

#### ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

(ESMF)

FOR

#### **RURAL ACCESS & AGRICULTURAL MARKETING PROJECT (RAAMP)**

IN

ABIA, AKWA-IBOM, ANAMBRA, BAUCHI, BENUE, BORNO, CROSS RIVER, KANO, KATSINA, KEBBI, KOGI, KWARA, OGUN, ONDO, OYO, PLATEAU, SOKOTO AND TARABA STATES

ΒY

#### FEDERAL MINISTRY OF AGRICULTURE & RURAL DEVELOPMENT (FMARD) FEDERAL PROJECT MANAGEMENT UNIT (FPMU) RURAL ACCESS & AGRICULTURAL MARKETING PROJECT (RAAMP)

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#### **GLOSSARY OF ABBREVIATIONS**

| AIDS<br>ALARP<br>AP<br>APS<br>ARAP<br>CBOs<br>CDD<br>CESMP<br>CHS<br>CITES<br>CLO<br>CPS<br>DBM<br>DHS<br>EA<br>EAR<br>EIA<br>EAR<br>EIA<br>ESMP<br>ESMS<br>ESIA<br>ESMF<br>ESMU<br>ESS<br>FDRD<br>FERMA<br>FMENV<br>FGN<br>FMUN<br>GBV<br>GDP<br>GHG<br>GIS<br>GRC<br>GRM<br>HIV | Acquired Immune Deficiency Syndrome<br>As Low As Reasonably Practicable<br>Affected Persons<br>Accessible Pedestrians Signals<br>Abbreviated Resettlement Action Plan<br>Community Based Organizations<br>Community Driven Development<br>Contractor Environmental and Social Management Plan<br>Community Health and Safety<br>Convention on International Trade in Endangered Species<br>Community Liaison Officer<br>Country Partnership Strategy<br>Design, Build and Maintain<br>Demographic Health Survey<br>Environmental Assessment<br>Environmental Audit Report<br>Environmental Impact Assessment<br>Electronic Project Management System<br>Environmental and Social Management Plan<br>Environmental and Social Management System<br>Environmental and Social Management Framework<br>Environmental and Social Management Plan<br>Environmental and Social Management Plan<br>Environmental and Social Management Plan<br>Environmental and Social Management System<br>Environmental and Social Management Plan<br>Environmental and Social Management Plan<br>Environmental and Social Management System<br>Environmental and Social Management Unit<br>Environmental and Social Safeguards<br>Federal Department of Rural Development<br>Federal Department of Rural Development<br>Federal Roads Maintenance Agency<br>Federal Ministry of Agriculture and Rural Development<br>Federal Government of Nigeria<br>Federal Project Management Unit<br>Gender Based Violence<br>Gross Domestic Product<br>Green House Gas<br>Geographic Information System<br>Grievance Redress Committee<br>Grievance Redress Mechanism<br>Human Immunodeficiency Virus |
|---|--|
| GRC   | Grievance Redress Committee  |
| HIV   | Human Immunodeficiency Virus   |
| IDA<br>ILO  | International Development Ass<br>International Labour Organization   |
| IPV<br>ITCZ   | Intimate Partner Violence<br>Inter Tropical Convergence Zone   |
| ITD   | Inter Tropical Discontinuity   |

| ITF    | Inter Tropical Front   |
|--------|--|
| LGs    | Local Governments  |
| LGS    | Local Government Area  |
| MDAs   | Ministries, Departments and Agencies                         |
| MEnv   | Ministry of Environment                                      |
| NESREA | National Environmental Standards and Regulations Enforcement |
| NESKLA | Agency   |
| NGO    | Non Governmental Organization                                |
| NPC    | National Population Commission                               |
| OHS    | Occupational Health and Safety                               |
| OP     | Operational Policy (of the World Bank)                       |
| PAPs   | Project Affected Persons                                     |
| PDO    | Project Development Objectives                               |
| PHL    | Post Harvest Losses  |
| PIU    | Project Implementation Unit                                  |
| PPA    | Project Preparation Advance                                  |
| PMS    | Project Management Support                                   |
| PMU    | Project Monitoring Unit                                      |
| PMS    | Project Management Support                                   |
| PS     | Procurement Specialist (of the FPMU)                         |
| PWD    | People With Disabilities                                     |
| RAAMP  | Rural Access and Agricultural Marketing Project              |
| RAM    | Random Assessment Matrix                                     |
| RAMP   | Rural Access and Mobility Project                            |
| RAMS   | Road Asset Management System                                 |
| RAPs   | Resettlement Action Plans                                    |
| RoW    | Right of Way   |
| RPF    | Resettlement Policy Framework                                |
| RTC    | Road Traffic Crashes   |
| RTTP   | Rural Travel and Transport Policy                            |
| SD     | Surface of Discontinuity                                     |
| SEA    | Sexual Exploitation and Abuse                                |
| SEPA   | State Environmental Protection Agency                        |
| SMEs   | Small and Medium Level Enterprises                           |
| SPIU   | State Project Implementation Unit                            |
| SRF    | State Road Fund  |
| SRRA   | State and Rural Roads Administration                         |
| TA     | Technical Assistance   |
| TC     | Tropical Continental   |
| TM     | Tropical Maritime  |
| ToR    | Terms of Reference   |
| VAC    | Violence Against Children                                    |
| WB     | World Bank   |
| WHO    | World Health Organization                                    |
| -      |  |

#### EXECUTIVE SUMMARY

#### 0.1 Project Background

The Federal Government of Nigeria has initiated the preparation of the Rural Access and Agricultural Marketing Project (RAAMP) the successor of the Second Rural Access and Mobility Project (RAMP-2). The project will be supported with financing from the World Bank and French Development Agency (AFD) and will be guided by the Government's Rural Travel and Transport Policy (RTTP). The lead agency for the Federal Government is the Federal Department of Rural Development (FDRD) of the Federal Ministry of Agriculture and Rural Development (FMARD). The Federal Project Management Unit (FPMU) is overseeing the project on behalf of FDRD, while the respective State Government of eighteen (18) participating states will implement it. The overall objective of RAAMP is to improve rural access and agricultural marketing in selected participating States whilst enhancing sustainability of the rural and State road network. The participating states are: Abia, Akwa-Ibom, Anambra, Bauchi, Benue, Borno, Cross River, Kano, Katsina, Kebbi, Kogi, Kwara, Ogun, Ondo, Oyo, Plateau, Sokoto and Taraba States.

The Nigeria road network is relatively dense consisting of about 194,000 km of roads. This includes 34,000 km of federal roads, 30,000 km of state roads and 130,000 km of registered rural roads. The road density is about 0.21 km of roads per square kilometer. In spite of the relatively high road density, the rural accessibility index for Nigeria which is defined as the proportion of the rural population living within 2 kilometers away from an all-weather road is low, at only 47 percent. This is due to deteriorated road infrastructure. These considerations stress the need to improve the condition of the existing road network and where necessary build new roads. Priority should be granted to road maintenance and the adoption of sound asset management practices.

An improved rural access will no doubt enhance the agricultural potentials and marketing opportunities for the agrarian rural communities in Nigeria and by extension grow the Gross Domestic Product (GDP) and help to improve the standard of living of the country's rural populace.

#### **0.2 Project Development Objectives.**

The Project Development Objectives (PDOs) are to improve transport conditions and sustain access to the rural population; enhance agricultural marketing potentials through rehabilitating, installation and maintenance of key rural infrastructure in selected Nigerian states.

#### 0.3 Purpose of the ESMF

The ESMF is a statement of the policy, principles, institutional arrangements and procedures that the project management will follow in addressing environmental and social issues. ESMF, generally, is used in the case of operations with multiple sub-projects/sites whose detailed engineering designs, precise locations and the entire site specific environmental and social safeguard issues are not fully known.

#### 0.4 Objectives and Application of the ESMF

The objective of this ESMF is to ensure that the implementation of the project will be carried out in an environmentally and socially sustainable manner. The difficulties inherent in defining what the real environmental and social impacts of the project in terms of scope, scale of activities and likely impacts necessitated the development of this ESMF. The ESMF will provide the project implementers with an environmental and social screening process that will enable them to identify, assess and mitigate potential environmental and social impacts of the RAAMP projects. The ESMF is to be applied at all stages of project as in identification of sub-projects, screening to implementation and operation stage. The framework encourages participatory approach to preparation of sub-projects in respective States and locations.

#### 0.5 Project Financing and ESMF Estimated Budget

The RAAMP Project is proposed for 18 States of Nigeria. The Federal Ministry of Finance on behalf of the Federal Government of Nigeria has applied for financing from the International Development Association (IDA) and French Development Agency (AFD) in the form of credit towards the cost of the Rural Access and Agricultural Marketing Project (RAAMP) in 13 participating states under the Federal Ministry of Agriculture and Rural Development (FMA&RD). The Federal Government of Nigeria will on-lent the financing through a subsidiary loan agreement to the 13 participating states and part of the proceed of the credit will be used to finance the rehabilitation of prioritized rural roads and river crossings, construction/rehabilitation support for the establishment of agro logistics hubs and institutional development under the project. The remaining 5 out of the 18 states are to be supported by African Development Bank (AfDB).

The monitoring and coordination of project activities are the responsibilities of Federal Project Management Unit under the Federal Ministry of Agriculture and Rural Development (FMA&RD) and the physical implementation of the project activities is the responsibilities of the participating states. Therefore, the participating states are required to support the implementation of ESMP, ARAPs/RAPs as the case may be through provision of counterpart fund. The counterpart contribution as required by the financing agreement will among others finance the implementation of all safeguards instrument prior to commencement of any civil works and related contracts. The indicative budget for ESMF implementation in the 18 states is about NGN561, 630,000.00 (Five Hundred and Sixty One Million, Six hundred and Thirty Thousand Naira) only. ((USD 1,835,738.39) One Million Eight and Thirty Five Thousand, Seven hundred and Thirty Eight Dollars, Thirty Nine cents).

#### 0.6 Administrative and Legal Framework

The project will include a number of infrastructure activities, such as constructions and rehabilitation of rural access roads, river crossings, access to agro processing plants, storage facilities etc. which will potentially trigger a number of legal and administrative instruments. These include the following:

- World Bank Operational Policy 4.01, "Environmental Assessment", and related guidelines such as Operational Policy 4.04, "Natural Habitats", and Operational Policy OP 4.12, "Involuntary Resettlement";
- National laws and/or regulations of Nigeria on environmental reviews and impact assessments;
- Selected States/LGAs environmental regulations; and
- Environmental and Social Risk Management Policy for AFD Funded Operations.
- International Laws and Conventions to which Nigeria is a signatory.

#### 0.7 PROJECT COMPONENTS

The project includes the following components:

#### 0.7.1 Component 1: Farm to Local Agricultural Market Connectivity Program

This component will finance the rehabilitation/upgrading of approximately a total of 3,550 km rural access roads and construction of about 130 river crossings in the 13 participating states. This intervention will increase connectivity/improve access to about 3,722 rural communities/villages and about 2,592 markets. This component will also finance expenses for supervision of the road rehabilitation and river crossings construction contracts.

# 0.7.2 Component 2: Connecting Farms to Rural Agro-Logistics Centers.

This component will finance: (i) The establishment of pilot agro-logistics centers/hubs at strategic locations in selected agro-logistics areas; (ii) Provision of Technical Assistance (TA) to ensure effective utilization of the facilities at the agro-logistics centers and enhance the engagement of women and young girls at the centers; and (iii) Provision of TA and simple post-harvest implements to women and young girls in households within the influence areas of the rural access roads to be rehabilitated under this Project. This component also finances expenditures for designing the facilities at the pilot centers/hubs, as well as supervision.

# **0.7.3 Component 3: Strengthening the Financial and Institutional Base for Sustainably Maintaining Rural Access and State Roads**

This component includes:

(a) Establishing a State Road Fund (SRF) to finance state roads and rural roads;

(b) Designating a state rural access and state roads (herein after called State and Rural Roads Administration entity (SRRA); and

(c) Establishing a functional Road Asset Management System (RAMS) that will generate an annual prioritized investment and maintenance plan, and mainstreaming the plan in the state budgetary process.

#### 0.7.4 Component 4: Institutional Development, Road Safety and Project Management Support.

This component includes: (a) support to the provision of Technical Assistance (TA) for institutional development, designed to strengthen implementing entities and enhance organizational effectiveness and individual skills; (b) the establishment of crash database and data management system to better understand the nature, causes and locations of road accidents along the rural and state roads network in four pilot states; (c) block preparation fund to pre-finance output associated studies, planning (prioritization, design and procurement), systems development, and safeguards instruments development required for the entire project and (d) building on capacity and training provided under the previous World Bank and French Development Agency (AFD) - financed RAMP2, including the strengthening of the climate change responsiveness institutional capacity of the road sector agencies; increasing awareness activities on climate change and adaptation for the staff of road sector agencies, as well as SPIU and contractors; and providing On-the-Job training in preventive measure for climate change.

#### **0.8 Baseline Environment and Social Conditions.**

#### 0.8.1 Labour Influx

The project may face an influx of non-local labour and working conditions issues as skilled labourers might not be available in some of the project sites. The project will take concrete measures to mitigate potential labour influx related risks such as workers' sexual relations with minors and resulting pregnancies, presence of sex workers in the community, the spread of HIV/AIDS, sexual harassment of female employees, child labour and abuse, increased drop-out rates from school, inadequate resettlement practices and fear of retaliation, failure to ensure community participation, poor labour practice and lack of road safety. These risks require careful consideration to improve social and environmental sustainability, resilience social cohesion. Therefore, the project will include prevention, mitigation and response measures.

#### 0.8.2 Gender Based Violence

Nigeria has ratified or acceded to the core international human rights treaties and is party to the major regional human rights instrument which obliged States to respect, protect and fulfill human rights of all persons within the territory and subject to the jurisdiction of the State, without discrimination. Nigeria is among the 10 percent of countries worldwide that exhibit the highest levels of gender discrimination according to the OECD's Social Institutions and Gender Index. Gender – Based Violence (GBV) remains pervasive and under-reported in the country, largely constraining women's autonomy and life chances.

#### 0.8.3 Road Safety and Disability Inclusion.

Rapidly increasing, deaths and injuries from road crashes are a major public health issue. The World Health Organization (WHO) has estimated 1.24 million people worldwide are killed in road crashes every year and that almost half are pedestrians, motorcyclists or cyclists. In Nigeria, the Federal Road Safety Corps 2016 Report indicated that 9,694 Road Traffic Crashes (RTCs) were recorded out of which 2,638 cases were fatal, 5,633 were serious cases and 1,423 cases were minor with 5,053 persons killed. Disability inclusion approach requires mainstreaming disability in road safety at all levels, whereby the concerns and experiences of people with disabilities are integral to the design, implementation, monitoring and evaluation of road safety policies and programmes. For the RAAMP project, this would be achieved through the provision of infrastructure for People with Disabilities (PWDs) which are aided facilities on the road.

#### 0.8.4 State Specific Baseline Data of RAAMP States.

The baseline environmental data of the RAAMP participating States are presented in Table 4.2, Chapter 4 of this ESMF.

#### 0.9 Environmental and Social Risks Impact.

The environmental and social risks identified in this ESMF are preliminary and generic in nature to the participating States. The potential for occurrence of the impacts identified has to be ascertained during further stages of project design and implementation. This ESMF only provides a guide for subproject impact identification, quantification and mitigation. Although there are various criteria for identification/quantification of impacts, the Random Assessment Matrix (RAM) for identifying significant environmental aspects/impacts is recommended.

The impact ranking criteria are: Legal /Regulatory Requirements (L); Risk/Hazard rating; Environmental Impact Frequency (F); Importance of Affected Environmental Component and Impact (I); Public Perception (P).

The RAAMP projects are envisaged to have a range **of positive environmental and social impacts** and include the following:

- Socio-economic benefits such as accessibility and enhancement of commercial activities from road improvement.
- Enhanced agricultural marketing potentials and access to agro processing centres leading to increased agricultural production and employment generation.

- Improvement in the welfare and general well-being of beneficiary communities through increased access to health care, education and other social services, rendered closer due to enhanced accessibility.
- > Improvement of road safety or reduced accidents.

The project activities that could have negative impact on the environment include project preparation, route planning, construction works, slope stability, excavation, blasting, compacting, burrowing, involuntary resettlement, water management, drainage management, chance finds of cultural resources, exclusion of local people from project activities, road maintenance, decommissioning, provision of agro-logistics hub etc.

The negative social impact include labour influx related risks such as workers' sexual relations with minors and resulting pregnancies, presence of sex workers in the community, the spread of HIV/AIDS, sexual harassment of female employees, child labour and abuse, increased drop-out rates from school, inadequate resettlement practices and fear of retaliation, failure to ensure community participation, poor labour practice and lack of road safety. Others are Gender Based Violence (GBV) and Sexual Exploitation and Abuse (SEA).

The mitigation approaches include such measures as avoidance, elimination or reduction of negative impacts to levels 'as low as reasonably practicable'. The details of the project potential and associated environmental risks/impacts and proffered mitigation measures are presented in Table 5.4a while the details of the project potential and associated social risks/impacts and proffered mitigation measures are presented in Table 5.4b, Chapter 5 of this ESMF Report.

## 0.9.1 Integrating Mitigation Measures in Project Design and Tender Documents.

This shall be achieved through subprojects environmental and social management procedure, from the screening through monitoring and evaluation of the specific ESMP (based on the nature of the subproject and the risk level), including specific criteria (site selection, exclusion of activity, additional studies, etc.), in accordance to national EA administrative procedure (including the review and clearance by the Bank).

**0.10 Environmental and Social Management Plan (ESMP) and Monitoring ESMP** is an Action Plan that indicates which of the EA report

**Monitoring ESMP** is an Action Plan that indicates which of the EA report recommendations and alternatives will actually be adopted and implemented. It will ensure incorporation of the relevant environmental/social factors into the overall project design and will identify linkages to other safeguard policies relating to the project. A guide to the ESMP of the project is presented as annex 6 of this report. An ESMP shall contain potential impacts, mitigation measures, implementing responsibility, monitoring responsibility and estimated cost for implementation. A detailed ESMP is presented in Annex 6, page 163. **Environmental monitoring** involves keeping track of, on a regular or ongoing basis with a view to collecting information. It provides feedback about the actual environmental and social impacts of a project. It is also used to ensure compliance with environmental and social standards, and to facilitate any needed project design or operational changes. A sample plan for Environmental Monitoring for the RAAMP subprojects is summarized in Table 5.6, Chapter 5 of this ESMF. These may differ depending on site specific peculiarities.

#### **0.11 Stakeholders Consultation/ Public Engagement**

Stakeholder engagement is an essential criteria and important strategy for an integrated environmental and social analysis process, the project design and its implementation. Views of the project interested and affected persons have been fully taken into account during the Environmental and Social Management Framework (ESMF) preparation and shall continue to form a basis for further design and implementation of the subprojects throughout the Rural Access and Agricultural Marketing Project (RAAMP) implementation period.

#### 0.11.1 Summary of the Stakeholder Consultation

The preparation of the ESMF involved stakeholders' consultation in all the eighteen (18) participating States. The major stakeholders identified and consulted consisted of various government (State and Federal) MDAs, State Project Implementation Units (SPIUs), Local Government Chairmen, Community leaders, Community Based Organizations (CBOs) etc.

The issues canvassed for and concerns expressed in the stakeholder consultations in the participating RAAMP States are similar and include the following:

- The political class should not take undue advantage to circumvent the essence of the project or cause undue influence such that the project objectives are not attained.
- In the execution of the sub projects, drains should not be directed towards peoples gardens, farmland, houses, burial or cultural sites and toward sources of portable water of the beneficiary communities.
- State Project Implementation Units (SPIUs) and related MDAs should be strengthened through capacity building (trainings, seminar, workshops etc) and also be assisted with air quality and noise monitoring equipments for the monitoring of air quality and noise levels particularly in areas that are very close to major landmarks such as schools, health centres etc so as to ensure adequate monitoring and enforcement mechanism.
- The Federal Projects Management Unit (FPMU) should ensure strict adherence to project design and completion times.

• There should be proper understanding of roles and collaboration between SPIUs and other MDAs in the entire management of the project.

#### 0.12 Disclosures of Safeguard Instruments.

The ESMF has been prepared in consultation with relevant state MDAs and other stakeholders. Copies of this ESMF, like other safeguard instruments (such as ESIAs, ESMPs) that would be subsequently prepared for the project and its sub projects will be made available to the public by the PIU. The PIU will disclose the ESMF as required by the Nigeria EIA public notice and review procedures as well as the World Bank Disclosure Policy on the World Bank's external website. Copies of other safeguards instruments (such as ESIAs/ESMPs) should be disclosed in like manner

#### **0.13 Grievance Redress Mechanism**

A Grievance Redress Mechanism 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 SPIUs will maintain a Complaints Database. The contractor, in coordination with the SPIU, shall set-up a grievance redress committee that will address any complaints during project implementation. Grievances should be resolved within 15 working days.

#### **0.13.1 Steps in carrying out a Grievance Redress Mechanism**

There is no ideal method of approach to grievance resolution however; the best solutions to conflicts are generally achieved through localized mechanisms that take account of the specific issues, cultural context, local customs, and the project state and its magnitude. The Grievance Redress Committees of the RAAMP will endeavor to be holding meetings with the aggrieved person(s) or groups within a maximum of 3 weeks from the time of receiving the complaint. The following steps will be followed throughout the Grievance Redress Mechanism process in the various Communities.

#### 0.14 GBV/SEA Risk Management Mechanism

RAAMP shall include specific measures to reduce and mitigate the risk of GBV/SEA in the project.

Such measures will include:

- i) GBV/SEA assessment of project.
- ii) Mandatory contractors' Code of Conduct on sexual harassment.
- iii) Appointment of NGO to monitor GBV/SEA in RAAMP.
- iv) Community and workers' sensitization on GBV/SEA.
- v) Provision of referral units for survivors of GBV/SEA.
- vi) Provision in contracts for dedicated payments to contractors for GBV/SEA prevention activities against of completion.

vii) Contractor and SPIU requirement to ensure a minimum target of female employment with incremental rewards for the attainment of this target.

#### 0.15 Project Monitoring and Capacity Building.

The FPMU will be responsible for collecting the data required for **monitoring** and evaluation which will in turn be reviewed by implementing agencies. Indicators shall be measured against the agreed targets and compared to the defined baselines. RAAMP has a sub-component which covers **capacity building** measures to implementing agencies, as may be necessary in environmental and social safeguards and annual program planning. Capacity building can be achieved by: Training program for the existing staff and Technical Assistance: knowledge sharing and on-the-job training and mentorship.

#### 0.15.1 Roles and Responsibilities (Focus on PIU).

The environmental safeguards specialist and social safeguard specialist in the PIU will be responsible for the implementation of the ESMF in close collaboration with the Federal and State Ministries of Environment and relevant MDAs.

Subsequently, they shall be required to prepare a quarterly audit on ESMF implementation in addition to the project reports as may be required. In addition, each sub-project requiring an ESMP will also be required to produce an annual audit report for delivery to the PIU.

| S/N  | Activities  | Institutional<br>Responsibility                                 | Institutional<br>Collaboration  | Implementation<br>Responsibility                      |
|--|---|---|---|---|
| 1  | Identification and/or<br>siting of the<br>sub-project                               | SPIUs   | FMA&RD<br>• Local authority   |   |
| 2  | Screening,<br>categorization and<br>identification of the<br>required<br>instrument | Environmental<br>Safeguards<br>Specialist (ESS)<br>in the SPIUs | <ul> <li>beneficiary;</li> <li>local authority</li> <li>Social</li> <li>Safeguards</li> <li>Specialist (SSS)</li> <li>on the PIU</li> </ul> |   |
| 3  | Approval of the<br>classification and<br>the selected<br>instrument                 | SPIUs<br>coordinator  | . ESS-PIU<br>• SSS-PIU<br>• FPMU  | <ul> <li>FMEnv</li> <li>The World<br/>Bank</li> </ul> |
| Preparation of the safeguard document/instrument (ESIA, Environmental Audit and simple ESMP, etc.) in accordance with the national legislation/procedure and the Bank policies requirements) |   |   |   |   |
| 5.   | Preparation and<br>approval of the<br>ToR   | Environmental<br>Safeguards<br>Specialist (ESS)<br>in the SPIUs | FMEnv<br>• Procurement<br>specialist (PS-<br>PIU)   | <ul> <li>The World<br/>Bank</li> </ul>                |

Table 0.1: Roles and Responsibilities for ESMF Implementation

| S/N          | Activities  | Institutional   | Institutional  | Implementation  |
|--------------|---|---|--|---|
| <b>5</b> / N | Activities  | Responsibility  | Collaboration  | Responsibility  |
|              |   |   | <ul> <li>Social<br/>Safeguards<br/>Specialist</li> </ul>   |   |
|              | Preparation of the report   |   | <ul> <li>SPIU<br/>LGAs</li> <li>FPMU</li> </ul>  | Consultants   |
|              | Report validation<br>and issuance of<br>the permit (when<br>required)   |   | Procurement<br>Specialist<br>(PS-SPIU)<br>• Ministry of Env<br>• LGAs  | <ul> <li>FMEnv-EA<br/>department</li> <li>The World Bank</li> </ul>                             |
|              | Publication of document   |   | Project<br>coordinator   | Media <ul> <li>The World Bank</li> </ul>  |
| 6.           | (i) Integrating the<br>construction phase<br>mitigation measures<br>and E&S clauses in<br>the bidding<br>document prior<br>they're advertised;<br>(ii) ensuring that<br>the constructor<br>prepares his ESMP<br>(C-ESMP), gets it<br>approved and<br>integrates the<br>relevant measures<br>in the works<br>breakdown<br>structure (WBS) or<br>execution plan | Technical staff<br>in charge of the<br>sub-project (TS-<br>PIU) | <ul> <li>Environmental<br/>Safeguard<br/>Specialist -PIU</li> <li>Social Safeguard</li> <li>Specialist-PIU</li> <li>Procurement</li> <li>Specialist-PIU</li> </ul> | Control Firm<br>(Supervisor)  |
| 7            | Implementation of<br>other<br>safeguards<br>measures, including<br>environmental<br>monitoring (when<br>relevant) and<br>sensitization<br>activities  | ESS-SPIU  | <ul> <li>SSS-PIU</li> <li>PS-PIU</li> <li>TS-PIU</li> <li>Financial Staff<br/>(FSPIU)</li> <li>Local authority</li> </ul>  | <ul> <li>Consultant</li> <li>National<br/>specialized<br/>laboratories</li> <li>NGOs</li> </ul> |
| 8            | Oversight of<br>safeguards<br>implementation<br>(internal)  | ESS and SSS-<br>SPIU  | Monitoring and<br>Evaluation<br>specialist (M&E-<br>PIU)<br>• FS-PIU)  | Control Firm     (Supervisor)   |

| S/N | Activities   | Institutional<br>Responsibility           | Institutional<br>Collaboration  | Implementation<br>Responsibility  |
|-----|--|---|---|---|
|     |  |   | <ul> <li>Local authority</li> </ul>   |   |
| 9   | Public consultation<br>on project<br>safeguards<br>performance and<br>disclosure | PIU<br>State<br>Coordinator               | <ul> <li>SPIU</li> <li>NGOs/CBOs</li> </ul>   | <ul><li> PIU</li><li> FMEnv</li><li> MEnv/SEPAs</li></ul>                       |
|     | Reporting on project<br>safeguards<br>performance and<br>disclosure              | Coordinator                               | <ul> <li>M&amp;E-PIU</li> <li>ESS-PIU</li> <li>SSS-PIU</li> </ul>                                     |   |
| 10  | External oversight<br>of the project<br>safeguards<br>compliance                 | FMEnv<br>State Ministry of<br>Environment | <ul> <li>M&amp;E-PIU</li> <li>ESS-PIU</li> <li>SSS-PIU</li> <li>PS-PIU</li> <li>Supervisor</li> </ul> |   |
| 11  | Building<br>stakeholders'<br>capacity in<br>safeguards<br>management             | ESS-PIU                                   | • SSS-PIU<br>• PS-PIU   | <ul> <li>Consultant</li> <li>Other qualified<br/>public institutions</li> </ul> |
| 12  | Independent<br>evaluation of<br>safeguards<br>performance (Audit)                | ESS-PIU                                   | <ul><li>SSS-PIU</li><li>PS-PIU</li></ul>  | Consultant  |

The Project Implementing Entity (PIE), and any institution participating in the implementation, will not issue a Request for Proposal (RFP) of any activity subject to Environmental and Social Impact Assessment (ESIA), without the construction phase's Environmental and Social Management Plan (ESMP) inserted in, and will not authorize the works to commence before the contractor's ESMP (C-ESMP) has been approved and integrated into the overall planning of the works.

This entire section above, on the roles and responsibilities for the implementation of the Framework ESMP, will be insert in the E&S safeguards management section the project implementation manual (PIM).

#### **CHAPTER 1: INTRODUCTION**

#### **1.1 PROJECT BACKGROUND**

The Federal Government of Nigeria has initiated the preparation of the Rural Access and Agricultural Marketing Project (RAAMP) the successor of the Second Rural Access and Mobility Project (RAMP-2,) to target agro-production areas, to reduce agro-logistic losses and increase logistic efficiency. The project will be supported with financing from the World Bank and French Development Agency (AFD) and will be guided by the Government's Rural Travel and Transport Policy (RTTP). The lead agency for the Federal Government is the Federal Department of Rural Development (FDRD) of the Federal Ministry of Agriculture and Rural Development (FMARD). The Federal Project Management Unit (FPMU) is overseeing the project on behalf of FDRD, while the respective State Government of eighteen (18) participating states will implement it. The overall objective of RAAMP is to improve rural access and agricultural marketing in selected participating States whilst enhancing sustainability of the rural and State road network. The overreaching target of RAAMP is to connect small family farmers in participating States to local agricultural markets with allweather access roads in selected and prioritized rural development areas, rehabilitate prioritized river crossings based on Design, Build and Maintain (DBM) approach. The project is structured around three main components and a provision for project management support, enhancing Road Safety and institutional development.

#### **1.2 OVERVIEW OF NIGERIA ROAD NETWORK**

The Nigeria road network is relatively dense consisting of about 194,000 km of roads (2012, RAMP II ESMF). This includes 34,000 km of federal roads, 30,000 km of state roads and 130,000 km of registered rural roads. The road density which is about 0.21 km of roads per square kilometer is higher than that of Mexico which is about 0.19 roads per square kilometer and also almost twice the road density of Cameroon and Peru as illustrated in Table 1.1. (2012, RAMP II ESMF). However, only about 10 to 15 percent of the total road network is paved and only about 15 percent of the federal roads network can be considered to be in good condition (compared to 39 percent for Peru and 91 percent for Argentina). The exact condition of state and rural roads is unknown, as a result of the lack of periodic monitoring and aggregation of data at the federal level. Nevertheless, there is some evidence that in some states, state and rural roads are more deteriorated than federal roads while in some states, federal roads are more deteriorated than state and rural roads. In spite of the relatively high road density, the rural accessibility index for Nigeria which is defined as the proportion of the rural population living within 2 kilometers away from an all-weather road is low, at only 47 percent (2012, RAMP II ESMF). This is due to deteriorated road infrastructure. This is about the same level as for Peru but with a road density which is more than twice as much. These considerations stress the need to improve the condition of the existing road

network and where necessary build new roads. Priority should be granted to road maintenance and the adoption of sound asset management practices.

In Nigeria, the Federal government is saddled with the responsibility of the management of federal roads, while the state and local governments are saddled with the responsibility of managing state and rural roads respectively. Yet, local governments have not been fully active in the development and maintenance of rural road network due to lack of capacity and inadequate funding. Although the state governments have better capacity and funding, they mostly focus on the higher-level state roads. This institutional structure has in effect led to rural roads not having a defined ownership structure and the steady deterioration of the rural roads once constructed or rehabilitated. On the other hand, the federal role in rural roads is not as effective as desired, since there is little sector-specific, conditional fiscal transfers from federal to state and local governments for rural roads. The Federal Ministry of Works has little or no role in the supervision or regulation of sub-national infrastructure. The rural road network was mostly constructed or improved through various agricultural and rural development programs and initiatives. The lead coordinating department of government for the implementation of these programs has been the Federal Ministry of Agriculture and Rural Development. This institutional arrangement at the federal level has allowed better alignment of rural road programs with the country's agricultural development policies. An improved rural access will no doubt enhance the agricultural potentials and marketing opportunities for the agrarian rural communities in Nigeria and by extension grow the Gross Domestic Product (GDP) and help to improve the standard of living of the country's rural populace.

| Country  | Total                   | Paved        | Federal      | Road                                      | Rural                      |  |  |  |  |
|----------|-------------------------|--------------|--------------|---|----------------------------|--|--|--|--|
|          | Road<br>Network<br>(km) | Roads<br>(%) | Roads<br>(%) | Density(km<br>of<br>Roads/km <sup>2</sup> | Accessibility<br>Index (%) |  |  |  |  |
|          | (KIII)                  |              |              | RUAUS/ KIII-                              |                            |  |  |  |  |
| Nigeria  | 193,200                 | 10 - 15      | 17           | 0.21                                      | 47                         |  |  |  |  |
| Cameroun | 56,100                  | 9            | 13           | 0.12                                      | 20                         |  |  |  |  |
| Peru     | 127,320                 | 11           | 21           | 0.10                                      | 43                         |  |  |  |  |
| Mexico   | 366,095                 | 32           | 14           | 0.19                                      | 61                         |  |  |  |  |

Table 1.1: 2009 Statistics for Road Networks of Nigeria andBenchmark Countries (2012, RAMP II ESMF).

Although a road maintenance fund was constituted at the federal level, road maintenance for the federal, state and local roads infrastructures remains largely neglected as a result of lack of clear ownership structure and sustainable funding strategies. The Federal Roads Maintenance Agency (FERMA) has been investing significant efforts and resources to develop efficient maintenance mechanisms. However, it is estimated that 56 percent of the federal roads lack

maintenance. At the national level, a 2009 study estimated that actual spending in road maintenance in Nigeria achieved only 20 percent of the requirements, one of the lowest proportion observed among a pool of other African countries.

The FERMA (Amendment) Act 2007 provides in theory a 5 percent user's charge on pump price of petrol, diesel and of which 40 percent will accrue to FERMA and 60 percent to be utilized by the established State Roads Maintenance Agencies. This transfer of the accrued tax is based on the creation of the State Roads Maintenance Agency and the provision by the state agencies of detailed information about their planned maintenance program and institutional arrangements for road maintenance. Some states like Lagos State have constituted its own state roads maintenance fund.

The Federal Government of Nigeria through the Federal Ministry of Agriculture and Rural Development (FMA&RD) in seeking solutions to poor rural access, has developed a Rural Travel and Transport Policy (RTTP) to improve accessibility in rural areas of Nigeria. The RTTP has the following key principles:

- Follow an integrated transport planning and development approach, focusing on all classes of roads, including rural access roads, patch/tracks, and community roads to provide inter-connectivity to a wider area;
- Promote the provision of transport services not only just building roads;
- > Improve local government capacity to ensure maintenance of roads; and
- Improve governance through better transparency and participation of beneficiary and community groups.

Since 2008, the World Bank, in close coordination with other donors, has piloted, a Rural Access and Mobility Program (RAMP-1). Its success led to the Rural Access and Mobility (RAMP 2) - project.

In order to further promote agricultural productivity and thus contribute to the country's Transformation Agenda for the agriculture sector as well as poverty reduction, it has been considered that there is need to enhance Rural Access and Agricultural Marketing for selected states in the Nigeria, hence the need for the proposed project.

#### **1.3 PROJECT DEVELOPMENT OBJECTIVE**

The Project Development Objective (PDO) is to improve transport conditions and sustain access to the rural population; enhance agricultural marketing potentials through rehabilitating, installation and maintenance of key rural infrastructure in selected Nigerian states.

The ultimate objective of the proposed project is to promote a diversification outside of the oil sector – through increased agricultural productivity and marketing of agricultural produce/products thereby reducing rural poverty. It

will thus contribute to the country's Transformation Agenda for the agriculture sector. These productivity gains should promote the economic growth of the non-oil sectors and increase the average income of poor rural households who mostly depend on agriculture for subsistence.

Furthermore, the proposed project supports the three development pillars of the Country Partnership Strategy (CPS) for 2010-2013. The CPS for 2010-2013 focuses on three themes to transform and diversify Nigeria's economy. These themes are: (i) improving governance; (ii) maintaining non-oil growth; and (iii) promoting human development.

The RAAMP project will contribute to maintaining non-oil growth by supporting productivity gains in the agriculture sector, which accounts for the greatest share of Nigeria's non-oil economy. The proposed project will also contribute to improving governance at state level through its performance -based approach, based on the CPS governance criteria.

#### **1.4 PROJECT BENEFICIARIES AND FIELD VISITS**

The project beneficiary States are Abia, Akwa-Ibom, Anambra, Bauchi, Benue, Borno, Cross River, Kano, Katsina, Kebbi, Kogi, Kwara, Ogun, Ondo, Oyo, Plateau, Sokoto and Taraba States. Geographically, the eighteen states fall within the six geopolitical zones of the country, namely: North-East, North West, North Central, South-East, South-West and South-South as shown in fig.1.1.

The eighteen (18) participating States were visited and the issues covered include:

- State by state surveys
- Environmental and Social Screening of proposed sub projects.
- Risk assessments
- Safeguard measures
- Environmental and Social Impact assessment
- Stakeholders' consultations with MDAs, State Project Implementation Units (SPIUs), Local Government Chairmen, Community Leaders, Community Based Organisations (CBOs) etc.

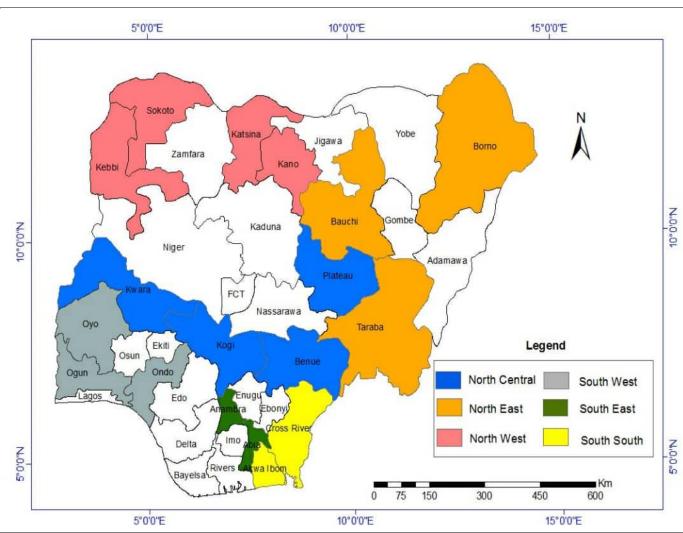


Fig. 1.1: Administrative Map of Nigeria Highlighting Participating States.

#### **1.5 PROJECT FINANCING AND LENDING INSTRUMENT**

The RAAMP Project is proposed for 18 States of Nigeria. The Federal Ministry of Finance on behalf of the Federal Government of Nigeria has applied for financing from the International Development Association (IDA) and French Development Agency (AFD) in the form of credit towards the cost of the Rural Access and Agricultural Marketing Project (RAAMP) in 13 participating states under the Federal Ministry of Agriculture and Rural Development (FMA&RD). The Federal Government of Nigeria will on-lent the financing through a subsidiary loan agreement to the 13 participating states and part of the proceed of the credit will be used to finance the rehabilitation of prioritized rural roads and river crossings, construction/rehabilitation support for the establishment of agro logistics hubs and institutional development under the project. The remaining 5 out of the 18 states will be supported by African Development Bank (AfDB).

The monitoring and coordination of project activities are the responsibilities of Federal Project Management Unit under the Federal Ministry of Agriculture and Rural Development (FMA&RD) and the physical implementation of the project

activities is the responsibilities of the participating states. Therefore, the participating states are required to support the implementation of Environmental and Social Impact Assessment (ESIA), Environmental and Social Management Plan (ESMP), Abbreviated Resettlement Action Plans (ARAPs)/Resettlement Action Plans (RAPs) as the case may be through provision of counterpart fund. The counterpart contribution as required by the financing agreement will among others finance the implementation of all safeguards instrument prior to commencement of any civil works and related contracts.

The indicative budget for ESMF implementation in the 18 states is about NGN561, 630,000.00 (Five Hundred and Sixty One Million, Six hundred and Thirty Thousand Naira) only. ((USD 1,835,738.39) One Million Eight and Thirty Five Thousand, Seven hundred and Thirty Eight Dollars, Thirty Nine cents).

#### **1.6 PURPOSE OF THE ESMF**

The ESMF is a statement of the policy, principles, institutional arrangements and procedures that the project management will follow in addressing environmental and social issues.

ESMF, generally, is used in the case of operations with multiple subprojects/sites whose detailed engineering designs, precise locations and the entire site specific environmental and social safeguard issues are not fully known.

The ESMF spells out corporate environmental and social safeguard policy frameworks, institutional arrangements and capacity available to identify and mitigate potential environmental and social safeguards issues and impacts that could be due to the project, generally. It does not attempt to address impacts related to individual undertakings (in any specific form) as the locations and extent of impacts or activities are not fully known at this preparatory stage.

#### **1.7 OBJECTIVE AND APPLICATION OF THE ESMF**

The objective of this ESMF is to ensure that the implementation of the project will be carried out in an environmentally and socially sustainable manner.

The difficulties inherent in defining what the real environmental and social impacts of the project in terms of scope, scale of activities and likely impacts necessitated the development of this ESMF. The ESMF will provide the project implementers with an environmental and social screening process that will enable them to identify, assess and mitigate potential environmental and social impacts of the RAAMP projects.

The ESMF is to be applied at all stages of project as in identification of subprojects, screening to implementation and operation stage. The framework encourages participatory approach to preparation of sub-projects in respective states and locations. The consultation & participation framework as part of the ESMF provides an overview of consultation and participation activities to be carried out in various stages of the project.

Application of ESMF to the project enables the preparation of a standardized environmental and social assessment documents for appraisal and implementation. Projects triggering significant environmental / social impacts shall undergo the necessary environmental and social assessments, as stipulated by the statutory laws of Nigeria's Federal Ministry of Environment (FMEnv) and the safeguard policies of the World Bank. The ESMF therefore is a guide for assessing the environmental, socio-economic, and health impacts of the project, as well as recommending appropriate mitigation measures and monitoring plans.

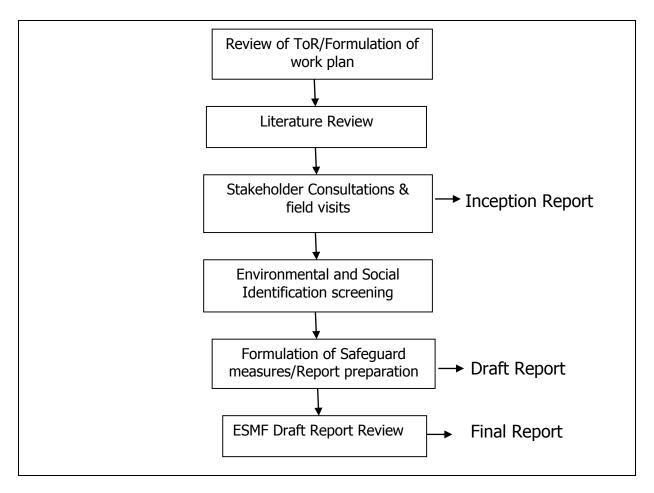
#### **1.8 METHODOLOGY AND CONSULTATION**

This ESMF was prepared in accordance with standard procedures for environmental and social assessment including the applicable World Bank safeguard policies and Nigerian environmental assessment guidelines.

The preparation of the ESMF started with a review of the Terms of Reference as seen in Annex 1 of this report and formulation of a work plan for the field visits. This was followed by a literature review of World Bank Safeguard Policies, Environmental and Social Regulations of French Development Agency, Nigeria Environmental laws and Regulations, the 18 participating States Environmental Regulations, ESMF of Rural Access and Mobility Project (RAMP 1 & 2), ESMF of Nigeria Electricity Transmission Project (NETP) etc. These literatures were received from the Project Implementation Unit (PIU), field visits and consultations were thereafter embarked on which led to environmental and social identification screening, formulation of environmental and social Safeguard measures and preparation of the draft ESMF Report. Field visits were undertaken in the 18 participating States. Stakeholders consulted include relevant MDAs, participating State Project Implementation Units (SPIUs), Local Government Chairmen, Community Leaders, Community Based Organizations (CBOs). The draft ESMF Report was reviewed to produce the Final Revised ESMF Report.

