
16.	Visual Resources/Aesthetics of the Site				
	16.1: Might the activity cause a change in the visual character in or near the area through alteration?		X		
	16.2: Might the activity affect views or access to views of natural or cultural landscape features?		X		
	16.3: Might the activity introduce new materials, colours and forms to the immediate landscape?		X		

ANNEX XIX

RAP SCREENING REPORT FOR RIVER CROSSINGS

a) Project Right of Way (ROW)

The FPMU and the SPIU gave the defined ROW as 8m width for the road approach which is 100 meters to the River crossings on both sides. An additional 2m was provided to enable maneuverability of heavy plant and equipment, during RCs construction/rehabilitation. Thus, ROW is 10m for the RCs and 8m for the approach roads.

b) Identification of Project Affected Persons (PAPs)

The approach to be used identifying the PAPs, adopted the following outline:

- Community sensitization to enlighten the public of the proposed project and the RAP exercise
- On the field assessment with the community members to determine the project’s ROW and assets to be affected;
- An inventory and categorization of the PAPs and assets to be affected

c) Potential Impacts

This section outlines the potential negative impacts that are anticipated and will be associated with the construction of River Crossings. The impacts will be related to activities carried out during construction, commissioning, operations, maintenance and decommissioning phases. This is outlined in the Table below and discussed in subsequent sections. Some photos of the priority sites can be found in the appendix.

RAP Screening Result

S/N	Name of Priority Site	LGA	RAP?	Reason	No of PAP
Lot 1					
1	Agbata-Umuigwe Na Uzoagba	Ikeduru/Mbatoli	No	Existing road	N/A
2	Okwu-Umuonohor	Ikeduru/Mbatoli	No	Existing road	N/A
3	Orie Mbieri-Umuomumbieri	Ikeduru/Mbatoli	No	Existing road	N/A
4	Ekwe-Okwuodor	Njaba/Isu/Nkwere/Nwangele	No	Existing road	N/A
5	Umuduruemghara-Okpala Anara	Isiala Mbano/Ehime Mbano	No	Existing road	N/A
6	Umuihim Autonomous Community – Umukaku	Isiala Mbano/Ehime Mbano	No	Existing road	N/A
7	Umulogho-Okwuohia	Aniri/Agwu	Yes	Economic trees and cultural area	4
Lot 2					
1	Uzurunamu-Okwudo Mgbidi	Oru East/Oru West/Orsu	Yes	Economic trees and cultural area	4
2	Akama-Nansa-Akwa Ihedi	Orsu	Yes	Economic trees	1
3	Igbee-Amaruru	Orsu	Yes	Economic trees	2
4	Ndiuche-Izuogu Uri	Ideato North/South	Yes	Economic trees	2
5	Obinugwu-Umueshi-Okwa	Ideato North/South	Yes	Economic trees	1
6	Dikenafai-Abba Nwagele	Ideato North/South	No	Economic trees and oil processing plant	1
7	Dimagu-Nkwere	Ideato North/South	Yes	Economic trees and farmland	1
Lot 3					
1	Umueziogwu-Uzoagba-Okitankwo-Umunahu	Owerri East/West	Yes	Economic trees	1
2	Umuebee-Umuhu	Owerri East/West	Yes	Economic trees	3

3	Ugbele-Bsc	Ideato South	No	Existing road	N/A
4	Amagu-Umulebe	Ideato South	Yes	Economic trees and cultural area	3
Lot 4					
1	Ndikpa Umucheke-Okui	Onuimo	No	Existing road	N/A
2	Ukolu-Umucheke	Onuimo	No	Existing road	N/A
3	Umunaa-Uhi Owerre-Okwe	Onuimo	No	Existing road	N/A
4	Umuokpara Ofeiyi-Umuoleche	Okigwe	Yes	Economic trees and farmland	6
5	Amano-Umukogwu	Okigwe	Yes	Economic trees and farmland	1
Total					30

As shown in the table, resettlement will be required in 12 priority sites as the proposed project will lead to the removal of economic trees and farmlands and impact on cultural areas in these sites. This project affects 30 people, thus, a Resettlement Action Plan (RAP) is required.