The sites visited and pictures taken during the field visits are presented in section 1.9 below.

The main approach/activity for preparing the Environmental and Social Management Framework (ESMF) is shown in Fig.1.2.



#### Fig. 1.2: ESMF PREPARATION APPROACH

#### **1.9 PICTURES OF CONSULTATIONS & STATE VISITS**

The pictures taken during the consultations and state visits are shown in Plates 1.1 - 1.



Plate 1.1: With Abia State RAAMP PIU



Plate 1.2: At Bende – Ntalakwu Road, Abia State.



Plate 1.3: With Akwa Ibom State RAAMP PIU



Plate 1.4: Palm Oil Mill Near Omogho – Okpueze Road, Anambra State



Plate 1.5: Palm Oil Mill, Oku Abak, Akwa Ibom State



Plate 1.6: With Bauchi State RAAMP PIU



Plate 1.7:With Anambra State RAAMP PIU



Plate 1.8: Dry Bed Of River Nahuta On Durum – Kafin Yarima – Taka Dangiwa Road, Bauchi State.



Plate 1.9: With Benue State RAAMP PIU



Plate 1.11: North Bank – Zango – Aner Road, Benue State.



Plate 1.13: Consultation At Zango Community, Benue State.



Plate 1.10: With The Commissioner & Permanent Secretary Min. of Agriculture Borno State & State Project Cordinator.



Plate 1.12: With Cross River State RAAMP PIU



Plate 1.14: Akim – Akim Road, Cross River State



Plate 1.15: With Ogun State RAAMP PIU



Plate 1.16: Lalopun – Edun Road, Oyo State.



Plate1.17: Ibara – Orile – Ilewo – Kereku Road, Ogun State.



Plate 1.18: With Katsina State RAAMP PIU



Plate 1.19: With Oyo State RAAMP PIU



Plate 1.20: Tsanni – Jilawa Road Across Tsanni Dam, Katsina State.



Plate 1.21: With Kano State RAAMP PIU



Plate 1.23: With Farmers At Unguan Rimi, Kano State.



Plate 1.22: With The Paramount Ruler of Ogori Mangongo, Kogi State.



Plate 1.24: With Ondo State Raamp Piu (Centre Is Special Adviser To The Governor, Special Duties)



Plate 1.25:With Kogi State RAAMP PIU



Plate 1.26: Molege – Ute – Owo Road, Ondo State



Plate 1.27: With Kwara State Project Cordinator.



Plate 1.29: Alakolo Stream Across Oke-Oyi – Jokolu Road, Kwara State.



Plate 1.28: With Sokoto State RAAMP PIU



Plate 1.30: Wajake Local Rice Processing, Sokoto State.



Plate 1.31: With Plateau State RAAMP PIU



Plate 1.33: Maji – Feyei – Denya Road, Plateau State



Plate 1.32: With Rice Farmers At Wajake, Sokoto State.



Plate 1.34: With Kebbi State RAAMP PIU



Plate 1.35: Kardi – Wasada – Mairongo – Basaura Road, Kebbi State.



Plate 1.36: Wukari Road Junction – Mayo Reneyow Road, Taraba State



Plate 1.37: Basaura Market, Kebbi State.



Plate 1.38: Consultation At Aku Community, Kogi State.



Plate 1.39: With Taraba State RAAMP PIU

#### **CHAPTER 2: ADMINISTRATIVE AND LEGAL FRAMEWORK**

#### 2.1 INTRODUCTION

The Environmental and Social Management Framework (ESMF) aims to identify the range of required environmental management measures that need to be taken during the planning, design, implementation and operation phases of the Rural Access and Agricultural Marketing Project (RAAMP) in order to ensure compliance with the World Bank requirements as well as that of the Nigerian government. The project will include a number of infrastructure activities, such as constructions and rehabilitation of rural access roads, river crossings, agro processing plants, storage facilities etc. which will potentially trigger a number of legal and administrative instruments. These include the following:

- National laws and/or regulations of Nigeria on environmental reviews and impact assessments;
- Selected States/LGAs environmental regulations
- World Bank Operational Policy 4.01, "Environmental Assessment", and related guidelines such as Operational Policy 4.04, "Natural Habitats", and Operational Policy OP 4.12, "Involuntary Resettlement" and
- Environmental assessment regulations of French Development Agency (AFD).

#### 2.2 NIGERIA LEGISLATIONS/REGULATIONS/POLICY

#### 2.2.1. Federal Ministry of Environment (FMEnv)

This section provides an identification of the Nigerian administrative framework and summarizes the relevant national legislation/regulations. These are highlighted in Table 2.1.

| S/N | <b>Policy/Regulation</b>          | Highlights   |  |  |  |
|-----|-----------------------------------|--|--|--|--|
| 1.  | National Policy on<br>Environment | Environmental management in Nigeria is based on the National<br>Policy on the Environment (1989), as revised in 1999. The goal<br>of this policy is to achieve sustainable development, in<br>particular to:   |  |  |  |
|     |                                   | <ul> <li>Secure for all Nigerians a quality of environment which is adequate for their health and wellbeing;</li> <li>Conserve and use the environment and natural resources for the benefit of present and future generations;</li> <li>Restore, maintain and enhance the ecosystems and ecological processes essential for the functioning of the biosphere to preserve biological diversity and the principle of optimum sustainable yield in the use of these natural resources and ecosystems;</li> <li>Raise public awareness and promote understanding of essential linkages between environment and development</li> </ul> |  |  |  |

Table 2.1: FMEnv Regulations/Policy

| S/N | Policy/Regulation  | Highlights  |
|-----|--|---|
|     |  | <ul> <li>and to encourage individual and community participation<br/>in environmental improvement efforts; and</li> <li>Co-operate in good faith, with other countries,<br/>international organizations/agencies to achieve optimal<br/>use of trans-boundary natural resources and effective<br/>prevention or a statement of trans-boundary<br/>environmental pollution.</li> </ul>   |
| 2.  | Environmental<br>Impact Assessment<br>(EIA) Act CAP E12,<br>LFN 2004   | The EIA Act CAP E12, LFN 2004 stipulates that the public or<br>private sector of the economy shall not embark on or undertake<br>or authorize projects or activities without prior consideration, at<br>an early stage of their environmental effects. The Act makes EIA<br>mandatory for any major development project, prescribes the<br>procedure for conducting and reporting EIAs. The Act also clearly<br>stipulates among other things the objectives of an EIA, list of<br>project activities for which an EIA is mandatory; minimum<br>content of an EIA, regulatory authority of FMEnv; offences and<br>penalties.  |
| 3.  | National<br>Environmental<br>Impact Assessment<br>Procedural and<br>Sectoral Guidelines,<br>1995.  | In response to the promulgation of the EIA Act of 1992, the<br>FMEnv developed a National EIA Procedure in 1995. The<br>procedure provides steps to be followed from the stage of project<br>conception to commissioning in order to ensure that the project<br>is implemented with maximum consideration for the environment.<br>It states the EIA Process starting with the onset of EIA<br>Registration with the Federal Ministry of Environment to Audit<br>stage when a project becomes operational.   |
| 4.  | S.I.9, 1991 -<br>National<br>Environmental<br>Protection<br>(Pollution<br>Abatement in<br>Industries<br>Generating Wastes)<br>Regulations 1991 | The National Environmental Protection (Pollution Abatement<br>in Industries Generating Wastes) Regulations, S.1.9 of 1991<br>(No. 42, Vol. 78, August, 1991) impose restrictions on the<br>release of toxic substances and stipulate requirements for<br>pollution monitoring units, machinery for combating pollution<br>and contingency plan by industries; submission of lists and<br>details of chemicals used by industries to FMEnv; requirement<br>of permit by industries for the storage and transportation of<br>harmful or toxic waste; the generator's liability; strategies for<br>waste reduction; permissible limits of discharge into public<br>drains; protection of workers and safety requirements;<br>environmental audit (or EIA for new industries) and penalty for<br>contravention. |
| 5.  | Harmful Waste<br>(Special Criminal<br>Provisions etc) Act<br>CAP 165 LFN 1990.   | The Harmful Waste (Special Criminal Provisions etc) Act CAP 165<br>LFN 1990 prohibits and declares unlawful all activities relating to<br>the purchase, sale, importation, transit, transportation, deposit,<br>storage of harmful wastes. Appropriate penalties for<br>contravention are also prescribed.  |

| S/N | <b>Policy/Regulation</b> | Highlights   |
|-----|--------------------------|--|
| 6.  | S.1.15, 1991:            | The National Environment Protection (Management of                 |
|     | National                 | Hazardous and Solid Wastes) Regulations, S.1.15 of 1991 (No.       |
|     | Environment              | 102, Vol. 78, August, 1991) define the requirements for            |
|     | Protection               | groundwater protection, surface impoundment, land treatment,       |
|     | (Management of           | waste piles, landfills, and incinerators. The Regulations describe |
|     | Solid and                | the hazardous substances tracking programme with a                 |
|     | Hazardous Wastes)        | comprehensive list of acutely hazardous chemical products and      |
|     | Regulations 1991.        | dangerous waste constituent. The requirements and procedure        |
|     |                          | for inspection, enforcement and penalty are also described.        |
|     |                          |  |

#### 2.2.2 National Environmental Standards and Regulations Enforcement Agency (NESREA), Act 2007

The National Environmental Standards and Regulations Enforcement Agency (NESREA) was established by the Federal Government of Nigeria as a parastatal of the FMEnv. The NESREA Act was accented to by Mr. President on July 30, 2007. NESREA is charged with the responsibility of enforcing all environmental laws, guidelines, policies, standards and regulations in Nigeria. It also has the responsibility to enforce compliance with provisions of international agreements, protocols, conventions and treaties on the environment. The vision of the Agency is to ensure a cleaner and healthier environment for all Nigerians, while the mission is to inspire personal and collective responsibility in building an environmentally conscious society for the achievement of sustainable development in Nigeria. Eleven (11) regulations for pollution abatement in all categories of industries have been published up to date. Some of the regulations relevant to this project include:

National Environmental (Sanitation and Wastes Control) Regulations, 2009 (S. I. 28), National Environmental (Noise Standards and Control) Regulations, 2009 (S.I.35), National Environmental (Soil Erosion and Flood Control) Regulations, 2010 (S.I.12), National Environmental (Surface and Groundwater Quality Control) Regulations, 2010 (S.I.22), National Environmental (Ozone Layer Protection) Regulations, 2009 (S.I.32).

#### 2.2.3. Land Use Act 1978

The Land Use Act of 1978 vests all land in the territory of each state (except land vested in the Federal government or its agencies) solely in the hand of the Governor of each state, who would hold such land in trust for the people and would henceforth be responsible for its allocation in all urban areas while similar power in non urban areas are conferred on Local Governments.

#### 2.2.4. Forestry Act CAP 51 LFN 1994

This Act provides for the preservation of forests and the setting up of forest reserves. It is an offence, punishable with up to 6 month imprisonment, to cut

down trees over 2ft in height or to set fire to the forest except under special circumstances.

#### 2.2.5. The Endangered Species Act CAP E9, LFN 2004

This Act prohibits, except under a valid license, the hunting, capture or trade in animal species, either presently or likely to be in danger of extinction and defines the liability of any offender under this Act. It also provides for regulations to be made necessary for environmental prevention and control as regards the purposes of this Act.

#### 2.2.6. The Nigerian Urban and Regional Planning Act, No 88 of 1992

This Act makes it mandatory for proposed development of certain categories including industries to have Environmental Impact Assessment as part of the Planning Approval Application.

#### 2.2.7 The State Legislations

In accordance with Section 24 of the FMEnv Act, Chapter 131 of the Laws of the Federal Republic of Nigeria, 1990, the State Environmental Protection Edicts are enacted. The edict empowers the state environmental protection agency to establish such environmental criteria, guidelines/specifications or standards for the protection of the state's air, lands and waters as may be necessary to protect the health and welfare of the people. The functions of SEPAs among others include:

- Routine liaison and ensuring effective harmonization with the FMEnv in order to achieve the objectives of the National Policy on the Environment;
- Co-operate with the FMEnv and other relevant regulatory agencies in the promotion of environmental education;
- Be responsible for monitoring compliance with waste management standards; and
- Monitor the implementation of the EIA and Environmental Audit Report (EAR) guidelines and procedures on all developmental policies and projects within the State.

#### 2.3 World Bank Environmental and Social Safeguard Policies

The World Bank requires that an ESMF be prepared whenever the Bank's OP 4.01 "Environmental Assessment" is likely to be triggered for any proposed subproject where the exact dimensions and location of the subprojects is not yet defined so as to clarify the EIA development guidelines prior to appraisal of the project. A review of the proposed projects and a rapid assessment of the project locations in the participating states indicated that the World Bank Safeguard Policies listed below will be triggered. Additional Bank policies may apply while not all policies selected above may apply simultaneously as more detailed plans and designs for the proposed subprojects are laid down. Therefore, a complete description of the Bank safeguards and their triggers for applicability can be found on the World Bank's official web site <u>www.worldbank.org</u>.

#### 2.3.1 Environmental Assessment (OP 4.01)

This policy requires Environmental Assessment (EA) of projects proposed for the Bank financing so as to help ensure that the investments made are environmentally sound and sustainable. The EA is seen as tool to improve decision making, and as a process whose breadth, depth, and type of analysis depend on the nature, scale, and potential environmental impact of the proposed investments under the specific project. The EA process takes into account the natural environment (air, water, and land); human health and safety; social aspects (involuntary resettlement, vulnerable peoples, and cultural and archaeological property) and trans-boundary and global environmental aspects.

The Bank Operational Policy 4.01 requires that the ESMF report must be disclosed as a separate and stand alone document by the Nigerian government and the Bank as a condition for bank appraisal. The disclosure should be both in Nigeria where it can be accessed by the general public and local communities and at the Info-shop of the World Bank. It is also a requirement of this policy that the date for disclosure must precede the date for appraisal of the program. The policy also calls for the RAAMP to be environmentally screened to determine the extent and type of the EA process required.

In this regard, the World Bank system assigns a project to one of three project categories, as defined in Table 2.2:

#### Table 2.2: World Bank Categorization of subprojects

| Category<br>"A"<br>Projects | This category has mandatory full ESIA requirement for the investments<br>planned since the impacts are considered severe and adverse to the<br>environment and likely irreversible and diverse with attributes such as<br>pollutant discharges large enough to cause degradation of air, water, or<br>soil; large-scale physical disturbance of the site or surroundings; as well as<br>including extraction, consumption or conversion of substantial amounts of<br>natural resources; measurable modification of hydrological cycles; use of<br>hazardous materials in more than incidental quantities; and involuntary<br>displacement of people and other significant social disturbances. |  |  |  |
|-----------------------------|--|--|--|--|
| Category<br>"B"<br>Projects | <sup>7</sup> Under Category B an ESIA is not always required, but careful considerat<br>through Environmental Screening is required, and if founded necessar<br>full EIA must be undertaken. Category B projects have impacts that<br>'less significant' and not as sensitive, numerous, major or diverse. Few<br>any, impacts are irreversible, and remedial measures can be more ea<br>designed.' Typical projects include rehabilitation, maintenance,<br>upgrades, rather than new construction.   |  |  |  |

Category<br/>"C"No ESIA or other analysis is required. Category C projects result in<br/>negligible or minimal direct disturbance of the physical environment.ProjectsTypical projects include education, family planning, health, and human<br/>resource development.

#### 2.3.2 Natural Habitats (OP 4.04)

This Bank Operational Policy recognizes that conservation of natural habitats, like other measures that protect and enhance the environment, is essential for long term sustainable development. The Bank therefore supports the protection, maintenance, and rehabilitation of natural habitats. Natural habitats are land and water areas where (i) the ecosystems biological communities are formed largely by native plant and animal species, and (ii) human activity has not essentially modified the areas primary ecological functions. All natural habitats have important biological, social, economic, and existence value. Therefore, the Bank natural habitats operation policy (OP 4.04) is triggered in all cases where the proposed investments are likely to have potential adverse impacts on Nigeria's natural habitats including wetlands, underground water sources, open water bodies, and forests.

The Bank natural habitats operational policy requires that any activities funded under the RAAMP that adversely impacts these ecosystems, must have a successfully mitigation plan so as to maintain the overall balance and integrity of the ecosystems impacted. This requires that RAAMP designs appropriate conservation and mitigation measures to remove or reduce adverse impacts on these ecosystems or their functions, keeping such impacts within socially defined limits of acceptable change. Specific measures may depend on the ecological characteristics of the affected ecosystem.

Such measures must include provision for monitoring and evaluation to provide feedback on conservation outcomes and to provide guidance for developing or refining appropriate corrective actions. Activities that risk significantly degrading or converting critical natural habitat will not be funded under the project.

#### 2.3.3 Involuntary Resettlement (OP 4.12)

The objective of the Involuntary Resettlement Operation Policy (OP 4.12) is to avoid, where feasible, or minimize, while exploring all viable alternative project designs, displacement and having to resettle people. This policy is triggered in situations involving involuntary taking of land and involuntary restrictions of access to legally designated parks and protected areas and or socioeconomic places. The policy aims to avoid involuntary resettlement to the extent feasible, or to minimize and mitigate its adverse social and economic impacts. Involuntary Operation Policy (OP 4.12) covers direct economic and social impacts that both result from Bank-assisted investment projects, and are caused by (a) the involuntary taking of land resulting in (i) relocation or loss of shelter; (ii) loss of assets or access to assets, or (iii) loss of income sources or means of livelihood, whether or not the affected persons must move to another location; or (b) the involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons. For project activities that impact people and livelihoods in this way, RAAMP will have to comply with the requirements of the disclosed RPF and RAPs to comply with this policy. The Involuntary Resettlement Operational Policy prescribes compensation and other resettlement measures to achieve its objectives and requires that borrowers prepare adequate resettlement planning instruments prior to project appraisal of proposed projects.

OP 4.12 requires the displaced persons and their communities, and any host communities receiving them, are provided timely and relevant information, consulted on resettlement options, and offered opportunities to participate in planning, implementing, and monitoring resettlement. Appropriate and accessible grievance mechanisms are established for these groups. In new resettlement sites or host communities, infrastructure and public services are provided as necessary to improve, restore, or maintain accessibility and levels of service for the displaced persons and host communities.

A stand-alone Resettlement Policy Framework (RPF) has also been prepared and adopted to complement this ESMF to comply with Nigeria safeguards framework (national legislations and procedure on environmental and social) and to satisfy the requirements of the applicable World Bank environmental and social safeguards policies. The RPF therefore establishes standards and procedures for identifying the project affected persons (PAPs), mechanisms and processes for contesting the developed list, valuation of land and property thereon, communication of the processes and results, an elaborate grievance redress mechanism and process, and the preparation of Resettlement Action Plans (RAPs), as required. The RAPs would be prepared by RAAMP participating states. In this case, the World Bank will review and also approve this RAP as a condition for RAAMP investments to be financed.

#### 2.3.4 Physical Cultural Resources (OP/BP 4.11)

The term "cultural resources" includes sites having archeological (prehistoric), paleontological, historical, religious, and unique natural values. The Bank's general policy regarding cultural property is to assist in their preservation, and to seek to avoid their elimination. Specifically, the Bank (i) normally declines to finance projects that will significantly damage non-replicable cultural property, and will assist only those projects that are sited or designed so as to prevent such damage; and (ii) will assist in the protection and enhancement of cultural properties encountered in Bank-financed projects, rather than leaving that protection to chance. The management of cultural property of a country is the responsibility of the government. The government's attention should be drawn specifically to what is known about the cultural resources aspects of the proposed project site and appropriate agencies, NGOs, or university departments should be

consulted; if there are any questions concerning cultural property in an area, a brief reconnaissance survey should be undertaken in the field by a specialist.

### 2.4 ENVIRONMENTAL AND SOCIAL RISK MANAGEMENT POLICY FOR AGENCE FRANÇAISE DE DÉVELOPPEMENT (AFD)-FUNDED OPERATIONS

In response to major challenges facing the world today, the primary purpose of French Official Development Assistance (ODA) is to promote economic, social, environmental and cultural dimensions of sustainable development in developing countries. The main objectives of French ODA are to fight against poverty and inequalities, including gender inequalities; to promote human rights, education and health; to support processes of ecological, energy, demographic, digital, territorial and participatory transitions; to prevent and respond to crisis; to encourage joint migration management. These objectives were confirmed during the Inter-ministerial Committee on International Cooperation and Development (CICID) held on 30 November 2016. Projects funded by Agence Française de Développement (AFD) contribute to France's ODA strategy, the implementation of the 2030 global agenda and the 17 Sustainable Development Goals (SDGs), as well as the 2015 Paris Climate Agreement. AFD mainstreams corporate social responsibility into its governance system and activities. In this context, AFD takes measures to assess and manage environmental and social risks for all AFD-funded operations. AFD has developed operating procedures to identify, prevent or mitigate environmental and social risks and impacts, as well as any human rights violation that could result from AFD-funded activities. However, any project cofounded by AFD and the World Bank, the AFD adopt the World Bank safeguard safeguard policies. The link below gives access to AFD policies. https://www.afd.fr/en/environmental-and-social-risk-management-policy-afdfunded-operations.

#### 2.5 INTERNATIONAL CONVENTIONS

The Nigerian government is an important player in the international support for the protection of the environment. As such, the country is a signatory to some international laws and conventions, which are targeted towards conservation and protection of the environment in order to ensure sustainable development. Such conventions and laws clearly state the responsibilities, attitudes, contributions, etc of signatory nations towards that particular cause.

Some of the international conventions to which Nigeria is a signatory include:

African Convention on the Conservation of Nature and Natural Resources, 1968; Convention Concerning the Protection of the World Cultural and Natural Heritage, 1972; Convention on the Conservation of Migratory Species of Wild Animals, 1979; Vienna Convention for the Protection of the Ozone Layer, 1987; The Montreal Protocol on Substances that Deplete the Ozone Layer, 1987; Basel Convention on the Control of Trans-boundary Movement of Hazardous Wastes and their Disposal, 1987; The United Nations Convention on Biological Diversity, 1994; The United Nations Convention on Climate Change, 1992; Endangered Species Act 11, 1985; United Nations Guiding Principles on the Human Environment, 1972; Declaration of the United Nations Conference on Human Environment, 1972 etc.

#### 2.6 HARMONIZATION OF NIGERIA EA GUIDELINES AND WORLD BANK EA GUIDELINES

The Environmental Impact Assessment Act CAP E12 LFN 2004 requires that development projects be screened for their potential impact. Based on the screening, a full, partial, or no Environmental impact assessment may be required. Projects are classified under any of the three categories as follows:

- Category I projects will require a full Environmental Impact Assessment (EIA).
- Category II projects may require only a partial EIA, which will focus on mitigation and Environmental planning measures, unless the project is located near an environmentally sensitive area--in which case a full EIA is required.
- Category III projects are considered to have "essentially beneficial impacts" on the environment, for which the Federal Ministry of the Environment will prepare an Environmental Impact Statement.

With regard to environmental assessment, the World Bank has also categorized projects based on the type of EA required, namely:

- Category A projects are those whose impacts are sensitive, diverse, unprecedented, felt beyond the immediate project environment and are potentially irreversible over the long term. Such projects require full EA.
- Category B projects involve site specific and immediate project environment interactions, do not significantly affect human populations, do not significantly alter natural systems and resources, do not consume much natural resources (e.g., ground water) and have adverse impacts that are not sensitive, diverse, unprecedented and are mostly reversible. Category B projects will require partial EA, and environmental and social action plans.
- Category C Projects are mostly benign and are likely to have minimal or no adverse environmental impacts. Beyond screening, no further EA action is required for a Category C project, although some may require environmental and social action plans.
- Category FI A proposed project is classified as Category FI if it involves investment of Bank funds through a financial intermediary, in road projects that may result in adverse environmental impacts.

The World Bank categorization (A, B, & C) corresponds in principle with the Nigeria EIA requirements of Category I, II and III, which in actual practice is done with regard to the level of impacts associated with a given project. An ESIA or

ESMP is prepared for the proposed project and subjected to an appraisal process and in line with specific country requirements to produce the final reports before project implementation can start.

However, in the event of divergence between the World Bank safeguard policies and the Nigerian EA laws, the World Bank safeguard policies shall take precedence over Nigeria EA laws, guidelines and or standards.

The EA procedures of Nigeria and the World Bank are summarized in Table 2.3 and highlighted in Fig.2.1.

As shown in Fig. 2.1, the World Bank safeguard policies and the Nigerian EA laws procedures are similar. In Nigeria, a proposed project starts with a feasibility study followed by submission of a draft EIA Report which is appraised in a panel/public review and the findings incorporated into project design with the preparation of the final EIA Report. Thereafter, an Environmental Impact Statement (EIS) or Permit is issued and project can proceed to obtain other construction permits. A World Bank ESIA report is disclosed according to country disclosure procedures and at the Banks external website before project implementation can commence.

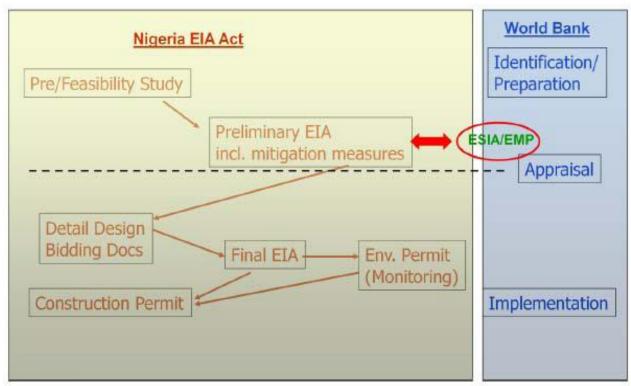


Fig. 2.1: Integration of WB EA Requirements with Nigeria EIA ACT.

| EIA STAGES   | NIGERIA EIA                               | WB ESIA  | REMARKS   |
|--|---|----------|---|
| Screening/categorization                                       | Category I, II,<br>III                    | А, В, С  | Corresponds in principle and<br>done with regard to the<br>magnitude of impact<br>associated with a given<br>project. |
| Scooping (ToR)   | Required                                  | Required |   |
| Environmental Baseline studies                                 | Required                                  | Required |   |
| Assessment of Project<br>Alternatives                          | Required with<br>project<br>Justification | Required | Required for 'A' discussions<br>of alternative for project<br>includes a 'Do nothing'<br>scenario                     |
| Description of Impact<br>Assessment and<br>Mitigation measures | Required                                  | Required |   |
| Public consultation  | Required                                  | Required |   |
| Monitoring   | Required                                  | Required | Monitoring plan with specific<br>indicators, frequency of<br>measurements, estimated                                  |

costs, institutional responsibilities

#### 2.7 INSTITUTIONAL ANALYSIS

An analysis of the applicable administrative and legal framework for this ESMF shows that there are adequate legal and regulatory instruments for environmental management in the participating states.

The States have considerable experiences in the ESIA/EIA process. In addition to the National EIA law there exist important environmental laws and guidelines such as waste management law, forestry law, etc.

The likely challenge could be in monitoring and enforcement due to inadequate capacity with regard to skill, knowledge, manpower and equipment.

Therefore, enhancing the knowledge of project staff, especially those charged with the responsibility to implement safeguards instruments shall be paramount. The interaction with these officers (the environmental specialists in the States show that there are knowledge gaps that could impede the implementation of the instruments. Capacity building on environmental management will go a long way to ensure the adequacy.

In addition, the selected staff from the State Ministries/Environmental Protection Agencies, LGAs, and other MDAs and CBO/NGOs will also need to be strengthened through training, capacity and awareness building on environmental management including legal requirements and ESIA/EIA methodology.

#### 3.1 PROJECT COMPONENTS

The project includes the following components:

**3.1.1 Component 1: Farm to local agricultural market connectivity program** - This component will finance the rehabilitation/upgrading of approximately a total of 3,550 km rural access roads and construction of about 130 river crossings in the 13 participating states. This intervention will increase connectivity/improve access to about 3,722 rural communities/villages and about 2,592 markets. This component will also finance expenses for supervision of the road rehabilitation and river crossings construction contracts.

In the northern states (Kano, Katsina, Sokoto, Kebbi, Bauchi and Plateau) due to climatic condition, natural ground soil and availability of lateritic material, as well as the desire of the states to reach more rural population, earth/natural gravel road was identified as an appropriate standard. Sealing will be considered depending on the level of traffic, as well as topographic, environmental, health and safety considerations, including sealing of sections crossing villages/towns. in the northern states, this component will finance the Accordingly, rehabilitation/upgrading of approximately 300 km rural access roads and construction of about 10 river crossings in each state. In the southern states (Abia, Akwa Ibom, Kogi, Ogun, Oyo, Kwara and Ondo), due to climatic condition, which is dominated by high intensity and long duration rain period, low volume sealed road option was identified as an appropriate standard. Accordingly, in the southern states, this component will finance the rehabilitation/upgrading of approximately 250 km rural access roads and construction of about 10 river crossings in each state.

### Access Roads Improvement Planning Process and Enhancing Climate Resilience:

The State Project Implementation Units (SPIUs) have identified about 500 km of access roads using a multi-criteria analysis focused on strategic value chains production and agro-logistics, as well as reducing isolation. The SPIUs will further prioritize the identified roads and prepare concept design and bidding documents, out of which a package of 300 km and 250 km of access roads will be selected for improvement, respectively for the northern and southern states. In addition, the SPIUs will prioritize and prepare design and bidding documents for about 10 river crossings in each participating state. The Federal Project Management Unit (FPMU) and SPIUs will develop a GIS based database for the rural access and state roads, giving priority to the 500-km set of roads. The database shall include electronic records of the existing road condition (photos), strategic value chains, land use, markets and services (hospitals, etc) along the road segment.

An Electronic Project Management System (ePMS) will be developed to support the monitoring of physical and financial progress, quality of works and safeguards. The contract administration module will be backed by digital photos of the pavement and bridge structures construction at all stages, as well as records of payments to contractors. The safeguards monitoring module will have digital records of land acquisition; Labor Influx, including Gender Based Violence (GBV)-Sexual Exploitation and Abuse (SEA); Bio-Engineering Solutions; Occupational Health and Safety (OHS); Community Health and Safety (CHS); Worksites Incidence Reporting, etc. created as sub-modules. The ePMS will set-up a web based platform for citizen engagement, operational Grievance Redress Mechanism (GRM), Beneficiary Assessment and Social Survey. The ePMS will also have a module for monitoring the agro-logistics aspects of this Project. These tasks will be carried out by a block allocation to be provided to undertake planning tasks (studies, design, procurement, baseline data survey and systems development)

This component will apply the funds from the climate resilience co-benefits for the provision of technical advisory services to: (i) take in to account the climate adaptation dimensions of the drainage structures to extreme rainfall variability; (ii) prepare design for making roads, bridges/river crossings and drainage structures climate change resilient; (iii) develop monitoring indicators and methodology for climate change mitigation and adaptation measures for transportation services and output and performance-based contracting approach; and (iv) supervise the work contracts and develop the project monitoring system to ensure accountability in managing works.

#### 3.1.2 Component 2: Connecting Farms to Rural Agro-Logistics Centers

This component will finance:

(i) The establishment of pilot agro-logistics centers/hubs at strategic locations in selected agro-logistics areas;

(ii) Provision of Technical Assistance (TA) to ensure effective utilization of the facilities at the agro-logistics centers and enhance the engagement of women and young girls at the centers; and

(iii) Provision of TA and simple post-harvest implements to women and young girls in households within the influence areas of the rural access roads to be rehabilitated under this Project. This component also finances expenditures for designing the facilities at the pilot centers/hubs, as well as supervision.

#### 3.1.2.1 Sub-component 2.1: Establishing Agro-Logistics Centers:

The focus will be on upgrading the existing traditional markets into agro-logistics centers/hubs. The rural agro-logistics centers/hubs will be provided at two levels.

Lower level centers at primary markets close to the small family farms, hereinafter, called "primary agro-logistics centers", serving as points for aggregation, storage and marketing consumables, as well as a digital platform for exchange of commodities and market information. Medium level centers/hubs serving cluster of agro-logistics areas located close to processing plants and consumer markets, hereinafter called "primary agro-logistics centers". To ensure delivery of agricultural services that require sufficient scale, the secondary agro-logistic centers also provide a platform/space for delivering agricultural inputs, agricultural technology, credit, veterinary services, market and production information, etc., while the facilities and services will be provided by the private sector.

The number and locations, as well as the model facilities to be provided at the pilot agro-logistics centers have been determined by the state level agro-logistics studies. Accordingly, about six (6) agro-logistics centers (three (3) primary and there (3) secondary agro-logistics centers) have been prioritized.

The project considers financing the provision of basic infrastructure and model facilities, including: access roads to the centers; loading unloading facilities and space; credit facility for purchasing tri-cycle pickups or other appropriate means of transportation to be identified by the agro-logistics study; site and services (ground leveling and paving, perimeter fencing, power generators; water and sanitation); offices and market sheds; storage facilities; preservation facilities; and connection to high speed internet.

The Project will establish model primary processing facilities for clearing, grading and packaging/bagging, including airtight sacking, based on the recommendation of the agro-logistics study. The facilities to be provided at the primary and secondary agro-logistics centers would vary depending on the need of the specific center. The facilities would also vary depending on the specific value chains to be promoted by each state. The model primary processing facilities will be leased and operated by women entrepreneurs that will engage young girls. Priority will also be given to lease out the sheds to current retailers at the traditional markets, whom are mainly women.

Depending on the specific demand of the subject agro-logistics centers, availability of resources and potential for attracting private investment, the States, with the support of the project, could provide space and incentives for private processors to establish processing facilities. Group of women and young girls will be encouraged to participate as private entrepreneurs and trained to develop and provide the services.

3.1.2.2 Sub-component 2.2: Enhancing the performance of the agrologistics centers and empowering women by developing strategies for marketing and facilities management; packages for off-agriculture season income and employment generation activities; creating digital

### commodity exchange platforms; as well as provision of TA and seed capital.

This include: (i) developing a commodity marketing and facilities management strategy that engages women and young girls in the ownership and employment in the facilities and Small and Medium Level Enterprises (SMEs); (ii) developing strategies for off-agricultural season engagement of the entrepreneurs and employees at the agro-logistics centers (including identifying potential nonagricultural produce and services, and developing skills training modules); (iii) agro-logistics centers financing studies and developing credit facility delivery mechanisms to women entrepreneurs and group of young-boys for the purchase of appropriate means of transportation; (iv) developing a model/template lease agreement for leasing out the model facilities to women entrepreneurs; (v) create a simple application/trade portal connecting the entrepreneurs at the center, as well as the rural households to whole sellers in the major domestic markets and processing plants; (vi) TA in support of leasing the model facilities and starting business, giving priority to women and young girls, as well as current retailers; (vii) provision of seed capital/credit through local banks; (viii) engaging women and young girls (not attending school) in off-agriculture season farm level income and employment generating activities and provision of associated skills development training; (ix) monitoring the effectiveness of the center by evaluating the increase in volume of traded agricultural commodity, improvement in quality and increase in price of commodities.

# 3.1.2.3 Sub-component 2.3: Provision of TA and post-harvest implements to women and young girls and creating off-agriculture season income and employment generating activities:

This sub-component supports the provision of TA and implements for farm Level post-harvest agro-logistics services for women and young girls in households within the influence areas of the rural access roads to be rehabilitated under this Project. For example, the type of TA and implements to be provided under the Project is demonstrated using tomato value chain. According to the findings of Agrofair (www.agrofair.nl) of The Netherlands, carrying out a research project on the reduction of post-harvest losses (PHL) for tomato growers in Nigeria, tomato PHL are estimated to be as high as 40% - 50%, mainly due to poor transport conditions (bad roads) and packing facilities (raffia baskets). The Project intends to provide TA to women and young girls on tomato preservation and primary The support for fresh tomato farm level processing, processing at farm level. including: grading, cleaning, packing in crates or raffia, aggregation at cooperative level or Agro-logistics centers and transportation to the tomato paste processing plants within 24 hours will reduce post-harvest losses and help the produces get better price. To ensure just-in-time delivery of fresh tomato to agrologistics centers/ aggregation points and processing plants the project will provide seed money to deploy appropriate means of transportation, such as tri-wheeler pickups that could be operated with group of young boys from the same

households and community. In addition, the Project will advise women and young girls to produce tomato off the rainy season, in irrigated fields or using ground water and supply to the processing centers that are obliged to close the plants due to lack of fresh tomato. This will help the producers get good price and have stable income and jobs throughout the year. Further, to enhance preservation of tomato, the project will support women and young girls to practice hygienic sun drying by using simple tarpaulin /canvas placed on bare earth, de moisturized packaging, aggregation and bulk delivery.

The economic empowerment of women and young girls' initiative attempts to address the income and employment gap during the off-agriculture season, in rural areas where non rain fed agriculture is practiced. This includes generating off-agriculture season farm level income and employment by engaging women and young girls (not attending school) in non-agricultural production and services delivery and developing training modules for the associated skills.

The project will develop a simple app (digital trade platform) that could connect the women and young girls to processing plants, wholesalers and distributors at major domestic markets, and become out-growers and suppliers. The project will also finance technical assistance (TA) to be provided to farmers, intermediaries, small scale processors and key stakeholders. The TA could include legal advice to cooperatives. Attention will be given to help farmers willing to organize in professional associations (cooperatives, union or others).

#### 3.1.3 Component 3: Strengthening the Financial and Institutional Base for Sustainably Maintaining Rural Access and State Roads, Including Support for:

(a) Establishing a State Road Fund (SRF) to finance state roads and rural roads;

(b) Designating a state rural access and state roads (herein after called State and Rural Roads Administration entity (SRRA); and

(c) Establishing a functional Road Asset Management System (RAMS) that will generate an annual prioritized investment and maintenance plan, and mainstreaming the plan in the state budgetary process. Upon achieving the core outputs, each state will receive about US\$2 million to carryout periodic and routine maintenance on about 50 km of selected rural access roads. The periodic mechanized maintenance will be carried out by small to medium contractors while the routine maintenance will be carried out by micro-enterprises and community based road maintenance groups, whose members shall be at least 50 percent women and young girls.

#### 3.1.4 Component 4: Institutional Development, Road Safety and Project Management Support:

In addition to enhancing Road Safety on rural and state roads, the project will have provision for Technical Assistance (TA) for institutional development designed to strengthen the implementing entities and enhance organizational effectiveness and individual skills development.

**3.1.4.1 Sub-component 4.1: Institutional Development and Project Management,** including support to the provision of Technical Assistance (TA) for institutional development, designed to strengthen implementing entities and enhance organizational effectiveness and individual skills to support the achievement of the Disbursement Linked Indicators (DLIs) and the project outputs defined above. The institutional development and project management support covers:

(i) Operating costs;

(ii) Engagement of TA consultants in the areas of procurement, engineering and safeguards monitoring;

(iii) Training for the State Project Implementing Units (SPIUs) staff and the Federal Project Management Unit (FPMU);

(iv) Engaging an independent international technical audit firm;

(v) Studies and TA to prepare follow-on RAAMP operations;

(vi) TA to undertake rural infrastructure and agro-logistics improvement studies;

(vii) Technical and Financial Audit;

(viii) Gender analysis; and

(ix) Monitoring and Evaluation, including conducting development impact evaluation.

### **3.1.4.2 Sub-component 4.2: Pilot Road Safety Initiatives to Establish Crash Database and Data Management System and Road Safety Audit.**

In four pilot states (Kano, Plateau, Oyo and Abia) the project will support the establishment of crash database and data management system to better understand the nature, causes and locations of road accidents along the rural and state roads network and prepare an action plan that will be implemented under the leadership of the state police. Road Safety assessment/audit applying iRAP will be conducted on the about 1,200 km rural roads and about 400 km state roads in the four pilot states.

#### 3.1.4.3 Sub-component 4.3: Block Preparation Fund to Pre-Finance Output Associated Studies, Planning (Prioritization, Design and Procurement), Systems Development and Safeguards Instruments Development Required for the Entire Project (Both Tranches).

The activities are summarized as follows:

• Activity 1: Final prioritization, concept design and preparation of bidding documents for the 500 km of rural access roads, in each participating state, and determining the sections to be rehabilitated/upgraded under tranche 1 and tranche 2; (ii) preparation of safeguard instruments for the roads to be rehabilitated, including undertaking independent safeguards review; (iii)

developing ePMS with all the modules for all the components; (iv) establishing GIS based roads database for the entire state rural roads network in the participating states; and (v) provision of technical advisory services on climate resilience, using the funds (USD100,000) from the climate resilience cobenefits. The TA is outlined under component 1 above.

- Activity 2: (i) State level agro-logistics studies verification; concentration • workshops and studies for the establishment of a transparent, inclusive governance framework for each hub; concept design and bidding document preparation for the agro-logistics centers to be established under tranche 1 and 2; (iii) developing a commodity marketing and facilities management strategy; (iv) developing strategies for off-agricultural season engagement of the entrepreneurs and employees at the agro-logistics centers; (v) agrologistics centers financing studies and developing credit facility delivery mechanisms to women entrepreneurs and group of young-boys for the purchase of appropriate means of transportation; (vi) developing a model/template lease agreement for leasing out the model facilities to women entrepreneurs; (vii) create a simple application/digital trade portal for the agro-logistics centers and rural households; (viii) developing the TA package for farm level agro-logistics services; (ix) developing strategies for offagricultural season engagement of the women and young girls (not attending school) at farm level and associated skills training modules.
- Activity 3: (i) studies and drafting of legislation for establishing State Road Fund (SRF) and designation of State and Rural Roads Administration (SRRA), including model performance agreement to be signed between the SRF and SRRA; and (ii) development/adoption of Road Asset Management System (RAMS), including preparation of a maintenance plan.
- Activity 4: (i) baseline survey on the proposed outcome (PDO), output and impact indicators; (ii) gender analysis; and (ii) studies and TA that will help the FPMU and SPIUs deliver the agreed outputs.

#### 3.1.4.4 Sub-component 4.4: Climate Resilience.

This component will also build on capacity and training provided under the previous World Bank and French Development Agency (AFD) - financed RAMP2, including the following activities: (i) strengthening of the climate change responsiveness institutional capacity of the road sector agencies; (ii) increasing awareness activities on climate change and adaptation for the staff of road sector agencies, as well as SPIU and contractors; and (iii) providing On-the-Job training in preventive measure for climate change.

It is to be noted that detailed Environmental and Social Impact Assessments (ESIAs), Environmental and Social Management Plans (ESMPs) and/or Resettlement Action Plan (RAPs), as needed, will be carried out by the Government of the respective participating States for all project activities that

trigger them. All relevant documents will be disclosed in-country and at the Bank's Info-shop before specific works could start.

### 3.2 ANALYSIS OF PROJECT ALTERNATIVES

#### Introduction

Analysis of alternatives is done to establish the preferred or most environmentally sound, financially feasible and benign option for achieving project objectives.

This requires a systematic comparison of proposed investment design in terms of site, technology, processes etc in terms of their impacts and feasibility of their mitigation, capital, recurrent costs, suitability under local conditions and institutional, training and monitoring requirements. For each alternative, the environmental/social cost should be quantified to the extent possible and economic values attached where feasible, and the basis for selected alternative stated. The analysis of alternative should include a NO ACTION alternative.

The following alternative actions were considered for the study areas –

#### **No Action Alternative**

The "No Action" alternative assumes that there will be no improvement in rural access and agricultural marketing in selected participating states whilst enhancing sustainability of the rural and State road network.

Negative environmental effects of this option will include further deterioration or rural access roads, impeded access to farmers, post-harvest losses and economic losses to the local economy.

A no-action alternative is certainly not recommended.

#### The Delayed Project Alternative.

This option implies that the planned RAAMP will be delayed until a much later date. Such option is usually taken when conditions are unfavorable for project implementation. For instance, in a situation where there is war or the proposed project areas are deeply resentful of the project. Also, if the economics of the project are unacceptable or unattractive at the time, then a delay may be feasible. But none of these conditions are applicable. In fact, on the contrary, both the economics and the political environment are favorably disposed towards the project. The delayed project alternative is therefore rejected.

#### The 'Project may proceed as proposed' Alternative.

In order to address the infrastructural deficit of the country and enhance economic growth, the Federal Government of Nigeria has proposed RAAMP This would serve as a catalyst for economic integration and thus bring the much needed economic growth and development of the country at large.

With the other project alternatives disposed off, the project therefore can proceed as proposed.

## **3.3 CHARACTERISTICS OF ROAD NETWORK IN THE BENEFICIARY STATES**

Agriculture is an important economic sector in all the RAAMP participating states, with typical crop production of rice, cassava, sorghum, palm oil and livestock. The road network is relatively dense but highly deteriorated, causing major bottlenecks to the transport of agricultural outputs to markets or crop processing areas. A few of the state roads are paved and almost all rural roads are earth roads. Rehabilitation or construction works from the proposed sub-projects are expected to have a significant impact in the targeted areas. Investments would be concentrated in the areas of higher agricultural production, building on the strategic priorities of Nigeria's Agriculture Transformation Agenda, with due attention paid to connectivity to the rest of the road network and or marketing and processing centres. Such a critical mass of infrastructure investments is needed in order to overcome possible threshold effects, as opposed to dispersed road investments.

#### 3.4 ROAD SELECTION IN THE RAAMP STATES

In each state, a project prioritization study was conducted in order to prioritize intervention areas based on a combination of selection criteria including the population of the communities living along the links, agricultural production, environmentally sensitive areas, markets and community preferences. Secondly, priority rural roads were identified within each prioritization area, using criteria such as connectivity, traffic levels, rural transport hubs or connection to processing facilities. Each state has used the results from these prioritization studies in order to come out with a list of projects under the RAAMP scheme. The list of the projects under RAAMP was reconfirmed through field visits. As part of project preparation, detailed design studies and safeguards studies are being a Project Preparation Advance, prepared, financed by SO that the rehabilitation/construction works of these identified prioritized projects can be ready to be procured by project's approval.

#### 3.5 APPLICABLE SAFEGUARD POLICIES

The four safeguard policies that may be triggered by the proposed projects are: Environmental Assessment (OP/BP 4.01), Natural Habitat (OP/BP 4.04), Physical Cultural Resources (OP/BP 4.11) and Involuntary Resettlement (OP/BP 4.12). Attentions to these safeguard policies will ensure that environmental and social issues are evaluated in the decision making, help reduce and manage the risks associated with the RAAMP Project and Provide a mechanism for consultation and disclosure of information.

This is highlighted in Table 3.1.

#### Table 3.1: Likely Triggered Safeguard Policies with RAAMP

| Safeguard<br>Policies                             | Triggeredby theProject?YesNo |     | Applicability to<br>Project  | How Project Address Policy<br>Requirements?   |
|---|------------------------------|-----|--|---|
| Environmental<br>Assessment<br>(OP/BP 4.01)       | [x]                          | []  | Construction of<br>Agro logistic hub,<br>Road<br>construction/reha<br>bilitation works<br>could trigger site-<br>specific impacts.<br>Potential impacts<br>include influx of<br>people,<br>hygiene/sanitatio<br>n, social conflicts,<br>noise by<br>machineries and<br>dust during<br>construction and<br>rehabilitation<br>works. | To mitigate this risk, specific procedures<br>(such as chance find procedures) have<br>been included in the ESMF.<br>Site specific mitigations in the ESMP will<br>ensure that identified impacts are<br>adequately mitigated.  |
| Natural<br>Habitats<br>(OP/BP 4.04)               | [X ]                         | []  | Some of the<br>road/bridge<br>construction/reha<br>bilitation and<br>agrologistics<br>hubs construction<br>activities will<br>have impacts on<br>natural habitats.<br>The ESMPs will<br>ensure that<br>impacts on<br>natural habitats<br>will be mitigated   | To mitigate this risk, The ESMP will<br>ensure that impacts on natural habitats<br>are mitigated by:<br>(i) Identifying natural habitats in project<br>sites<br>(ii) Preparing management measures for<br>roads/bridges passing through natural<br>habitats, such as monitoring and<br>minimizing access to natural habitats,<br>sensitization campaigns, etc |
| Pest<br>Management<br>(OP 4.09)                   | []                           | [x] | NA   | NA  |
| Physical<br>Cultural<br>Resources<br>(OP/BP 4.11) | [x]                          | []  | The participating<br>states have rich<br>cultural heritage<br>resources and<br>some road<br>works/constructio<br>n and<br>agrologistics  | To mitigate this risk, specific procedures<br>(such as chance find procedures) has<br>been included in the ESMF   |

| Safeguard<br>Policies                       | Triggered<br>by the<br>Project? |    | Applicability to<br>Project  | How Project Address Policy<br>Requirements?   |  |
|---|---------------------------------|----|--|---|--|
|   | Yes                             | No |  |   |  |
|   |                                 |    | hubs may be<br>located in the<br>area of influence<br>of some sites.   |   |  |
| Involuntary<br>Resettlement<br>(OP/BP 4.12) | [x]                             | [] | Interventions<br>could lead to<br>restriction of<br>access to sources<br>of livelihoods.<br>There could be<br>encroachment to<br>farmlands | A standalone RPF shall be prepared<br>alongside this ESMF. It shall outline the<br>resettlement process in terms of<br>procedures for preparing and approving<br>Resettlement Action Plans (RAPs),<br>institutional arrangements, likely<br>categories of affected people, eligibility<br>criteria and categories, compensation<br>rates, methods of valuing affected<br>assets, community participation and<br>information dissemination, Grievance<br>Redress Mechanism and effective<br>monitoring and evaluation. These<br>arrangements are to ensure that there is<br>a systematic process (as against an ad<br>hoc one) for the different stages of<br>implementation of a framework that<br>assures participation of affected persons,<br>involvement of relevant institutions and<br>stakeholders, adherence to both World<br>Bank and Government procedures and<br>requirements. |  |

#### \*NA= Not Applicable

#### 3.6 SUSTAINABILITY OF RAAMP

The environmental and social sustainability of the Sub projects shall be best assessed within the context of the overall program sustainability.

Ensuring the sustainability of the proposed RAAMP projects shall be one of the most critical challenges. The Nigeria experience has shown that rural roads investments can be quickly lost if no sound and durable road maintenance mechanism is put in place. In acknowledging the complexity of this issue and the need to promote full ownership by state and local stakeholders, the proposed project has incorporated the establishment of a State Road Fund, designation of a State rural access administrating body and routine maintenance to be carried out by micro-enterprises and community based road maintenance groups.

This approach is expected to contribute to the establishment in each participating state a sound maintenance mechanism.

Community-based road maintenance has been widely and successfully used all over the world to maintain rural roads. In Latin America, countries like Peru have

put in place over the past 15 years, about 700 community-based microenterprises for road maintenance. These microenterprises are currently maintaining about 15,000 km of rural roads, resulting in an optimized life-cycle for these infrastructures. In addition to preserving road assets, these community-based schemes have been found to create numerous employment opportunities for men and women from poor rural communities living aside from the roads. While the proposed project will promote the use of community-based road maintenance, flexibility will be kept to adopt alternative road maintenance strategies.

Osun state is the lead state to implement the community-based road maintenance scheme under a similar program – Rural Access Mobility Project (RAMP) in 2012 for the 12 km-long rural Pataara – Iwo road. This initiative is expected to be replicated in all the participating states.

#### 3.6.1 Successes and Lessons Learnt Under RAMP 2

#### i) Environment and Social Safeguards Compliance - Lessons Learnt:

- Consultation and sensitization process enhanced the perception of the local population about the RAMP-2 and strengthened sense of ownership, which was expressed by the strong cooperation and support of the local community leaders and the population to the contractors.
- Consultations with Project Affected People (PAPs) by SPIUs helps to focus on livelihood restoration as demonstrated in Niger and Osun with advanced civil works.
- Allocation of adequate counterpart funds for implementation of ARAPs: Due to the financial constraint the SPIUs, except Osun State, are not receiving adequate counterpart funds and delays in the implementation of ARAPs could affect the smooth progress of construction activities and contractors have to skip sites where the Right Of Way is not clear. Implementation of ARAPs may have to compete for funds with salaries of the staff of SPIUs and highly likely lose to the latter.
- Recording sensitive social and environmental issues: The absence of a photograph showing the presence of the alleged orchard and lack of signed minutes of consultations with local communities on handling shrines in Enugu State has protracted the finalization of the ARAP.
- Continuous dialogue with contractors enhances safeguards compliance The HIV/AIDS prevention awareness helped in sensitizing contractors' workers and the local community.
- Suppressing dust to reduce health hazard: Local communities living in villages and small towns along the rehabilitated roads complained about the effect of dust on health of residents and hygiene. o Controlling effects of erosion -Nigeria is endowed with Intensive rain that stretches over four to five months. However, drainage structures are not normally designed based on hydrological analysis and there is no adequate drainage facility in many of

the roads under rehabilitation. As a result, erosion is creating gullies and siltation is blocking cross drains, impeding natural flow of streams.

- Reinstating Borrow Sites and Proper Disposal of Unsuitable Material -Contractors are not often removing waste material from excavation away from the road, while contractors could stock such materials near borrow sites for a later reinstatement or spread the unsuitable material, which is commonly agriculture friendly on the nearby land or dispose at appropriate places.
- Strengthening Gender Aspects The inclusion of women in the community maintenance contracting groups is encouraging.
- Stronger social safeguards monitoring capacity critical for effective consultation, implementation of mitigation measures and ensuring compliance The safeguard officers of the SPIUs have played critical role in the consultation and sensitization of local communities and contractors. They are also leading the implementation of the ARAPs and ESMPs satisfactorily.

#### ii) Recommendations

- a) The SPIU core staff requires urgent additional technical assistants in project management, procurement, financial management as well as training in the use of modern work tools and methods.
- b) Although the SPIUs have supervision consultants for its works contracts, there are complaints that the consultants are mostly not on site. Therefore, the FPMU engineers should endeavour to visit the SPIUs/Project sites on quarterly basis for oversight functions to ensure that the SPIUs and their supervision consultants are complying with the design standards and maintenance activities. In addition, the supervision consultants should have social specialists on their team with knowledge of GBV.
- c) SPMCs, SPIUs and their respective State Ministries should continue advocacy visits to key members of the State Executive Council and legislators for the budgeting and release of counterpart funds on time to enable scaling-up on maintenance activities.
- d) Goods, works, non-consulting services, and consultants' services under Part 2 (Component 2- Community-based maintenance and annual mechanized) of the Project will be financed by IDA i.e. 100% for expenditure incurred through June 30, 2015; thereafter 50% for expenditures incurred through June 30, 2017; and thereafter 0%. This provision of the finance agreement requires amendment of date for this clause to accommodate all participating states since they are lagging behind on the two subcomponents.
- e) With the exception of Osun State, counterpart fund contributions by the state governments did not match the budgeted amounts each year and this may jeopardize sustainability of the project due since scaling up maintenance activities require additional counterpart funding. It is recommended that State Governments increase counterpart funding to enable the SPIUs increase

maintenance activities in their respective states for the sustainability of the project.

#### iii) Environment and Social Safeguards Compliance:

- Allocation of Adequate Counterpart Funds for Implementation of ARAPs -The Federal Ministry of Finance and the FPMU (with the support of the Federal Ministry of Agriculture and Rural Development) shall follow-up regularly, counterpart funds allocation issues with the participating State Governments.
- Recording Sensitive Social and Environmental Issues SPIUs have to draw lessons from these and ensure that written evidence and photographs support all sensitive social and environmental issues.
- Continuous dialogue and sensitization of contractors should continue to enhance safeguards Compliance, including on topics related to HIV and GBV, including sexual exploitation and abuse.
- Suppressing dust to reduce health hazard the SPIUs should install speedcalming measures to suppress the dust. Also, SPIUs with the support of the State Government may consider sealing at least the road sections crossing villages and townships. Moreover, the FPMU in consultation with the appropriate federal and state ministries shall adopt a design standard that will address dust issues.
- Controlling effects of erosion SPIUs have to invest sufficient resources in designing and constructing adequate drainage facilities and control erosion.
- Reinstating borrow sites and proper disposal of unsuitable material As the road rehabilitation contracts are completed, the SPIUs and the supervision consultants should ensure that all borrow sites are properly reinstated and covered with vegetation.
- Strengthening Gender Aspects The SPIUs should consider increasing the participation of women in maintenance by trying to address the barriers that women face to participate. For instance, the development of gender sensitive recruitment and retention strategies and an Action Plan can contribute to address these barriers and enhance women's participation. Also, during road prioritization, women groups should be consulted in setting priorities and inclusion of specific transport demands of women, elderly people, children and people with disabilities. In particular, women groups should be consulted during identification and prioritization of river crossings in order to give attention to river crossings providing access to health facility for women in labor, during the rainy season and taking into account women's personal security needs.
- Stronger social safeguards monitoring capacity critical for effective consultation, implementation of mitigation measures and ensuring compliance - In the absence of equally competent social development expertise and environmental expertise, the SPIUs and FPMU are advised to engage, a Social Safeguards Officer and an Environmental Safeguards Officer and should in place at all times.

#### iv) Need for Project Time Extension.

Based on information from the participating states, the outstanding project component activities cannot be completed before the 31<sup>st</sup> December 2018 as planned. It is suggested that an additional 24 months of project closing date will be required to complete all activities planned for all the components.

#### **3.6.2 Utilisation of Community-based Maintenance**

In order to leverage the impact and sustainability of road rehabilitation, the project will engage communities in the maintenance of rehabilitated roads. Community-based maintenance schemes have been piloted in Osun State in 2012. These schemes have considerable potential to enhance community ownership and the sustainability of the roads. The following aspects appear to be critical to the success of community-based maintenance schemes:

#### 1. Reliance on existing community structures and consensus:

The pilots shall rely on existing community structures (in particular community leaders) for the selection of members in the maintenance gangs. Decisions on selection remain largely consensus-based and the main selection criterion is the perceived capacity of community members to engage in maintenance activities. While the introduction of formal selection criteria will be examined (in particular to support the inclusion of youth, women and possibly strengthen the focus on unemployed community members), it is expected that the project will, as much, as possible, limit its interference in the design of the selection process, to ensure it remains community-led and owned. (Additional efforts will be carried out to promote an inclusive selection criteria, for instance through the gender sensitization of community leaders). Similarly, with regards to the functioning of the maintenance gangs, decisions shall be consensus-based, and processes shall remain largely informal. The project shall explore the development of guidelines with gender perspective for the functioning and management of the maintenance gangs but will look at formalizing existing tacit mechanisms rather than imposing exogenous practices.

#### 2. Building on available community expertise and knowledge:

The project shall build on existing expertise and knowledge within the sub projects host communities who were beneficiaries of similar World Bank-assisted project. Further linkages between an established community expertise and nearby project in other communities shall be explored, including facilitating the access of the maintenance gang to the micro-loans and technical assistance. Contact with women community based organizations will be key for the design and implementation of the project.

#### 3. Exploring sustainable practices for financing and mobilization:

The sub projects will explore ways to ensure the sustainability of maintenance gangs. The project will look at their financial sustainability: schemes for group savings will be discussed with communities and opportunities to invest such savings, whether to maintain the tools used for their current operations or to invest in other productive activities, examined. The Project will also look at the structural sustainability of maintenance gangs, in particular through supporting linkages to existing community structures and conducting studies to assess opportunities and challenges for the involvement of local governments (LGs) in supporting community-based maintenance schemes.

#### 4. Building knowledge on community-based maintenance in Nigeria:

The community-based maintenance schemes are an innovative feature of this Project. There is little experience of and knowledge on such schemes in Nigeria. In order to inform project implementation, and more broadly participate in building a body of knowledge on community-based maintenance in Nigeria, the project will put in place a basic tracking system to document the social and technical performance of community-based maintenance schemes. Simple indicators shall include the average duration of community members' employment in the gangs, the punctuality of monthly salary payments, the percentage of income saved by the groups, or the percentage of maintenance tools unrepaired.

## **3.6.3 RAAMP - A Catalyst for Enhancing Rural Development and Growth**

The project aims at improving rural access and agricultural marketing in selected participating states whilst enhancing sustainability of the rural and State road network. The target is to connect small family farmers in participating States to local agricultural markets with all-weather access roads in selected and prioritized rural development areas, rehabilitate prioritized river crossings based on Design, Build and Maintain (DBM) approach.

The project, in addition, shall give special attention to the gender dimension, since routine maintenance contracts could offer employment opportunities to poor women living in the communities aside from the roads. Routine maintenance is generally highly labour-intensive (about one full-time, permanent equivalent worker per km of road) and it does not require a gualified labour force. In addition, in case a potential strategic partnership could be established with an existing community development program, the possibility of establishing synergies with other rural development initiatives will be explored. Such synergies could for example include the construction of small productive infrastructure (markets, bus stations, storage facilities) to complement the improvement of transport conditions in the areas where the proposed project would intervene, and seek an increased impact on agricultural marketing and rural poverty. Some of this however, will be done on RAAMP funds on Component 2. Such mechanisms named Local Development Window or Territorial Development Window and based on Community Driven Development (CDD) principles, have been successfully used in other rural transport programs. This option will be explored during project preparation with the understanding that the objective is not to create a new CDD

mechanism in Nigeria but rather to build a strategic partnership with an existing program.

#### 3.6.4 Role conflicts across MDAs - Participation Agreement

To continually avoid any role conflict in implementing the projects according to the agreed terms and conditions, the existing agreement/harmonious relationship between the Implementing Agencies and other MDAs should further be reinforced to outline the tasks, responsibilities, schedules, procedures, deliverables, etc., required for preparation and implementation of the approved projects.

#### CHAPTER 4: ENVIRONMENTAL AND SOCIAL BASELINE

#### 4.0 INTRODUCTION

This Chapter describes the overall baseline condition of Nigeria and the RAAMP participating states in particular in terms of bio-physical environment, as well as the socio-economic attributes.

#### 4.1 PHYSICAL ENVIRONMENT

Nigeria is located in West Africa on the Gulf of Guinea between Benin and Cameroon. Size: Nigeria has an area of 923,768 square kilometers, including about 13,000 square kilometers of water. Nigeria shares borders with Cameroon

(1,690 kilometers) in the East; Chad (87 kilometers) in the North East; Niger (1,497 kilometers) in the North and Benin (773 kilometers) in the West.

Nigeria's coastline along the Gulf of Guinea totals 853 kilometers. Nigeria claims a territorial sea of 12 nautical miles, an exclusive economic zone of 200 nautical miles, and a continental shelf to a depth of 200 meters or to the depth of exploitation.

Nigeria is divided into thirty-six states and one Federal Capital Territory, which are further sub-divided into 774 Local Government Areas (LGAs). In some contexts, the states are aggregated into six geopolitical zones: North West, North East, North Central, South East, South South, and South West

#### 4.1.1 Topography

Nigeria has five major geographic regions: a low coastal zone along the Gulf of Guinea; hills and low plateaus north of the coastal zone; the Niger–Benue river valley; a broad stepped plateau stretching to the northern border with elevations exceeding 1,200 meters; and a mountainous zone along the eastern border, which includes the country's highest point, Chappal Waddi (2,419 meters).

#### 4.1.2 Hydrology

Nigeria has two principal river systems: the Niger – Benue and the Chad. The Niger River, the largest in West Africa, flows 4,000 kilometers from Guinea through Mali, Niger, Benin, and Nigeria before emptying into the Gulf of Guinea. The Benue River and largest tributary flows 1,400 kilometers from Cameroon into Nigeria, where it empties into the Niger River. The country's other river system involves various rivers that merge into the Yobe River, which then flows along the border with Niger and empties into Lake Chad.

#### 4.1.3 Soil

#### 4.1.4 Geology

The Nigerian basement complex forms part of the Pan-African mobile belt and lies between the West African and Congo Cratons and south of the Tuareg Shield. It is intruded by the Mesozoic calc-alkaline ring complexes (Younger Granites) of the Jos Plateau and is unconformably overlain by Cretaceous and younger sediments. The Nigerian basement was affected by the 600 Ma Pan-African Orogeny and it occupies the reactivated region which resulted from plate collision between the passive continental margin of the West African Craton and the active Pharusian continental margin. The basement rocks are believed to be the results of at least four major orogenic cycles of deformation, metamorphism and remobilization corresponding to the Liberian (2,700 Ma), the Eburnean (2,000 Ma), the Kibaran (1,100 Ma), and the Pan-African cycles (600 Ma). The first three cycles were characterized by intense deformation and isoclinal folding accompanied by regional metamorphism, which was further followed by extensive Migmatization. The Pan-African deformation was accompanied by a regional metamorphism, migmatization and extensive granitization and gneissification which produced syntectonic granites and homogeneous gneisses. Late tectonic emplacement of granites and granodiorites and associated contact metamorphism accompanied the end stages of this last deformation. The end of the orogeny was marked by faulting and fracturing within the basement complex of Nigeria four major petrolithological units are distinguishable, namely:

1. Migmatite-Gneiss Complex (Migmatites, Gneisses, Granite -Gneisses)

2. Schist Belts (Metasedimentary and Metavolcanicrocks) (Phylites, Schists, Pelites, Quartzites, Marbles, Amphibolites)

3. Older Granites (Pan African Granitoids) (Granites, Granodiorites, Syenites, Monzonites, Gabbro, Charnockites).

4. Undeformed Acid and Basic Dykes (Muscovite-, tourmaline- and beryl-bearing pegmatites, applites and syenite dykes; basaltic, doleritic and lampropyric dykes).

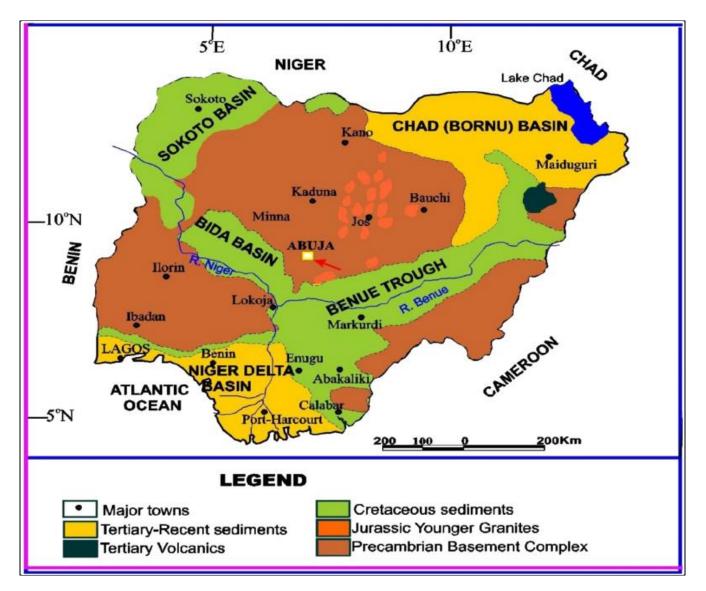


Fig. 4.1: Geological Map of Nigeria. Source: Omeje, 2013.

#### 4.1.5 Seismic peak ground acceleration

As no earthquakes happened since the foundation of Nigeria, no dedicated earthquake administrations are established to record data in this field and no seismic fortification is provided for local infrastructures like public works, roads, water and electricity works, the earthquake intensity in Nigeria could be considered as low intensity. Thus, seismic fortification is not considered in the ESMF.

#### 4.1.6 Climate

The climatic conditions of the RAAMP States like many parts of Nigeria are influenced by the North-South movement of a zone or surface of discontinuity (SD) between Maritime (Atlantic) air masses and dry continental (Sahara) air masses. The regular movement of these air masses creates distinct climatic seasons in the area. The influence resulting from existing seasonal winds, latitude, and apparent movement of the sun across the tropics and relative stability of the Inter Tropical Convergence Zone (ITCZ) or Inter Tropical Front (ITF) over the area. The two dominating air mass are the drier Tropical Continental (TC) from the Sahara in the north and the humid Tropical Maritime (TM) from across the Atlantic Ocean in the south. An Inter Tropical Discontinuity (ITD) zone separates them. This zone oscillates seasonally depending on the apparent movement of the sun.

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

The major climatic elements include rainfall, temperature, wind (speed and direction) and relative humidity.

A minimum of 25 years data from the Nigeria Meteorological Agency (NIMET) shall be obtained for the sub-projects requiring Environmental Assessment (EA). Climatic elements to be studied and assessed include rainfall, wind speed and direction, relative humidity, temperature etc.

#### 4.1.7 Air Quality and Noise Level Survey

In-situ air quality assessment of project areas shall be conducted with the aid of digital equipment. The instruments are able to detect automatically (with the aid of sensors) the range of noxious gases present in the air, which is then read off automatically on the digital screen.

The Gaseous parameters to be measured include the following, viz:

- Carbon monoxide (CO)
- Nitrogen dioxide (NO<sub>2</sub>)
- Sulphur dioxide (SO<sub>2</sub>)
- Hydrogen sulphide (H<sub>2</sub>S)

- Oxygen
- Ammonia
- Methane (CH<sub>4</sub>)

Since air quality parameters and noise levels are dynamic, real time values shall be obtained during the assessment reports.

#### 4.2 **BIOLOGICAL ENVIRONMENT**

#### 4.2.1 Vegetation

#### **Nigerian vegetation**

Best known vegetations in Nigeria are (1) Savannah and (2) Forest.

Forest is vegetation that is dominated by tall, mostly evergreen trees and there is hardly any grass to be found in the undergrowth. The undergrowth of evergreen woody species consist of trees, numerous shrubs and climbers, and

few herbs. Fires are seldom seen in forest vegetation because the vegetation is too damp and the humidity too high. Fire lit by man as a prelude to farming could be seen.

#### DIFFERENT FORMS

**Wood land**: a lower growing, less dense and less luxuriant vegetation type compared to forest. Commonly seen as savannah wood land (wood land savannah) - a transition between forest and savannah vegetations.

**shrub** is formed when the shrub layer or lower tree layer both form a canopy the upper tree layer being sparse and absent. Mostly found in local communities or disturbed ground and several forms are seen e.g shrub woodland, shrub grassland etc.

**Thicket** describes pure local and limited clumps of dense shrub and climber's vegetation and like shrub is usually found where biotic influences are heavy.

**Savannah:** Originally called" savannah" is Caribbean word first used in grassland in which the herbs layer is 2feet 6in high forming a continuous ground cover. Both perennial and annual herbs are plentiful in the bare ground between the grass plants. There could be numerous shrubs up to 30 feet high each.

**Steppe:** Originally a Russian term applied to the treeless temperate land of Russia and Siberia. In Nigeria only the Sahel zone has this type of vegetation (eg North –East Nigeria). The sparse grass is less than 2 feet 6 inch.

#### **VEGETATION ZONES OF NIGERIA**

These are;

- (a) Mangrove swamp forest
- (b) Dry coastal vegetation
- (c) Fresh water swamp forest
- (d) Moist low land forest
- (e) Forest savanna mosaic
- (f) North guinea savanna
- (g) Sudan savanna

#### (h) Sahel steppe

(i) Mountain vegetation

The EA of sub projects shall give further specific details of the respective vegetation zones in specific sub project areas.

#### 4.2.2 Fauna

Uncontrolled development has been identified as one of the contributing factors that lead to the decline of wildlife habitats in the country. It is therefore imperative that impact of any development on the wildlife habitats should be evaluated before it is embarked upon. The studies on fauna are conducted by visual observation, and where necessary by information from the local people, especially hunters. The species present in all the subproject areas can be classified into major groups namely;

- Herpetofauna
- Invertebrates
- Birds
- Mammals

Although there are laws protecting the wild animals, they are seriously hunted by the local hunters for meat and skin, which attract good market prices.

#### a) Herpetofauna

These animals are found both on land as well as in pools of water, and include species of amphibians and reptiles, namely, toads, frogs, snakes, skink and rainbow lizard.

#### b) Invertebrates

Insects make up the largest single group of animals that live in the subproject area. They include brightly colored butterflies, mosquitoes, camouflaged stick insects, and huge colonies of ants. Some invertebrates are present in very high number per 5m by 5m area such as the black ants, earthworm, termites' woodlice and spiders. Present also are grasshoppers, millipedes and flies. The invertebrate fauna were the common and ubiquitous ones not deserving of any special conservation. Others include the Scorpion and the centipede.

#### c) Birds

Birds are present at both the Guinea and Sudan savanna with parrots and parakeets being dominant in numbers flying in small flocks or in pairs. The 'ant bird' are also evident especially after rainfall. The common birds include black kite, Egret, Robin, Song bird, Pigeon etc.

#### d) Mammals

The ground squirrel and bush rat are among the more frequently sighted mammals. Giant rat are recognized from their peculiar burrows and grass cutter from recently

eaten grass or cassava stem. Others include Hare, Shrew, Rat, Antelope, Porcupine and Wild cat.

#### 4.3 SOCIAL ENVIRONMENT

As a component of the Environmental Assessments (EAs), socioeconomic studies shall be conducted to assess the impact of the subprojects on the existing communities and settlements located within the respective subprojects neighbourhood or Right of Way (RoW). It is mandatory to integrate community including women's CBO- views at the project design stage. Socio-economics and community health impact assessment are tools designed to integrate the desires and aspirations of the community with those of the project proponent. In line with Environmental Assessment objectives, wide consultations shall be held and community aspirations shall be recorded.

Using structured questionnaire, the respondents from the sub projects host communities shall be carefully selected to represent all sector of the community. The main objectives of the studies include among others:

- To appraise the socio-economic and cultural structure of the communities within the subproject areas. This includes assessment of the population structure, settlement patterns, cultural practices, economic activities and existing infrastructural facilities.
- To evaluate the possible impact of the project activities on the socioeconomic and cultural structure of the communities.
- To assess the perception of the affected people on the subproject, problems affecting their communities and their needs.

#### 4.3.1 Population and Demographics

Nigeria is the most populous country in Africa and the seventh most populous country in the world. Nigeria has the third-largest youth population in the world, after India and China.

Nigeria's population is estimated to be over 182 million people as at 2017 (NPC, 2009). This is based on the annual exponential population growth rate of 3.18% between the period of the census of 1991 and the census of 2006 (14 years and 4 months) according to the Official Gazette of National Population Commission (NPC) published 2<sup>nd</sup> February 2009 which was based on the 2006 census figures. The total territorial area of Nigeria is 923,768 km<sup>2</sup> (National Boundary Commission, (NBC)). The total territorial area of the eighteen RAAMP states is 459,351 km<sup>2</sup>, accounting for 49.7% of the total area of Nigeria. The population of the eighteen RAAMP states was 98,498,990 accounting for 51.96% of the total population of the country. The population density is 159 persons/ km<sup>2</sup>, which is higher than the national average. The national population density is 152 persons/ km<sup>2</sup>. The population statistics of the country is presented in Table 4.1. The

environmental assessment reports for the subprojects shall give the estimated populations of the host communities/neighbourhoods.

The country is viewed as a multinational state as it is inhabited by over 500 ethnic groups, of which the three largest are the Hausa, Igbo and Yoruba. These ethnic groups speak over 500 different languages and are identified with a wide variety of cultures.

| Table 4.1: Projected Population Statistics of the Project Areas (States) |
|--|
|--|

| S/N | Country  | Estimated Population Statistics (based on exponential growth rate of 3.18% from 2006 NPC Gazette). |            |             |  |
|-----|--|--|------------|-------------|--|
|     |  | Male   | Female     | Total       |  |
| 1.  | Nigeria  | 93,252,690   | 96,302,139 | 189,554,829 |  |
| 2.  | Total Population of the<br>18 RAAMP States                         | 49,979,926   | 48,519,064 | 98,498,990  |  |
| 3.  | Total Proportion of the<br>Population in relation to<br>the nation |  | 51.96%     |             |  |
| 4.  | Total Proportion of the project area (landmass) in the nation.     |  | 49.7%      |             |  |

#### 4.3.2 Labour Influx

The project may face an influx of non-local labour and working conditions issues as skilled labourers might not be available in some of the project sites. The project will take concrete measures to mitigate potential labour influx related risks such as workers' sexual relations with minors and resulting pregnancies, presence of sex workers in the community, the spread of HIV/AIDS, sexual harassment of female employees, child labour and abuse, increased drop-out rates from school, inadequate resettlement practices and fear of retaliation, failure to ensure community participation, poor labour practice and lack of road safety. These risks require careful consideration to improve social and environmental sustainability, resilience social cohesion. Therefore, the project will include prevention, mitigation and response measures such as:

- (a) Assessing living conditions of workers camp and ensuring appropriate living conditions.
- (b) Establishing and enforcing a mandatory code of conduct for the sub project contractors, managers and workers and an Action Plan for implementation. The Code of Conduct should cover the commitment of the company, and the responsibilities of managers and individuals with regard to GBV, and ideally other key issues identified in the ESIA/ESMP/C-ESMP such as ESHS and OHS. Any CoC must be accompanied by an accountability and response framework which outlines how complaints will be handled, in what timeframe, and the range of possible consequences for perpetrators of GBV.
- (c) Mapping of services for survivors of GBV in the intervened project areas
- (d) Collaborate with NGOS, CBOs and other organizations as possible to define the prevention, mitigation and response strategy for GBV.
- (e) Ensuring appropriate location for these camps.
- (f) Taking countermeasures indicated in the Social Management Plan to reduce the impact of the labour influx on the Public services.
- (g) Conduct awareness raising the communities and capacity building in the SPIU
- (h) Devising and implementing a strategy for maximizing employment opportunity for local population including women.

The following guidelines lays out the principles that are key to properly assessing and managing the risks of adverse impacts area communities that may result from temporary RAAMP induced labour influx:

- The SPIU will have to hire to the maximum extent, skilled and unskilled workers from affected communities in the project area. The SPIU will adopt or implement all possible measures to avoid if not minimize labour influx into the project area.
- The SPIU will assess and manage labour influx risk, based on appropriate instruments such as those based on risks identified in the ESIA , the Bank's Guidelines and sector specific experience in the country.
- Depending on the risk factors and their level, appropriate mitigation instruments need to be developed including the ESMP, site specific

Labour Influx Management Plan and/or a Workers' Camp Management Plan.

- Risk factors to the SPIU that should be considered include those that are project related and country level violence:
- > Weak institutional capacity of the implementing agency
- Predominant presence of contractors without strong worker management and health and safety policies.
- > Anticipated high volumes of labour influx.
- Pre-existing social conflicts or tensions.
- > Weak local law enforcement.
- Prevalence of different forms of gender based violence and social norms towards it in the community (acceptance of gender based violence.
- Poverty levels
- Difficulties to monitor GBV and SEA risks across the full span of the work
- > Prevalence of transactional sex.
- > Local prevalence of child and forced labour.
- > Existing conflict situations between communities.
- > Absorption capacity of workers to the community.
- The SPIU will be required to incorporate social and environmental mitigation measures into the civil works contracts and responsibilities for managing these adverse. This will be a binding contractual obligation on the SPIU with appropriate mechanism for addressing non-compliance.

The Supervision Consultant shall be responsible for monitoring the contactor performance and adherence to the labour influx guideline and that of its Sexual Exploitation and Abuse (SEA) obligations with a protocol in place for immediate, timely, mandatory and confidential reporting in case of incidents to sub project community.

This allows the SPIU to enforce the implementation of such mitigation measures which are required to ensure the consultant's own compliance with Bank policy requirements. While the Bank reviews and clears project – level safeguard instruments such as the ESIA/ESMP. It is the SPIU's responsibility to:

- (i) Ensure the safeguard instruments are reflected in the contractor's ESMP (CESMP).
- (ii) Ensure the project is implemented in accordance with the CESMP, safeguard instruments and other relevant contractual provisions.

## 4.3.3 Gender Based Violence

Nigeria has ratified or acceded to the core international human rights treaties and is party to the major regional human rights instrument which obliged States to respect, protect and fulfill human rights of all persons within the territory and subject to the jurisdiction of the State, without discrimination. Rape may violate several human rights obligations enshrined in the instruments ratified by Nigeria and is also a form of gender-based violence and a brutal manifestation of violence against women. As a State party to the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) and the protocol to the African Charter on Human and Peoples' Rights on the Rights of Women in Africa (the ''Maputo Protocol", Nigeria has made legally binding commitments to exercise due diligence to combat gender - based violence and discrimination.

Accordingly, Nigeria has an obligation to take all appropriate measures to prevent rape, ensure that there are adequate sanctions for rape in law and in practice and ensure access to reparation for the victims. Furthermore, several human rights instruments require Nigeria to take special measures to protect the rights of individuals who are vulnerable to sexual violence, namely, women, children and persons with disabilities.

The United Nations Special Rapporteur on violence against women has provided guidance on States' due diligence obligations in combating sexual violence noting that it must be implemented at both individual and systemic levels. Individual due diligence focuses on the needs of individual survivors and places an obligation on the State to assist victims in rebuilding their lives and moving forward", for instance through the provision of psychosocial services. Individual due diligence 'requires States to punish not just the perpetrators, but also those who fail in their duty to respond to the violation". As for systemic due diligence, it includes ensuring " a holistic and sustained model of prevention, protection, punishment and reparations for acts of violence against women.

#### International Treaties.

- The International Covenant on Civil and Political Rights (ICCPR), 2004.
- The International Covenant on Economic, Social and Cultural Rights (ICESCR), 2004.
- The Convention against Torture and other Cruel, Inhuman or Degrading Treatment or Punishment (CAT), 1993.
- The Convention on the Elimination of all forms of Discrimination against Women (CEDAW), 1984.
- The Convention on the Rights of the Child (CRC), 1990 and the Convention on the Rights of Persons with Disabilities (CRPD), 2012.
- International Convention on the Elimination of All Forms of Racial Discrimination, (1976).

## **Regional Treaties.**

- The African Charter on Human and Peoples' Rights (ACHPR), 1982.
- The African Charter on the Rights and Welfare of the Child (ACRWC).
- The Protocol to the ACHPR on the Rights of Women in Africa (the 'Maputo Protocol'') (2007), National Policies.
- The National Action Plan for the implementation of United Nations Security Council Resolution 1325 (2009)
- The National Gender Policy (2010).

Nigeria is among the 10 percent of countries worldwide that exhibit the highest levels of gender discrimination according to the OECD's Social Institutions and Gender Index with an assessment of 'high" or 'very high" in all the evaluated categories (discriminatory family code, restricted physical integrity, son bias, restricted resources and assets, restricted civil liberties). It also falls into the group of countries with highest gender inequality in human development outcomes (UNDP 2016).

Gender – Based Violence (GBV) remains pervasive and under-reported in the country, largely constraining women's autonomy and life chances. The 2013 Demographic Health Survey (DHS) indicates that nationally 38 percent of women between the ages of 15 – 49 have experienced some form of physical or sexual violence from the age of 15 and 11 percent experienced physical violence within the 12 months prior to survey. 45 percent of women who experienced violence never sought help or never told anyone about the violence. Besides interpersonal and sexual violence, child marriage and Female Genital Mutilation are the other culturally harmful practices prevalent across Nigeria. Conflict in the North East has further contributed a steep rise in targeted violence against women and children by Boko Haram increasingly for abduction and violence. Women are increasingly being used as instruments of war, making them vulnerable to stigmatization and rejection from their families and communities.

## 4.3.4 Road Safety and Disability Inclusion

The objective of road safety is to reduce the harm (deaths, injuries, impairments and damage to property) resulting from crashes. This is achieved by using a safe system approach that typically involves three interactive elements, namely, safer road users, safer road environments and safer vehicle.

Rapidly increasing, deaths and injuries from road crashes are a major public health issue. The World Health Organization (WHO) in 2006 has estimated 1.24 million people worldwide are killed in road crashes every year and that almost half are pedestrians, motorcyclists or cyclists. In addition, road crashes cause between 20 million and 50 million non-fatal injuries per year and are a **major cause of disability**. Deaths from injuries sustained in road crashes account for around 25% of all injury fatalities (Handicap International, 2006). More than 90% of all road crash deaths occur in low- and middle-income countries, even though these countries have only 48% of the world's vehicles (Handicap International,

2006).. While road crash death rates in many high-income countries have stabilized or even declined in recent decades, research suggests an increase in most of the world's regions and, should trends continue unabated, that they will rise to an estimated 2.4 million a year by 2030. Without appropriate action, road crash injuries are predicted to be the fifth foremost contributor to the global burden of disease and injury, behind cardiovascular and pulmonary diseases. The International Labour Organization (ILO) statistics confirm that road crashes are one of the main causes of occupational accidents and injuries and, as such, road safety is one of ILO's strategies for Preventive Occupational Safety.

In Nigeria, the Federal Road Safety Corps 2016 Report indicated that 9,694 Road Traffic Crashes (RTCs) were recorded out of which 2,638 cases were fatal, 5,633 were serious cases and 1,423 cases were minor with 5,053 persons killed which indicate a decrease in number of crashes by (0.4%) and fatalities by (7%) compared to the figures of 2015 with 9,734 crashes and 5,440 deaths.

Generally, five (5) deaths were recorded in every ten (10) crashes as against six (6) deaths per ten (10) crashes in 2015 which is an indication of 16.7% reduction. Borno State witnessed the highest severity index of deaths per 10 crashes and followed by Yobe State with 11 deaths per 10 crashes. Delta and Oyo States ranked with 10. Gombe and Ondo States recorded 9 while Kogi and Jigawa States had 8 each. FCT and Bayelsa States recorded the least severity index with 2 deaths per 10 crashes. A total of 3,970 males constituting 79% were killed in RTCs in year 2016 while 1,083 females accounting for 21% lost their lives. Furthermore, 22,705 males constituting 75% sustained injuries while 7,400 persons sustained varying degrees of injuries in the female category accounting for 25% of total injured persons.

In terms of persons killed, 79% were male while the remaining goes to the female. Also 94% of people injured were adults while 6% were children. In the same vein, 93% of victims killed were adult while the remaining 7% were children (FRSC, 2016)

Road crashes are a major cause of physical and mental disability worldwide. Disability is defined as the interaction between personal and environmental factors stemming from causes and consequences of disease, trauma and other disruptions to a person's integrity and development, with strong emphasis on social participation.

Disability inclusion approach requires mainstreaming disability in road safety at all levels, whereby the concerns and experiences of people with disabilities are integral to the design, implementation, monitoring and evaluation of road safety policies and programmes in all political, economic and societal spheres. It is essential when adopting a disability mainstreaming approach to road safety to assess, implement and monitor project activities through a lens of crossimpairment. In concrete terms, this requires road safety projects to take conscious and planned measures to address barriers systematically and promote facilitators for women and men with all types of impairments – physical, sensory, intellectual and mental – and at all levels – services, community, attitudes, policy and environment.

For the RAAMP project, this would be achieved through the provision of infrastructure for People with Disabilities (PWDs) which are aided facilities on the road. This includes the following:

**The Green Man:** This is a part of the traffic light that allows the pedestrian to cross the road at an intersection where the path of the vehicle crosses that of the pedestrian. It is usually depicted by the picture of a green man walking.

**Accessible Pedestrians Signals (APS):** This is a device that communicates information about pedestrians timing in non-visual format such as audible tones, verbal messages and/or vibrating surfaces. This can also be referred to as audible pedestrian's signals

**Braille Traffic light:** This is a Pedestrian pushbutton that can be used by both the sighted and visually impaired. It is usually mounted on a light pole near a pedestrian crosswalk. The pushbutton has a front panel that lights up when depressed by a sighted person while a visually impaired pushes the raised Braille type pushbutton on the bottom of the box. When either panel is pushed, an electric signal is activate which changes the traffic light to give the pedestrian the right of way.

#### 4.3.5 Land Use Pattern, Agricultural Production and Livelihoods

The estimated land area of Nigeria is 923,768 km<sup>2</sup>. Land use varies based on location and the needs of the community. However, the different uses of land revolve around agriculture, industry and social needs such as the provision of infrastructure. Recent data shows that between 50%- 60% of the land area of Nigeria is under various forms of intensive rainfed small holder agriculture (crop and animal) production and forest plantation.

Agriculture in Nigeria is largely subsistence and is characterized by intensive small holder rainfed and extensive grazing. Various schemes had been put in place to further boost agricultural production, these includes the Irrigation system, FADAMA projects, grazing zones/routes, and Agro-allied business such as fertilizer production. In addition to fish farming activity, some coastal/riverine communities also engage in fishing activities and other aquatic resources

Agricultural produce in Nigeria vary from one region to the other. Major produce in the north are cereals ((such as millet, millet), rice, maize, beans, soya beans and vegetables. Irish potato, yam, potato are the main agricultural produce in the middle belt while cassava, cash crops such as cocoa, coffee, cola nuts and cashew nuts are grown in the south-western Nigeria, also, red oil production and cassava are exceptionally produced at the south-eastern region.