d) Impact on Shrine and Cultural Areas

Impact on shrines and cultural areas are envisaged in one priority site. This is a community where the River is worshipped. The priority site and the River name is outlined in the table below

Impact on shrines and cultural areas

S/N	Priority site	LGA	Name of River	No of PAP
1	Uzurunamu-Okwudo Mgbidi	Oru East/Oru West/Orsu	Obana	1
Total				1

e) Land take

The project will not involve significant land acquisition because the reconstruction of drainage, culvert and road approaches will be carried out on the existing road in the project area of influence. However, minimal land acquisition will be required in three priority sites without existing motorable roads

Land Take

S/N	Priority site	LGA	No of PAP
1	Umuokpara Ofeiyi-Umuoleche	Okigwe	1
2	Igbee-Amaruru	Orsu	1
3	Umueziogwu-Uzoagba-Okitankwo-Umunahu	Owerri East/West	1
Total			3

f) Impact on Livelihood

The proposed project will lead to the removal of economic trees in the twelve (12) priority sites. The affected economic trees include bamboo, oil palm among others. Farmlands and sand mining activities will also be affected in three sites as shown in the table below

Impact on Livelihood

S/N	Name of Priority Site	LGA	Farmland	Sand mining	Economic trees
Lot 1					
1	Umulogho-Okwuohia	Aniri/Agwu	-	1	
Lot 2					
2	Uzurunamu-Okwudo Mgbidi	Oru East/Oru West/Orsu	1		
3	Akama-Nansa-Akwa Ihedi	Orsu	-		

4	Igbee-Amaruru	Orsu	1		
5	Ndiuche-Izuogu Uri	Ideato North/South	-		
6	Obinugwu-Umueshi-Okwa	Ideato North/South	-		
7	Dimagu-Nkwere	Ideato North/South	-		
Lot 3					
8	Umueziogwu-Uzoagba-Okitankwo-Umunahu	Owerri East/West	-		
9	Umuebee-Umuhu	Owerri East/West	-		
10	Amagu-Umulebe	Ideato South	-		
Lot 4					
11	Umuokpara Ofeyi-Umuoleche	Okigwe	1		
12	Amano-Umukogwu	Okigwe	-		
Total			3		

g) Recommendations

Based on the above screening results and with the identified potential negative impacts, efforts should be made in line with the policy of the project RPF to reduce/avoid impacts as follows:

- Consultation with the community leaders and village priests on the customary rights to be performed before work can be carried out across the Rivers in question
- To alter alignments and technical designs to avoid displacement as much as possible within the ROW
- Application of appropriate technology to reduce impact on structures through vibrations
- Precise scheduling of construction to secure access to community members and transporters
- Pre-construction street meetings and adequate notification
- Hands on social monitoring and supervision
- Alternative diversionary routes/access bridge will be created during the construction phase.
- The public will receive prior notification of temporary disruptions to access and be agreed with the PIU & Contractor.
- Prior to commencing work, the Contractor will prepare a Traffic Management Plan which will detail how traffic delays, the occasional need for temporary road closure and the use of diversionary routes will be managed as much as possible through sensitization and awareness campaign of the communities residing along the corridor of roads under construction.

ANNEX XX PICTURE OF BOA



Boa constrictor (*Boa constrictor*)

In parts of Imo and Anambra States, Boas and Pythons (locally called Eke) are worshipped and regarded as both the totem of the deity or the reincarnation of the ancestors. The Boas and Pythons roam about even into people's bedrooms, causing no harm to the people and being certain that no harm would be done them. These snakes are non-venomous and harmless.