#### 4.3.6 Employment, Economy and Poverty

Estimate from the Nigerian Bureau of statistics (NBS) indicates that unemployment rate in Nigeria within the period is 14.2% from 13.3% in (2Q 2016), while youth unemployment stands at 24.0%. It is therefore well conceived that the inclusion of the agricultural marketing component to the existing rural access function of RAAMP will unlock the agro sectoral constraints and stimulate the potentials of the agro value chains to support massive employment in Nigeria. The Nigerian economy rests on two pillars: oil/gas and agriculture. Both sectors contributes 65% - 70% of GDP, while the secondary sector (manufacturing contributes about 7% and the tertiary sector (transport, trade, housing etc) contributes about 25%.

Nigeria's major industries are located in Lagos, Agbara and Sango Otta(Ogun State), Port Harcourt, Ibadan, Aba, Onitsha, Calabar, Kano, Jos and Kaduna.

From a GDP growth rate of 6.3% in 2014, Nigerian economy shrank 1.3% yearon-year in the fourth quarter of 2016, following a 2.24% decline in the previous period. Inflation rate in Nigeria as at September 2016 was 17.91% (NBS, 2016). According to the World Bank national account data file, the latest value for GNI per capita, Atlas method in Nigeria fell from US\$2,970.00 as of 2014 to US\$2820 in 2015 as against US\$6050 for South Africa in the same period

It is estimated that 60% of the total population of Nigeria live below the poverty line. The average percentage of the urban poor (i.e. % of population below national poverty line) is a staggering 45% compared with the USA average of 32%.

#### 4.3.7 Water Supply and Sanitation Condition

At the federal level, substantial progress has been made to define institutional roles and develop supporting policies for water supply and sanitation service delivery.

The key challenge for Nigeria is to promulgate policy guidance at the state level as water supply and sanitation (WSS) is mostly the state governments' responsibility. States have a high degree of autonomy—compared to other countries in Africa with a federal structure— and their adoption of national WSS policy guidance is uneven. While some states have created strong enabling environments (some more advanced than that at federal level), other states are yet to start the reform process.

This uneven commitment to WSS and shaping its enabling environment is also reflected in vast disparities in rates of access to WSS services across states: from 81 percent in Lagos state to 13 percent in Sokoto state for water supply and from 97 percent in Kano to 12 percent in Bayelsa for sanitation (AMCOW, 2011). Whilst there are differences among sources of data on access to WSS, and an array of sector targets, both the Water Supply and Sanitation Baseline Study (WSSBS) of 2007 and the UNICEF/WHO Joint Monitoring Programme (JMP) 2010 report provide estimates of national access indicating that Nigeria is unlikely to achieve the Millennium Development Goal (MDG) targets unless it takes drastic steps to improve current performance.

In large part the ingredients for a reformed sector have been agreed upon at the federal level, but require rolling out in all states. These include sector policies and strategies and a review of legislation to conform with intentions regarding the roles of government and the private sector, and separation of policy formulation and regulation from service delivery.

Estimates of the investment in WSS required to meet 2015 sector MDG targets range from US\$2.5 billion (MDG Office) to US\$4 billion annually (US\$1.7 billion for water supply and US\$2.3 billion for sanitation) (AMCOW, 2011).

#### 4.3.8 Communicable and Non-Communicable Diseases in Nigeria

Communicable diseases along with maternal, parental and nutritional conditions in Nigeria accounted for an estimated 67 per cent of all mortality in 2008 (Common wealth online, 2018). Communicable diseases spread from one person to another or from an animal to a person. The spread often happens via airborne viruses or bacteria, but also through blood or other body fluid. The terms infectious and contagious are also used to describe Communicable disease.

In Nigeria, as in other African countries, the challenge is to develop or reinforce mechanisms to detect, verify and respond rapidly and effectively to unexpected outbreaks and epidemics. WHO supports the government, working with Ministries, National Emergency Management Agency and other stakeholders to strengthen the national communicable disease surveillance and response systems through existing surveillance structures in the States and Local Government Areas (LGAs).

- WHO has supported Nigeria in the prevention, control and eradication of communicable diseases over several years. WHO support has mainly been for: Neglected Tropical Diseases (NTDs);
- Dracunculiasis (Guinea worm disease (GWD)),
- Human African Trypanosomiasis (HAT),
- Buruli Ulcer (BU),
- Lymphatic filariasis (LF),
- Onchocerciasis,
- Schistosomiasis and
- Leprosy.

Non-communicable diseases (NCDs), mainly cardiovascular diseases, cancers, chronic respiratory diseases and diabetes, are leading threats to human health and development in Nigeria. Africa's most populous country contributes substantially to the global burden. Four modifiable risk factors are linked with these diseases, and primary prevention strategies are key to tackling them. The

World Health Organization (WHO) developed the 2013-2020 Global Action Plan for the Prevention and Control of NCDs, which recommends multi-sectoral actions (MSA) as an overarching principle to underpin formulation and implementation of NCD policies. The document also stresses the need to integrate highly costeffective, feasible and culturally acceptable interventions – termed 'best buys' – into country-level NCD prevention, control policies and plans, to accelerate results in terms of lives saved, diseases prevented, and costs averted.

Nigeria developed some NCD policies in line with this global recommendation.

#### 4.3.9 Access to Health Services in Nigeria

Healthcare provision in Nigeria is a concurrent responsibility of the three tiers of government in the country; Federal, States and Local Governments. Private providers of healthcare have a visible role to play in health care delivery.

The Federal government's role is mostly limited to coordinating the affairs of the university Teaching Hospitals, Federal Medical Centre (tertiary healthcare) while the state government manages the various general hospitals (secondary healthcare) and the local government focus on dispensaries (primary healthcare), which are regulated by the federal government through the NPHCDA.

The total expenditure on healthcare as % of GDP is 4.6, while the percentage of federal government expenditure on healthcare is about 1.5% (Oladimeji et al 2017). A long run indicator of the ability of the country to provide food sustenance and avoid malnutrition is the rate of growth of per capita food production; from 1970–1990, the rate for Nigeria was 0.25% (Oladimeji et al 2017). Though small, the positive rate of per capita may be due to Nigeria's importation of food products.

# 4.4 STATE SPECIFIC BASELINE DATA OF RAAMP PARTICIPATING STATES

The baseline environmental and social data of the RAAMP participating States are presented in Table 4.2

| S/N | Parameter                 | <b>Baseline Condition</b>  | ons in the RAAMP Pa   | rticipating States   | ;  |  |   |
|-----|---------------------------|--|---|--|--|--|---|
|     |                           | Abia   | Akwa Ibom   | Anambra  | Bauchi   | Benue  | Cross River   |
| 1   | Location                  | 5º 25'N 7º 30'E/<br>5.417º N 7.500º<br>E   | 5º 00'N 7º 50'E/<br>5.000º N 7.833º E   | 6º 20'N 7º<br>00'E/<br>6.333º N<br>7.000º E  | 10° 30'N 10°<br>00'E/<br>10.000° N<br>10.000° E                                  | 7º 20'N 8º<br>45'E/<br>7.333º N<br>8.750º E  | 5º 45'N 8º 30'E/<br>5.750ºN 8.500º E                |
| 2   | Capital City              | Umuahia  | Uyo   | Awka   | Bauchi   | Makurdi  | Calabar   |
| 3   | No of Local<br>Govt Areas | Seventeen  | Thirty one  | Twenty one   | Twenty   | Twenty three   | Eighteen  |
| 4   | Region in<br>Nigeria      | South East   | South South   | South East   | North East   | North Central  | South South   |
| 5   | Bordered (by)             | On the North<br>and North-East<br>by Anambra,<br>Enugu and<br>Ebonyi states;<br>on the West by<br>Imo state; on<br>the East and<br>South-East by<br>Cross River and<br>Akwa Ibom<br>States and on<br>the South by<br>Rivers state. | On the East by<br>Cross River State,<br>on the West by<br><u>Rivers State</u> and<br><u>Abia State</u> , and on<br>the South by the<br><u>Atlantic Ocean</u> and<br>the southern-most<br>tip of Cross River<br>State. | Enugu State, on<br>the West by<br><u>Delta State</u> , on<br>the North by<br><u>Kogi</u> and on<br>the south by<br>Imo & River | to the North,<br>Taraba and<br>Plateau to the<br>South, Gombe<br>and Yobe to the | Nasarawa<br>state to the<br>North, Cross<br>River state to<br>the South,<br>Taraba state to<br>the East,<br>Enugu state to<br>the South-west<br>and Kogi state<br>to the West. | and the Atlantic<br>Ocean and Akwa<br>Ibom State to |
| 6   | Landmass                  | 6,320 km²  | 7,081 km <sup>2</sup>   | 4,844 km <sup>2</sup>  | 49,119 km <sup>2</sup>   | 34,059 km²   | 20,156 km <sup>2</sup>                              |

| S/N |                |  |           |   |   |   |  |
|-----|----------------|--|-----------|---|---|---|--|
|     |                | Abia   | Akwa Ibom | Anambra   | Bauchi  | Benue   | Cross River  |
| 7   | Nature of Soil | Adia<br>The soils of Abia<br>State fall within<br>the broad group<br>of ferrallitic soils<br>of the coastal<br>plain sand and<br>escarpment.<br>Other soil types<br>include alluvial<br>soils found along<br>the low ter- race<br>of the Cross<br>River and other<br>rivers. |           | Three soil<br>types can be<br>recognised in<br>Anambra State.<br>They are: (i)<br>alluvial soils, | The soils are<br>well drained<br>shallow<br>immature sandy<br>soils with<br>evidence of little<br>profile<br>differentiation.<br>They are formed<br>mainly from<br>unconsolidated<br>sands or Aeolian<br>drift and are<br>characterized by<br>critically low<br>organic matter,<br>cation exchange<br>capacity and<br>available<br>phosphate. | The soils are<br>mainly oxisols<br>and ultisols<br>(tropical<br>ferruginous)<br>which vary<br>over space with<br>respect to<br>texture,<br>drainage,<br>composition<br>etc. They are<br>highly<br>weathered with<br>sandy surface | Cross River soils<br>are<br>predominantly<br>of five types.<br>These are: (i)<br>the steep,<br>shallow,<br>yellowish and<br>red gravely soils<br>on the Oban<br>Obudu Hills; (ii)<br>the deep<br>lateritic, fertile<br>soils on the<br>Cross River |

| S/N | Parameter           | Baseline Condition   | ons in the RAAMP Pa   | rticipating States  | 6  |  |  |
|-----|---------------------|--|---|---|--|--|--|
|     |                     | Abia   | Akwa Ibom   | Anambra   | Bauchi   | Benue  | Cross River  |
|     |                     |  |   |   |  |  | and (v) the<br>swampy<br>hydromorphic<br>soils of the lower<br>deltaic coastal<br>plain that is<br>usually floated |
| 8   | Vegetation<br>types | The vegetation   |   |   |  | The vegetation   | during the rains.<br>The vegetation  |
|     | types               | in Abia State is<br>ordinarily<br>considered part<br>of tropical rain<br>forest which is | vegetation has<br>been almost<br>completely<br>replaced by<br>secondary forests   | the greater<br>part of<br>Anambra State                     |  | of Benue State<br>lies in the<br>southern<br>Guinea<br>Savannah.   | of Cross River<br>State ranges<br>from mangrove<br>swamps,<br>through  |
|     |                     | the dominant natural   | of predominantly<br>wild oil palms,   | or deciduous  | vegetation<br>zones, namely,   | However,<br>persistent   | rainforest, to<br>derived  |
|     |                     | vegetation in<br>most parts of<br>southern<br>Nigeria.                                   | woody shrubs and<br>various grass<br>undergrowths.<br>Mangroves cover<br>extensive parts of<br>the coastal Local<br>Government Areas. | form,<br>comprised tall<br>trees with thick<br>under growth | the Sudan<br>Savannah and<br>the Sahel<br>Savannah. The<br>Sudan savannah<br>type of<br>vegetation | clearance of<br>the vegetation<br>for farming<br>purposes has<br>led to the<br>development of<br>re-growth | savannah, and<br>montane<br>parkland.  |
|     |                     |  | Farmland mixed<br>with oil palm and<br>degraded forests<br>predominate in the   |   | covers the<br>southern part of<br>the state. The<br>Sahel type of the                              | vegetation.  |  |

| S/N | Parameter     | Baseline Condition                | ons in the RAAMP Pa              | rticipating States |                                |                              |                                  |
|-----|---------------|-----------------------------------|----------------------------------|--------------------|--------------------------------|------------------------------|----------------------------------|
|     |               | Abia                              | Akwa Ibom                        | Anambra            | Bauchi                         | Benue                        | Cross River                      |
|     |               |                                   | rest of the state.               |                    | savannah,                      |                              |                                  |
|     |               |                                   |                                  |                    | becomes                        |                              |                                  |
|     |               |                                   |                                  |                    | manifest from                  |                              |                                  |
|     |               |                                   |                                  |                    | the middle of the              |                              |                                  |
|     |               |                                   |                                  |                    | state as one                   |                              |                                  |
|     |               |                                   |                                  |                    | moves from the                 |                              |                                  |
|     |               |                                   |                                  |                    | state's south to               |                              |                                  |
|     |               |                                   |                                  |                    | its north.                     |                              |                                  |
| 9   | Average       | Mean                              | Mean                             | Mean               | Mean                           | Mean                         | Mean                             |
|     | Temperature   | temperatures                      | temperatures vary                |                    | temperatures                   | temperatures                 | temperatures                     |
|     |               | vary between                      | between 26°C to                  | '                  | vary between                   | vary between                 | vary between                     |
|     |               | 24°C to 37°C                      | 36°C                             | 27°C to 36°C       | 29°C to 40°C                   | 28.9°C to                    | 22°C to 33°C                     |
| 10  | Rainfall      |                                   | The tetal energy                 | The total          | The total valuefall            | 40.9°C                       | The total ensuel                 |
| 10  | Kallılalı     | The total rainfall decreases from | The total annual                 | The total          | The total rainfall varies from | The total<br>annual rainfall | The total annual rainfall ranges |
|     |               | 2200mm in the                     | rainfall varies from             |                    | varies from 1300mm in the      |                              | rainfall ranges<br>from 2300mm   |
|     |               | south to                          | 4000mm along the coast to 2000mm |                    | south to 700mm                 | ranges from<br>1100mm to     | to 3800mm                        |
|     |               | 1900mm in the                     | inland.                          | 111111             | in the north.                  | 1800mm.                      |                                  |
|     |               | north.                            |                                  |                    | in the north.                  | 100011111.                   |                                  |
| 11  | Geology/Terra | There are nine                    | The whole of Akwa                | Anambra State      | The state lies on              | Benue State                  | The Cross River                  |
|     | in:           | main geological                   | Ibom State is                    | lies in the        | the Kerri                      | falls within the             | State, Nigeria, is               |
|     |               | formations from                   | underlain by                     | Anambra            | formation, of                  | Benue                        | underlain by the                 |
|     |               | south to north.                   | sedimentary                      | Basin, the first   |                                | Valley/trough                | Precambrian-                     |
|     |               | These include:                    | formations of Late               | 5                  | which is                       | which is                     | age crystalline                  |
|     |               | The Benin                         | Tertiary and                     | intensive oil      | composed of                    | believed to be               | basement                         |
|     |               | formation (or                     | Holocene ages.                   | exploration        | sandstone, silt                | structurally                 | complex and by                   |
|     |               | Coastal Plain                     | Deposits of recent               | was carried out    | stones,                        | developed.                   | rocks of                         |

| S/N | Parameter              | <b>Baseline Condition</b>   | ons in the RAAMP Pa  | rticipating States  |  |   |  |
|-----|------------------------|---|--|---|--|---|--|
|     |                        | Abia  | Akwa Ibom  | Anambra   | Bauchi   | Benue   | Cross River  |
|     |                        | Sand), the<br>Bende-Ameki<br>Group, the<br>Nkporo Shale<br>Group, the<br>Nsukka<br>formation<br>(Upper Coal<br>Measures), the<br>Igali sandstone<br>(False- bedded<br>Sandstone) etc. | alluvium and beach<br>ridge sands occur<br>along the coast and<br>the estuaries of the | in Nigeria.<br>About 6,000 m<br>of sedimentary<br>rocks. The<br>sedimentary | kaolinites and grits.                            | DuringtheTertiaryandpossiblytheinterglacialperiods of the | Cretaceous to<br>Tertiary age.<br>The Basement<br>Complex, which<br>forms the Oban<br>Obudu hills,<br>consists of<br>Precambrian<br>schists and<br>gneisses, with<br>intrusives of<br>igneous rocks.<br>The sedimen<br>tary basins, of<br>Cretaceous<br>Tertiary age, are<br>found in the<br>Ikorn<br>Depression<br>(Mamfe Rift),<br>the Cross River |
| 12  | Major Ethnic<br>Groups | Igbo  | <u>Ibibio, Annang,</u><br><u>Eket, Oron</u> and  | Igbo  | <u>Hausa, Fulani,</u><br><u>Gerawa, Sayawa</u> , | Tiv, Idoma and<br>Igede                                   | Efik, Ejagham,<br>Yakurr, Bette,   |

| S/N | Parameter                               | <b>Baseline Condition</b>   | ons in the RAAMP Pa  | rticipating States                                    |  |  |  |
|-----|---|---|--|---|--|--|--|
|     |   | Abia  | Akwa Ibom  | Anambra   | Bauchi   | Benue  | Cross River  |
|     |   |   | Obolo  |   | <u>Jarawa</u> , Kirfawa,<br>Turawa <u>Bolewa</u> ,<br><u>Karekare</u> , <u>Kanuri</u> ,<br><u>Fa'awa</u> , <u>Butawa</u> ,<br><u>Warjawa</u> , <u>Zulawa</u><br>etc. |  | Yala, Igede,<br>Ukelle and the<br>Bekwarra.  |
| 13  | Main Native<br>language                 | Igbo  | Ibibio, Annang, Eket<br>and Oron   | Igbo  | Hausa  | Tiv, Idoma and<br>Igede  | Boki, Ejagham<br>and Efik  |
| 14  | Population<br>(2006 national<br>census) | 2,845,380   | 3,902,051  | 4,177,828   | 4,653,066  | 4,253,641  | 2,892,988  |
| 15  | Population<br>Density                   | 450.2 persons/<br>km <sup>2</sup>   | 551.1 persons/ km <sup>2</sup>   | 862.5 persons/<br>km <sup>2</sup>                     | 94.7 persons/<br>km <sup>2</sup>   | 124.9 persons/<br>km <sup>2</sup>  | 143.5 persons/<br>km <sup>2</sup>  |
| 16  | Major<br>occupation                     | Agriculture,<br>Crafts making,<br>Trading   | Farming, Crafts<br>making, trading,<br>fishing   | Farming ,<br>fishing, crafts<br>making and<br>trading | Farming, fishing,<br>blacksmithing,<br>crafts & trading  | Agriculture,<br>fishing  | Farming, fishing   |
| 17  | Cultural/<br>Unique<br>Resources        | Arochukwu<br>Cave, Akwete<br>Weavers,<br>Azumini Blue<br>River, National<br>War Museum,<br>Umuahia, | National Museum,<br>Uyo, Lord Lugard<br>residence, Mbo<br>Forest Reserve,<br>Maryu Slessor<br>House TomSlave<br>Masters Lodge, | Lake, <u>Ogbunike</u><br><u>Caves</u> , <u>Igbo</u>   | Yankari &<br>Premier game<br>reserves, Rock<br>Paintings at Goji<br>& Shira etc.   | Gurgul water<br>fall on Katsina<br>– Ala River,<br>Enumabia<br>Warm Spring,<br>Tombs of the<br>first Dutch | IkomMonoliths,the Mary SlessorTomb,CalabarDrillMonkeySanctuary, CrossRiverNationalPark,Afi |

| S/N | Parameter  | <b>Baseline Condition</b>                               | ons in the RAAMP Pa             | rticipating States              | 5                                |                                 |   |
|-----|--|---|---------------------------------|---------------------------------|----------------------------------|---------------------------------|---|
|     |  | Abia  | Akwa Ibom                       | Anambra                         | Bauchi                           | Benue                           | Cross River   |
|     |  | International<br>Conference<br>Centre in<br>Umuahia etc | Okopedi, Itu etc.               |                                 |                                  | missionaries<br>etc.            | Mountain<br>walkway<br>canopy, Kwa<br>falls, Agbokim<br>waterfalls,<br>Tinapa Business<br>Resort etc. |
| 18  | Total Casualty<br>of Road<br>Accidents in<br>2016<br>(Courtesy:<br>FRSC) | 425   | 232                             | 655                             | 1,458                            | 1,068                           | 328   |
| 19  | HIV/AIDs<br>Prevalence<br>2016/2017                                      | 3.3% (13 <sup>th</sup> position)                        | 6.5% (6 <sup>th</sup> position) | 1.2% (27 <sup>th</sup> position | 0.6% (33 <sup>rd</sup> position) | 5.6% (8 <sup>th</sup> position) | 4.4% (10 <sup>th</sup> position)  |

 Table 4.2b: Baseline Environmental and Social Data of the RAAMP Participating States

| S/N | Parameter                 | <b>Baseline Condition</b>  | ns in the RAAMP Pa  | rticipating States   |  |  |   |
|-----|---------------------------|--|---|--|--|--|---|
|     |                           | Borno  | Kano  | Katsina  | Kebbi  | Kogi   | Kwara   |
| 1   | Location                  | 11°30'N 13°00'E/<br>11.500°N 13.000°<br>E  | 11°30'N 8°30'E/<br>11.500° N 8.500°<br>E  | 12º 15'N 7º 30'E/<br>12.250º N 7.500º<br>E   | 11 <sup>0</sup> 30'N 4 <sup>0</sup> 00'E/<br>11.500 <sup>0</sup> N<br>4.000 <sup>0</sup> E             | 7º 30'N 6º 42'E/<br>7.500º N 6.700º E  | 8º 30'N 5º 00'E/<br>8.500ºN 5.000º<br>E   |
| 2   | Capital City              | Maiduguri  | Kano  | Katsina  | Birnin - Kebbi   | Lokoja   | Ilorin  |
| 3   | No of Local<br>Govt Areas | Twenty seven   | Forty four  | Thirty four  | Twenty one   | Twenty one   | Sixteen   |
| 4   | Region in<br>Nigeria      | North East   | North West  | North West   | North West   | North Central  | North Central   |
| 5   | Boundary<br>(by)          | The State<br>occupies the<br>greatest part of<br>the Chad Basin<br>and shares<br>borders with the<br>Republics of<br>Niger to the<br>North, Chad to<br>the North - East<br>and Cameron to<br>the East. Within<br>the country, it is<br>bordered by<br>Adamawa to the<br>South, Yobe to<br>the West and | on the North West<br>by <u>Katsina state</u> ,<br>on the North East<br>by <u>Jigawa State</u> , on<br>the South East by<br>Bauchi State and<br>on the South<br>West by Kaduna<br>State. | Republic to the<br>North, by Jigawa<br>and Kano States<br>to the East, by<br>Kaduna State to<br>the South and by | to the North; to<br>the East by<br>Zamfara and<br>Sokoto States;<br>to the South by<br>Niger State and | the North East,<br>Benue to the<br>East, Enugu state<br>to the South East,<br>Anambra to the<br>South, Edo state | Niger state to<br>the North;<br>Republic of<br>Benin to the<br>West; Kogi<br>state to East<br>and Oyo, Osun<br>and Ekiti<br>States to the<br>south. |

| S/N | Parameter         | <b>Baseline Condition</b>   | ns in the RAAMP Pa   | rticipating States  |   |   |  |
|-----|-------------------|---|--|---|---|---|--|
|     |                   | Borno   | Kano   | Katsina   | Kebbi   | Kogi  | Kwara  |
|     |                   | Gombe to the  |  |   |   |   |  |
|     |                   | Southwest.  |  |   |   |   |  |
| 6   | Land mass         | 57,799km <sup>2</sup>   | 20,131 km <sup>2</sup>   | 24,192 km <sup>2</sup>  | 36,800 km²  | 29,833 km²  | 36,825 km <sup>2</sup>   |
| 7   | Nature of<br>Soil | Vertisols<br>dominate the flat<br>plains close to<br>Lake Chad; and<br>also in the<br>depressions.<br>These are 'heavy<br>dark clay soils<br>which develop<br>wide cracks<br>during the dry<br>season. On the<br>dunes are<br>regosols which<br>are shallow with<br>weakly developed<br>profiles. The<br>volcanic and<br>Basement<br>Complex areas<br>have fertile<br>clayey loamy soils<br>in the valley | In their natural state, the soils divide into four main groups. The ferruginous tropical soils formed on crystalline acid rocks occupy about two fifth of the State to the south, southwest and south east; the brown and reddish brown soils and litosols occur in the northern half; the brown and reddish soils are in the northeastern corner; and the south the state the brown the south the | drift deposits are<br>coarser,<br>resulting in light<br>sandy soils of<br>buff or reddish<br>colours of low<br>medium fertility.<br>These soils are<br>easily worked<br>and well suited<br>to crops such as<br>millet and | are the upland<br>and fadama<br>soils. While the<br>upland soils are<br>sandy and well<br>drained, the<br>fadama soils are<br>generally clayey<br>and hydro<br>morphic.<br>In the south and<br>southeastern<br>parts, the<br>weathering of<br>the Basement<br>Complex<br>rocks has<br>given rise to<br>three types of<br>soils. These are | of the Niger and<br>Benue river<br>valleys in Kogi<br>State have the<br>hydromorphic<br>soils which<br>contain a mixture<br>of coarse alluvial<br>and colluvial<br>deposits. The<br>alluvial soils along<br>the valleys of the<br>rivers are sandy,<br>while the<br>adjoining laterite<br>soils are deeply<br>weathered and<br>grey or reddish in<br>colour, sticky and | A large<br>proportion of<br>the land of the<br>state is<br>characterized<br>by ferruginous<br>tropical soils<br>on crystalline<br>acid rocks. The<br>northeastern<br>part of the<br>state is<br>dominated by<br>red ferralsols<br>on loose sandy<br>sediments. |

| S/N Parai         | neter | Baseline Conditions in the RAAMP Participating States   |  |   |   |   |  |  |  |
|-------------------|-------|---|--|---|---|---|--|--|--|
|                   |       | Borno   | Kano   | Katsina   | Kebbi   | Kogi  | Kwara  |  |  |
|                   |       | bottoms, but<br>skeletal soils and<br>rock outcrops<br>occur along the<br>gentle and steep<br>slopes.   | juvenile and<br>hydromorphic<br>soils occur along<br>the alluvial<br>channel<br>complexes  | are less<br>demanding in<br>their<br>requirement<br>than cotton,<br>maize and<br>guinea corn. | tropical soils,<br>black cotton<br>soils and<br>lithosols     |   |  |  |  |
| 8 Vegeta<br>types | ation | Generally, two<br>vegetation zones<br>are identified in<br>the state: Sudan<br>savannah and<br>southern Sahel.<br>In the wetter<br>south shrub<br>vegetation is<br>interspersed with<br>tall trees and<br>woodland. | The natural vegetation consists of the Sudan and the guinea savannah both having been replaced by secondary vegetation. Four fifth of the state is now composed of farmed parkland, dotted with patches of shrub savannah. There are few forest plantations of exotic trees. | belongs to the<br>Sudan Savannah<br>Zone. The<br>vegetation in the                            | Savannah in the<br>south and<br>southeast<br>characterized by | The rain forest<br>belt covers<br>Dekina, Ofu,<br>Ankpa,<br>Olamaboro, Idah<br>and Bassa Local<br>Government<br>Areas with rich<br>deciduous and<br>occasional<br>stunted trees<br>including palms,<br>Iroko, mahogany<br>etc Other LGAs<br>are in the guinea<br>savannah or<br>parkland<br>savannah belt | The vegetation<br>of Kwara state<br>falls into two<br>categories,<br>namely, Rain<br>forest in parts<br>of Irepodun,<br>Ekiti and Oyun;<br>and Wooded<br>Savannah in<br>other parts of<br>the state. |  |  |

| S/N | Parameter                      | <b>Baseline Condition</b>   | ns in the RAAMP Pa   | rticipating States  |   |   |   |
|-----|--------------------------------|---|--|---|---|---|---|
|     |                                | Borno   | Kano   | Katsina   | Kebbi   | Kogi  | Kwara   |
|     |                                |   |  | roots and thick barks.  |   | with tall grasses and some trees.   |   |
| 9   | Average<br>Max.<br>Temperature | Mean Max.<br>temperatures<br>vary between<br>30.2°C and 42.6°C  | Mean Max.<br>temperatures<br>vary between<br>24.9°C and 40.5°C   | ,   | Mean Max.<br>temperatures<br>vary between<br>28.9°C and 42°C  | Mean Max.<br>temperatures<br>vary between<br>28.9°C and<br>40.9°C   | Mean Max.<br>temperatures<br>vary between<br>26.4°C and<br>39.4°C   |
| 10  | Rainfall                       | The total annual<br>rainfall ranges<br>from 486mm to<br>1046mm.   | The total annual<br>rainfall ranges<br>from 876mm to<br>1789mm.  | rainfall ranges   | rainfall ranges   | rainfall ranges   | The total<br>annual rainfall<br>ranges from<br>1200mm to<br>1,400mm   |
| 11  | Geology/Terr<br>ain:           | A greater part of<br>the state lies on<br>the Chad<br>Formation. This is<br>an area that was<br>subjected to<br>prolonged<br>continental and<br>lake<br>sedimentation as<br>a result of the<br>down warp of the<br>Chad Basin in the<br>Pleistocene | Generally Kano is<br>underlain by<br>basement<br>complex rocks of<br>the Precambrian<br>origin. Prolonged<br>weathering of the<br>rocks produced<br>deep clay rich<br>regoliths. The<br>lateritic soil in<br>some part of the<br>upland plain area<br>caped the regolith | state has two<br>geological<br>regions. The<br>south and<br>central parts of<br>the state are<br>underlain by<br>crystalline rocks<br>of the Basement<br>Complex (from<br>Funtua to<br>Dutsinma), but | preCambrian<br>Basement<br>Complex in the<br>south and south<br>east and young<br>sedimentary<br>rocks in the<br>north. The<br>Basement | two main rock<br>types, namely,<br>basement<br>complex rocks of<br>the Precambrian<br>age in the<br>western half of<br>the state and<br>extending slightly<br>eastwards<br>beyond the lower<br>Niger valley and | Kwara state is<br>part of the<br>Basement<br>Complex of<br>Nigeria<br>considered by<br>various<br>workers to be<br>Precambrian to<br>lower Paleozoic<br>in age. The<br>basement<br>rocks consist of<br>a variety of |

| S/N | Parameter                                  | <b>Baseline Condition</b>   | in the RAAMP Pai  | ticipating States                 |  |   |  |
|-----|--|---|---|-----------------------------------|--|---|--|
|     |  | Borno   | Kano  | Katsina                           | Kebbi  | Kogi  | Kwara  |
|     |  | Period. The Chad<br>Formation is<br>separated by<br>Cretaceous Bima<br>and Kerri<br>sandstones. | hills A narrow<br>strip of the Chad<br>Formation occurs<br>to the east. | sediments                         | is composed of<br>very old volcanic<br>and<br>metamorphic<br>rocks such as<br>granites, schists<br>etc. There are<br>also<br>metasediments<br>such as phyllites<br>and<br>metaconglomera<br>tes. | rocks in the<br>eastern half. The<br>sedimentary rock<br>groups extend<br>along the banks<br>of Rivers Niger<br>and Benue and<br>southeastwards<br>through Enugu<br>and Anambra | both<br>migmatized to<br>unmigmatised<br>gneisses,<br>schists,<br>amphibolite<br>and quartzites<br>intruded by<br>granitic to<br>dioritic rocks. |
| 12  | Main Ethnic<br>Groups                      | Kanuri  | Hausa   | Hausa-Fulani                      | Hausa  | Igala, Ebira and<br>Okun  | Yoruba, Nupe,<br>Bariba, Fulani  |
| 13  | Main Native<br>language                    | Kanuri, Hausa   | Hausa   | Hausa                             | Hausa  | Igala, Ebira and<br>Okun  | Yoruba, Hausa  |
| 14  | Population<br>(2006<br>national<br>census) | 4,171,104   | 9,401,288   | 5,801,584                         | 3,256,541  | 3,314,043   | 2,365,353  |
| 15  | Population<br>Density                      | 72.2 persons/ km <sup>2</sup>   | 467 persons/ km <sup>2</sup>  | 239.8 persons/<br>km <sup>2</sup> | 88.5 persons/<br>km <sup>2</sup>   | 111.1 persons/<br>km <sup>2</sup>   | 64.2 persons/<br>km <sup>2</sup>   |

| S/N | Parameter  | <b>Baseline Condition</b>             | ns in the RAAMP Pa  | ticipating States     |  |   |  |
|-----|--|---------------------------------------|---|-----------------------|--|---|--|
|     |  | Borno                                 | Kano  | Katsina               | Kebbi  | Kogi  | Kwara  |
| 16  | Major<br>occupation  | Farmers,<br>herdsmen and<br>fishermen | Farmers,<br>craftsmen,<br>Traders   | Farmers,<br>Craftsmen | Farmers, Crafts<br>men and<br>fishermen      | Agriculture,<br>Miners                          | Farmers,<br>Craftsmen  |
| 17  | Cultural/<br>Unique<br>Resources   | The Lake Chad<br>etc.                 | Kurmi market,<br>Kano's centuries-<br>old city wall,<br>Gidan Rumfa<br>(Emir's Palace)<br>etc | National<br>Museum    | Argungu, Zuru<br>Museum, Tomb<br>of Abdulahi | (Lord Lugard<br>House), the<br>Confluence of R. | Owu Fall,<br>Imoleboja<br>Rockshelter,<br>Agan Festival,<br>Dada Pottery,<br>Kainji Lake<br>National Park<br>etc |
| 18  | Total<br>Casualty of<br>Road<br>Accidents in<br>2016.<br>(courtesy:<br>FRSC) | 142                                   | 1,863   | 1,114                 | 414  | 1,227   | 768  |
| 19  | HIV/AIDs<br>Prevalence<br>2016/2017  | 2.4% (17 <sup>th</sup> position)      | 1.3% (24 <sup>th</sup> position)  |                       | 0.8% (29 <sup>th</sup> position)             | 1.4% (23 <sup>rd</sup> position)                | 1.4% (22 <sup>nd</sup><br>position)  |

| S/N | Parameter                 | <b>Baseline Condition</b>  | ns in the RAAMP Par  | rticipating States   |   |   |   |
|-----|---------------------------|--|--|--|---|---|---|
|     |                           | Ogun   | Ondo   | Оуо  | Plateau   | Sokoto  | Taraba  |
| 1   | Location                  | 7º 00'N 3º 35'E/<br>7.000º N 3.583º E  | 7º 10'N 5º 05'E/<br>7.167º N 5.083º E  | 8 <sup>0</sup> 00'N 4 <sup>0</sup> 00'E/<br>8.000 <sup>0</sup> N 4.000 <sup>0</sup><br>E | 9 <sup>0</sup> 10'N 9 <sup>0</sup> 45'E/<br>9.167 <sup>0</sup> N 9.750 <sup>0</sup><br>E  | 13° 05′N 5°<br>15′E/<br>13.083° N                 | 8º 00'N 10º 30'E/<br>8.000ºN 10.500º E              |
| 2   | Capital City              | Abeokuta   | Akure  | Ibadan   | Jos   | 5.250 <sup>0</sup> E<br>Sokoto                    | Jalingo   |
| 3   | No of Local<br>Govt Areas | Twenty   | Eighteen   | Thirty three   | Seventeen   | Twenty three                                      | Sixteen   |
| 4   | Region in<br>Nigeria      | South West   | South West   | South West   | North Central   | North West  | North Central                                       |
| 5   | Boundary                  | On the South by<br>Lagos state; on<br>the North by Oyo<br>& Osun states; on<br>the East by Ondo<br>State and on the<br>West by the<br>Republic of Benin. | on the East by<br><u>Edo State</u> , on the<br>South East by<br>Delta state, on<br>the West by Osun<br>and <u>Ogun State</u> s,<br>on the North by<br>Kwara and Kogi<br>states and on the<br>South by the<br><u>Atlantic Ocean</u> and<br>the Bight of<br>Benin. | OsunState,OntheWestbyOgunStateandtheRepublicof   | On the North<br>East by Bauchi<br>state, on the<br>North West by<br>Kaduna state, on<br>the South West<br>by Nasarawa<br>state and on the<br>South East by<br>Taraba state. | the south and<br>east by<br>Zamfara<br>state. The | Nasarawa &<br>Benue states, on<br>the North West by |

#### Table 4.2c: Baseline Environmental and Social Data of the RAAMP Participating States

| S/N | Parameter | <b>Baseline Condition</b> | s in the RAAMP Pa      | rticipating States     |                    |               |                                 |
|-----|-----------|---------------------------|------------------------|------------------------|--------------------|---------------|---------------------------------|
|     |           | Ogun                      | Ondo                   | Оуо                    | Plateau            | Sokoto        | Taraba                          |
|     |           |                           |                        |                        |                    | with Niger    |                                 |
|     |           |                           |                        |                        |                    | republic.     |                                 |
| 6   | Landmaaa  | 16 000 551?               | 15 500 km <sup>2</sup> | 20.454.http            | 20.012 http://     | 25 072 June 2 | <b>F4 472</b> Luce <sup>2</sup> |
| 6   | Landmass  | 16,980.55km <sup>2</sup>  | 15,500 km <sup>2</sup> | 28,454 km <sup>2</sup> | 30,913 km²         | 25,973 km²    | 54,473 km <sup>2</sup>          |
| 7   | Nature of | Soils in the              | The soils,             | Much of Oyo            | The major soil     |               | Most of the                     |
|     | Soil      | northern part of          | classified as Ondo     | State is covered       | units of Plateau   | of the state, | lowland area is                 |
|     |           | the state are             | Association, are       | by the fertile         | State belong to    | especially    | made up of                      |
|     |           | derived from the          | of high                | loamy soils            | the broad          | along the     | ferruginous                     |
|     |           | basement                  | agricultural value.    | derived mainly         | category of        | border with   | tropical soils                  |
|     |           | complex rocks             | But to the             | from the Pre           | tropical           | Niger         | which developed                 |
|     |           | and they belong           | northeast, the         | Cambrian horn          | ferruginous        | Republic, the | on crystalline acid             |
|     |           | to the red soils.         | soils are skeletal     | blende-biotite         | soils, which are   | -             | rocks and sandy                 |
|     |           | Soils in the              | in nature and are      | gneiss. In the         | much thinner on    | plains are    | parent materials.               |
|     |           | southern part of          | of comparatively       | forest zone of         | the high plateau   | covered by    | The upland areas,               |
|     |           | the state are             | recent origin. In      | the southern           | but attain         | Aeolian       | especially the                  |
|     |           | derived from              | the southern           | parts of the           | greater depths     | deposits of   | Mambilla Plateau,               |
|     |           | sedimentary               | part, the older        | state, the soils       | in the southern    | variable      | are covered by                  |
|     |           | rocks. Soils in the       | sand ridge             | include clay,          | part of the state. | depth. The    | humid ferrosols                 |
|     |           | southwestern part         | complexes              | laterite and thick     | There are also     | Sandy soil    | and lithosols                   |
|     |           | of the state and          | develop brown          | rich dark loamy        | sizeable pockets   | with clayey   | which are highly                |
|     |           | most of the               | and orange sandy       | and humus              | of loamy soil of   | subsoil is    | weathered and                   |
|     |           | western part are          | soils, while the       | components.            | volcanic origin in | common in     | markedly                        |
|     |           | sandy. The river          | most recent ones       | Northwards, the        | the high Plateau.  | the south,    | lateralized, due to             |
|     |           | valleys have              | near the coast         | soils are lighter      | These soil         | except along  | leaching.                       |
|     |           | alluvial soils.           | have light grey        | and become a           | groups respond     | the flood     |                                 |
|     |           |                           | sandy soils. The       | mixture of             | quite well to      | plains of the |                                 |

| S/N | Parameter  | <b>Baseline Condition</b> | in the RAAMP Pa           | rticipating States         |                   |                |                    |
|-----|------------|---------------------------|---------------------------|----------------------------|-------------------|----------------|--------------------|
| _   |            | Ogun                      | Ondo                      | Оуо                        | Plateau           | Sokoto         | Taraba             |
|     |            |                           | swamp flats               | laterite and fine          | fertilizers. Soil | river valleys  |                    |
|     |            |                           | affected by tide          | grained loamy              | erosion is an     | where alluvial |                    |
|     |            |                           | bear saline soils         | and humus                  | environmental     | soils          |                    |
|     |            |                           |                           | materials which            | problem on the    | predominate.   |                    |
|     |            |                           |                           | support poorer vegetation. | Jos Plateau.      |                |                    |
| 8   | Vegetation | Ogun State has            | The natural               | The vegetation             | Plateau State     | Sokoto state   | The vegetation     |
|     | types      | two main types            | vegetation is the         | of the state               | falls largely     | occupies an    | may be classified  |
|     |            | vegetation,               | rain forest,              | consists of the            | within the        | area of short- | into three broad   |
|     |            | namely, tropical          | composed of               | rain forest in the         | northern guinea   | grass          | types: the         |
|     |            | rain forest and           | many varieties of         | southern parts             | savannah zone     | savanna        | Northern Guinea,   |
|     |            | guinea savanna.           | hardwood timber           | of the state and           | which consists    | vegetation in  | the Southern       |
|     |            | The tropical rain         | such as <i>Melicia</i>    | derived                    | mainly of short   | the south and  |                    |
|     |            | forest is found in        | <i>excelsa.</i> In the    | savannah in the            | trees, grasses    | thorn scrub in | Mountain           |
|     |            | the coastal areas         | ,                         | northern part of           |                   | the north. A   | Grassland and      |
|     |            | and the southern          | the vegetation            | the state. The             | / 1               | generally arid | -                  |
|     |            | part of the state.        | consists of woody         | composition of             | -                 | region that    | The boundary       |
|     |            | Rain forests are          | savanna featuring         | the rain forest is         | some villages     | gradually      | between the        |
|     |            | found in some             | such tree species         | basically the              | are thick hedges  | merges into    | Northern Guinea    |
|     |            | parts of the              | as <i>Blighia sapida.</i> | large tall                 | of cacti, which   | the desert     | and Southern       |
|     |            | eastern parts             | The swamp flats           | crowned trees,             | have been         | across the     | Guinea             |
|     |            | while Guinea and          | are the domain of         | mixed with thick           | planted around    | border in      | corresponds fairly |
|     |            | derived savanna           | the fresh water           | undergrowth.               | household farms   | Niger          | closely with the   |
|     |            | are found in most         | swamp forests in          |                            | or compound       | republic, the  | 1300mm mean        |
|     |            | of the western            | the interior and          |                            | lands. Fringing   | whole state    | annual rainfall    |
|     |            | and northern              | the units of              |                            | woodlands or      | falls within   | isohyet, while the |
|     |            | areas of the state.       | mangrove                  |                            | gallery forests   |                | mountain forest    |

| S/N | Parameter    | <b>Baseline Condition</b> | s in the RAAMP Pa          | rticipating States       |                               |                         |                                    |
|-----|--------------|---------------------------|----------------------------|--------------------------|-------------------------------|-------------------------|------------------------------------|
|     |              | Ogun                      | Ondo                       | Оуо                      | Plateau                       | Sokoto                  | Taraba                             |
|     |              |                           | vegetation near the coast. |                          | can be found along some river | the Sudan<br>Savannah.  | and grassland<br>vegetation occur  |
|     |              |                           |                            |                          | valleys.                      |                         | mainly on the<br>Mambilla plateau. |
| 9   | Maximum      | Mean Max.                 | Mean Max.                  | Mean Max.                | Mean Max.                     | Mean Max.               | Mean Max.                          |
|     | Temperature  | temperatures              | temperatures               | temperatures             | temperatures                  | Temperatures            | temperatures                       |
|     |              | vary between              | vary between               | vary between             | vary between                  | vary between            | vary between                       |
|     |              | 29.7°C and 40.2°C         | 27.5°C and 40.0°C          | 26.5°C and               | 23.3°C and                    | 28.9°C and              | 29.4°C and                         |
|     |              |                           |                            | 35.0°C                   | 33.4°C                        | 41.9℃.                  | 39.6°C.                            |
| 10  | Annual       | The total annual          | The total annual           | The total annual         | The total annual              | The total               | The total annual                   |
|     | Rainfall     | rainfall ranges           | rainfall ranges            | rainfall ranges          | rainfall ranges               | annual rainfall         | rainfall ranges                    |
|     |              | from 1000mm to 2000mm.    | from 1800mm to             | from 1200mm              | from 1300mm to 1500mm.        | ranges from<br>630mm to | from 900mm to                      |
|     |              | 2000mm.                   | 2000mm.                    | to 1800mm in the South & | to 1500mm.                    | 630mm to 1,150mm.       | 1,300mm.                           |
|     |              |                           |                            | 800mm to 1500            |                               | 1,1301111.              |                                    |
|     |              |                           |                            | in the North.            |                               |                         |                                    |
| 11  | Geology/Terr | Ogun State is an          | There are two              | Oyo State lies in        | The Jos Plateau,              | Within the              | The state may be                   |
|     | ain:         | integral part of          | distinct geological        | the south-               | an erosional relic            | State, there is         | divided into three                 |
|     |              | the Dahomey               | regions in Ondo            | western part of          | covering an area              | no outcrop of           | topographic                        |
|     |              | basin to the south        | State. First, is the       | Nigeria.                 | of about 7,780                | basement                | regions, namely,                   |
|     |              | and the western           | region of                  | Underlain by             | sq.km., is a                  | complex.                | the extensive                      |
|     |              | flank of the              | sedimentary rocks          | three lithological       | product of                    | Rather, it is           | -                                  |
|     |              | Nigerian                  | in the south, and          | units of the             | distinct phases               | covered by a            | of the Muri plains,                |
|     |              | basement                  | secondly, the              | crystalline              | of volcanic                   | series of               | hills on                           |
|     |              | complex to the            | region of                  | basement                 | activities when               | sedimentary             | sedimentary                        |
|     |              | south. The south          | PreCambrian                | complex,                 | younger granite               | rocks, which            | formations and                     |
|     |              | is composed               | Basement                   | comprising: (i)          | rocks                         | have been               | the Plateau                        |

| S/N | Parameter | <b>Baseline Condition</b> | s in the RAAMP Par | ticipating States          |                   |                    |                    |
|-----|-----------|---------------------------|--------------------|----------------------------|-------------------|--------------------|--------------------|
|     |           | Ogun                      | Ondo               | Оуо                        | Plateau           | Sokoto             | Taraba             |
|     |           | predominantly of          | Complex rocks in   | Migmatite-                 | extensively       | deposited          | developed on       |
|     |           | Cretaceous                | the north. Some    | Gneiss Complex             | intruded into the | over the           | basement           |
|     |           | sediments deposit         | few kilometres     | (quartzite,                | older basement    | basement           | complex rocks.     |
|     |           | non-conformably           | north of Aaye      | gneissic rocks);           | complex rocks.    | complex.           | The Mambilla       |
|     |           | on the much older         | occurs the         | (ii) Low to                | Each phase of     | These              | Plateau forms the  |
|     |           | Nigerian                  | basement           | medium grade               | volcanic          | sediments          | watershed from     |
|     |           | basement                  | complex            | metasediments              | activities was    | were laid          | which the major    |
|     |           | complex to the            | sedimentary rocks  | (Green schists             | followed by a     | down under         | drainage systems   |
|     |           | north. This               | boundary. The      | facies, namely             | long period of    | varied             | in Taraba State    |
|     |           | western flank of          | sedimentary rocks  | quartz schist and          | weathering and    | environmenta       | take their source. |
|     |           | the Nigerian              | are mainly of the  | mica schist). (iii)        |                   |                    |                    |
|     |           | basement                  | post cretaceous    | The Pan African            | bearing rocks     | ranging from       |                    |
|     |           | complex lies              | sediments and      | Granitoids (older          |                   | continental to     |                    |
|     |           | within the mobile         | the cretaceous     | granites) which            | in the valleys    | marine             |                    |
|     |           | belts separating          |                    | are late tectonic          | and buried by     | events. The        |                    |
|     |           | the West African          | Formation. The     | intrusions. With           | floods of basalt  | sedimentary        |                    |
|     |           | craton and Gabon          | basement           | these composite            | from subsequent   | rocks includes     |                    |
|     |           | craton.                   | complex is mainly  | of rocks, Oyo<br>State has | volcanic          | Gundumi,<br>Gwandu |                    |
|     |           |                           | of the medium      | State has various minerals | eruptions.        | formations &       |                    |
|     |           |                           | grained gneisses   | ranging from               |                   | Rima &             |                    |
|     |           |                           |                    | metallic, non-             |                   | Sokoto             |                    |
|     |           |                           |                    | metallic, to               |                   | groups.            |                    |
|     |           |                           |                    | industrial                 |                   | gioupsi            |                    |
|     |           |                           |                    | minerals to                |                   |                    |                    |
|     |           |                           |                    | various grades             |                   |                    |                    |
|     |           |                           |                    | of gemstones.              |                   |                    |                    |

| S/N | Parameter                                  | <b>Baseline Condition</b>                                      | s in the RAAMP Par  | ticipating States   |  |   |   |
|-----|--|--|---|---|--|---|---|
|     |  | Ogun   | Ondo  | Оуо   | Plateau  | Sokoto  | Taraba  |
| 12  | Main Ethnic<br>Groups                      | Egba, Ijebu,<br>Remo, Egbado,<br>Awori and Egun                | Akoko, Akure,<br>Okitipupa, Ilaje,<br>Ondo, and Owo.                | Oyo, Oke-Ogun,<br>Ibadan, Ibarapa                           | Multi ethnic and<br>includes <u>Berom</u> ,<br>Afizere, Amo,<br>Anaguta, Aten,<br>Buji, Chip, Fier,<br>Gashish,<br>Goemai, Irigwe,<br>Jarawa, Jukun,<br><u>Kofyar</u> etc. | Sunni<br>Muslims<br>(Majority) and<br>Shia Muslims<br>(Minority). | Multi ethnic and<br>includes Fulani,<br>Mumuye, Jukun,<br>Jenjo, Kuteb,<br>Chamba and<br>Mambilla etc |
| 13  | Main Native<br>language                    | Yoruba   | Yoruba  | Yoruba  | Hausa, English   | Hausa   | Fulfulde, Hausa,<br>Mumuye and<br>Jukun etc.  |
| 14  | Population<br>(2006<br>national<br>census) | 3,751,140  | 3,460,877   | 5,580,894   | 3,206,531  | 3,702,676   | 2,294,800   |
| 15  | Population<br>Density                      | 220.9 persons/<br>km <sup>2</sup>                              | 223.3 persons/<br>km <sup>2</sup>                                   | 196.1 persons/<br>km <sup>2</sup>                           | 103.7 persons/<br>km <sup>2</sup>  | 142.6<br>persons/ km <sup>2</sup>                                 | 42.1 persons/ km <sup>2</sup>   |
| 16  | Major<br>occupation                        | Agriculture,<br>mining   | Agriculture,<br>mining  | Agriculture   | Agriculture,<br>mining   | Agriculture,<br>Livestock<br>Production                           | Agriculture,<br>Livestock<br>Production,<br>Fishing   |
| 17  | Cultural/<br>Unique<br>Resources           | Omo Forest<br>Reserve, Olumo<br>Rock, Ojude –<br>Oba Festival, | Deji of Akure's<br>Palace, Idanre<br>Hills, Igbokoda<br>Waterfront, | Agodi Botanical<br>Garden, Ado-<br>Awaye<br>Suspended lake, | The Wildlife<br>Safari Park,<br>National<br>Museum Jos,  | Sultan's<br>Palace, Tomb<br>of Usman Dan<br>Fodio, Waziri         | Mambilla Plateau<br>Gembu, Barup<br>Waterfalls,<br>Marmara  |

#### ESMF FOR THE RURAL ACCESS AND AGRICULTURAL MARKETING PROJECT (RAAMP)

| S/N | Parameter  | <b>Baseline Condition</b>        | ns in the RAAMP Par  | ticipating States                        |  |  |                                |
|-----|--|----------------------------------|--|--|--|--|--------------------------------|
|     |  | Ogun                             | Ondo   | Оуо                                      | Plateau  | Sokoto   | Taraba                         |
|     |  | Abeokuta<br>Museum etc.          | Ebomi Lake<br>Tourist Centre,<br>Owo Museum of<br>Antiques etc | Cocoa House,<br>Oyo National<br>Park etc | Pandam Game<br>Reserve, Assop<br>& Kurra Falls etc | Junaid History<br>& Culture<br>Museum,<br>Sokoto | Crocodile Pond<br>Wukari etc.  |
| 18  | Total<br>Casualty of<br>Road<br>Accidents in<br>2016.<br>(Courtesy:<br>FRSC) | 1,672                            | 1,139  | 1,578                                    | 748  | Museum etc<br>537                                | 551                            |
| 19  | HIV/ÁIDs<br>Prevalence<br>2016/2017  | 0.6% (32 <sup>nd</sup> position) | 4.3% (11 <sup>th</sup> position)                               | 5.6% (8 <sup>th</sup> position)          | 2.3% (18 <sup>th</sup> position)                   | 6.4% (7 <sup>th</sup> position)                  | 10% (2 <sup>nd</sup> position) |

#### CHAPTER 5: POTENTIAL ENVIRONMENTAL/SOCIAL IMPACTS AND MITIGATION MEASURES

#### 5.1 INTRODUCTION

The Environmental and Social Management System (ESMS) sets up the criteria to identify the level of Environmental Assessment (EA) and the processes involved, the sequence to conduct the EA studies for various components of the planned RAAMP projects in the participating states including their legal requirements and implications. Understanding the required level of EA will help in assessing the requirements related to needs of the external services to be engaged at planning and design stages and requirements related to the Project Supervision Consultant during the project implementation stage. Once the need/justification of a sub-project is finalized based on the engineering parameters (like traffic, social, economic and financial analysis), the process of Environmental and Social Management System begins. First step in ESMS is the determination of the subprojects environmental aspects to ascertain the category of Environmental Assessment required (if any). The category of EA can be assessed by FDRD or can be assigned to an environmental consultant. It is important to note that the responsibility for the approval of EA and followup on the implementation of the ESMP rests principally with the FMEnv in Nigeria and not the environment expert or consultants.

The impacts identified in this chapter are preliminary and generic in nature to the participating States. The potential for occurrence of the impacts identified has to be ascertained during further stages of project design and implementation. This ESMF only provides a guide for subproject impact identification.

#### 5.2 ENVIRONMENTAL AND SOCIAL SCREENING PROCESS

The screening process is the first step in the implementation of the ESMF. The objective of screening is to identify those sub-projects activities that have minimal/no environmental or social concerns. Environmental and Social screening process distinguishes sub-projects and activities that will require thorough environmental review to prevent/mitigate negative environmental impacts from those which will provide opportunities to enhance positive impacts.

Thus one of the objectives of the screening process is to rapidly identify those sub projects which have little or no environmental or social issues so that they can move to implementation in accordance with pre-approved standards or codes of practices for environmental and social management. offices to understand environmental and social issues related to the project before they are considered for implementation and assist in the decision making process.

Based on the screening, sub projects with no noticeable impacts are cleared to advance to implementation phase while those with some impacts proceeds to another level of conducting an Environmental Assessment or preparation of an Environmental and Social Management Plan (ESMP) which will be evaluated before the subproject can proceed to implementation phase.

Environmental Assessment or ESMP will determine the extent of impacts and how the impacts will be mitigated.

#### 5.2.1 Basis for Screening

In assessing the impacts of the subprojects the following information shall be used:

(a) Knowledge of the project activities, construction activities, operational activities decommissioning/abandonment procedures.

- (b) The results of baseline studies (biophysical, health and socio-economic)
- (c) Findings of previous EA studies and Audits of similar projects and other literature findings on the primary project activities,
- (d) Comparison with FMEnv/World Bank guidelines and standards,
- (e) Series of expert group discussions and seminars,
- (f) Information from NGOS, CBOs, donors and other multilateral organizations
- (g) Past experience on other EA projects.

The criteria applied to the screening of various activities are:

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

The various components of the subprojects environment likely to be impacted by project activities and the associated impact indicators are identified and are listed in Table 5.1 below. Likewise, the sources of probable impacts from the various stages of sub project are also outlined in Table 5.2.

#### Table 5.1: Impactable Components and Associated Impact Indicators

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

#### Table 5.2: Phases of Project Development Activities and Sources of Impact

| S/N | Project Phase                   | Activities/Sources of Impact   |  |  |  |  |  |
|-----|---------------------------------|--|--|--|--|--|--|
| 1.  | Site preparation                | Road traffic, bush clearing, waste disposal  |  |  |  |  |  |
| 2.  | construction                    | Excavation, piling, compaction, waste disposal,<br>Road traffic, Influx of people, GBV, SEA, Child<br>Labour                 |  |  |  |  |  |
| 3.  | Operation/Maintenance           | Noise, waste generation, influx of people, dust emission, traffic generation,  |  |  |  |  |  |
| 4.  | Decommissioning and abandonment | Removal/dismantling of equipment and<br>structures, waste disposal, residual<br>contamination, Road traffic, scrap materials |  |  |  |  |  |

#### 5.2.2 Scoping

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

- What are the potential impact from the execution and operation of the proposed project?
- What will be the magnitude, extent and duration of the impacts?
- Of what relevance are the impacts on the environment within local, contexts?

<sup>1</sup> GBV, including Sea information would not come from consultations or direct contact with community members and/or survivors, but from data collection from key secondary stakeholders such as NGOS, CBOs, governmental agencies, donors and other multilateral organizations <sup>1</sup> It is noteworthy that the GBV GRM will be different from the project-specific GRM. The GBVGRM shall be placed, as possible, within a NGO with expertise on GBV (ideally service provider)

- **Consent** is defined as the informed choice underlying an individual's free and voluntary intention, acceptance. What are the potential impacts from the execution and operation of the proposed project?
- What will be the magnitude, extent and duration of the impacts?
- Of what relevance are the impacts on the environment within local, contexts?
- What mitigation or amelioration measures can be put in place to reduce or avoid the negative impacts or to enhance and maximize positive impact?

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

- Land Acquisition/Right of Way (RoW)
- Material Procurement and Transportation
- Site Preparation/clearing
- Blasting/Excavation/piling
- Civil works
- Operation and maintenance activities
- Decommissioning and abandonment

#### 5.3 IMPACTS IDENTIFICATION

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

- Emissions to air.
- Noise and vibrations.
- Discharges to land and soil.
- Effects on ecosystems.
- Influx of job seekers
- GBV, SEA, Child Labour
- Disruption on local institutions and conflict inducing

The potential/associated impacts and the indicator parameters for different sub project stages and activities are presented in Table 5.3.

| Project Phase  | <b>Project Activity</b>    | Potential/Associated Impacts  | Indicator Parameters  |
|--|----------------------------|---|---|
| Pre-construction   | Land /geological surveys   | Vegetation loss, wildlife<br>migration,   | Plant density, wildlife<br>diversity, soil organisms<br>density         |
|  | Acquisition of ROW         | Land take   | Compensation, ownership<br>& conflict issues,                           |
|  | Site preparation           | Loss of vegetation and economic<br>crops from vegetation clearing   | Compensation, plant<br>diversity, soil organism<br>density.             |
|  | Soil Testing               | Exposure of soil to weather<br>conditions soil strata Inversion   | Soil organisms density  |
| Construction &   | Access to site             | Alteration of hydrological pattern<br>leading to soil erosion   | Bare soil, soil intactness, vegetation cover.                           |
|  |                            | Temporary obstruction of human<br>& vehicular movement during<br>clearing of pathway to site                            | Public complaints, traffic issues.                                      |
|  |                            | Increased access to restricted<br>areas (forest reserves) leading to<br>poaching and ecosystem<br>fragmentation         | Poaching rate.  |
|  | Material<br>Transportation | Increased accident risk, vehicular<br>exhaust gas   | Accidents rate, Air quality.  |
| -  | Base Camps/ site offices   | Vegetation loss, life migration<br>habitat loss.  | Plant density, soil fertility,<br>and water quality                     |
|  | Project security           | Armed attack, youth restiveness, kidnapping,  | Security incident rates and cases.                                      |
|  | Influx of people           | Increase in infectious disease<br>especially STD, social conflicts  | Micro economic indices,<br>conflicts & strife, health<br>statistics etc |
|  | GBV, SEA                   | Exploitation, social conflicts  | Available statistics  |
|  | Engineering works          | Public nuisance from noise<br>generation and Air pollution from<br>construction equipment                               | Ambient Air quality and Noise levels.                                   |
|  |                            | Respiratory/ health hazards to<br>onsite personnel due to the<br>release of fumes & dust from<br>construction equipment | Health statistics   |
|  | Waste Disposal             | Soil/Water contamination, impact<br>on fisheries in nearby streams,<br>Increased Income                                 | Water quality (TSS, TDS, DO etc.) soil fertility.                       |
| Operation and<br>laintenance       Passenger and freight<br>transport       Increase in noise, air emissions,<br>waste generation, Increased<br>accident risk. |                            | Air quality, waste<br>generation, traffic impact,<br>Accidents rate.  |   |

# Table 5.3: Associated and Potential Impacts and Indicator Parameters for the Sub projects.

|                 |             | Reduction in exhaust gas emission<br>(clean air) within the region due to<br>reduced traffic congestion on<br>roads | Air quality, traffic congestion.                           |
|-----------------|-------------|---|--|
|                 |             | Boost in economic and business activities/ transactions within the region.  | Income level,<br>unemployment rate,<br>standard of living. |
|                 |             | Waste disposal and maintenance of hubs  |  |
| Decommissioning | Abandonment | Availability of land for alternative uses   | Income Level, state of the economy                         |
|                 |             | Work place accidents/ incidents   | Accident rate, health statistics.                          |
|                 |             | Alteration of hydrological pattern  | Bare soil, soil intactness, vegetation cover.              |
|                 |             | Waste generation from decommissioning activities  | Waste volume, waste quality & characterization.            |

#### 5.4 POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS

It is to be noted that the environmental/social impacts identified at this stage are preliminary in nature and will need to be further elaborated in terms of potential for occurrence (likelihood) and severity when each sub project is screened. Usually during the various stages of project implementation - design, construction and operation, the nature of impact, extent, duration and severity would present itself and perhaps differs between similar sub projects and stages.

In addition to the potential negative impacts, a wide range of positive environmental and social impacts (benefits) will also arise as a result of the sub project. These will include economic benefits, employment generation, social services, travel and transport, enhanced gender opportunities, fuel economy and reduced pollution.

#### 5.4.1 The Potential Positive Impacts

The RAAMP project is envisaged to have a range of positive environmental and social impacts. Some of these are a function of the objectives of the project, while others are a function of the way in which the project is designed to meet its objectives.

The project beneficiaries are the population of poor rural communities living in the participating states. These rural communities rely almost exclusively on agriculture and livestock for their subsistence. A significant part of the agricultural works is performed by women. The lack of all-weather rural roads severely constrains the access of these communities to economic opportunities (agricultural inputs, markets, rural-urban linkages) but also to social services (health and education). The following are some of the potential positive social benefits and positive environmental benefits that could arise from the sub project:

#### **Positive Social Impacts**

- Road improvement provides socio-economic benefits as accessibility and commercial activities are enhanced to facilitate economic integration at all levels. Road development will attract in-migration of people to settle along the road creating more settlements and increasing the population of the district that is benefiting from the road intervention. This in turn results in the increase in the demand for goods which causes more people to engage in various economic activities.
- Enhanced agricultural marketing potentials and access to agro processing centres will lead to increased agricultural production which in turn will lead to increase in employment generation. It will also reduce outmigration in search of jobs in the urban centres. In the construction phase, opportunities for skilled as well as unskilled labour will be available to earn income. The impact on employment and income is considered to be significant and positive.
- At the local level trading in farm produce will intensify as production levels are increased and diversified and access is gained to wider markets. This will contribute to GDP growth. New industry tends to locate where land is available and infrastructure exists; road corridors are logical choices. Roadside commercial development takes place in response to speculation that improved access and greater visibility will bring more customers. Incomes earned directly or indirectly will bring improvements in the standard of living of the people involved with the sub projects.
- As more settlements spring up following the new road intervention, women will expand their opportunities for catering and trading, since there will be increased demand for food, goods and services, both in the construction and operation phases. Road availability will indirectly benefit women by easing the drudgery of long distance walking with children to health care centres, etc.

#### **Positive Environmental Impacts**

- The following are some of the potential positive environmental benefits that could arise from the implementation of sub projects:
- Rural road improvements will reduce the tear and wear on vehicles. The effect on overall vehicle operational costs will be positive and significant. This will significantly reflect in improved travel and waiting times, increased frequency of transport services and reduced transport costs.
- RAAMP will help to improve the welfare and general well-being of beneficiary communities through increased access to health care, education and other social services, rendered closer due to enhanced

accessibility during all seasons. It will provide benefits in respect of road safety or reduced accidents.

- The transportation of people and products between the communities will become faster and safer.
- The sub projects will bring new economic openings for women with the community based road maintenance scheme as well as improvement in the agriculture and trading sectors.
- Developing new roads or rehabilitating existing roads often improve personal well-being. Access to educational opportunities and social services, including healthcare, is often a rationale for road improvements.

## **5.4.2 The Potential Negative Impacts**

The potential negative environmental impacts that could emanate from the sub projects are presented in Table 5.4a while the potential negative social impacts are presented in Table 5.4b.

## 5.5 MITIGATION APPROACH

Upon completion of the impacts identification and evaluation for significance, mitigation measures shall be proffered for potential adverse significant impacts. These measures include avoidance, elimination or reduction to levels 'as low as reasonably practicable'.

In order to design cost-effective and acceptable mitigation, the significant adverse impacts are analyzed using Bow-Tie method. This analysis is by considering causes. Controls on-place to prevent controls or recovery measures from being effective (escalators) are also considered.

The Bow-Tie analyses are performed for impacts that are within the direct control / influence of the subprojects. The mitigation measures developed from the analyses are meant to:

- Prevent / eliminate (alternative sites, methods or design);
- Reduce probability of occurrence;
- Alleviate consequence through alternative methods, layout or processes and /or compensation; or
- Restoration / curative activities.

Administrative controls include rearranging work schedule to minimize length of time of exposure to hazards, and transfer or rotation of personnel, as may be necessary. Also included are supervision and possible reduction of potential/associated adverse impacts through engineering design and controls. Site specific mitigation measures shall be designed for all aspect that are identified as significant in the subproject in order to control and mitigate them to levels As Low As Reasonably Practicable (ALARP). Aspect, which may not be dealt with on the EAs shall be treated on individual basis and reported as appropriate.

#### 5.6 MITIGATION MEASURES

Based on the potential and associated project impacts and taking into consideration the above mitigation measure development approaches, appropriate mitigation measures suitable to the sub projects are suggested. The environmental impacts and their mitigation measures are presented in sub section 5.6.1 while the social impacts and their mitigation measures are presented sub section 5.6.2. The estimated cost of the mitigation measures for the proposed RAAMP is presented in Table 5.5.

## 5.6.1 Potential Environmental Impacts and Mitigation Measures

The potential environmental impacts and their corresponding mitigation measures are presented in Table 5.4a

| <b>S/</b> | Activities   | Potential  | Degree of |  | Mitigations  |  |
|-----------|--|--|-----------|--|--|--|
| N         | Envisaged  | Impacts  | Impact    | Contractor   | FPMU/SPIU  | World Bank   |
| 1.        | All project<br>activities  | Envisaged<br>potential<br>impacts  |           | Follow recommended<br>mitigation measures  | <ul> <li>Monitoring of project/contractor performance and taking appropriate action to ensure ESMP provisions are met.</li> <li>Inclusion of relevant provisions in the ESMP.</li> <li>Inclusion of relevant provisions in the SPMU contract.</li> </ul> | <ul> <li>Inclusion of relevant provisions in the ESMP and Legal Agreement.</li> <li>Provision of advice on expected or likely issues based on Bank experience.</li> <li>Project monitoring and implementation support to verify compliance with the ESMP and CESMP.</li> </ul> |
| 2         | Project<br>Preparation<br>Site clearing<br>and/or<br>levelling<br>(Plants and<br>wildlife) | Damage or<br>destroy<br>sensitive<br>terrestrial<br>ecosystems<br>(trees being<br>removed &<br>disturbance<br>to wildlife) | Major     | <ul> <li>Incorporation of<br/>environmental concerns<br/>in project preparation to<br/>avoid impacts in<br/>construction and<br/>operation stages</li> <li>Avoidance of roads<br/>through sensitive areas</li> </ul> |  |  |

#### Table 5.4a: Potential Environmental Impacts and Mitigation Measures

| S/<br>N | Activities<br>Envisaged | Potential<br>Impacts  | Degree of<br>Impact | Mitigations  |           |            |
|---------|-------------------------|---|---------------------|--|-----------|------------|
|         |                         | -   |                     | Contractor   | FPMU/SPIU | World Bank |
|         |                         | <ul> <li>Produce<br/>areas of<br/>bare soil<br/>which cause<br/>erosion,<br/>siltation,<br/>changes in<br/>natural<br/>water flow,<br/>and/or<br/>damage to<br/>aquatic<br/>ecosystems</li> <li>Damage or<br/>destroy<br/>sensitive<br/>terrestrial<br/>ecosystems</li> </ul> | Medium<br>Major     | <ul> <li>as reserved<br/>forests/sanctuaries/wetl<br/>ands etc</li> <li>Compliance with legal<br/>requirements.</li> <li>Chose or develop design<br/>standards for each facet<br/>of construction and<br/>related activities—road<br/>bed, road surface,<br/>drainage, erosion<br/>control, re-vegetation,<br/>stream crossing,<br/>sensitive areas, steep<br/>slopes, material<br/>extraction, transport<br/>and storage,<br/>construction camps,<br/>decommissioning.</li> <li>Provide plans to<br/>identify, protect, and<br/>use sensitive habitats</li> <li>Take into account<br/>problems in soil and<br/>slope stability and local<br/>weather and natural<br/>phenomena—fog,<br/>flooding, earthquakes,</li> </ul> |           |            |

| S/<br>N | Activities<br>Envisaged | Potential<br>Impacts   | Degree of<br>Impact     |  | Mitigations |            |
|---------|-------------------------|--|-------------------------|--|-------------|------------|
|         |                         |  | •                       | Contractor   | FPMU/SPIU   | World Bank |
|         |                         |  |                         | <ul> <li>heavy rain, mudslides,<br/>drought</li> <li>Develop an erosion<br/>control plan for all<br/>projects.</li> </ul>  |             |            |
| 3       | Route<br>planning       | <ul> <li>Damage to<br/>local<br/>habitat,<br/>compact<br/>soil, leading<br/>to erosion.</li> <li>Effect on<br/>local flora<br/>and fauna</li> <li>Effects on<br/>farm lands.</li> <li>Effects on<br/>paleontologi<br/>cal,<br/>archaeologi<br/>cal, historic,<br/>religious, or<br/>cultural<br/>sites.</li> </ul> | Medium<br>Low<br>Medium | <ul> <li>In planning new routes, involve a multidisciplinary team including (ideally) an ecologist, geo-technical and road engineer, soil scientist, hydrologist, and other relevant professionals such as archaeologists or tourism specialists</li> <li>Avoid routing road through sites of known paleontological, archaeological, historic, religious, or cultural significance.</li> <li>Avoid routing across agriculturally productive soils</li> </ul> |             |            |

| S/<br>N | Activities<br>Envisaged | Potential<br>Impacts | Degree of<br>Impact | Mitigations   |            |  |
|---------|-------------------------|----------------------|---------------------|---|------------|--|
|         |                         |                      | Contractor          | FPMU/SPIU   | World Bank |  |
|         |                         |                      |                     | <ul> <li>Take into account<br/>problems in soil and<br/>slope stability and local<br/>weather and natural<br/>phenomena—flooding,<br/>heavy rain, mudslides,<br/>drought</li> <li>Whenever possible site<br/>roads to follow hill<br/>contours and avoid<br/>creating slopes greater<br/>than 10 degrees</li> <li>Avoid gradients greater<br/>than 10 percent and<br/>long straight downhill<br/>stretches</li> <li>Identify sites for<br/>temporary and<br/>permanent storage of<br/>excavated material and<br/>construction materials.<br/>Where excavated<br/>material will not be<br/>reused decide how it<br/>will be disposed of or<br/>shaped</li> <li>Avoid environmentally<br/>sensitive areas, such as</li> </ul> |            |  |

| S/<br>N | Activities<br>Envisaged | Potential<br>Impacts | Degree of<br>Impact | Mitigations   |            |  |
|---------|-------------------------|----------------------|---------------------|---|------------|--|
|         | -                       |                      | Contractor          | FPMU/SPIU   | World Bank |  |
|         |                         |                      |                     | <ul> <li>wetlands, and sites near protected areas or relatively under graded forests. Explore possible compromise alternatives—a narrow, improved trail across protected area lands that provides access to foot, bicycle, or motorcycle traffic while constructing main access roads around these areas</li> <li>Avoid constructing roads through forest areas, if possible. If clearing is unavoidable, protect or restore forests elsewhere in the drainage basin</li> <li>Minimize aesthetic and scenic impacts by avoiding roads that cut long straight paths across valleys and plains. Instead, hide roads beneath forest</li> </ul> |            |  |

| S/<br>N | Activities<br>Envisaged   | Potential<br>Impacts  | Degree of<br>Impact | Mitigations   |   |   |
|---------|---------------------------|---|---------------------|---|---|---|
|         |                           |   | Contractor          | FPMU/SPIU   | World Bank  |   |
|         |                           |   |                     | <ul> <li>cover to minimize<br/>adverse aesthetic<br/>effects, and provide<br/>meanders where<br/>feasible</li> <li>Avoid citing roads where<br/>they may disturb animal<br/>behaviour or migration<br/>patterns.</li> <li>If sensitive areas cannot<br/>be avoided, involve<br/>ecologists and engineers<br/>in designing road,<br/>construction camp,<br/>quarries, and other<br/>areas</li> </ul> |   |   |
| 4       | Construction<br>contracts | Poor<br>construction<br>and<br>rehabilitatio<br>n works<br>with<br>attendant<br>consequenc<br>es on the | Medium              | <ul> <li>Select or develop<br/>guidelines and<br/>procedures to be<br/>applied to each facet of<br/>road construction or<br/>rehabilitation and<br/>incorporate them into<br/>contracts with<br/>construction</li> </ul>  | Robust upfront risk<br>assessment. The<br>project will conduct a<br>risk assessment based<br>on GBV contextual<br>background and<br>project related GBV<br>risk related factors to<br>have a better<br>understanding of the | Increase capacity of<br>the Project<br>Implementing Entity<br>on SEA. The project<br>will support improved<br>management of<br>project<br>implementation and<br>supervision, social |

| <br>Activities<br>Envisaged | Potential<br>Impacts | Degree of<br>Impact | Mitigations   |  |  |
|-----------------------------|----------------------|---------------------|---|--|--|
| <b>J</b>                    | •                    | Contractor          | FPMU/SPIU   | World Bank   |  |
|                             | environmen<br>t.     |                     | companies—site<br>clearing, bed and<br>surface construction,<br>drainage, fuel and<br>material usage, quarry<br>site management,<br>construction camp and<br>work site operating<br>procedures, including<br>worker safety<br>• Include incentives for<br>adhering to guidelines<br>and penalties for<br>violating them | context and define<br>proper mitigation<br>actions.<br>Mapping of<br>services for survivors<br>of SEA. A mapping of<br>formal services<br>(medical care, safe<br>accommodation,<br>counselling, police<br>protection) for<br>survivors of SEA and<br>Community Based<br>Organizations will be<br>conducted for the<br>intervened area of the<br>project and will be<br>used to enhance the<br>GRM response to SEA<br>cases and provide<br>proper care for<br>survivors.<br>Identification of<br>NGOs in the 13<br>areas to be<br>intervened<br>Reduction of<br>labor influx. The | and environmental<br>safeguards,<br>identification and<br>mitigation of GBV<br>related risks, and<br>citizen engagement. |

| S/<br>N | Activities<br>Envisaged | Potential<br>Impacts | Degree of<br>Impact | Mitigations |   |            |
|---------|-------------------------|----------------------|---------------------|-------------|---|------------|
|         |                         |                      |                     | Contractor  | FPMU/SPIU   | World Bank |
|         |                         |                      |                     |             | <ul> <li>project will reduce the exposure to workers from outside the communities by including specific requirements in the bidding documents to minimize the use of expatriate workers.</li> <li>Enhancement of the GRM. The project will strengthen the GRM as one of the entry points for complaints including SEA (the use of technology can be explored). The GRM will be trained to confidentially register SEA complaints and refer the survivor to a partner NGO and other services for proper care.</li> <li>Enhanced monitoring: Through the supervision</li> </ul> |            |

| S/<br>N | Activities<br>Envisaged                                       | Potential<br>Impacts  | Degree of<br>Impact        |   |                            |            |
|---------|---|---|----------------------------|---|----------------------------|------------|
|         |   | •   | •                          | Contractor  | FPMU/SPIU                  | World Bank |
|         |   |   |                            |   | engineer and hired<br>NGOs |            |
| 5       | Slope<br>stability/Exc<br>avation,<br>cutting, and<br>filling | <ul> <li>Landslides<br/>or other<br/>forms of<br/>mass<br/>instability<br/>on slopes</li> <li>Developme<br/>nt of<br/>erosion or<br/>gulling</li> <li>Road<br/>crosses<br/>major areas<br/>of deep-<br/>seated<br/>instability</li> <li>Cause<br/>erosion,<br/>siltation,<br/>changes in<br/>natural<br/>water flow,<br/>and<br/>damage to</li> </ul> | Medium<br>Medium<br>Medium | <ul> <li>Stabilize slopes by<br/>planting vegetation.<br/>Work with agronomists<br/>to identify native<br/>species with the best<br/>erosion control<br/>properties, root<br/>strength, site<br/>adaptability, and other<br/>socially useful<br/>properties. Set up<br/>nurseries in project<br/>areas to supply<br/>necessary plants. Do<br/>not use non-native<br/>plants. Use soil<br/>stabilizing chemicals or<br/>geo-textiles (fabrics)<br/>where feasible and<br/>appropriate.</li> <li>Minimize use of vertical<br/>road cuts even though<br/>they are easier to</li> </ul> |                            |            |

| S/<br>N | Activities<br>Envisaged | Potential<br>Impacts  | Degree of<br>Impact        | Mitigations   |           |            |
|---------|-------------------------|---|----------------------------|---|-----------|------------|
|         | _                       | -   | -                          | Contractor  | FPMU/SPIU | World Bank |
|         |                         | <ul> <li>aquatic<br/>ecosystems<br/>when<br/>excavated<br/>soil is piled<br/>inappropriat<br/>ely</li> <li>Expose<br/>inhabitants<br/>and crew to<br/>risk of falls<br/>and injuries<br/>in<br/>excavation<br/>pits</li> <li>Block water<br/>courses<br/>when fill is<br/>inappropriat<br/>ely placed</li> <li>Destroy<br/>valuable<br/>ecosystems<br/>when fill is<br/>inappropriat<br/>ely placed</li> <li>Cause land<br/>subsidence</li> </ul> | Medium<br>Medium<br>Medium | <ul> <li>construct and require<br/>less space than flatter<br/>slopes. The majority of<br/>road cuts should have<br/>no more than a 0.75:1<br/>or 1:1 slope to promote<br/>plant growth. Vertical<br/>cuts are acceptable in<br/>rocky landscapes and in<br/>well-cemented soils.</li> <li>Install drainage ditches<br/>or berms on uphill<br/>slopes to divert water<br/>away from roads and<br/>into streams .</li> <li>Install drainage turnouts<br/>at more frequent<br/>intervals and check<br/>dams to reduce ditch<br/>erosion.</li> <li>If possible, use higher<br/>grade gravel that is<br/>much less prone to<br/>erosion.</li> <li>If very steep sections<br/>cannot be avoided,<br/>provide soil stabilizers</li> </ul> |           |            |

| S/<br>N | Activities<br>Envisaged                                | Potential<br>Impacts   | Degree of<br>Impact |   | Mitigations |            |  |
|---------|--|--|---------------------|---|-------------|------------|--|
|         |  | •  | •                   | Contractor  | FPMU/SPIU   | World Bank |  |
|         |  | or<br>landslides<br>when fill is<br>inappropriat<br>ely placed,<br>causing<br>injuries and<br>damages<br>• Degrade<br>water<br>quality<br>• Alter<br>hydrology | Major<br>Major      | or surface with asphalt<br>or concrete.   |             |            |  |
| 6       | Road<br>surface is<br>below grade<br>of<br>surrounding | <ul> <li>Reduced<br/>durability<br/>and road<br/>span</li> </ul>   | Medium              | <ul> <li>Raise road surface with<br/>stable fill material.<br/>Grade with in-slope,<br/>out-slope, or cambered<br/>shape. Install sufficient<br/>cross-drains ditches,</li> </ul> |             |            |  |

| S/<br>N | Activities<br>Envisaged                                     | Potential<br>Impacts   | Degree of<br>Impact    |   |           |            |
|---------|---|--|------------------------|---|-----------|------------|
|         |   | •  |                        | Contractor  | FPMU/SPIU | World Bank |
|         |   |  |                        | and settling ponds along the road   |           |            |
| 7       | Deteriorated<br>road surface                                | Developme<br>nt of<br>erosion or<br>gully on<br>roads                                      | Medium                 | <ul> <li>Determine cause of<br/>deterioration. If heavily<br/>used, find a means of<br/>reducing traffic or<br/>upgrade road to more<br/>durable surface—<br/>gravel, asphalt, or<br/>concrete</li> </ul> |           |            |
| 8       | High-speed<br>driving                                       | <ul> <li>Increased<br/>risk to road<br/>accident</li> </ul>                                | Major                  | <ul> <li>Realign road sections to meander; curving roads deter speeding</li> <li>Add speed bumps in villages or populated areas</li> </ul>  |           |            |
| 9       | Road<br>Sections<br>with<br>multiple<br>tracks/off-<br>road | <ul> <li>Increased<br/>risk to road<br/>accident</li> <li>Increased<br/>traffic</li> </ul> | Major<br>Low<br>Medium | <ul> <li>Generally caused by either<br/>muddy/flooded roadway or<br/>highly deteriorated<br/>roadway. Maintain or<br/>upgrade road so section</li> </ul>  |           |            |

| S/<br>N | Activities<br>Envisaged                 | Potential<br>Impacts  | Degree of<br>Impact | Mitigations   |           |            |
|---------|---|---|---------------------|---|-----------|------------|
|         |   | -   | -                   | Contractor  | FPMU/SPIU | World Bank |
|         | driving                                 | <ul> <li>Increased'<br/>wear and<br/>tear' on<br/>vehicles</li> </ul> |                     | <ul> <li>no longer floods or<br/>becomes muddy.</li> <li>Raise the road bed or<br/>define the roadway with<br/>rocks. Realign the road to<br/>a better area. Avoid very<br/>flat terrain</li> </ul>   |           |            |
| 10      | Road<br>section<br>must be<br>realigned |   |                     | <ul> <li>Remove surface and<br/>loosen soil of previous<br/>track to accelerate<br/>regeneration of<br/>vegetation. Block access<br/>with rocks, branches,<br/>roadblocks, and signs.<br/>Narrow tracks usually re-<br/>vegetate naturally with no<br/>noticeable scars. Wider<br/>roads may require planting<br/>and reseeding.</li> </ul> |           |            |
| 11      | Site<br>Preparation                     | Damage to<br>public<br>utilities and<br>cultural<br>resources.        | Medium              | <ul> <li>Relocation of utilities,<br/>common property<br/>resources and cultural<br/>properties</li> </ul>  |           |            |

| S/<br>N | Activities<br>Envisaged | Potential<br>Impacts  | Degree of<br>Impact | Mitigations  |           |            |  |
|---------|-------------------------|---|---------------------|--|-----------|------------|--|
|         |                         |   |                     | Contractor   | FPMU/SPIU | World Bank |  |
|         |                         | <ul> <li>Effect on<br/>road side<br/>vegetation</li> </ul>  | Low                 | Avoidance of affect on<br>roadside vegetation  |           |            |  |
| 12      | Construction<br>Camps   | <ul> <li>Adversely<br/>affect local<br/>flora and<br/>fauna<br/>(especially<br/>game and<br/>fuel wood)<br/>via poaching<br/>and<br/>collection by<br/>construction<br/>crews</li> <li>Damage local<br/>habitat,<br/>compact soil,<br/>and create<br/>erosion via<br/>building and<br/>occupation of<br/>construction<br/>camp</li> <li>Contaminate<br/>surface water<br/>and spread</li> </ul> | Low<br>Low<br>Major | <ul> <li>Avoidance of sensitive<br/>areas for location of<br/>construction camps</li> <li>Ensure Infrastructure<br/>arrangements for<br/>workers and<br/>construction Equipment</li> </ul> |           |            |  |

| S/<br>N | Activities<br>Envisaged | Potential<br>Impacts  | Degree of<br>Impact        | Mitigations   |            |  |
|---------|-------------------------|---|----------------------------|---|------------|--|
|         | _                       |   | Contractor                 | FPMU/SPIU   | World Bank |  |
|         |                         | disease via<br>solid waste<br>and faeces<br>generated by<br>camp Spread<br>communicabl<br>e diseases<br>including<br>malaria,<br>tuberculosis,<br>and<br>HIV/AIDS via<br>construction<br>crew who<br>come from<br>outside the<br>region |                            |   |            |  |
| 13      | Burrow<br>Areas         | <ul> <li>Aesthetic<br/>nuisance</li> <li>Erosion<br/>prone</li> <li>Safety risk<br/>due to<br/>developed<br/>pond</li> </ul>  | Medium<br>Medium<br>Medium | <ul> <li>Avoidance of agriculture<br/>lands as burrow areas</li> <li>Redevelopment of borrow<br/>areas</li> </ul> |            |  |

| S/<br>N | Activities<br>Envisaged | Potential<br>Impacts   | Degree of<br>Impact  |   | Mitigations |            |
|---------|-------------------------|--|----------------------|---|-------------|------------|
|         | -                       | •  | •                    | Contractor  | FPMU/SPIU   | World Bank |
| 14      | Compacting              | <ul> <li>Depletes<br/>freshwater<br/>resources</li> <li>Improves<br/>road</li> </ul>   | Medium               | <ul> <li>Water the road<br/>immediately before<br/>compacting to strengthen<br/>the road surface,<br/>otherwise traffic will soon<br/>beat back the road surface<br/>to pre-bladed condition.</li> <li>When possible, delay<br/>compacting until the<br/>beginning of the wet<br/>season or when water<br/>becomes more available.</li> </ul> |             |            |
| 15      | Blasting                | <ul> <li>Cause soil<br/>erosion</li> <li>Degrade<br/>water<br/>quality</li> <li>Alter<br/>hydrology</li> <li>Damage<br/>valuable<br/>ecosystem<br/>s and<br/>habitats</li> </ul> | Low<br>Medium<br>Low | <ul> <li>Minimize blasting.</li> <li>Take safety precautions to protect being injured by flying or falling rock</li> </ul>  |             |            |

| S/<br>N | Activities<br>Envisaged                                       | Potential<br>Impacts   | Degree of<br>Impact |   | Mitigations |            |
|---------|---|--|---------------------|---|-------------|------------|
|         |   | •  |                     | Contractor  | FPMU/SPIU   | World Bank |
| 16      | Water<br>managemen<br>t                                       | <ul> <li>Scour and<br/>erosion<br/>below<br/>unprotected<br/>drainage<br/>out falls</li> <li>Disruption<br/>of drinking<br/>or irrigation<br/>water</li> </ul>   | Medium<br>Medium    | <ul> <li>Extraction of water in water scarce areas with consent of community</li> <li>Scheduling construction activities as per water availability</li> </ul>   |             |            |
| 17      | Slope<br>stability/Exc<br>avation,<br>cutting, and<br>filling | <ul> <li>Landslides<br/>or other<br/>forms of<br/>mass<br/>instability<br/>on slopes</li> <li>Developm<br/>ent of<br/>erosion or<br/>gully</li> <li>Road<br/>crosses<br/>major<br/>areas of<br/>deep-</li> </ul> | Medium<br>Medium    | <ul> <li>Slope stability along hill roads</li> <li>Protection of land on hill side from stability loss due to cutting</li> <li>Protection of lands on valley side from debris due to construction</li> <li>Adequacy of drainage for erosion control</li> <li>Geological/geomorpholo gical studies conducted to investigate and recommend best available options.</li> </ul> |             |            |