ANNEX XXI LOCATION OF PROPOSED STAGING AREA, BASE CAMP AND PCR

S/N	Name of Priority Site	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
		Intervention sites		Staging Area		Base Camps		PCR		Borrow pit		Env & Social Sensitivities		Alternative route		Public Utility	
Lot 1																	
1	Agbata-Umuigwe Na Uzoagba	5.5471	7.1456	5.543	7.145	5.582	7.066			5.578	7.137	5.547	7.149				
2	Okwu-Umuonohor	5.5387	7.1941	5.538	7.196	5.545	7.151			5.631	7.363	5.573	7.029				
3	Orie Mbieri-Umuomumbieri	5.5834	7.0635	5.5873	8.0636	5.5834	7.0633			5.667	7.049	5.581	7.363				
4	Ekwe-Okwuodor	5.7258	7.0270	5.724	7.037	5.723	7.033			5.667	7.049	5.723	7.029	5.719	7.026		
5	Umuduruemghara-Okpala Anara	5.7103	7.1796	5.706	7.181	5.705	7.178			5.701	7.204	5.71	7.179				
6	Umuihim Autonomous Community – Umukaku	5.6694	7.2050	5.666	7.208	5.667	7.202			5.631	7.363	5.584	7.061				
7	Umulogho-Okwuohia	5.5856	7.3613	5.585	7.364	5.583	7.36			5.519	7.138	5.673	7.202				
Lot 2																	
1	Uzurunamu-Okwudo Mgbidi	5.7259	6.8821	5.715	6.893	5.714	6.892	5.717	6.89	5.703	6.972	5.718	6.892	5.896	6.959		
2	Akama-Nansa-Akwa Ihedi	5.8850	7.0069	5.880	7.002	5.884	7.006			5.859	7.116	5.834	7.121				
3	Igbee-Amaruru	5.8896	6.9688	5.883	6.969	5.887	6.974			5.859	7.116	5.891	6.964				
4	Ndiuche-Izuogu Uri	5.8231	7.1783	5.818	7.186	5.829	7.12			5.843	6.982	5.818	7.186				
5	Obinugwu-Umueshi-Okwa	5.8356	7.1244	5.831	7.126	5.829	7.12			5.763	7.223	5.829	7.121				
6	Dikenafai-Abba Nwagele	5.7543	7.1482	5.75	7.146	5.781	7.105			5.629	7.363	5.75	7.146				
7	Dimagu-Nkwere	5.7847	7.1121	5.781	7.105	5.818	7.186			5.629	7.363	5.781	7.105	5.716	6.905		
Lot 3																	
1	Umueziogwu-Uzoagba-Okitankwo-Umunahu	5.5140	7.1067	5.857	7.089	5.515	7.089			5.858	7.117	5.516	7.098	5.509	7.104		
2	Umuebee-Umuhu	5.5471	7.1457	5.794	7.146	5.543	7.146			5.799	7.065	5.547	7.149				
3	Ugbele-Bsc	5.8014	7.0774	5.543	7.147	5.799	7.668			5.543	7.065	5.80	7.018				
4	Amugu-Umulebe	5.8603	7.1425	5.857	7.146	5.858	7.146			5.515	7.089	5.862	7.139	5.86	7.132		
Lot 4																	
1	Ndikpa Umucheke-Okui	5.7923	7.1957	5.793	7.194	5.791	7.197			5.801	7.190	5.794	7.195	5.794	7.192		
2	Ukolu-Umucheke	5.7818	7.1952	5.782	7.194	5.774	7.209			5.774	7.209	5.783	7.194				
3	Umunaa-Uhi Owerre-Okwe	5.7978	7.2101	5.799	7.208	5.797	7.212			5.820	7.233	5.799	7.210				
4	Umukpara Ofeiyi-Umuoleche	5.8311	7.3291	5.833	7.319	5.818	7.318			5.318	7.318	5.853	7.319				
5	Amano-Umukogwu	5.8539	7.3193	5.855	7.318	5.844	7.310			5.844	7.310	5.853	7.318	5.851	7.323		

ANNEX XXII

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,

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 demoralized 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 accessible, designated smoking areas which are clearly highlighted and regularly cleaned.	Verify	Monthly	ESO; SSO
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: <ul style="list-style-type: none"> • Have not been implicated in past abuses • Are trained in appropriate conduct towards workers and community members including: <ul style="list-style-type: none"> 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 operations such as road closures and the prevention of workers or suppliers from entering the worksite.	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 and provide cultural sensitivity awareness training to facilitate appropriate interaction with communities.	Assessment	Quarterly	ESO; SSO