| S/<br>N | Activities<br>Envisaged                     | Potential<br>Impacts  | Degree of<br>Impact | Mitigations  |           |            |
|---------|---|---|---------------------|--|-----------|------------|
|         | -   | -   | -                   | Contractor   | FPMU/SPIU | World Bank |
|         |   | seated<br>instability<br>Cause<br>erosion,<br>siltation,<br>changes in<br>natural<br>water<br>flow, and<br>damage to<br>aquatic<br>ecosystem<br>s when<br>excavated<br>soil is piled<br>inappropri<br>ately | Medium              | <ul> <li>Civil engineering<br/>structures and bio-<br/>engineering measures<br/>used.</li> <li>Measures taken to avoid<br/>undercutting of slope<br/>toes.</li> <li>Quarrying prohibited in<br/>river beds, where flood<br/>discharge is significant.</li> </ul> |           |            |
| 18      | Chance<br>Finds of<br>Cultural<br>Resources | Excavation<br>may reveal<br>archaeologi<br>cal or other<br>valuable<br>cultural<br>resources<br>which could<br>be   | Medium .            | <ul> <li>Specify procedures for<br/>archaeological "chance<br/>finds" during the course of<br/>construction activities in<br/>contract document.</li> <li>Ensure that the guidelines<br/>on chance finds are<br/>adhered to.</li> </ul>                          |           |            |

| S/<br>N | Activities<br>Envisaged         | Potential<br>Impacts   | Degree of<br>Impact | -  |           |            |
|---------|---------------------------------|--|---------------------|--|-----------|------------|
|         | -                               | •  | •                   | Contractor   | FPMU/SPIU | World Bank |
| 10      | Transformeters                  | physically<br>damaged<br>from<br>construction<br>activities  |                     |  |           |            |
| 19      | Involuntary<br>Resettlemen<br>t | <ul> <li>Displaceme<br/>nt of<br/>affected<br/>persons<br/>living or<br/>engaged in<br/>livelihood<br/>activity<br/>within the<br/>right of<br/>way; or for<br/>technical or<br/>safety<br/>reasons, the<br/>road<br/>departs<br/>from the<br/>existing<br/>alignment<br/>and affects<br/>persons<br/>living or</li> </ul> | Major               | <ul> <li>Ensure adequate and prompt compensation, rehabilitation or relocation of all project affected persons.</li> <li>A stand alone RPF prepared for the project shall be used to address issues on land take.</li> </ul> |           |            |

| S/<br>N | Activities<br>Envisaged    | Potential<br>Impacts   | Degree of<br>Impact                |   |           |            |
|---------|----------------------------|--|------------------------------------|---|-----------|------------|
|         |                            | -  | -                                  | Contractor  | FPMU/SPIU | World Bank |
|         |                            | engaged in<br>livelihood<br>activities<br>with the<br>altered right<br>of way.   |                                    |   |           |            |
| 20      | Drainage<br>managemen<br>t | <ul> <li>Cause soil<br/>erosion</li> <li>Degrade<br/>water<br/>quality</li> <li>Alter<br/>hydrology</li> <li>Damage<br/>valuable<br/>ecosystem<br/>s and<br/>habitats</li> </ul> | Medium<br>Major<br>Major<br>Medium | <ul> <li>Conduct of hydrological<br/>investigations during<br/>project preparation</li> <li>Provision of longitudinal<br/>and cross drainage as per<br/>requirements</li> <li>Proper location of drainage<br/>outfall</li> <li>Install drainage structures<br/>during rather than after<br/>construction. Most erosion<br/>associated with roads<br/>occurs in the first year<br/>after construction.<br/>Delaying installation of<br/>drainage features greatly<br/>increases the extent of<br/>erosion and damage<br/>during the first year.</li> </ul> |           |            |

| S/<br>N | Activities<br>Envisaged | Potential<br>Impacts | Degree of<br>Impact |                                 |           |            |
|---------|-------------------------|----------------------|---------------------|---------------------------------|-----------|------------|
|         | _                       | -                    | -                   | Contractor                      | FPMU/SPIU | World Bank |
|         |                         |                      |                     | Clearly define the type of      |           |            |
|         |                         |                      |                     | road surface shape and          |           |            |
|         |                         |                      |                     | drainage method—in-             |           |            |
|         |                         |                      |                     | sloped, out-sloped, or          |           |            |
|         |                         |                      |                     | crown roadway—to be             |           |            |
|         |                         |                      |                     | used for each section of        |           |            |
|         |                         |                      |                     | roadway. Use outside            |           |            |
|         |                         |                      |                     | ditches control surface         |           |            |
|         |                         |                      |                     | water when necessary, but       |           |            |
|         |                         |                      |                     | keep in mind that they          |           |            |
|         |                         |                      |                     | concentrate water flow          |           |            |
|         |                         |                      |                     | and require the road to be      |           |            |
|         |                         |                      |                     | at least a meter wider.         |           |            |
|         |                         |                      |                     | Install structures, such as     |           |            |
|         |                         |                      |                     | berms or ditches, to divert     |           |            |
|         |                         |                      |                     | water off the road before       |           |            |
|         |                         |                      |                     | it directly reaches live        |           |            |
|         |                         |                      |                     | stream channels.                |           |            |
|         |                         |                      |                     | • Install diversion structures, |           |            |
|         |                         |                      |                     | such as cross drains,           |           |            |
|         |                         |                      |                     | drivable, rolling dips, or      |           |            |
|         |                         |                      |                     | water bars, to move water       |           |            |
|         |                         |                      |                     | off the road frequently and     |           |            |
|         |                         |                      |                     | minimize concentration of       |           |            |
|         |                         |                      |                     | water.                          |           |            |
|         |                         |                      |                     | Install drainage crossings      |           |            |
|         |                         |                      |                     | to pass water from uphill       |           |            |
|         |                         |                      |                     | to downhill. If using           |           |            |

| S/<br>N | Activities<br>Envisaged | Potential<br>Impacts |   | Degree of<br>Impact                          |           | Mitigations |  |
|---------|-------------------------|----------------------|---|--|-----------|-------------|--|
|         |                         | •                    | • | Contractor                                   | FPMU/SPIU | World Bank  |  |
|         |                         |                      |   | culvert pipes, at least                      |           |             |  |
|         |                         |                      |   | roughly design them using                    |           |             |  |
|         |                         |                      |   | the Rational Formula or                      |           |             |  |
|         |                         |                      |   | back-calculate using                         |           |             |  |
|         |                         |                      |   | Manning's Formula and                        |           |             |  |
|         |                         |                      |   | high-water mark before or                    |           |             |  |
|         |                         |                      |   | during construction to                       |           |             |  |
|         |                         |                      |   | determine the anticipated                    |           |             |  |
|         |                         |                      |   | flow, and select the                         |           |             |  |
|         |                         |                      |   | correct size of pipe. Where                  |           |             |  |
|         |                         |                      |   | flows are difficult to                       |           |             |  |
|         |                         |                      |   | determine, use                               |           |             |  |
|         |                         |                      |   | structures—such as fords,                    |           |             |  |
|         |                         |                      |   | rolling dips, and overflow                   |           |             |  |
|         |                         |                      |   | dips—that can                                |           |             |  |
|         |                         |                      |   | accommodate any flow                         |           |             |  |
|         |                         |                      |   | volume and are not                           |           |             |  |
|         |                         |                      |   | susceptible to plugging.                     |           |             |  |
|         |                         |                      |   | <ul> <li>Stabilize outlet ditches</li> </ul> |           |             |  |
|         |                         |                      |   | (inside and outside) with                    |           |             |  |
|         |                         |                      |   | small stone riprap or                        |           |             |  |
|         |                         |                      |   | vegetative barriers placed                   |           |             |  |
|         |                         |                      |   | on contour to dissipate                      |           |             |  |
|         |                         |                      |   | energy and to prevent the                    |           |             |  |
|         |                         |                      |   | creation or enlargement of                   |           |             |  |
|         |                         |                      |   | gullies.                                     |           |             |  |
|         |                         |                      |   | • Extend run out drains far                  |           |             |  |
|         |                         |                      |   | enough to allow water to                     |           |             |  |

| S/<br>N | Activities<br>Envisaged                                       | Potential<br>Impacts  | Degree of<br>Impact | Mitigations   |           |            |
|---------|---|---|---------------------|---|-----------|------------|
|         |   | -   |                     | Contractor  | FPMU/SPIU | World Bank |
|         |   |   |                     | <ul> <li>dissipate evenly into the ground.</li> <li>Visually spot check for drainage problems, such as accumulation of water on road surfaces, immediately after first heavy rains and at the end of the rainy season. Institute appropriate corrective measures.</li> </ul>  |           |            |
| 21      | Use of<br>heavy<br>equipment<br>and<br>hazardous<br>materials | <ul> <li>Put<br/>workers at<br/>risk from<br/>exposure<br/>to<br/>hazardous<br/>materials</li> <li>Cause<br/>erosion<br/>due to<br/>machinery<br/>tracks,<br/>damage to<br/>roads,</li> </ul> | Medium              | <ul> <li>Maintenance of machinery<br/>and equipment to avoid<br/>pollution</li> <li>Minimize use of heavy<br/>machinery.</li> <li>Set protocols for vehicle<br/>maintenance, such as<br/>requiring that repairs and<br/>fuelling occur elsewhere or<br/>over impervious surface<br/>such as plastic sheeting.<br/>Prevent dumping of<br/>hazardous materials, and<br/>capture leaks or spills with</li> </ul> |           |            |

| S/<br>N | Activities<br>Envisaged | Potential<br>Impacts  | Degree of<br>Impact | Mitigations  |           |            |
|---------|-------------------------|---|---------------------|--|-----------|------------|
|         |                         | -   | -                   | Contractor   | FPMU/SPIU | World Bank |
|         |                         | stream<br>banks<br>• Compact<br>soil,<br>change<br>surface<br>and<br>groundwat<br>er flows,<br>and<br>adversely<br>affect<br>future use<br>for<br>agriculture | Low                 | <ul> <li>drop cloths or wood<br/>shavings. Burn waste oil<br/>that is not reusable or<br/>readily recyclable and does<br/>not contain heavy metals<br/>and are flammable.<br/>Prohibit use of waste oil as<br/>cooking fuel.</li> <li>Investigate and use less<br/>toxic alternative products.</li> <li>Prevent fuel tank leaks by<br/>a) monitoring and cross-<br/>checking fuel level<br/>deliveries and use, b)<br/>checking pipes and joints<br/>for leaks c) tightening<br/>generator fuel lines, d)<br/>preventing over-filling of<br/>main storage and vehicle<br/>tanks</li> </ul> |           |            |
| 22      | Spoil<br>disposal       | Aesthetic<br>nuisance<br>Land issues  | Low<br>Medium       | <ul> <li>Minimize spoil by<br/>balancing cut and fill<br/>wherever possible</li> <li>Safe tipping areas<br/>identified and enforced.</li> </ul>  |           |            |

| S/<br>N | Activities<br>Envisaged             | Potential<br>Impacts   | Degree of<br>Impact | Mitigations  |           |            |
|---------|-------------------------------------|--|---------------------|--|-----------|------------|
|         |                                     |  |                     | Contractor   | FPMU/SPIU | World Bank |
|         |                                     |  |                     | <ul><li>Spoil traps constructed.</li><li>Land owner<br/>compensated.</li></ul>   |           |            |
| 23      | Hazardous<br>materials<br>handling. | Contamina<br>te ground<br>or surface<br>water<br>when<br>hydraulic<br>oil, motor<br>oil or other<br>harmful<br>mechanica<br>I fluids are<br>spilled or<br>dumped | Major               | <ul> <li>Checks to ensure that<br/>storage is good and that<br/>there are no losses or<br/>leaks.</li> <li>Checks to ensure that<br/>protective clothing and<br/>safety measures are<br/>used.</li> </ul>  |           |            |
| 24      | Dust                                | Effects     on     vegetati     on,     health     implicati     ons and     material     surfaces   | Low                 | <ul> <li>Speed controlled using speed bumps. If water is available, the road surface can be sprayed on a frequent schedule.</li> <li>Permanent speed bumps installed in villages and bazaars to</li> </ul> |           |            |

| S/<br>N | Activities<br>Envisaged                                   | Potential<br>Impacts   | Degree of<br>Impact |  | Mitigations |            |
|---------|---|--|---------------------|--|-------------|------------|
|         | -   | •  | •                   | Contractor   | FPMU/SPIU   | World Bank |
|         |   |  |                     | <ul> <li>reduce traffic speeds in inhabited areas.</li> <li>Bitumen surface constructed in bazaars, with speed controls.</li> <li>Dense vegetation planted on roadside.</li> </ul> |             |            |
| 25      | Noise   | Health     implicatio     ns due to     exposure     to loud     noise                 | Medium              | <ul> <li>Work schedule to<br/>minimize disturbance.</li> <li>Alert public when loud<br/>noise will be generated</li> </ul>   |             |            |
| 26      | Worker's<br>Health &<br>Safety                            | Accidents<br>from<br>operation of<br>construction<br>equipment                         | Medium              | <ul> <li>Provision of Personal<br/>Protective Equipment to<br/>workers</li> <li>Provision of basic<br/>necessities to workers</li> </ul>   |             |            |
| 27      | Public<br>Health and<br>Safety at<br>Construction<br>Site | <ul> <li>Injury/ac<br/>cident<br/>due to<br/>lack of<br/>warning<br/>signs,</li> </ul> | Medium              | <ul> <li>Public safety while<br/>travel along<br/>construction sites</li> <li>Public safety during<br/>operation of the road</li> </ul>  |             |            |

| S/<br>N | Activities<br>Envisaged |   | Degree of<br>Impact |  | Mitigations |            |
|---------|-------------------------|---|---------------------|--|-------------|------------|
|         |                         | -   | •                   | Contractor   | FPMU/SPIU   | World Bank |
|         |                         | site<br>barricade<br>d and<br>safeguar<br>ds<br>• Exposure<br>to<br>atmosph<br>eric<br>emissions<br>from<br>construct<br>ion<br>equipme<br>nt<br>• Exposure<br>to<br>excessive<br>and<br>continuo<br>us noise<br>and<br>vibration<br>from<br>construct<br>ion<br>activities | Medium              | <ul> <li>Traffic safety measures installed, such as warning signs, delineators and barriers.</li> <li>Awareness of road safety raised among affected communities.</li> <li>Road safety audits carried out and recommendations implemented.</li> <li>Contractor develops an acceptable construction site Environment, Health and Safety Plan.</li> <li>Reducing construction site risks to the workers and the public – safety rules for work operations shall be instituted by the Contractor, including, but not limited to; location of plant equipment away from sensitive locations (hospitals, schools, etc.), equipment</li> </ul> |             |            |

| S/<br>N | Activities<br>Envisaged | 5 |            |  | Mitigations |  |  |
|---------|-------------------------|---|------------|--|-------------|--|--|
|         | _                       |   | Contractor | FPMU/SPIU  | World Bank  |  |  |
|         |                         |   |            | <ul> <li>operation procedures, safety barriers, warning signs, first aid and medical kits and procedures, and safety training for the workers.</li> <li>Reducing health risks from compound living conditions and interaction with the community – employee rules and information campaigns shall be instituted by the Contractor on health practices and communicable diseases. The Contractor shall also ensure that prevention and treatment facilities are made available to his employees.</li> <li>HIV/AIDS awareness and treatment – in collaboration with the National or State Agencies for HIV/AIDS</li> </ul> |             |  |  |

| S/<br>N | Activities<br>Envisaged                   | Potential<br>Impacts  | Degree of<br>Impact |  | Mitigations |            |
|---------|---|-----------------------|---------------------|--|-------------|------------|
|         |   | •                     |                     | Contractor   | FPMU/SPIU   | World Bank |
|         |   |                       |                     | or NGOs recognized by<br>the NACA or SACA, the<br>Contractor shall institute<br>an HIV/AIDS Awareness<br>Campaign, with links to<br>the National Program<br>for testing and<br>treatment.  |             |            |
| 28      | Land use<br>and<br>resettlement<br>issues | Project<br>disruption | Major               | <ul> <li>Compensation paid to<br/>house owners.</li> <li>Compensation paid to<br/>land owners.</li> <li>Check impacts are<br/>limited to compensated<br/>trees and products.</li> <li>Resettlement Action<br/>Plan that provides<br/>information on<br/>involuntary resettlement</li> <li>A stand alone RPF<br/>prepared for the project<br/>shall be used address<br/>issues on land take.</li> </ul> |             |            |

| S/<br>N | Activities<br>Envisaged   | Potential<br>Impacts  | Degree of<br>Impact |  | Mitigations |            |
|---------|---|---|---------------------|--|-------------|------------|
|         |   | •   | •                   | Contractor   | FPMU/SPIU   | World Bank |
| 29      | Local people<br>excluded<br>from project<br>activities                                    | <ul> <li>Social<br/>strife<br/>and<br/>conflicts</li> <li>Youth<br/>restiven<br/>ess</li> </ul> | Major<br>Major      | <ul> <li>Designs incorporate<br/>methods within the<br/>skills of local people.</li> <li>Contractors encouraged<br/>using local labor wherever<br/>possible.</li> </ul>  |             |            |
| 30      | Promises<br>made to<br>local people<br>during<br>feasibility<br>and<br>planning<br>phases | <ul> <li>Project<br/>apathy<br/>by<br/>local<br/>people</li> </ul>                              | Major               | • Managing of stakeholders<br>expectations through<br>effective stakeholder<br>engagement and public<br>communication.   |             |            |
| 31      | Cultural<br>properties  | <ul> <li>Social<br/>conflicts<br/>and<br/>community<br/>strife</li> </ul>                       | Major               | <ul> <li>Avoid disturbance through:</li> <li>(i) adjustments to alignments;<br/>and/or</li> <li>(ii) drainage and other design<br/>measures to avoid excessive<br/>runoff or erosion onto the<br/>graveyard or burial.</li> <li>If any impact is unavoidable,<br/>the appropriate</li> </ul> |             |            |

| S/<br>N | Activities<br>Envisaged | Potential<br>Impacts   | Degree of<br>Impact        |   | Mitigations |            |
|---------|-------------------------|--|----------------------------|---|-------------|------------|
|         | <b>J</b>                |  | • • • • •                  | Contractor  | FPMU/SPIU   | World Bank |
|         |                         |  |                            | compensation measures will<br>be applied as per the<br>RPF/RAP  |             |            |
| 32      | Road<br>maintenanc<br>e | <ul> <li>Create<br/>gullies<br/>and<br/>standing<br/>pools</li> <li>Create<br/>mud<br/>holes,<br/>potholes</li> <li>Breed<br/>disease<br/>vectors<br/>in<br/>settling<br/>basins<br/>and<br/>retentio<br/>n ponds</li> <li>Remove<br/>ruts,<br/>potholes<br/>, wash<br/>boardin</li> </ul> | Medium<br>Medium<br>Medium | <ul> <li>Monitor and maintain<br/>drainage structures and<br/>ditches including<br/>culverts. Clean out<br/>culverts and side<br/>channels and run-outs<br/>when they begin to fill<br/>with sediment and lose<br/>their effectiveness.</li> <li>Fill mud holes and<br/>potholes with good<br/>quality gravel; remove<br/>downed trees and limbs<br/>obscuring roadways.</li> <li>Use water from settling<br/>basins and retention<br/>ponds for road<br/>maintenance (O&amp;M</li> <li>Ensure Maintenance<br/>contracts that are<br/>performance-based with<br/>penalties in case of non-</li> </ul> |             |            |

| S/<br>N | Activities<br>Envisaged   | Potential<br>Impacts  | Degree of<br>Impact      |  | Mitigations |            |
|---------|---|---|--------------------------|--|-------------|------------|
|         | 5   | •   | •                        | Contractor   | FPMU/SPIU   | World Bank |
|         |   | g, and<br>standing<br>water   |                          | compliance with the<br>agreed standards (e.g.<br>flouting safety rules,<br>number of potholes per<br>km of roads).   |             |            |
| 33      | Upgrade of<br>existing<br>market,<br>processing<br>facilities,<br>farm<br>products<br>aggregation,<br>agricultural<br>inputs<br>provision,<br>etc | <ul> <li>Displacemen<br/>t of market<br/>retailers.</li> <li>Waste<br/>generation.</li> <li>Temporal<br/>displacement<br/>of subsistent<br/>local<br/>economies.</li> <li>All other<br/>potential &amp;<br/>associated<br/>impact<br/>earlier<br/>mentioned in<br/>road projects</li> </ul> | Major<br>Major<br>Medium | <ul> <li>Proper documentation of market retailers and prompt handover of facilities upon sub project completion</li> <li>Adequate waste collection bins are in place at strategic points.</li> <li>Education &amp; awareness on use of waste bins through posters/handbills to avoid indiscriminate litters.</li> <li>Prompt evacuation of waste bins to approved dumpsite.</li> <li>Provision of alternative temporal market during construction and</li> </ul> |             |            |

| S/<br>N | Activities<br>Envisaged | Potential<br>Impacts   | Degree of<br>Impact       |   | Mitigations |            |
|---------|-------------------------|--|---------------------------|---|-------------|------------|
|         | 5                       | •  | •                         | Contractor  | FPMU/SPIU   | World Bank |
|         |                         |  |                           | <ul> <li>compensation where necessary.</li> <li>Proper implementation of relevant mitigation measures for all environmental impacts.</li> </ul>   |             |            |
| 34      | Decommissi<br>oning     | <ul> <li>Cause<br/>soil<br/>erosion</li> <li>Degrade<br/>water<br/>quality</li> <li>Damage<br/>valuable<br/>ecosyst<br/>ems and<br/>habitat</li> </ul> | Medium<br>Major<br>Medium | <ul> <li>Break up old road surface<br/>and soil. Remove and<br/>dispose of surfacing<br/>material if necessary and<br/>loosen soil of previous<br/>track to accelerate<br/>regeneration of vegetation</li> <li>Reshape eroded or<br/>culled surfaces with out-<br/>sloping, or add cross<br/>drains or water bars so<br/>water will no longer<br/>follow the course of the<br/>roadway Re-vegetate as<br/>needed. Narrow tracks<br/>will usually re-vegetate<br/>naturally with no<br/>noticeable scars or<br/>impact on the</li> </ul> |             |            |

| S/<br>N | Activities<br>Envisaged | Potential<br>Impacts | Degree of<br>Impact |   | Mitigations |            |
|---------|-------------------------|----------------------|---------------------|---|-------------|------------|
|         |                         | -                    |                     | Contractor  | FPMU/SPIU   | World Bank |
|         |                         |                      |                     | <ul> <li>environment, but wider<br/>roads may require<br/>active planting and<br/>reseeding.</li> <li>Block access with rocks,<br/>branches, roadblocks,<br/>and signs</li> </ul> |             |            |

# 5.6.2 Social Impacts and Mitigation Measures/Social Impact Management Plan

A Social Impact Management Plan containing expected adverse social impacts, mitigation measures and responsible parties for implementation of mitigation measures is presented in Table 5.4b.

#### Table 5.4b: Potential Social Impacts and Mitigation Measures.

| <b>S/</b> | Expected                      | Degree of |                         | Potential Mitigat   | tion Measures |  |
|-----------|-------------------------------|-----------|-------------------------|---|---------------|--|
| Ν         | Adverse                       | Impact    | Contractor              | FPMU/SPIU   | J             | World Bank   |
|           | Impact                        |           |                         | Project – Specific - With<br>Support of the<br>Monitoring/Supervision<br>Consultant   | -             |  |
| 1.        | <u>All</u><br><u>Disputes</u> |           | Follow GRM<br>provision | • Establishment and operation of<br>an effective GRM accessible to<br>community members-ideally<br>with involvement of the<br>community and district level<br>committee and Community<br>Based Organizations to | Supportive    | <ul> <li>Inclusion of relevant provisions in the ESMP and Legal Agreement.</li> <li>Provision of advice on expected or likely</li> </ul> |

| S/ | Expected | Degree of |                        | Potential Mitigat   |                                 |  |
|----|----------|-----------|------------------------|---|---------------------------------|--|
| Ν  | Adverse  | Impact    | t Contractor FPMU/SPIU |   |                                 | World Bank   |
|    | Impact   |           |                        | Project – Specific - With<br>Support of the<br>Monitoring/Supervision<br>Consultant   | Broader Enabling<br>Environment |  |
|    |          |           |                        | <ul> <li>facilitate early identification of problems and targeted mitigating interventions by IIU/MPW.</li> <li>Establishment and operation of an effective GBV GRM (which will be different from the project specific GRM) accessible to community members and project contractors – ideally with involvement of the Ministry of Women Affairs and Social Protection to facilitate confidentiality. The GRM shall be placed, as possible, within a NGO with expertise on GBV (ideally service provider).</li> <li>Provision of information to communities on how to use the GRM to report issues.</li> <li>Monitoring and taking appropriate action to ensure CESMP provisions are met.</li> </ul> |                                 | <ul> <li>issues based on Bank<br/>experience.</li> <li>Implementation<br/>support to verify<br/>compliance with the<br/>ESMP and CESMP.</li> <li>Monitoring of GRM<br/>resolution rates and<br/>identification of<br/>recurring issues to<br/>discuss with<br/>FPIU/SPMU.</li> </ul> |

| S/ | Expected<br>Adverse                       | Degree of<br>Impact |   | Potential Mitig   | ation Measures  |                              |
|----|---|---------------------|---|---|---|------------------------------|
| Ν  |   |                     | Contractor  |   | FPMU/SPIU   |                              |
|    | Impact                                    |                     |   | Project – Specific - With<br>Support of the<br>Monitoring/Supervision<br>Consultant   | _   |                              |
|    |   |                     |   | <ul> <li>Inclusion of relevant provisions<br/>in the ESMP.</li> <li>Inclusion of relevant provisions<br/>in the SPMU contract.</li> </ul> |   |                              |
| 2. | Land<br>acquisition<br>for the<br>project | Medium              | differentiated<br>treatment fo<br>vulnerable<br>people. | documentation<br>of<br>e<br>e<br>of<br>of<br>of<br>h  | <ul> <li>Project prepares and<br/>implement<br/>standalone<br/>Resettlement Action<br/>Plans</li> <li>Government to<br/>provide funding for<br/>the payment of RAP<br/>and livelihood<br/>restoration.</li> </ul> | Resettlement Action<br>Plans |

| S/ | Expected                      | Degree of |   | Potential Mitigation Measures  |    |            |  |  |
|----|-------------------------------|-----------|---|--|----|------------|--|--|
| Ν  | Adverse                       | Impact    | Contractor  | FPMU/SP  | [U | World Bank |  |  |
|    | Impact                        |           |   | Project – Specific - With<br>Support of the<br>Monitoring/Supervision<br>Consultant    | -  |            |  |  |
|    |                               |           | land<br>effectively<br>established t<br>mitigate th<br>possibilities of<br>taking lan<br>owned b  | of<br>is<br>co<br>ne<br>of<br>nd<br>of<br>nd<br>of<br>st<br>st<br>ig<br>ed<br>ed<br>re |    |            |  |  |
| 3. | Risk of<br>social<br>conflict | Major     | Awareness     the historication of the culture th |  |    |            |  |  |

| S/ | Expected | Degree of | Potential Mitigation Measures   |   |   |            |  |  |
|----|----------|-----------|---|---|---|------------|--|--|
| Ν  | Adverse  | Impact    | Contractor  | FPMU/SPI  |   | World Bank |  |  |
|    | Impact   |           |   | Project – Specific - With<br>Support of the<br>Monitoring/Supervision   | _ |            |  |  |
|    |          |           |   | Consultant  |   |            |  |  |
|    |          |           | <ul> <li>when deali</li> <li>with affect</li> <li>communities.</li> <li>Ensure the communication tools portrect a concise information.</li> <li>Provision information regarding Worker Code Conduct.</li> <li>Provision cultural sensitization</li> </ul> | <ul> <li>ea implementation process.</li> <li>Awareness – raising among local community and workers.</li> <li>Ensure the contractor adheres to Workers Code of Conduct and local tradition.</li> </ul> |   |            |  |  |

| S/ | Expected | Expected Degree of Potential Mitigation Measures |  |   |  |            |
|----|----------|--|--|---|--|------------|
| Ν  | Adverse  | Impact   | Contractor   | FPMU/SPI  |  | World Bank |
|    | Impact   |  |  | Project – Specific - With<br>Support of the<br>Monitoring/Supervision<br>Consultant                     |  |            |
|    |          |  | addendum<br>the Contract<br>Workers'<br>contract, to the<br>signed as<br>commitment<br>adhere<br>Worker Code<br>Conduct ar<br>GBV preventior<br>• Commitment<br>prioritizing the | an<br>to<br>or<br>De<br>a<br>to<br>to<br>to<br>of<br>n.<br>to<br>n.<br>to<br>ne<br>of<br>sis<br>m<br>id |  |            |

| S/ | Expected  | Degree of |  | Potential Mitiga  | tion Measures         |            |
|----|---|-----------|--|---|-----------------------|------------|
| N  | Adverse<br>Impact   | Impact    | S  | FPMU/SPI<br>Project – Specific - With<br>Support of the<br>Monitoring/Supervision<br>Consultant   | U<br>Broader Enabling | World Bank |
|    |   |           | tension with<br>migrant<br>workers.  |   |                       |            |
| 4. | Increased<br>risk of illicit<br>behaviour<br>and crime<br>including<br>prostitutio<br>n, theft and<br>substance<br>abuse. | Major     | <ul> <li>Paying<br/>adequate<br/>salaries to<br/>workers to<br/>reduce<br/>incentive for<br/>theft.</li> <li>Hiring of loca<br/>workforce.</li> <li>Creation of<br/>supervised<br/>recreation<br/>areas in<br/>workers' camp<br/>as well as<br/>temporary rest<br/>areas at work<br/>sites.</li> </ul> | <ul> <li>Enforcement of laws on<br/>drug abuse and<br/>trafficking.</li> <li>Police monitoring to<br/>prevent drug trafficking.</li> <li>Sensitization campaigns<br/>for both workers and<br/>local communities.</li> </ul> |                       |            |

### ESMF FOR THE RURAL ACCESS AND AGRICULTURAL MARKETING PROJECT (RAAMP)

| <b>S/</b> | Expected | Degree of |   |   |               |                     |            |
|-----------|----------|-----------|---|---|---------------|---------------------|------------|
| Ν         | Adverse  | Impact    | Contractor  |   | PMU/SPI       | ition Measures<br>U | World Bank |
|           | Impact   |           |   |   | - With<br>the | Broader Enabling    |            |
|           |          |           | <ul> <li>criminal<br/>activities.</li> <li>Provision<br/>substance<br/>(drug<br/>alcohol) abu<br/>prevention a<br/>management<br/>program<br/>workers<br/>involved in t<br/>project site.</li> <li>Hiring of you<br/>women in t<br/>project area</li> </ul> | of<br>ch<br>for<br>in<br>of<br>&<br>se<br>nd<br>for<br>he<br>he |               |                     |            |

| S/ | Expected Degree of Potential Mitigation Measures |                               |   |  |   |            |
|----|--|-------------------------------|---|--|---|------------|
| Ν  | Adverse  | e Impact Contractor FPMU/SPIU |   |  |   | World Bank |
|    | Impact   |                               |   | Project – Specific - With<br>Support of the<br>Monitoring/Supervision<br>Consultant  | _   |            |
|    |  |                               | <ul> <li>prostitution<br/>and sexu-<br/>transaction.</li> <li>Pay equ-<br/>wage to men<br/>women on t<br/>basis of equ-<br/>job perform<br/>and merit.</li> </ul> | ual<br>&<br>he<br>ual<br>ed  |   |            |
| 5. | Adverse<br>impacts on<br>community<br>dynamics   | Medium                        | services in t<br>workers' car<br>to reduce t<br>need f<br>workers to u<br>local<br>community<br>facilities<br>(internet,<br>sports).                              | he organizations to create<br>integrative action plans.<br>• Provision of upfront<br>information on<br>potentially detrimental<br>impacts on local<br>communities. | <ul> <li>Investment in community participation and engagement programs</li> </ul> |            |

| S/ | Expected | Degree of |  | Potential Mitigation Measures   |  |            |  |
|----|----------|-----------|--|---|--|------------|--|
| Ν  | Adverse  | Impact    | Contractor   | FPMU/SPI  |  | World Bank |  |
|    | Impact   |           |  | Project – Specific - With<br>Support of the<br>Monitoring/Supervision<br>Consultant |  |            |  |
|    |          |           | local<br>community.<br>• Restriction<br>public acce<br>to camps an<br>construction<br>area, to b<br>managed by:<br>✓ Assigning<br>security<br>personnel<br>manage<br>access. | for<br>in<br>ce<br>for<br>th<br>of<br>ss<br>nd<br>be<br>to<br>of<br>n               |  |            |  |

| S/ | Expected  | Degree of |  | Potential Mitiga   | tion Measures |            |
|----|---|-----------|--|--|---------------|------------|
| Ν  | Adverse<br>Impact                                 | Impact    | Contractor   | FPMU/SPI<br>roject – Specific - With   |               | World Bank |
|    | Impact  |           | S<br>M   |  | Environment   | 1          |
| 6. | Impact on<br>Community<br>Cultural<br>Traditions. | Medium    | <ul> <li>Contractor is to<br/>ensure the<br/>strict<br/>implementatio<br/>n of Labour<br/>Management<br/>Plan to<br/>minimize<br/>engagement<br/>with the locals<br/>and to ensure<br/>workers are<br/>educated on<br/>the local<br/>traditions and<br/>proper<br/>interactions.<br/>Actions<br/>disapproved by<br/>the<br/>communities or<br/>by their</li> </ul> | <ul> <li>information on<br/>potentially detrimental<br/>cultural impacts on local<br/>communities.</li> <li>Liaise with Community<br/>Based Organizations to<br/>create integrative action<br/>plans.</li> </ul> |               |            |

| S/ | Expected   | Degree of |   | Potential Mitiga   | tion Measures |            |
|----|--|-----------|---|--|---------------|------------|
| Ν  | Adverse  | Impact    | Contractor  | FPMU/SPI   |               | World Bank |
|    | Impact   |           |   | Project – Specific - With<br>Support of the<br>Monitoring/Supervision<br>Consultant  |               |            |
|    |  |           | traditions must<br>be corrected<br>improved an<br>proper<br>consultation<br>must be hel<br>with th<br>leaders t<br>ensure<br>satisfaction coredress<br>mechanism. | d<br>d<br>d<br>e<br>o  |               |            |
| 7. | Influx of<br>Additional<br>Population<br>(``Followers<br><u>''</u> ) | Major     | hire worker<br>through<br>systemic<br>process   | <ul> <li>a expectations and discourage spontaneous influx of job seekers.</li> <li>by Coordinate with Local government to address this additional influx of</li> </ul> |               |            |

| S/ | Expected         Degree of         Potential Mitigation Measures |        |   |  |                                 |            |
|----|--|--------|---|--|---------------------------------|------------|
| Ν  | Adverse  | Impact | Contractor  | FPMU/SPI   |                                 | World Bank |
|    | Impact   |        |   | Project – Specific - With<br>Support of the<br>Monitoring/Supervision<br>Consultant                  | Broader Enabling<br>Environment |            |
|    |  |        | seekers and<br>migrant<br>workers.<br>Development<br>of a detailed<br>and site<br>specific labou<br>influx<br>management<br>plan.<br>Prioritize the<br>hiring of the<br>local fo<br>qualified skilled<br>and unskilled<br>work. | influx management<br>plan.<br>d<br>e<br>ir<br>e<br>e<br>or<br>d<br>d<br>d<br>n<br>n<br>of<br>n<br>os |                                 |            |

| S/ | S/ Expected Degree of Potential Mitigation Measures      |        |   |  |  |            |
|----|--|--------|---|--|--|------------|
| N  | Adverse<br>Impact  | Impact | Contractor  | FPMU/SP<br>Project – Specific - With<br>Support of the<br>Monitoring/Supervision<br>Consultant | Broader Enabling   | World Bank |
|    |  |        | equipment,<br>involving the<br>in superviso<br>jobs.<br>Inform<br>communities<br>all hirit<br>opportunities<br>in constructio<br>areas.   | ory<br>of<br>ng<br>on  |  |            |
| 8. | Increased<br>burden on<br>public<br>service<br>Provision | Medium | <ul> <li>Workers' cam<br/>to includ<br/>wastewater<br/>disposal an<br/>septic<br/>systems.</li> <li>Identification<br/>of authorize<br/>water supp<br/>source an<br/>prohibition of<br/>use from othe<br/>community<br/>sources.</li> </ul> | temporary rise in<br>demand for utilities and<br>public service provision.                     | <ul> <li>Investment in and<br/>capacity building of<br/>local public service<br/>providers.</li> </ul> |            |

| S/ | Expected                                 | Degree of |  | Potential Mitig  | ation Measures  |            |
|----|--|-----------|--|--|---|------------|
| Ν  | Adverse                                  | Impact    | Contractor   | FPMU/SP  |   | World Bank |
|    | Impact                                   |           |  | Project – Specific - Wit<br>Support of th<br>Monitoring/Supervision<br>Consultant        |   |            |
|    |  |           | <ul> <li>Identification<br/>of separate<br/>non-<br/>hazardous<br/>solid and liquid<br/>waste disposal<br/>sites.</li> <li>Identification<br/>of separate<br/>service<br/>providers fo<br/>community and<br/>workers'<br/>camp/construc-<br/>tion site.</li> <li>Worker Code<br/>of Conduct of<br/>water and<br/>electricity<br/>consumption.</li> </ul> | e<br>or<br>d<br>e<br>n   |   |            |
| 9. | Increased<br>risk of<br>communica<br>ble | Major     | Vaccinating     workers     against     common and   | Establishment or<br>upgrade of health<br>centers at camp and<br>construction sites. This | <ul> <li>Awareness raising<br/>about public health<br/>impacts from labour<br/>influx.</li> </ul> |            |

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| S/ | Expected  | Degree of |   | Potential Mitiga   | tion Measures                   |            |
|----|---|-----------|---|--|---------------------------------|------------|
| Ν  | Adverse   | Impact    | Contractor  | FPMU/SPI   | U                               | World Bank |
|    | Impact  |           |   | Project – Specific - With<br>Support of the<br>Monitoring/Supervision<br>Consultant  | Broader Enabling<br>Environment |            |
|    | diseases<br>(including<br>STDs and<br>HIV/AIDS) |           | locally<br>prevalent<br>diseases.<br>• In associatio<br>with th | should be included in<br>contractor's contract.<br>The clinic should be<br>approved by the Ministry<br>of Health.<br>• Free testing facilities.<br>• Provision of condoms;<br>• Monitoring of local<br>population health data,<br>in particular for<br>transmissible diseases. |                                 |            |

| S/  | Expected   | Degree of |   | Potential Mitiga  | tion Measures  |            |
|-----|--|-----------|---|---|--|------------|
| N   | Adverse<br>Impact  | Impact    | S   | FPMU/SPI<br>Project – Specific - With<br>Support of the<br>Aonitoring/Supervision<br>Consultant   | Broader Enabling   | World Bank |
|     |  |           | community in<br>collaboration<br>with NACA.<br>• Education<br>about the<br>transmission of<br>diseases;   |   |  |            |
| 10. | Gender-<br>based<br>violence,<br>including<br>sexual<br>exploitatio<br>n and<br>abuse,<br>sexual<br>harassmen<br>t, and<br>violence<br>against<br>children | Major     | Ensure that<br>GBV risks are<br>adequately<br>reflected in<br>the CESMP<br>Prior to<br>mobilization,<br>Codes of<br>Conduct (CoC)<br>meeting<br>minimum<br>standards as<br>outlined in the<br>SPDs are in<br>place with<br>contractors,<br>their sub- | <ul> <li>equipping of local law<br/>enforcement to act on<br/>GBV complaints.</li> <li>Information and<br/>awareness raising<br/>campaigns for<br/>community members,<br/>specifically women and<br/>girls.</li> <li>Provision of information<br/>to host community about<br/>the contractor's policies<br/>and Worker Code of</li> </ul> | <ul> <li>Increased security presence in nearby communities.</li> <li>Reinforcement of police force where needed.</li> <li>Deployment of female police officers in project areas.</li> <li>Application of long term community based approaches to address the issue.</li> <li>Enforcement of laws on sexual violence</li> </ul> |            |

| S/ | S/ Expected Degree of Potential Mitigation Measures |        |   |  |                           |            |
|----|---|--------|---|--|---------------------------|------------|
| Ν  | Adverse   | Impact | Contractor  | FPMU/SPI   | U                         | World Bank |
|    | Impact  |        |   | Project – Specific - With<br>Support of the<br>Monitoring/Supervision<br>Consultant  | -                         |            |
|    |   |        | <ul> <li>contractors, and any consultants that have physical presence at the project site including supervising engineers.</li> <li>CoCs signed by those with a physical presence at the project site.</li> <li>Mandatory and regular trainin for workers and contractors of their obligations under the Code of</li> </ul> | strategy which will be<br>implemented over the<br>life of the project to keep<br>the local communities<br>and other stakeholders<br>informed on the project. | and human<br>trafficking. |            |

| S/ | Expected | Degree of | Potential Mitigation Measures  |   |       |                         |  |            |
|----|----------|-----------|--|---|-------|-------------------------|--|------------|
| Ν  | Adverse  | Impact    | Contractor   | ntractor FPMU/SPIU  |       |                         |  | World Bank |
|    | Impact   |           |  | Project – Spec<br>Support –<br>Monitoring/Sup<br>Consultant | of th | h Broader<br>e Environm |  |            |
|    |          |           | <ul> <li>conduct,<br/>including<br/>required lawfu<br/>conduct in ho<br/>community<br/>and on the<br/>work site and<br/>legal<br/>consequences<br/>for failure to<br/>comply with<br/>laws.</li> <li>Disseminate<br/>CoC (includin<br/>visual<br/>illustrations),<br/>discuss with<br/>employees<br/>and<br/>surrounding<br/>communities,<br/>and signed by<br/>all workers<br/>involved with<br/>the project</li> </ul> | st<br>g<br>y  |       |                         |  |            |

### ESMF FOR THE RURAL ACCESS AND AGRICULTURAL MARKETING PROJECT (RAAMP)

| S/ | Expected | Degree of |  | Potential Mitigation Measures   |  |            |
|----|----------|-----------|--|---|--|------------|
| Ν  | Adverse  | Impact    | Contractor   | FPMU/SPI  |  | World Bank |
|    | Impact   |           |  | Project – Specific - With<br>Support of the<br>Monitoring/Supervision<br>Consultant |  |            |
|    |          |           | <ul> <li>Commitment<br/>policy to<br/>cooperate with<br/>law<br/>enforcement<br/>agencies<br/>investigating<br/>perpetrators of<br/>gender-based<br/>violence.</li> <li>Creation of<br/>partnership<br/>with Ministry<br/>Women<br/>Affairs, local<br/>NGO, women<br/>groups to<br/>report worker<br/>misconduct<br/>and<br/>complaints/re<br/>orts on<br/>gender-based<br/>violence or</li> </ul> | h<br>of<br>of<br>s'<br>p  |  |            |

| S/ | Expected          | Degree of | Potential Mitigation Measures  |   |                  |            |
|----|-------------------|-----------|--|---|------------------|------------|
| N  | Adverse<br>Impact | Impact    | Contractor   | FPMU/SPI<br>Project – Specific - With<br>Support of the | Broader Enabling | World Bank |
|    |                   |           | harassment<br>through the<br>GBV GRM,<br>always taking<br>into account a<br>a primary<br>principle a<br>survivor-<br>centred<br>approach.<br>Provision of<br>opportunities<br>for workers to | Monitoring/Supervision<br>Consultant                    |                  |            |
|    |                   |           | regularly<br>return to thei<br>families.<br>Provision of<br>opportunities<br>for workers to<br>take<br>advantage of<br>entertainmen<br>opportunities<br>away from<br>rural host              | t   |                  |            |

### ESMF FOR THE RURAL ACCESS AND AGRICULTURAL MARKETING PROJECT (RAAMP)

| S/ | Expected | Degree of |   | Potential Mitigation Measures   |  |            |  |
|----|----------|-----------|---|---|--|------------|--|
| Ν  | Adverse  | Impact    | Contractor  | FPMU/SPI  |  | World Bank |  |
|    | Impact   |           |   | Project – Specific - With<br>Support of the<br>Monitoring/Supervision<br>Consultant |  |            |  |
|    |          |           | <ul> <li>communities.</li> <li>As<br/>possible,<br/>include in<br/>the biddin<br/>document<br/>requirement<br/>ts to hire<br/>workers<br/>from the<br/>vicinity of<br/>the project</li> <li>Commitment<br/>to providing<br/>alternative<br/>work schedule<br/>or shifts to<br/>accommodate<br/>the hiring of<br/>more local<br/>female<br/>workers. This<br/>ensures they<br/>can out their<br/>domestic</li> </ul> | g<br>sin<br>t<br>es   |  |            |  |

| S/ | Expected | Degree of | Potential Mitigation Measures  |   |  |            |
|----|----------|-----------|--|---|--|------------|
| Ν  | Adverse  | Impact    | Contractor   | FPMU/SPI  |  | World Bank |
|    | Impact   |           |  | Project – Specific - With<br>Support of the<br>Monitoring/Supervision<br>Consultant |  |            |
|    |          |           | duties and<br>avoid the<br>potential<br>domestic<br>abuse.<br>• Create a<br>GBV Actio<br>Plan<br>accompan<br>ed by an<br>Accountab<br>ity and<br>Response<br>Framewor<br>to ensure<br>that the<br>CoCs are<br>implement<br>ed<br>effectively<br>• Ensure<br>separate, safe<br>and easily<br>accessible<br>facilities for | i<br>bil<br>k<br>t  |  |            |

| S/  | Expected   | Degree of |   | Potential Mitigatio   | n Measures   |
|-----|--|-----------|---|---|--|
| Ν   | Adverse  | Impact    | Contractor  | FPMU/SPIU   | World Bank   |
|     | Impact   |           | 5   | Project – Specific - With B<br>Support of the E<br>Monitoring/Supervision<br>Consultant | roader Enabling<br>nvironment                            |
|     |  |           | women and<br>men working<br>on the site.  |   |  |
| 11. | <u>Child</u><br><u>labour and</u><br><u>school drop</u><br><u>out</u>        | Medium    | Ensuring that children and minors are not employed directly or indirectly or the project.   | d hiring criteria, I<br>t minimum age, and I<br>applicable laws.<br>r                   | Enforcement of<br>egislation on child<br>abour.          |
| 12. | Local<br>inflation of<br>prices and<br>crowding<br>out of local<br>consumers | Medium    | Appropriate<br>mix of locally<br>and non-<br>locally<br>procured<br>goods to<br>allow loca<br>project<br>benefits while<br>reducing risk<br>of crowding | y I<br>- C  | Monitoring of local<br>prices and security<br>of supply. |

| S/  | Expected<br>Adverse<br>Impact                              | Degree of<br>Impact |  | Potential Mitiga  | ation Measures        |            |
|-----|--|---------------------|--|---|-----------------------|------------|
| N   |  |                     | Contractor   | FPMU/SPI<br>Project – Specific - With<br>Support of the<br>Monitoring/Supervision<br>Consultant | U<br>Broader Enabling | World Bank |
|     |  |                     | out of a<br>price hikes f<br>local<br>consumers.   |   |                       |            |
| 13. | Increased<br>pressure on<br>accommod<br>ation and<br>rents | Medium              | When loc<br>community<br>accommoda<br>on supply<br>limited, th<br>project shou<br>establish<br>workers'<br>camp faciliti<br>with sufficie<br>capacity f<br>workers—<br>including su<br>contractors-<br>and<br>associated<br>support staf | funding for<br>establishment of<br>workers' camp.<br>Id<br>es<br>nt<br>or                       |                       |            |

| S/  | Expected   | Degree of |  | Potential Mitiga   | tion Measures   |            |
|-----|--|-----------|--|--|---|------------|
| N   | Adverse<br>Impact                                | Impact (  | Contractor   | FPMU/SPIU<br>Project – Specific - With<br>Support of the<br>Monitoring/Supervision<br>Consultant   | Broader Enabling  | World Bank |
| 14. | Increased<br>traffic and<br>rise in<br>accidents | Medium    | <ul> <li>Preparation<br/>and<br/>implementation<br/>n of a traffic<br/>management<br/>plan to be<br/>approved by<br/>supervision<br/>consultant.</li> <li>Building<br/>additional/sep<br/>rate roads to<br/>project and<br/>workers' camp<br/>sites where<br/>necessary.</li> <li>Organization<br/>commute from<br/>camp to<br/>project to<br/>reduce traffic.</li> <li>Road safety<br/>training and<br/>defensive<br/>driving training</li> </ul> | p government, contractor and communities to identify accident hotspots and formulation of solutions of solutions of solutions of solutions of solutions of solution acceleration accelerati | Upgrading and<br>maintaining roads<br>affected by project<br>(unless designated as<br>contractor<br>responsibility) |            |

| S/ | 6/ Expected Degree of Potential Mitigation Measures |        |   |   | tion Measures |     |                                 |            |
|----|---|--------|---|---|---------------|-----|---------------------------------|------------|
| Ν  | Adverse   | Impact | Contractor  | FPMU/SPIU   |               |     |                                 | World Bank |
|    | Impact  |        |   | Project –<br>Support<br>Monitoring/<br>Consultant   | of            | the | Broader Enabling<br>Environment |            |
|    |   |        | for staff.<br>• Sanctions for<br>reckless<br>driving.   |   |               |     |                                 |            |
|    | Risk of<br>marginalizing<br>vulnerable<br>groups    |        | In order the mitigate imparal associated with age vulnerability, the SPC when conducting assessment under performance standard shatidentify disadvantaged or vulnerab individuals or groups that whe directly affected in the project area. | ch<br>en<br>all<br>d<br>le<br>or<br>ill<br>or<br>ee |               |     |                                 |            |

| S/  | Expected  | Degree of<br>Impact |   | Potential Mitig   | ation Measures |  |
|-----|---|---------------------|---|---|----------------|--|
| Ν   | Adverse   |                     | Contractor  | FPMU/SF   | World Bank     |  |
|     | Impact  |                     |   | Project – Specific - Wit<br>Support of th<br>Monitoring/Supervision<br>Consultant |                |  |
|     |   |                     | developed<br>address<br>particular<br>circumstances<br>or needs<br>such   | <i>i</i> ill<br>to  |                |  |
| 15. | Camp<br>related<br>land use,<br>access<br>roads,<br>noise and<br>lights | Medium              | <ul> <li>Placement of<br/>workers' cam<br/>away from<br/>environmenta<br/>y sensitive<br/>areas to avoid<br/>impacts on th<br/>local wildlife.</li> <li>Routing of ne<br/>access routes<br/>for workers'</li> </ul> | p of requirements for<br>camp locations.<br>d<br>e<br>w                           |                |  |

| S/  | Expected   | Degree of |   | Potential Mitiga   | ation Measures   |            |
|-----|--|-----------|---|--|--|------------|
| N   | Adverse Impact<br>Impact   |           |   | FPMU/SPI<br>Project – Specific - With<br>Support of the  | Broader Enabling   | World Bank |
|     |  |           | r   | Ionitoring/Supervision<br>Consultant   |  |            |
|     |  |           | camp to<br>avoid/minimize<br>environmentall<br>y sensitive<br>areas.  |  |  |            |
| 16. | Increased<br>demand on<br>freshwater<br>resources                                      | Major     | <ul> <li>Water<br/>conservation<br/>and recycling<br/>of water.</li> <li>Consideration<br/>of use of<br/>rainwater<br/>where feasible.</li> <li>Avoiding<br/>contamination<br/>of fresh water<br/>sources.</li> </ul> | Inclusion in contract<br>of requirement for<br>rainwater capture,<br>use of non-potable<br>water for construction<br>works, etc. |  |            |
| 17. | <u>Road</u><br><u>Safety for</u><br><u>people</u><br><u>with</u><br><u>disability.</u> | Medium    | <ul> <li>Integration of<br/>disability<br/>concerns in<br/>road designs.</li> <li>Road<br/>construction to</li> </ul>   | contracts of<br>requirement of<br>infrastructure<br>designed for people  | Education and<br>awareness for people<br>with disabilities and<br>the general public on<br>the proper use of the<br>provided road safety |            |

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| S/ | Expected | Degree of | Degree of Potential Mitigation Measures   |   |   |            |  |
|----|----------|-----------|---|---|---|------------|--|
| Ν  | Adverse  | Impact    | Contractor  | FPMU/SPI  | U   | World Bank |  |
|    | Impact   |           |   | Project – Specific - With<br>Support of the<br>Monitoring/Supervision<br>Consultant |   |            |  |
|    |          |           | <ul> <li>provide<br/>platforms for<br/>easy access of<br/>people with<br/>disabilities.</li> <li>Installation of<br/>speed barriers<br/>at designated<br/>road crossings</li> <li>Installation of<br/>traffic signs,<br/>symbols and<br/>markings<br/>(zebra<br/>crossings etc)<br/>on<br/>approaching<br/>road crossings</li> <li>Installation of<br/>infrastructure<br/>designed for<br/>people with<br/>disabilities<br/>such as<br/>Accessible</li> </ul> | F<br>5.<br>5.   | provision by CSOs,<br>CBOs and relevant<br>local authorities. |            |  |

| S/ | Expected | d Degree of |   | Potential Mitiga  | Potential Mitigation Measures |            |  |  |  |  |
|----|----------|-------------|---|---|-------------------------------|------------|--|--|--|--|
| N  | Adverse  | Impact      | Contractor  | FPMU/SPI  | J                             | World Bank |  |  |  |  |
|    | Impact   |             |   | Project – Specific - With<br>Support of the<br>Monitoring/Supervision<br>Consultant | _                             |            |  |  |  |  |
|    |          |             | Pedestrian<br>Signals<br>(Audible<br>Pedestrians<br>Traffic<br>Signals),<br>Braille Traffic<br>Light, the<br>`green man'<br>etc |   | <u>.</u>                      |            |  |  |  |  |

 Table 5.5: Estimated Mitigation Cost of Environmental and Social Management Plan (ESMP) for RAAMP

| Issue/Potential<br>Impact   | Mitigation Measure(s)  | Implementing<br>Responsibility                                  | Monitoring<br>Responsibility | Indicative Cost<br>(₦) | Indicative Cost<br>(\$) |
|---|--|---|------------------------------|------------------------|-------------------------|
| Impacts on air<br>quality   | Use of adequate PPEs, cover materials during transportation,   | Design Consultant ,<br>contractor,<br>supervising<br>consultant | FPMU/SPIU                    | 27,000,000.00          | 88,235.29               |
| Impacts on noise<br>level   | proper servicing/maintenance of<br>equipment, enclose area for on-<br>site material mixing etc   | Design Consultant ,<br>contractor,<br>supervising<br>consultant | FPMU/SPIU                    | 18,000,000.00          | 58,823.53               |
| Impact on hydrology<br>& surface water<br>quality                   | Use of good engineering<br>practice, stabilization of slopes,<br>installation of adequate<br>drainages, minimal use of water<br>& chemicals. | Design Consultant ,<br>contractor,<br>supervising<br>consultant | FPMU/SPIU                    | 20,000,000.00          | 65,359.48               |
| Impact of soil<br>burrow pits                                       | Use of good engineering<br>practice, and reclamation of the<br>burrow pits   | Design Consultant,<br>contractor,<br>supervising<br>consultant  | FPMU/SPIU                    | 72,000,000,00          | 235,294.12              |
| Waste generation & disposal impact.                                 | Provision of waste management<br>plan, reduce, reuse and recycle<br>options,   | contractor,<br>supervising<br>consultant                        | FPMU/SPIU                    | 54,000,000.00          | 176,470.59              |
| Socioeconomic<br>impact: loss of<br>source of income &<br>property, | Payment of compensation,<br>documentation of agreements.   | contractor,<br>supervising<br>consultant                        | FPMU/SPIU                    | 95,000,000.00          | 310,457.52              |

| Issue/Potential<br>Impact             | Mitigation Measure(s)   | Implementing<br>Responsibility           | Monitoring<br>Responsibility | Indicative Cost<br>(₦) | Indicative Cost<br>(\$) |
|---------------------------------------|---|--|------------------------------|------------------------|-------------------------|
| GBV                                   | Ensure adherence to Code of<br>Conduct for contractor & workers | contractor,<br>supervising<br>consultant | FPMU/SPIU                    | 20,000,000.00          | 65,359.48               |
| labour influx                         | Ensure Management Plan & strict<br>implementation of Labour     | contractor,<br>supervising<br>consultant | FPMU/SPIU                    | 22,000,000.00          | 71,895.43               |
| incidence of STDs,<br>STIs & HIV/AIDS | Ensure Site/Camp Management<br>Plan.                            | contractor,<br>supervising<br>consultant | FPMU/SPIU                    | 18,000,000.00          | 58,823.53               |
| Sub total                             |   |  |                              | 346,000,000.00         | 1,130,718.95            |
| 10% Contingency                       |   |  |                              | 34,600,000.00          | 113,071.895             |
| Total                                 |   |  |                              | 380,600,000.00         | 1,243,790.85            |

### 5.7 INTEGRATING MITIGATION MEASURES IN PROJECT DESIGN AND TENDER DOCUMENTS

This shall be achieved through subprojects environmental and social management procedure, from the screening through monitoring and evaluation of the specific ESMP (based on the nature of the subproject and the risk level), including specific criteria (site selection, exclusion of activity, additional studies, etc.), in accordance to national EA administrative procedure (including the review and clearance by the Bank).

## 5.7.1 Project Design.

The mitigation measures should be integrated in the design of the project itself. Such a step will enhance the mitigation measures in terms of specific mitigation design, cost estimation of the mitigation measure, and specific implementation criteria. The mitigation measure integration in the design phase will also help in strengthening the benefits and sustainability of the sub projects.

## 5.7.2 Project Contract

The project contractor should be bound by the parameters identified in the environmental and social assessment pertaining to specific mitigation measures in the contract. The final acceptance of the completed works should not occur until the environmental clauses have been satisfactorily implemented.

# 5.7.3 Bill of Quantities

The tender instruction to bidders should explicitly mention the site-specific mitigation measures to be performed, the materials to be used, labour camp arrangements, and waste disposal areas, as well other site specific environmental requirements. Such a definition would clearly exhibit the cost requirement to undertake mitigation measures, which otherwise might be lost as the bidders in an attempt to be more competitive may not include the price realistic enough to fund mitigation measures and other protection measures.

### 5.7.4 Supervision and Monitoring

The purpose of supervision is to make sure that specific mitigation parameters identified in the environmental and social assessment and as bound by the contract is satisfactorily implemented. Likewise, monitoring is necessary such that the mitigation measures are actually put into practice.

A categorized mitigation measures and its implementation is given in Table 5.5.

| S/N | Mitigation          | Implementatio  | n Responsibil  | ity Party  |  |
|-----|---------------------|--|--|--|--|
|     | Activity            | Project  | Contract   | Bill of  | Monitoring*  |
|     |                     | Design   |  | Quantity   |  |
| 1   | Land use            | Explore use of<br>marginal land.<br>• Check<br>impacts are<br>limited to<br>compensated<br>trees<br>and products.              | Contractor<br>shall<br>comply with<br>clauses<br>pertaining<br>to mitigation<br>in<br>the contract | _  | Quantify actual<br>land<br>use pattern for<br>construction<br>and<br>other activities.<br>• Public<br>complaints.  |
| 2   | Camp<br>operation   | Identify<br>camping<br>grounds   | Contractor<br>shall<br>comply with<br>clauses<br>pertaining<br>to mitigation<br>in<br>the contract | Amount to be<br>included in<br>contractor's<br>own<br>expense<br>through<br>work camp item<br>expense. | Latrine<br>construction<br>and effective<br>waste disposal.<br>• Check<br>disruption in<br>water supply.<br>• Re-vegetation<br>and<br>rehabilitation of<br>site. |
| 3   | Plants and wildlife | Consider<br>construction<br>affecting<br>forests and<br>productive<br>plots.   | Contractor<br>shall<br>comply with<br>clauses<br>pertaining<br>to mitigation<br>in<br>the contract | -  | Check habitats<br>recreated<br>on marginal<br>roadside land.   |
| 4   | Spoil disposal      | Identify mass<br>balance<br>techniques.<br>• Safe tipping<br>areas<br>identified and<br>enforced.<br>• Design spoils<br>traps. | Contractor<br>shall<br>comply with<br>clauses<br>pertaining<br>to mitigation<br>in<br>the contract | Quantify<br>disposal<br>and extraction<br>volume.  | Presence of<br>scouring,<br>erosion,<br>damage to<br>property,<br>water supply<br>disruption.<br>• Complaints<br>from<br>local people                            |

Table 5.6: Categorized Mitigation Measures and Its Implementation

| 5 | Slope stability             | Specify<br>bioengineering<br>and relevant<br>techniques.  | Contractor shall<br>comply with<br>clauses<br>pertaining<br>to mitigation in<br>the contract. | Identify<br>stabilization<br>area.<br>• Provide list<br>of<br>vegetation to<br>be<br>planted.                | Adequacy,<br>quality<br>of vegetation.<br>• Survival rate<br>of<br>plants.  |
|---|-----------------------------|---|---|--|---|
| 6 | Water<br>management         | Design safe<br>discharge<br>drainage and<br>techniques<br>(check<br>dam) to natural<br>water<br>course. | Contractor shall<br>comply with<br>clauses<br>pertaining<br>to mitigation in<br>the contract  | Physical works<br>for<br>safe discharge<br>drainage listed.  | Evidence of<br>fresh<br>surface<br>erosion,<br>presence of<br>gullies,<br>increase in<br>water<br>turbidity, loss<br>of<br>agriculture<br>forest<br>land.<br>• Slope<br>condition.<br>• Public<br>complaints. |
| 7 | Hazardous<br>materials      | Specify storage<br>facilities for<br>explosives and<br>toxic<br>materials.                              |   | Amount to be<br>included in<br>contractor's<br>own<br>expense<br>through rate<br>for supplying<br>materials. | Checks to<br>ensure<br>that storage is<br>good<br>and that there<br>are no<br>losses or leaks.<br>• Checks to<br>ensure that<br>protective<br>clothing and<br>safety<br>measures are<br>used.                 |
| 8 | Quarries and<br>burrow pits | Design bunds<br>to<br>screen noise<br>and dust.   | Contractor shall<br>comply with<br>clauses<br>pertaining<br>to mitigation in                  | Quantify<br>restoration<br>costs and<br>present<br>technical   | Check for water<br>ponds,<br>formation<br>of gullies,<br>water  |

| 9  | Stone<br>crushing and<br>asphalt plants | <ul> <li>Design re-<br/>grading<br/>slopes.</li> <li>Use bio-<br/>engineering<br/>techniques for<br/>rehabilitation.</li> </ul> | the contract<br>Contractor shall<br>comply with<br>clauses<br>pertaining<br>to mitigation in<br>the contract | specifications.<br>Amount to be<br>included in<br>contractor's<br>own<br>expense.   | turbidity.<br>• Check<br>unauthorized<br>quarrying<br>activities.<br>Dust control<br>equipment<br>being<br>utilized.<br>• Public<br>complaints.              |
|----|---|---|--|---|--|
| 10 | Dust and noise                          | Indicate use of<br>safe<br>pollution level<br>equipment.  | Contractor shall<br>comply with<br>clauses<br>pertaining<br>to mitigation in<br>the contract                 | Specify buffer<br>area<br>requirements.<br>• Amount to<br>be<br>included in<br>contractor's<br>own<br>expense<br>through<br>work camp<br>item<br>expense. | Air pollution<br>control<br>equipment.<br>• Dust<br>deposition on<br>crops and<br>vegetation.<br>• Survival rate<br>of<br>plants.<br>• Public<br>complaints. |
| 11 | Social issues                           | Incorporate<br>socially<br>acceptable<br>design<br>specifications   | Contractor shall<br>comply with<br>clauses<br>pertaining<br>to mitigation in<br>the contract                 | -   | Check issues<br>pertaining to<br>social<br>concern.  |
| 12 | Code of<br>conduct                      | Develop and<br>ensure<br>compliance to<br>code of<br>conduct.   | Contractor shall<br>comply with<br>clauses<br>pertaining<br>to mitigation in<br>the contract                 | Specify<br>requirements<br>of the<br>code of<br>conduct and<br>specify roles.   | Ensure that all<br>contractors<br>sign and<br>abide.<br>•Monitor<br>adherence  |
| 13 | Road<br>maintenance                     | Arrangement<br>with<br>the various<br>communities on<br>the<br>corridor and<br>private<br>contractor                            | Penalties in case<br>of<br>noncompliance<br>with<br>the agreed<br>standards (e.g.<br>number of               | Specify<br>manner of<br>maintenance<br>and<br>specific roles  | relationship<br>with<br>well maintained<br>road  |

|  | Pot-holes per<br>km of roads). |  |
|--|--------------------------------|--|
|  |                                |  |

#### 5.8 ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP) AND MONITORING

ESMP is an Action Plan that indicates which of the EA report recommendations and alternatives will actually be adopted and implemented. ESMP could be produced as a part of detailed design in the EA reports or as a free-standing document. It will ensure incorporation of the relevant environmental factors into the overall project design and will identify linkages to other safeguard policies relating to the project. ESMP also ensures that the environmental mitigation measures and their practical monitoring become a legal responsibility of implementing agencies. For each sub-project the EA Consultants shall produce a site-specific Environmental and Social Management Plan (ESMP) document.

Environmental monitoring involves keeping track of, on a regular or ongoing basis with a view to collecting information. It provides feedback about the actual environmental and social impacts. Monitoring results help judge the success of mitigation measures in protecting the environment and people. They are also used to ensure compliance with environmental and social standards, and to facilitate any needed project design or operational changes.

By tracking a project's actual impacts, monitoring reduces the environmental and social risks associated with that project, and allows for project modifications to be made where required.

Monitoring will require sampling and analysis of environmental components like soils, water and air emissions.

Monitoring will also involve community perception surveys, HIV/AIDS awareness, workers health, availability of facilities/skills, etc so as to identify issues of discontent and address them before they escalate.

A sample plan for Environmental and Social Monitoring for the RAAMP subprojects is summarized in Table 5.7. These may differ depending on site specific peculiarities.

#### Table 5.7: Details of Environmental and Social Monitoring Plan

# ESMF FOR THE RURAL ACCESS AND (RAAMP)

| Monitoring<br>Scope  | Parameter   | Location  | Frec   | quency  | Responsibility   |
|--|---|---|--|---|--|
| Beope  | i arameter  | Location  | Construction   | Operation   |  |
| Air  | TSP, NO <sub>2</sub> , SO <sub>2</sub> ,<br>CO                        | Worker Camp<br>& Settlement<br>areas                  | Monthly  | Bi-annual   | FPMU, SPIU,<br>Environmental<br>Consultants,<br>FMEnv, SRA |
| Wastewater<br>and surface<br>water   | TSS COD, DO,<br>pH, Oil, phenol<br>etc                                | Effluent<br>outlets and<br>important<br>water bodies  | Monthly  | Quarterly   | FPMU, SPIU,<br>Environmental<br>Consultants,<br>FMEnv, SRA |
| Noise  | Sound level<br>(dBA)  | Sensitive<br>spots                                    | Monthly  | Yearly  | FPMU, SPIU,<br>Environmental<br>Consultants,<br>FMEnv, SRA |
| Solid waste  | Ignitability,<br>Corrosivity,<br>Reactivity etc                       | Disposal sites  | Quarterly  | Bi-annual for first<br>two years, then<br>annual thereafter     | FPMU, SPIU,<br>Environmental<br>Consultants,<br>FMEnv, SRA |
| Spoils   | Visual inspection   | Project area  | Bi-weekly  | Twice a year at start and end of wet season                     | FPMU, SPIU,<br>Environmental<br>Consultants,<br>FMEnv, SRA |
| Soil Erosion   | Visual inspection   | Project area  | Biweekly   | Twice a year at<br>start and end of<br>wet season               | FPMU, SPIU,<br>Environmental<br>Consultants,<br>FMEnv, SRA |
| Public Safety  | Signs, culvert,<br>incidence/accide<br>nt records                     | Project area  | Monthly  | Quarterly for the<br>first year, then<br>annually<br>thereafter | FPMU, SPIU,<br>Environmental<br>Consultants,<br>FMEnv, SRA |
| Land<br>acquisition and<br>population,<br>structures<br>resettlement<br>(Note that<br>Stand-Alone<br>RAP shall be<br>prepared for<br>this as stated<br>in RAAMP PRF<br>prepared<br>alongside this<br>ESMF) | Compensation,<br>income, housing,<br>employment,<br>social adaptation | Relocated<br>families and<br>receiving<br>communities | Middle and<br>end of land<br>acquisition and<br>resettlement | Annual  | FPMU, SPIU,<br>Environmental<br>Consultants,<br>FMEnv, SRA |

#### AGRICULTURAL MARKETING PROJECT

# ESMF FOR THE RURAL ACCESS AND (RAAMP)

| Socioeconomic<br>benefit                                      | Increased<br>transportation of<br>local products ;<br>increased<br>number of<br>tourists ;<br>increased local<br>revenue and<br>increased income<br>for the locals | Entire project<br>area  | Middle and<br>end of land<br>acquisition and<br>resettlement | Annually | FPMU, SPIU,<br>Environmental.<br>Consultants,<br>FMEnv, SRA |
|---|--|---|--|----------|---|
|   |  | Project<br>communities.   |  |          |   |
| Community<br>perception,<br>HIV/AIDS,<br>Health<br>Statistics | Number of<br>participants  | Mapping of<br>services<br>available at<br>GRM entry<br>points.  | Quartely   | Annually | FPMU, SPIU,<br>Environmental<br>Consultants,<br>FMEnv, SRA  |
|   |  | Codes of<br>Conduct<br>signed by all<br>project<br>related staff.   |  |          |   |
|   |  | Training on<br>Codes of<br>Conduct and<br>SEA delivered<br>throughout<br>the project<br>cycle               |  |          |   |
|   |  | Accountability<br>structures for<br>complaints of<br>SEA clearly<br>articulated.                            |  |          |   |
|   |  | Complaints<br>are swiftly<br>address<br>through<br>previously<br>established<br>accountability<br>mechanism |  |          |   |

# ESMF FOR THE RURAL ACCESS AND (RAAMP)

| Gender Based<br>Violence (GBV),<br>including<br>Sexual<br>Exploitation &<br>Abuse (SEA), |  |          |                                 |  |
|--|--|----------|---------------------------------|--|
| Sexual<br>Harassement<br>and Violence<br>against<br>children.                            |  | Quartely | Annually for the first 5 years. | FPMU, SPIU,<br>Environmental<br>Consultants,<br>FMEnv, SRA |

FPMU = Federal Projects Management Unit, SRA= State Regulatory Agencies, SPIU= State Project Implementation Unit, FMEnv= Federal Ministry of Environment.

# CHAPTER 6: STAKEHOLDERS CONSULTATION AND PUBLIC ENGAGEMENT PROCEDURES

#### 6.1 INTRODUCTION

Stakeholder engagement is an essential criteria and important strategy for an integrated environmental and social analysis process, the project design and its implementation. Views of the project interested and affected persons have been fully taken into account during the Environmental and Social Management Framework (ESMF) preparation and shall continue to form a basis for further design and implementation of the subprojects throughout the Rural Access and Agricultural Marketing Project (RAAMP) implementation period. The purpose of the stakeholder consultation is to identify the views of local communities, major institutions and other stakeholders, and to assess any mitigation measures which may be undertaken to minimize any adverse impacts of the proposals under consideration.

Stakeholder consultation will be an on-going activity throughout the entire project life-cycle. Subject to the approval of the Federal Projects Management Unit (FPMU), information about the project will be shared with the public, to enable meaningful contribution, and enhance the success of the project. The different channels for communication and consultation are:

Meetings, filling of questionnaires/application forms, public readings and explanations of project ideas and requirements. Publication in print and electronic media, preferably local newspapers, notice boards near project sites, posters in strategic locations and many public places. The means of communication must also take into consideration the literacy levels in the rural communities by allowing enough time for responses and feedback and putting messages in local language(s).

It is a requirement that appropriate mechanisms for ensuring full involvement and participation of the public is accorded priority and should be a continuous process from screening, scoping, during Environmental and Social Impact Assessment (ESIA)/Environmental Impact Assessment (EIA) Report preparation and during ESIA/EIA review and finalization

# 6.2 OBJECTIVES OF CONSULTATION/PUBLIC ENGAGEMENT

Consultation/public engagement is essential because it affords the concerned stakeholders the opportunity to contribute to both the design and implementation of the project activities and reduce the likelihood for conflicts Thus, opportunities are created to:

1. Canvass their inputs, views and concerns; and take account of the information and views of the public in the project design and in decision making.

2. Obtain local and traditional knowledge that may be useful for decision-making;

3. Facilitate consideration of alternatives, mitigation measures and trade-offs;

4. Ensure that important impacts are not overlooked and benefits maximized;

5. Reduce conflict through the early identification of contentious issues;

6. Provide an opportunity for the public to influence the designs and implementation in a positive manner;

7. Improve transparency and accountability in decision-making; and

8. Increase public confidence in the project.

# 6.3 STAKEHOLDERS IDENTIFICATION

The stakeholders are defined as all people and institutions that have an interest in the planning and execution of the project, potentially affected communities; traditional rulers/ religious leaders, Non Governmental Organizations (NGOs)/ Community Based Organizations (CBOs), Local Government officials, State Ministries, Departments and Agencies (MDAs), local/social and professional groups e.g., farmers, market women, road transport workers etc.

A guide on identification of stakeholders is presented in Table 6.1.

Transhumant pastoral communities that are not present all year round should not be omitted.

| Who?  | How to identify them  |
|---|---|
| People living in the vicinity of the proposed works.  | <ul> <li>Field Survey</li> <li>Identify the local government area(s) that the proposed corridor of work falls within.</li> <li>Review available data to determine the stakeholder profile of the whole stakeholder or relevant group.</li> <li>Use identified groups and individuals to tap into stakeholder networks to identify others. Women should be represented and specific women groups identified (It is important that women be consulted in a safe space where they are free to speak without interference from males colleagues)</li> </ul> |
| Special interest groups including<br>Transhumant pastoral<br>communities that are not present<br>all year round | <ul> <li>Identify key individuals or groups<br/>through organised groups, local clubs,<br/>community halls and religious places.</li> <li>Organisations such as environmental<br/>groups will be aware of similar local<br/>groups or individuals.</li> </ul>   |
| Individual people who own<br>properties that will be directly or<br>indirectly affected.                        | <ul> <li>Advertise in local newspapers, telling<br/>people that they may be affected and<br/>asking them to register interest in</li> </ul>   |

Table 6.1: Stakeholders Identification Guide.

| Who?                             | How to identify them                                     |
|----------------------------------|--|
|                                  | attending meetings or receiving further                  |
|                                  | information.   |
| Business (owners and employees). | Field Survey   |
|                                  | <ul> <li>Council lists or property registers.</li> </ul> |
| MDAs                             | Constitutional Responsibility/ministerial                |
|                                  | mandate  |

# 6.4 STAKEHOLDER/PUBLIC INVOLVEMENT IN RAAMP ESMF

The preparation of the ESMF involved stakeholders' consultation in all the eighteen (18) participating States. The major stakeholders identified and consulted consisted of various government (State and Federal) MDAs, State Project Implementation Units (SPIUs), Local Government Chairmen, Community leaders, Community Based Organizations (CBOs) etc.

It is however considered that the stakeholder involvement initiated by the ESMF will be built upon at the various project levels in the participating States.

This will afford the respective SPIU to:

- Clarify the project's objectives in terms of stakeholders' needs and concerns
- Identify feasible alternatives (in particular alternative locations) and examine their relative merits in terms of environmental, social and economic factors
- Identify and prioritize environmental and social issues and establish the scope of future studies and/or site specific management plan
- Identify processes for continued stakeholders' involvement.

# 6.5 CONSULTATIONS IN THE PARTICIPATING RAAMP STATES

The issues canvassed for and concerns expressed in the stakeholder consultations in the participating RAAMP States are similar and are highlighted below:

- The political class should not take undue advantage to circumvent the essence of the project or cause undue influence such that the project objectives are not attained. This can be mitigated by strict adherence to the legal agreement and framework for the project.
- In the execution of the sub projects, drains should not be directed towards peoples gardens, farmland, houses, burial or cultural sites and toward sources of portable water of the beneficiary communities.
- State Project Implementation Units (SPIUs) and related MDAs should be strengthened through capacity building (trainings, seminar, workshops etc) and also be assisted with air quality and noise monitoring equipments for the monitoring of air quality and noise levels particularly in areas that are very close to major landmarks such as schools, health centres etc so as to ensure adequate monitoring and enforcement mechanism.

- The Federal Projects Management Unit (FPMU) should ensure strict adherence to project design and completion times.
- There should be proper understanding of roles and collaboration between SPIUs and other MDAs in the entire management of the project.
- There should be adherence to both national and state/local laws in the execution of projects.
- Fair opportunities should be given to local contractors in the execution of the sub projects.
- Sub project contractors should give due cognizance to native customs and traditions in the execution of the projects.
- Adequate compensation should be paid to all the Project Affected Persons (PAPs) who will lose their farmland, property and business shelters or structures.
- Road accidents should be prevented during construction by the use of adequate signs, public sensitizations and implementation of a world-class traffic management plan.
- Sub project contractors should ensure adequate protection of the soil so as not to trigger erosion.

The summary of the consultations in the participating states are as follows:

| Summary of Fublic Consultation for Abia State |  |  |  |  |
|---|--|--|--|--|
| Items   | Description  |  |  |  |
| Date of Public                                | Consultation was carried out during the field visit from 24/10/17 -  |  |  |  |
| consultation                                  | 25/10/17   |  |  |  |
| Name of                                       | SPIU, Bende, Etiti-Ulo & Amaorji Communities   |  |  |  |
| Stakeholders                                  |  |  |  |  |
| (community)                                   |  |  |  |  |
| Language of                                   | English and Igbo   |  |  |  |
| communication                                 |  |  |  |  |
| Introduction                                  | The Team leader of ESMF Consultant explained that the project aims<br>at improving rural access and agricultural marketing in selected<br>participating states whilst enhancing sustainability of the rural and State<br>road network. The target is to connect small family farmers in<br>participating States to local agricultural markets with all-weather access<br>roads in selected and prioritized rural development areas and<br>rehabilitate prioritized river crossings. The project will finance the<br>establishment of pilot agro-logistics centers/hubs at strategic locations<br>in selected agro-logistics areas and shall give special attention to the<br>gender dimension enhancing the engagement of women and young<br>girls and providing technical assistance to curb post-harvest losses.<br>There is also a provision for strengthening the financial & institutional<br>base for rural & state roads maintenance and also institutional |  |  |  |

# Table 6.2: Summary of Public Consultation in each Participating State. Summary of Public Consultation for Abia State

|  |          | oment, road safety & project management support to enting entities.  |  |  |
|--|----------|--|--|--|
| Response of stakeholders of about the project and pledged their support towards the succe project especially the people from Amaorji community where Team found many Palm Oil mills but with very bad roads lead community. The SPIU asked for written descriptions of the corr of the project to assist them in their project prioritization approvide was made available by the ESMF Team. |          |  |  |  |
| Feedback of the<br>Stakeholders  | There v  | was a lot of enthusiasm from stakeholders who described the<br>as a total package and were hopeful that it will see the light of   |  |  |
| aints e<br>• S<br>c<br>• A<br>A  |          | Fair opportunities should be given to local contractors in the execution of the sub projects.<br>Sub project contractors should give due cognizance to native customs and traditions in the execution of the projects.<br>Adequate compensation should be paid to all the Project Affected Persons (PAPs) who will lose their farmland, property and business shelters or structures.  |  |  |
| mendations some ve   |          | communities visited youths were seen trying to manually repair<br>ery bad portions of the community roads ravaged by erosion.<br>s also need for capacity building for staff of the SPIU.  |  |  |
| Summary of Pub   | lic Cons | sultation for Anambra State  |  |  |
| Items  |          | Description  |  |  |
| Date of Public consultation  |          | Consultation was carried out during the field visit from $20/10/17 - 21/10/17$   |  |  |
| Name of Stake<br>(community)   | holders  | SPIU, Min. of Works, Min. of Agriculture, Omogho, Amankpu, Ndiowu & Umuawulu Communities   |  |  |
| Language of communication  |          | English and Igbo   |  |  |
| Introduction   |          | The Team leader of ESMF Consultant explained that the project<br>aims at improving rural access and agricultural marketing in<br>selected participating states whilst enhancing sustainability of<br>the rural and State road network. The target is to connect small<br>family farmers in participating States to local agricultural<br>markets with all-weather access roads in selected and<br>prioritized rural development areas and rehabilitate prioritized<br>river crossings. The project will finance the establishment of<br>pilot agro-logistics centers/hubs at strategic locations in<br>selected agro-logistics areas and shall give special attention to<br>the gender dimension enhancing the engagement of women<br>and young girls and providing technical assistance to curb post<br>harvest losses. There is also a provision for strengthening the |  |  |

|   | financial & institutional base for www.   |
|---|---|
|   | financial & institutional base for rural & state roads<br>maintenance and also institutional development, road safety &<br>project management support to implementing entities.   |
| Response of   | The stakeholders expressed delight that they will be  |
| stakeholders about the  |   |
|   | beneficiaries in the proposed project and pledged their support   |
| project   | towards the success of the project. The SPIU asked for written  |
|   | descriptions of the components of the project to assist them in   |
|   | their project prioritization approach. This was made available  |
|   | by the ESMF Team.   |
| Feedback of the   | Stakeholders were happy with the proposed project and   |
| Stakeholders  | described the project as a laudable one.  |
| Concerns/Complaints   | <ul> <li>The Federal Projects Management Unit (FPMU) should<br/>ensure strict adherence to project design and<br/>completion times.</li> <li>There should be proper understanding of roles and</li> </ul>   |
|   | collaboration between SPIUs and other MDAs in the entire management of the project.   |
|   | • There should be adherence to both national and  |
|   | state/local laws in the execution of projects.  |
|   | • Fair opportunities should be given to local contractors in  |
|   | the execution of the sub projects.  |
| Remarks/Recommendatio   | There appears to be good synergy between the SPIU, Ministry   |
| ns  | of Works and Ministry of Agriculture in the State. There is also  |
|   | need for capacity building for staff of the SPIU.   |
| Summary of the Public   | need for capacity building for staff of the SPIU. Consultation for Cross River State  |
| Summary of the Public   |   |
| -   | Consultation for Cross River State Description  |
| ItemsDateofPublic   | Consultation for Cross River StateDescriptionConsultation was carried out during the field visit from07/11/17 - 08/11/17  |
| ItemsDateofPublicconsultationNameofStakeholders                                   | Consultation for Cross River State         Description         Consultation was carried out during the field visit from         07/11/17 - 08/11/17         SPIU, Akim-Akim, Ikot Ekpo and Awakada Communities  |
| ItemsDateofPublicconsultationNameofStakeholders(community)                        | Consultation for Cross River State         Description         Consultation was carried out during the field visit from         07/11/17 - 08/11/17         SPIU, Akim-Akim, Ikot Ekpo and Awakada Communities  |
| ItemsDateofPublicconsultationNameofStakeholders(community)Languageof              | Consultation for Cross River State         Description         Consultation was carried out during the field visit from 07/11/17 – 08/11/17         SPIU, Akim-Akim, Ikot Ekpo and Awakada Communities         English         The ESMF Team through the Team Leader explained that the RAAMP project aims at improving rural access and agricultural marketing in selected participating states whilst enhancing   |
| ItemsDateofPublicconsultationNameofStakeholders(community)Languageofcommunication | Consultation for Cross River State         Description         Consultation was carried out during the field visit from 07/11/17 – 08/11/17         SPIU, Akim-Akim, Ikot Ekpo and Awakada Communities         English         The ESMF Team through the Team Leader explained that the RAAMP project aims at improving rural access and agricultural marketing in selected participating states whilst enhancing sustainability of the rural and State road network. The target is to connect small family farmers in participating States to local agricultural markets with all-weather access roads in selected and prioritized rural development areas and rehabilitate  |
| ItemsDateofPublicconsultationNameofStakeholders(community)Languageofcommunication | Consultation for Cross River StateDescriptionConsultation was carried out during the field visit from07/11/17 – 08/11/17SPIU, Akim-Akim, Ikot Ekpo and Awakada CommunitiesEnglishThe ESMF Team through the Team Leader explained that theRAAMP project aims at improving rural access and agriculturalmarketing in selected participating states whilst enhancingsustainability of the rural and State road network. The targetis to connect small family farmers in participating States to localagricultural markets with all-weather access roads in selectedand prioritized rural development areas and rehabilitateprioritized river crossings. The project will finance theestablishment of pilot agro-logistics centers/hubs at strategic  |
| ItemsDateofPublicconsultationNameofStakeholders(community)Languageofcommunication | Consultation for Cross River State         Description         Consultation was carried out during the field visit from 07/11/17 – 08/11/17         SPIU, Akim-Akim, Ikot Ekpo and Awakada Communities         English         The ESMF Team through the Team Leader explained that the RAAMP project aims at improving rural access and agricultural marketing in selected participating states whilst enhancing sustainability of the rural and State road network. The target is to connect small family farmers in participating States to local agricultural markets with all-weather access roads in selected and prioritized rural development areas and rehabilitate prioritized river crossings. The project will finance the  |
| ItemsDateofPublicconsultationNameofStakeholders(community)Languageofcommunication | Consultation for Cross River StateDescriptionConsultation was carried out during the field visit from07/11/17 – 08/11/17SPIU, Akim-Akim, Ikot Ekpo and Awakada CommunitiesEnglishThe ESMF Team through the Team Leader explained that theRAAMP project aims at improving rural access and agriculturalmarketing in selected participating states whilst enhancingsustainability of the rural and State road network. The targetis to connect small family farmers in participating States to localagricultural markets with all-weather access roads in selectedand prioritized rural development areas and rehabilitateprioritized river crossings. The project will finance theestablishment of pilot agro-logistics areas and shall give specialattention to the gender dimension enhancing the engagement |

|   | safety & project management support to implementing entities.   |
|---|---|
| Response of stakeholders<br>about the project | The stakeholders expressed delight that they will be<br>beneficiaries in the proposed project and pledged their support<br>towards the success of the project. The SPIU asked for written<br>descriptions of the components of the project to assist them in<br>their project prioritization approach. The Akim Akim<br>community particularly hopes that a road project will open up<br>the fish market in the community.  |
| Feedback of the<br>Stakeholders               | There was a lot of enthusiasm from stakeholders who described the project as a total package and were hopeful that it will see the light of the day.  |
| Concerns/Complaints                           | <ul> <li>Sub project contractors should give due cognizance to native customs and traditions in the execution of the projects.</li> <li>Adequate compensation should be paid to all the Project Affected Persons (PAPs) who will lose their farmland, property and business shelters or structures.</li> <li>Road accidents should be prevented during construction by the use of adequate signs, public sensitizations and implementation of a world-class traffic management plan.</li> <li>Sub project contractors should ensure adequate protection of the soil so as not to trigger erosion.</li> </ul>  |
| Remarks/Recommendations                       | There is need for capacity building for staff of the SPIU.  |
| Summary of the Public                         | Consultation for Akwa Ibom State  |
| Items   | Description   |
| consultation                                  | Consultation was carried out during the field visit from $06/11/17 - 07/11/17$  |
| Name of Stakeholders<br>(community)           | SPIU, Oku Abak, Ibesit Ekoi and Uruk Obong Communities  |
| Language of communication                     | 5   |
| Introduction                                  | The lead ESMF Consultant in his introduction explained that<br>the RAAMP project aims at improving rural access and<br>agricultural marketing in selected participating states whilst<br>enhancing sustainability of the rural and State road network.<br>The target is to connect small family farmers in participating<br>States to local agricultural markets with all-weather access<br>roads in selected and prioritized rural development areas and<br>rehabilitate prioritized river crossings. The project will finance<br>the establishment of pilot agro-logistics centers/hubs at<br>strategic locations in selected agro-logistics areas and shall<br>give special attention to the gender dimension enhancing the<br>engagement of women and young girls and providing technical |

| Response of stakeholders<br>about the project | assistance to curb post harvest losses. There is also a provision<br>for strengthening the financial & institutional base for rural &<br>state roads maintenance and also institutional development,<br>road safety & project management support to implementing<br>entities.<br>The stakeholders expressed delight that they will be<br>beneficiaries in the proposed project and pledged their support<br>towards the success of the project. They believe that proposed<br>road projects and market upgrade will enhance their socio-  |
|---|---|
| Feedback of the<br>Stakeholders               | economic life.<br>There was a lot of enthusiasm from stakeholders who<br>described the project as a laudable one that will further<br>complement the State government's effort in improving the<br>standard of living of the people.  |
| Concerns/Complaints                           | <ul> <li>The Federal Projects Management Unit (FPMU) should ensure strict adherence to project design and completion times.</li> <li>There should be proper understanding of roles and collaboration between SPIUs and other MDAs in the entire management of the project.</li> <li>In the execution of the sub projects, drains should not be directed towards peoples gardens, farmland, houses, burial or cultural sites and toward sources of portable water of the beneficiary communities.</li> <li>State Project Implementation Units (SPIUs) and related</li> </ul>   |
| Remarks/Recommendations                       | There is need for capacity building for staff of the SPIU.  |
|   | Consultation for Kogi State   |
| Items   | Description   |
| Date of Public consultation                   | Consultation was carried out during the field visit from $04/10/17 - 05/10/17$  |
| Name of Stakeholders<br>(community)           | SPIU, Aku, Ogori & Ososo Communities  |
| Language of<br>communication                  | English   |
| Introduction                                  | The lead ESMF Consultant explained that the project aims at<br>improving rural access and agricultural marketing in selected<br>participating states whilst enhancing sustainability of the rural<br>and State road network. The target is to connect small family<br>farmers in participating States to local agricultural markets with<br>all-weather access roads in selected and prioritized rural<br>development areas and rehabilitate prioritized river crossings.<br>The project will finance the establishment of pilot agro-logistics<br>centers/hubs at strategic locations in selected agro-logistics<br>areas and shall give special attention to the gender dimension<br>enhancing the engagement of women and young girls and<br>providing technical assistance to curb post harvest losses. |

| Response of<br>stakeholders about the<br>project | There is also a provision for strengthening the financial & institutional base for rural & state roads maintenance and also institutional development, road safety & project management support to implementing entities.<br>The stakeholders expressed delight that they will be beneficiaries in the proposed project and pledged their support towards the success of the project. The SPIU asked for written descriptions of the components of the project to assist them in their project prioritization approach. The people of Aku   |
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| Feedback of the<br>Stakeholders                  | community requested that their Market be upgraded.<br>There was a lot of enthusiasm from stakeholders who<br>described the project as a total package and were hopeful that<br>it will see the light of the day.  |
| Concerns/Complaints                              | <ul> <li>The political class should not take undue advantage to circumvent the essence of the project or cause undue influence such that the project objectives are not attained.</li> <li>In the execution of the sub projects, drains should not be directed towards peoples gardens, farmland, houses, burial or cultural sites and toward sources of portable water of the beneficiary communities.</li> <li>State Project Implementation Units (SPIUs) and related MDAs should be strengthened through capacity building (trainings, seminar, workshops etc) and also be assisted with air quality and noise monitoring equipments for the monitoring of air quality and noise levels particularly in areas that are very close to major landmarks such as schools, health centres etc so as to ensure adequate monitoring and enforcement mechanism.</li> </ul> |
| Remarks/Recommendations                          | There is need for training and re-training of the SPIU on the<br>understanding of RAAMP and its components. One the selected<br>road project was found not to be a rural road. There is also<br>need for capacity building for staff of the SPIU.   |
| Summary of the Public                            | Consultation for Ogun State   |
| Items  | Description   |
| Date of Public                                   | Consultation was carried out during the field visit from  |
| consultation                                     | 13/10/17 - 14/10/17   |
| Name of Stakeholders<br>(community)              | SPIU, Ibara, Orile, Ilewo & Kereku Communities  |
| Language of communication                        | English, Yoruba   |
| Introduction                                     | The lead ESMF Consultant explained that the project aims at<br>improving rural access and agricultural marketing in selected<br>participating states whilst enhancing sustainability of the rural<br>and State road network. The target is to connect small family<br>farmers in participating States to local agricultural markets with  |

| Summary of the Public<br>Items<br>Date of Public<br>consultation<br>Name of Stakeholders<br>(community)<br>Language of<br>communication | <ul> <li>influence such that the project objectives are not attained.</li> <li>State Project Implementation Units (SPIUs) and related MDAs should be strengthened through capacity building (trainings, seminar, workshops etc) and also be assisted with air quality and noise monitoring equipments for the monitoring of air quality and noise levels particularly in areas that are very close to major landmarks such as schools, health centres etc so as to ensure adequate monitoring and enforcement mechanism.</li> <li>There is need for capacity building for staff of the SPIU.</li> <li>Consultation for Ondo State</li> <li>Description</li> <li>Consultation was carried out during the field visit from 11/10/17 – 12/10/17</li> <li>SPIU, Molege, Owo and Ifon Communities</li> <li>English, Yoruba</li> </ul>  |
|---|---|
| Concerns/Complaints   | <ul> <li>The Federal Projects Management Unit (FPMU) should ensure strict adherence to project design and completion times.</li> <li>There should be proper understanding of roles and collaboration between SPIUs and other MDAs in the entire management of the project.</li> <li>The political class should not take undue advantage to circumvent the essence of the project or cause undue</li> </ul>  |
| Feedback of the<br>Stakeholders   | their project prioritization approach.<br>There was a lot of enthusiasm from stakeholders who<br>described the project as a welcomed development and hoped<br>for its proper implementation.  |
| Response of<br>stakeholders about the<br>project  | all-weather access roads in selected and prioritized rural development areas and rehabilitate prioritized river crossings. The project will finance the establishment of pilot agro-logistics centers/hubs at strategic locations in selected agro-logistics areas and shall give special attention to the gender dimension enhancing the engagement of women and young girls and providing technical assistance to curb post harvest losses. There is also a provision for strengthening the financial & institutional base for rural & state roads maintenance and also institutional development, road safety & project management support to implementing entities. The stakeholders expressed delight that they will be beneficiaries in the proposed project and pledged their support towards the success of the project. The SPIU asked for written descriptions of the components of the project to assist them in |

| Introduction   | The lead ESMF Consultant explained that the project aims at<br>improving rural access and agricultural marketing in selected<br>participating states whilst enhancing sustainability of the rural<br>and State road network. The target is to connect small family<br>farmers in participating States to local agricultural markets with<br>all-weather access roads in selected and prioritized rural<br>development areas and rehabilitate prioritized river crossings.<br>The project will finance the establishment of pilot agro-logistics<br>centers/hubs at strategic locations in selected agro-logistics<br>areas and shall give special attention to the gender dimension<br>enhancing the engagement of women and young girls and<br>providing technical assistance to curb post harvest losses.<br>There is also a provision for strengthening the financial &<br>institutional base for rural & state roads maintenance and also      |
|--|--|
|  | institutional development, road safety & project management support to implementing entities.  |
| Response of<br>stakeholders about the<br>project     | The stakeholders expressed delight that they will be<br>beneficiaries in the proposed project and pledged their support<br>towards the success of the project. The SPIU asked for written<br>descriptions of the components of the project to assist them in<br>their project prioritization approach.   |
| Feedback of the<br>Stakeholders                      | There was a lot of enthusiasm from stakeholders who described the project as a total package and were hopeful that it will see the light of the day.   |
| Concerns/Complaints          Remarks/Recommendations | <ul> <li>In the execution of the sub projects, drains should not be directed towards peoples gardens, farmland, houses, burial or cultural sites and toward sources of portable water of the beneficiary communities.</li> <li>State Project Implementation Units (SPIUs) and related MDAs should be strengthened through capacity building (trainings, seminar, workshops etc) and also be assisted with air quality and noise monitoring equipments for the monitoring of air quality and noise levels particularly in areas that are very close to major landmarks such as schools, health centres etc so as to ensure adequate monitoring and enforcement mechanism.</li> <li>The Federal Projects Management Unit (FPMU) should ensure strict adherence to project design and completion times.</li> <li>There is need for training of the SPIU on the proposed RAAMP and its components. There is also need for capacity building</li> </ul> |
| Summary of the Public (                              | for staff of the SPIU.<br>Consultation for Oyo State.  |
| Items  | Description  |
| Date of Public<br>consultation                       | Consultation was carried out during the field visit from $10/10/17 - 11/10/17$   |

| Name of Stakeholders<br>(community) | SPIU, Edun, Egbeda and Lalopun Communities  |
|-------------------------------------|---|
| Language of communication           | English, Yoruba   |
| Introduction                        | The lead ESMF Consultant explained that the project aims at<br>improving rural access and agricultural marketing in selected<br>participating states whilst enhancing sustainability of the rural<br>and State road network. The target is to connect small family<br>farmers in participating States to local agricultural markets with<br>all-weather access roads in selected and prioritized rural<br>development areas and rehabilitate prioritized river crossings.<br>The project will finance the establishment of pilot agro-logistics<br>centers/hubs at strategic locations in selected agro-logistics<br>areas and shall give special attention to the gender dimension<br>enhancing the engagement of women and young girls and<br>providing technical assistance to curb post harvest losses.<br>There is also a provision for strengthening the financial &<br>institutional base for rural & state roads maintenance and also<br>institutional development, road safety & project management<br>support to implementing entities. |
| Response of                         | The stakeholders were pleased to be considered in the   |
| stakeholders about the              | proposed project and pledged their support towards the  |
| project                             | success of the project. They asked for proper oversight functions on the part of the SPIU to ensure that the contractors deliver quality work.  |
| Feedback of the                     | There was a lot of enthusiasm from stakeholders who   |
| Stakeholders                        | described the project as a total package and were hopeful that<br>it will see the light of the day.   |
| Concerns/Complaints                 | <ul> <li>State Project Implementation Units (SPIUs) and related MDAs should be strengthened through capacity building (trainings, seminar, workshops etc) and also be assisted with air quality and noise monitoring equipments for the monitoring of air quality and noise levels particularly in areas that are very close to major landmarks such as schools, health centres etc so as to ensure adequate monitoring and enforcement mechanism.</li> <li>The political class should not take undue advantage to circumvent the essence of the project or cause undue influence such that the project objectives are not attained.</li> <li>The Federal Projects Management Unit (FPMU) should ensure strict adherence to project design and completion times.</li> <li>There should be proper understanding of roles and collaboration between SPIUs and other MDAs in the entire management of the project.</li> </ul>  |

| Remarks/Recommendatio                            | <ul> <li>There should be adherence to both national and state/local laws in the execution of projects.</li> <li>Sub project contractors should ensure adequate protection of the soil so as not to trigger erosion.</li> <li>There is need for training of the SPIU on the proposed RAAMP and its components. There is also need for capacity building for staff of the SPIU.</li> </ul>  |
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| Summary of the Public                            | Consultation for Bauchi State   |
| Items  | Description   |
| Date of Public<br>consultation                   | Consultation was carried out during the field visit from 20/11/17 – 21/11/17  |
| Name of Stakeholders<br>(community)              | SPIU, Durum, Kafin Yarima and Taka Dangiwa Communities  |
| Language of communication                        | English, Hausa  |
| Introduction                                     | The lead ESMF Consultant explained that the project aims at<br>improving rural access and agricultural marketing in selected<br>participating states whilst enhancing sustainability of the rural<br>and State road network. The target is to connect small family<br>farmers in participating States to local agricultural markets with<br>all-weather access roads in selected and prioritized rural<br>development areas and rehabilitate prioritized river crossings.<br>The project will finance the establishment of pilot agro-logistics<br>centers/hubs at strategic locations in selected agro-logistics<br>areas and shall give special attention to the gender dimension<br>enhancing the engagement of women and young girls and<br>providing technical assistance to curb post harvest losses.<br>There is also a provision for strengthening the financial &<br>institutional base for rural & state roads maintenance and also<br>institutional development, road safety & project management<br>support to implementing entities. |
| Response of<br>stakeholders about the<br>project | The stakeholders consulted pledged their support towards the success of the project and were happy to be beneficiaries of the RAAMP Project. The SPIU asked for written descriptions of the components of the project to assist them in their project prioritization approach.  |
| Feedback of the<br>Stakeholders                  | There was a lot of enthusiasm from stakeholders who described the project as a total package and were hopeful that it will see the light of the day.  |
| Concerns/Complaints                              | <ul> <li>Sub project contractors should give due cognizance to native customs and traditions in the execution of the projects.</li> <li>Adequate compensation should be paid to all the Project Affected Persons (PAPs) who will lose their farmland, property and business shelters or structures.</li> </ul>  |

|  | The Federal Projects Management Unit (FPMU) should<br>ensure strict adherence to project design and<br>completion times.  |
|--|---|
| Remarks/Recommendatio<br>ns                      | There is need for training of the SPIU on the proposed RAAMP<br>and its components. There is also need for capacity building<br>for staff of the SPIU.  |
| Summary of the Public                            | Consultation for Benue State.   |
| Items  | Description   |
| Date of Public<br>consultation                   | Consultation was carried out during the field visit from $17/10/17 - 18/10/17$  |
| Name of Stakeholders<br>(community)              | SPIU, Zango and Aner Communities  |
| Language of communication                        | English   |
| Introduction                                     | The lead ESMF Consultant explained that the project aims at<br>improving rural access and agricultural marketing in selected<br>participating states whilst enhancing sustainability of the rural<br>and State road network. The target is to connect small family<br>farmers in participating States to local agricultural markets with<br>all-weather access roads in selected and prioritized rural<br>development areas and rehabilitate prioritized river crossings.<br>The project will finance the establishment of pilot agro-logistics<br>centers/hubs at strategic locations in selected agro-logistics<br>areas and shall give special attention to the gender dimension<br>enhancing the engagement of women and young girls and<br>providing technical assistance to curb post harvest losses.<br>There is also a provision for strengthening the financial &<br>institutional base for rural & state roads maintenance and also<br>institutional development, road safety & project management<br>support to implementing entities. |
| Response of<br>stakeholders about the<br>project | The stakeholders were pleased to be considered in the proposed project and pledged their support towards the success of the project. They asked for proper oversight functions on the part of the SPIU to ensure that the contractors deliver quality work.   |
| Feedback of the<br>Stakeholders                  | There was a lot of enthusiasm from stakeholders who described the project as a total package and were hopeful that it will see the light of the day.  |
| Concerns/Complaints                              | <ul> <li>Adequate compensation should be paid to all the Project<br/>Affected Persons (PAPs) who will lose their farmland,<br/>property and business shelters or structures.</li> <li>Road accidents should be prevented during construction<br/>by the use of adequate signs, public sensitizations and<br/>implementation of a world-class traffic management<br/>plan.</li> </ul>  |

|  | • In the execution of the sub projects, drains should not  |
|--|--|
|  | be directed towards peoples gardens, farmland, houses,<br>burial or cultural sites and toward sources of portable<br>water of the beneficiary communities.   |
|  | • The Federal Projects Management Unit (FPMU) should<br>ensure strict adherence to project design and<br>completion times.   |
| Remarks/Recommendations                          | There is need for capacity building for staff of the SPIU.   |
| Summary of the Public                            | Consultation for Katsina State   |
| Items  | Description  |
| Date of Public<br>consultation                   | Consultation was carried out during the field visit from $12/10/17 - 13/10/17$   |
| Name of Stakeholders<br>(community)              | SPIU, Lambar Rimi, Tsanni, Jilawa and Kwalace Communities  |
| Language of communication                        | English, Hausa   |
| Introduction                                     | The visiting ESMF Team through the Team leader explained<br>that the project aims at improving rural access and agricultural<br>marketing in selected participating states whilst enhancing<br>sustainability of the rural and State road network. The target<br>is to connect small family farmers in participating States to local<br>agricultural markets with all-weather access roads in selected<br>and prioritized rural development areas and rehabilitate<br>prioritized river crossings. The project will finance the<br>establishment of pilot agro-logistics centres/hubs at strategic<br>locations in selected agro-logistics areas and shall give special<br>attention to the gender dimension enhancing the engagement<br>of women and young girls and providing technical assistance<br>to curb post harvest losses. There is also a provision for<br>strengthening the financial & institutional base for rural & state<br>roads maintenance and also institutional development, road<br>safety & project management support to implementing<br>entities. |
| Response of<br>stakeholders about the<br>project | The stakeholders expressed delight that they will be<br>beneficiaries in the proposed project and pledged their support<br>towards the success of the project.   |
| Feedback of the<br>Stakeholders                  | There was a lot of enthusiasm from stakeholders who described the project as a total package and were hopeful that it will see the light of the day.   |
| Concerns/Complaints                              | <ul> <li>The political class should not take undue advantage to circumvent the essence of the project or cause undue influence such that the project objectives are not attained.</li> <li>State Project Implementation Units (SPIUs) and related MDAs should be strengthened through capacity building</li> </ul>   |

|                                | <ul> <li>(trainings, seminar, workshops etc) and also be assisted with air quality and noise monitoring equipments for the monitoring of air quality and noise levels particularly in areas that are very close to major landmarks such as schools, health centres etc so as to ensure adequate monitoring and enforcement mechanism.</li> <li>The Federal Projects Management Unit (FPMU) should ensure strict adherence to project design and completion times.</li> <li>There should be proper understanding of roles and collaboration between SPIUs and other MDAs in the entire management of the project.</li> <li>There should be adherence to both national and state/local laws in the execution of projects.</li> </ul>  |
|--------------------------------|---|
| Remarks/Recommendations        | There is need for capacity building for staff of the SPIU.  |
|                                | Consultation for Kano State   |
| Items                          | Description   |
| Date of Public                 | Consultation was carried out during the field visit from  |
| consultation                   | 19/10/17 - 20/10/17   |
| Name of Stakeholders           | SPIU, Konar Gofan, Unguan Rimi and Makuntur Communities   |
| (community)                    |   |
| Language of                    | English, Hausa  |
| communication<br>Introduction  | The lead ESMF Consultant explained that the project aims at<br>improving rural access and agricultural marketing in selected<br>participating states whilst enhancing sustainability of the rural<br>and State road network. The target is to connect small family<br>farmers in participating States to local agricultural markets with<br>all-weather access roads in selected and prioritized rural<br>development areas and rehabilitate prioritized river crossings.<br>The project will finance the establishment of pilot agro-logistics<br>centers/hubs at strategic locations in selected agro-logistics<br>areas and shall give special attention to the gender dimension<br>enhancing the engagement of women and young girls and<br>providing technical assistance to curb post harvest losses.<br>There is also a provision for strengthening the financial &<br>institutional base for rural & state roads maintenance and also<br>institutional development, road safety & project management<br>support to implementing entities. |
| stakeholders about the project | success of the project and were happy to be beneficiaries of<br>the RAAMP Project. The SPIU asked for written descriptions of<br>the components of the project to assist them in their project<br>prioritization approach.  |

| Eaglack of the                                | There was a lot of onthusiasm from stakeholders who   |
|---|---|
| Feedback of the<br>Stakeholders               | There was a lot of enthusiasm from stakeholders who described the project as a total package and were hopeful that  |
|   | it will see the light of the day.   |
| Concerns/Complaints                           | <ul> <li>Fair opportunities should be given to local contractors<br/>in the execution of the sub projects.</li> <li>Sub project contractors should give due cognizance to</li> </ul>  |
|   | <ul><li>native customs and traditions in the execution of the projects.</li><li>Adequate compensation should be paid to all the Project</li></ul>   |
|   | Affected Persons (PAPs) who will lose their farmland, property and business shelters or structures.   |
|   | <ul> <li>Road accidents should be prevented during construction<br/>by the use of adequate signs, public sensitizations and<br/>implementation of a world-class traffic management<br/>plan.</li> </ul>   |
| Remarks/Recommendatio<br>ns                   | There is need for training of the SPIU on the proposed RAAMP<br>and its components. There is also need for capacity building<br>for staff of the SPIU.  |
| Summary of the Public                         | Consultation for Plateau State  |
| Items   | Description   |
| Date of Public consultation                   | Consultation was carried out during the field visit from 19/11/17 – 20/11/17  |
| Name of Stakeholders<br>(community)           | SPIU, Maji, Feyei, Gada Maigamu and Zandi Communities.  |
| Language of communication                     | English   |
| Introduction                                  | The Team leader of the ESMF Team explained that the project<br>aims at improving rural access and agricultural marketing in<br>selected participating states whilst enhancing sustainability of<br>the rural and State road network. The target is to connect small<br>family farmers in participating States to local agricultural<br>markets with all-weather access roads in selected and<br>prioritized rural development areas and rehabilitate prioritized<br>river crossings. The project will finance the establishment of<br>pilot agro-logistics centers/hubs at strategic locations in<br>selected agro-logistics areas and shall give special attention to<br>the gender dimension enhancing the engagement of women<br>and young girls and providing technical assistance to curb post<br>harvest losses. There is also a provision for strengthening the<br>financial & institutional base for rural & state roads<br>maintenance and also institutional development, road safety &<br>project management support to implementing entities. |
| Response of stakeholders<br>about the project | The stakeholders consulted expressed their readiness to<br>support the project which they described as commendable.<br>The SPIU asked for written descriptions of the components of   |

|                                     | the project to assist them in their project prioritization approach.  |
|-------------------------------------|---|
| Feedback of the<br>Stakeholders     | There was a lot of enthusiasm from stakeholders who described the project as a total package and were hopeful that it will see the light of the day.  |
| Concerns/Complaints                 | <ul> <li>Road accidents should be prevented during construction by the use of adequate signs, public sensitizations and implementation of a world-class traffic management plan.</li> <li>Fair opportunities should be given to local contractors in the execution of the sub projects.</li> <li>The Federal Projects Management Unit (FPMU) should ensure strict adherence to project design and completion times.</li> <li>State Project Implementation Units (SPIUs) and related MDAs should be strengthened through capacity building (trainings, seminar, workshops etc) and also be assisted with air quality and noise monitoring equipments for the monitoring of air quality and noise levels particularly in areas that are very close to major landmarks such as schools, health centres etc so as to ensure adequate monitoring and enforcement mechanism.</li> </ul> |
| Remarks/Recommendatio<br>ns         | There is need for training of the SPIU on the proposed RAAMP<br>and its components. There is also need for capacity building<br>for staff of the SPIU.  |
| Summary of the Public               | Consultation for Kwara State.   |
| Items                               | Description   |
| Date of Public consultation         | Consultation was carried out during the field visit from $13/10/17 - 14/10/17$  |
| Name of Stakeholders<br>(community) | SPIU, Oke-Oyi, Jokolu, Lajike and Idofiam Communities   |
| Language of communication           | English   |
| Introduction                        | The lead ESMF Consultant explained that the project aims at<br>improving rural access and agricultural marketing in selected<br>participating states whilst enhancing sustainability of the rural<br>and State road network. The target is to connect small family<br>farmers in participating States to local agricultural markets with<br>all-weather access roads in selected and prioritized rural<br>development areas and rehabilitate prioritized river crossings.<br>The project will finance the establishment of pilot agro-logistics<br>centers/hubs at strategic locations in selected agro-logistics<br>areas and shall give special attention to the gender dimension<br>enhancing the engagement of women and young girls and<br>providing technical assistance to curb post harvest losses.<br>There is also a provision for strengthening the financial &        |

| Response of<br>stakeholders about the<br>project | institutional base for rural & state roads maintenance and also<br>institutional development, road safety & project management<br>support to implementing entities.<br>The stakeholders were pleased to be considered in the<br>proposed project and pledged their support towards the<br>success of the project. They asked for proper oversight<br>functions on the part of the SPIU to ensure that the contractors  |
|--|--|
| Feedback of the<br>Stakeholders                  | deliver quality work.<br>There was a lot of enthusiasm from stakeholders who<br>described the project as a total package and were hopeful that<br>it will see the light of the day.  |
| Concerns/Complaints                              | <ul> <li>In the execution of the sub projects, drains should not be directed towards peoples gardens, farmland, houses, burial or cultural sites and toward sources of portable water of the beneficiary communities.</li> <li>The Federal Projects Management Unit (FPMU) should ensure strict adherence to project design and completion times.</li> <li>Adequate compensation should be paid to all the Project Affected Persons (PAPs) who will lose their farmland, property and business shelters or structures.</li> <li>Road accidents should be prevented during construction by the use of adequate signs, public sensitizations and implementation of a world-class traffic management plan.</li> </ul> |
| Remarks/Recommendations                          | There is need for capacity building for staff of the SPIU.   |
| Summary of the Public                            | Consultation for Sokoto State.   |
| Items  | Description  |
| Date of Public consultation                      | Consultation was carried out during the field visit from 16/10/17 – 17/10/17   |
| Name of Stakeholders<br>(community)              | SPIU Wajake, wamako, Rekena Samawa, & Ummaruma<br>Communities  |
| Language of communication                        | Hausa and English  |
| Introduction                                     | The lead ESMF Consultant explained that the project aims at<br>improving rural access and agricultural marketing in selected<br>participating states whilst enhancing sustainability of the rural<br>and State road network. The target is to connect small family<br>farmers in participating States to local agricultural markets with<br>all-weather access roads in selected and prioritized rural<br>development areas and rehabilitate prioritized river crossings.<br>The project will finance the establishment of pilot agro-logistics<br>centers/hubs at strategic locations in selected agro-logistics  |

|   | areas and shall give special attention to the gender dimension<br>enhancing the engagement of women and young girls and<br>providing technical assistance to curb post harvest losses.<br>There is also a provision for strengthening the financial &  |
|---|--|
|   | institutional base for rural & state roads maintenance and also<br>institutional development, road safety & project management<br>support to implementing entities.  |
| Response of<br>stakeholders about the<br>project    | The stakeholders expressed delight that they will be<br>beneficiaries in the proposed project and pledged their support<br>towards the success of the project. The SPIU asked for written<br>descriptions of the components of the project to assist them in<br>their project prioritization approach.   |
| Feedback of the<br>Stakeholders                     | There was a lot of enthusiasm from stakeholders who described the project as a total package and were hopeful that it will see the light of the day.   |
| Concerns/Complaints           Remarks/Recommendatio | The political class should not take undue advantage to<br>circumvent the essence of the project or cause undue<br>influence such that the project objectives are not attained.<br>In the execution of the sub projects, drains should not be<br>directed towards peoples gardens, farmland, houses, burial<br>or cultural sites and toward sources of portable water of the<br>beneficiary communities.<br>State Project Implementation Units (SPIUs) and related MDAs<br>should be strengthened through capacity building (trainings,<br>seminar, workshops etc) and also be assisted with air quality<br>and noise monitoring equipments for the monitoring of air<br>quality and noise levels particularly in areas that are very<br>close to major landmarks such as schools, health centres etc<br>so as to ensure adequate monitoring and enforcement<br>mechanism.<br>There is need for training and re-training of the SPIU on the |
| ns  | understanding of RAAMP and its components. There is also<br>need for capacity building for staff of the SPIU.  |
|   | Consultation for Kebbi State.  |
| Items   | Description  |
| Date of Public consultation                         | Consultation was carried out during the field visit from 14/10/17 – 15/10/17   |
| Name of Stakeholders<br>(community)                 | SPIU, Wasada, Basaura, & Mairogo Communities   |
| Language of communication                           | Hausa & English  |
| Introduction  | The lead ESMF Consultant explained to the stakeholders that<br>the project aims is at improving rural access and agricultural<br>marketing in selected participating states whilst enhancing<br>sustainability of the rural and State road network. The target<br>is to connect small family farmers in participating States to local  |

| agricultural markets with all-weather access roads in selected<br>and prioritized rural development areas and rehabilitate<br>prioritized river crossings. The project will finance the<br>establishment of pilot agro-logistics centers/hubs at strategic<br>locations in selected agro-logistics areas and shall give special<br>attention to the gender dimension enhancing the engagement<br>of women and young girls and providing technical assistance<br>to curb post-harvest losses. There is also a provision for<br>strengthening the financial & institutional base for rural & state<br>roads maintenance and also institutional development, road<br>safety & project management support to implementing<br>entities.  |
|---|
| The stakeholders expressed delight at the opportunities and<br>benefits due to them in the proposed project and pledged their<br>support towards the success of the project. The SPIU raised<br>the issue of components of the project and was agreed that<br>they should be furnished with the written descriptions to assist<br>them in their project prioritization approach.  |
| There was a lot of enthusiasm from stakeholders who believed<br>the project is a total package and will do a lot good to their<br>farming communities and were hopeful that it will see the light<br>of the day.  |
| The political class should not take undue advantage to<br>circumvent the essence of the project or cause undue<br>influence such that the project objectives are not attained.<br>In the execution of the sub projects, drains should not be<br>directed towards peoples gardens, farmland, houses, burial<br>or cultural sites and toward sources of portable water of the<br>beneficiary communities.<br>State Project Implementation Units (SPIUs) and related MDAs<br>should be strengthened through capacity building (trainings,<br>seminar, workshops etc) and also be assisted with air quality<br>and noise monitoring equipment's for the monitoring of air<br>quality and noise levels particularly in areas that are very<br>close to major landmarks such as schools, health centres etc<br>so as to ensure adequate monitoring and enforcement<br>mechanism.<br>They were also concerned on the maintenance of the road |
| There is need for training and re-training of the SPIU on the<br>understanding of RAAMP and its components. There is also<br>need for capacity building for staff of the SPIU on<br>environmental management and social concerns.   |
| Consultation for Taraba State.  |
| Description   |
| Consultation was carried out during the field visit from 22/11/17 – 23/11/17  |
|   |

| Name of Stakeholders<br>(community) | SPIU, Mayo Raneyow, karage, Bomi & Ndela Communities  |
|-------------------------------------|---|
| Language of communication           | Hausa and English   |
| Introduction                        | The lead ESMF Consultant explained that the project aims at<br>improving rural access and agricultural marketing in selected<br>participating states whilst enhancing sustainability of the rural<br>and State road network. The target is to connect small family<br>farmers in participating States to local agricultural markets with<br>all-weather access roads in selected and prioritized rural<br>development areas and rehabilitate prioritized river crossings.<br>The project will finance the establishment of pilot agro-logistics<br>centers/hubs at strategic locations in selected agro-logistics<br>areas and shall give special attention to the gender dimension<br>enhancing the engagement of women and young girls and<br>providing technical assistance to curb post-harvest losses.<br>There is also a provision for strengthening the financial &<br>institutional base for rural & state roads maintenance and also<br>institutional development, road safety & project management<br>support to implementing entities. |
| Response of stakeholders about the  | The stakeholders expressed delight that the proposed project will benefit their community in transporting their farm produce  |
| project                             | to market and pledged their support towards the success of<br>the project. The SPIU asked for written descriptions of the<br>components of the project to assist them in their project<br>prioritization approach.  |
| Feedback of the<br>Stakeholders     | There was a lot of enthusiasm from stakeholders who described the project as a total package and long overdue and were hopeful that it will see the light of the day.   |
| Concerns/Complaints                 | <ul> <li>The political class should not take undue advantage to circumvent the essence of the project or cause undue influence such that the project objectives are not attained.</li> <li>In the execution of the sub projects, drains should not be directed towards peoples gardens, farmland, houses, burial or cultural sites and toward sources of portable water of the beneficiary communities.</li> <li>State Project Implementation Units (SPIUs) and related MDAs should be strengthened through capacity building (trainings, seminar, workshops etc) and also be assisted with air quality and noise monitoring equipments for the monitoring of air quality and noise levels particularly in areas that are very close to major landmarks such as schools, health centres etc so as to ensure adequate monitoring and enforcement mechanism.</li> </ul>   |

| Remarks/Recommendatio<br>ns   | There is need for training and re-training of the SPIU on the<br>understanding of RAAMP and its components. There is also<br>need for capacity building for staff of the SPIU.  |  |
|---|---|--|
| Summary of the Public Consultation for Borno State.                   |   |  |
| Items   | Description   |  |
| Date of Public<br>consultation<br>Name of Stakeholders<br>(community) | Consultation was carried out during the field visit from 21/11/17 – 22/11/17<br>SPIU, Kumawa, & Gwange Communities  |  |
| Language of<br>communication  | Hausa & English   |  |
| Introduction  | The lead ESMF Consultant explained to the stakeholders that<br>the project aims is at improving rural access and agricultural<br>marketing in selected participating states whilst enhancing<br>sustainability of the rural and State road network. The target<br>is to connect small family farmers in participating States to local<br>agricultural markets with all-weather access roads in selected<br>and prioritized rural development areas and rehabilitate<br>prioritized river crossings. The project will finance the<br>establishment of pilot agro-logistics centers/hubs at strategic<br>locations in selected agro-logistics areas and shall give special<br>attention to the gender dimension enhancing the engagement<br>of women and young girls and providing technical assistance<br>to curb post-harvest losses. There is also a provision for<br>strengthening the financial & institutional base for rural & state<br>roads maintenance and also institutional development, road<br>safety & project management support to implementing<br>entities. |  |
| Response of<br>stakeholders about the<br>project                      | The stakeholders expressed delight at the opportunities and<br>benefits due to them in the proposed project and pledged their<br>support towards the success of the project. The SPIU raised<br>the issue of components of the project and was agreed that<br>they should be furnished with the written descriptions to assist<br>them in their project prioritization approach.  |  |
| Feedback of the<br>Stakeholders                                       | There was a lot of enthusiasm from stakeholders who believed<br>the project is a total package and will do a lot good to their<br>farming communities and were hopeful that it will see the light<br>of the day.  |  |
| Concerns/Complaints   | <ul> <li>The political class should not take undue advantage to circumvent the essence of the project or cause undue influence such that the project objectives are not attained.</li> <li>In the execution of the sub projects, drains should not be directed towards peoples gardens, farmland, houses, burial or cultural sites and toward sources of portable water of the beneficiary communities.</li> </ul>  |  |

|                         | <ul> <li>State Project Implementation Units (SPIUs) and related MDAs should be strengthened through capacity building (trainings, seminar, workshops etc) and also be assisted with air quality and noise monitoring equipment's for the monitoring of air quality and noise levels particularly in areas that are very close to major landmarks such as schools, health centres etc so as to ensure adequate monitoring and enforcement mechanism.</li> <li>They were also concerned on the maintenance of the road</li> </ul> |
|-------------------------|---|
| Remarks/Recommendations | There is need for training and re-training of the SPIU on the understanding of RAAMP and its components. There is also  |
|                         | need for capacity building for staff of the SPIU on<br>environmental management and social concerns.  |

#### 6.5.1 Common Issues and Differences in the RAAMP States

Interactions with the stakeholders were positive and they want the project to commence in earnest.

Nevertheless, general knowledge of legal instruments on environmental and social (ESIA and ESMP) issues needs to be reinforced in the various SPIUs. While some of the State PIUs have more considerable experience in the management of ESIA/ESMP for instance, others do not have. There is a general recommendation for capacity building for staff of the SPIU on national environmental laws, project screening and categorization as well as World Bank Safeguard Policies. In other words, capacity to ensure environmental performance of the project needs to be enhanced as these seem inadequate in the participating States.

# 6.6 STAKEHOLDER ENGAGEMENT/PUBLIC CONSULTATIONS AND INFORMATION DISCLOSURE PROCESS

As required by the Nigeria EIA requirements and the WB's Safeguards Policies, stakeholder engagements (public consultations) will be undertaken for all sub projects under RAAMP. Site-specific ESMP documents will be produced for sub-projects not requiring Environmental Assessment. Stakeholder engagement and information disclosure will be obligatory for all site-specific ESMP documents which will be prepared under RAAMP. Consultations will be conducted during the design and later during the infrastructure construction/rehabilitation phase, and issues related to environmental and social issues raised and complaints received during consultations, field visits, informal discussions, written communications etc. will be followed up. The relevant records will be kept in the project offices of the respective SPIU.

Information Disclosure Framework in case of any specific ESIA/EIA preparation (according to national legislation) shall be ensured during ESIA/EIA field study, draft EIA Report public display and draft ESIA/EIA Public/Panel Review. Each of

these stages has an adequate process of public consultations, in line with the national legal requirements.

A project-specific grievance redress mechanism will be implemented to ensure that all complaints from the local communities are dealt with appropriately, with corrective actions being implemented, and the complainants being informed of the outcome. SPIUs as implementing agencies will maintain a 'Complaints Database', which will contain all the information on complaints or grievances received from the communities or other stakeholders.

#### 6.6.1 Stakeholder Engagement and Information Disclosure for Environmental and Social Management Plan (ESMP)

As required by the World Bank Safeguards Policies, stakeholder/public engagement is undertaken for draft version of the ESMP documents. Public consultation and information disclosure will be obligatory for all ESMP documents which will be prepared under RAAMP.

For all ESMP documents, the following procedure will take place:

- SPIUs will announce invitation for consultations for the public, institutions and organizations interested in ESMP for sub project works under RAAMP. Announcements will ensure to reach out to different members from the communities, including women and people with disabilities.
- The in-country disclosure of ESMP document will start when invitation to the interested parties is published in the daily newspapers, inviting the citizens, authorities and relevant institutions to have an insight into the proposed sub project works and the associated/potential environmental impact with mitigation and monitoring measures.
- Project affected and other interested parties and organizations will be invited to participate in process of public consultation on draft ESMP document.
- Prior to announcement in the newspaper, the ESMP will be delivered to the respective concerned PIU.
- Representatives of the sub project host communities will inform the public through their local media of the time and place of public consultations. Invitation will also be placed on the SPIU's web site. Insight into the ESMP document will be ensured by display at the offices of the respective SPIU and the affected local government council offices during normal working days for a week.
- Stakeholder Engagement and presentation of ESMP document will be held in the premises of the concerned SPIU.
- Questions raised and clarification provided will be presented within the EMP's Report on Stakeholder Engagement.

• Detailed Report on stakeholder's Engagement process will be presented within the final version of ESMPs documents.

In advance of the work commencing, the SPIU will provide information in:

- Newspaper articles in minimum one national and also in one local media.
- Posters on main notice board at all affected community centres
- Radio announcements of road diversions (where necessary).

The SPIUs and relevant contractors will also provide contact details of community liaison officers who are appointed to work with local communities.

# 6.6.2 Disclosures of Safeguard Instruments

The ESMF has been prepared in consultation with relevant state MDAs and other stakeholders. Copies of this ESMF, like other safeguard instruments (such as ESIAs, ESMPs) that would be subsequently prepared for the project and its sub projects will be made available to the public by the PIU. The PIU will disclose the ESMF as required by the Nigeria EIA public notice and review procedures as well as the World Bank Disclosure Policy on the World Bank's external website. Copies of other safeguards instruments (such as ESIAs/ESMPs) should be disclosed in like manner.

# 6.7 GRIEVANCES REDRESS MECHANISM

A Grievance Redress Mechanism 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 SPIUs 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 contractor, in coordination with the SPIU, shall set-up a grievance redress committee that will address any complaints during project implementation. Grievances should be resolved within 15 working days.

# 6.7.1 Purpose of Grievance Redress Mechanism

The people affected by the RAAMP will raise their grievances about actual or perceived impacts in order to find a satisfactory solution. This is an important aspect in this RAAMP because land acquisition is indispensable through the course of the project.

These grievances, influenced by their physical, situational (e.g., employment), and/or social losses, can surface at different stages of the project cycle. Some grievances may arise during the project design and planning stage, while others may come up during project implementation. Not only should affected persons (AP's) be able to raise their grievances and be given an adequate hearing, but

also satisfactory solutions should be found that mutually benefit both the APs and the RAAMP PMU. It is equally important that APs have access to legitimate, reliable, transparent, and efficient institutional mechanisms that are responsive to their complaints.

#### 6.7.2 Members of the Grievance Redress Committees (GRC)

The Grievance Redress Committees, GRC, will be mandated to deal with all types of grievances arising at the community level due to the RAAMP and its subprojects. The GRC members will comprise of qualified, experienced, and competent personnel who will be able to interact and gain the trust of the AP's in their communities. The GRC should consist of both male and female representatives. They should be able to accept complaints, provide relevant information on the process, discuss the complainants' situations with AP's, and explore possible approaches for resolution.

The committee will include the following members:

- The Resettlement Policy Framework Consultant
- Social officer of the PMU;
- A representative of women residing the affected Project study area;
- A representative from the Private sector (if a private company is located within the affected area);
- A representative of a voluntary organization, NGOs;
- A representative of the World Bank;
- Members of Local Government area included in the affected area;
- A representative appointed by the Community head.

# The Grievance Redress Committee will be responsible for:

- Communicating with the Affected persons (AP's) and evaluate if they are entitled to recompense;
- to publicize within the Communities the list of affected persons and the functioning of the established grievance redress procedure;
- to recommend to the Social Officer of the PMU solutions to such grievances from affected persons;
- to communicate the decisions to the AP's; to acknowledge appeals from persons, households or groups who rightfully will not be affected by the RAAMP and its sub-projects, but claim to be, and to recommend to the PMU whether such persons should be recognized as AP's, and to communicate back the decisions to the Claimants.

# 6.7.3 Community Expectations When Grievances Arise

The members of the community will expect that their grievances will be addressed by the RAAMP PMU especially at the local level, which we will aim to achieve through the GRC. When local people present a grievance, they generally expect to receive one or more of the following:

- A concession in recognition of their problem
- An honest response to questions about RAAMP activities
- An apology
- Compensation when applicable
- Modification of the activities that caused the grievance
- Some other fair remedy.

# 6.7.4 Steps in carrying out a Grievance Redress Mechanism

There is no ideal method of approach to grievance resolution however; the best solutions to conflicts are generally achieved through localized mechanisms that take account of the specific issues, cultural context, local customs, and the project state and its magnitude.

The Grievance Redress Committees of the RAAMP will endeavor to be holding meetings with the aggrieved person(s) or groups within a maximum of 3 weeks from the time of receiving the complaint.

The following steps will be followed throughout the Grievance Redress Mechanism process in the various Communities.

# i. To Receive and Register a Complaint

- The channels for receiving and registering complaints is a simple process where local people can inform the GRC about concerns directly and, if necessary, anonymously or via third parties. Reception procedures are most effective if they are convenient, culturally appropriate, simple to understand, and easy to use.
- Multiple channels should be available to gather and forward the affected person's concerns. At least one member of the committee should be independent of the Project team. The GRC will accept complaints, whether written or oral, record them on a simple form, to deal with the issue or if need be, forwarded to the focal point of contact at the RAAMP PMU for further action.
- Diverse methods that are culturally appropriate should be used, including self-identified, confidential, or anonymous procedures (letters, suggestion boxes).

A member of the GRC should be available to receive complaints and log them into a central register.

# ii. Screening for Eligibility of Complaints

This process determines whether a complaint is eligible for inclusion in the grievance mechanism. The GRC should develop a screening procedure based

upon few simple eligibility criteria that do not involve judging the substantive merit of the complaint.

Eligible complaints may include those where:

- The complaint is related to the project.
- The issues raised in the complaint fall within the approach scope of issues the grievance mechanism is meant to address.
- The complainant has a standing to file a grievance.

Ineligible complaints may include those where:

- The complaint is not related to the RAAMP project ;
- The nature of the issue is outside the mandate of the grievance mechanism;
- The complainant has no standing to file;
- Other community procedures are more appropriate to address the issue;

If the complaint is rejected, the complainant is informed of the decision and the reasons for the rejection. If eligible, the complainant will be notified, and the grievance will be processed and the next stage, which implies that assessment, will follow.

The GRC will ensure that that all grievances are truly understood before they are responded. It must be established that all complaints received from the AP's receive a favorable judgment before rejecting.

#### iii. Assess the Grievance

At this stage the GRC will gathers information about the case and the key issues of concerns which will help to determine whether and how the complaint might be resolved.

The Procedures for Assessing Grievance are as follows:

- Determine who will conduct the assessment. A Complaints Coordinator will be appointed to perform this task or directs it to an appropriate person(s) for assessment (production, procurement, environment, community relations, human resources).
- A representative from the GRC will endeavor to engage directly with the complainants to gain understanding of the nature of the complaint.
- Clarify the parties, issues, views, and options involved which includes:
- Identify the parties involved
- Clarify issues and concerns raised by the complaint.
- Gather views of other stakeholders, including those in the GRC and PMU.
- Determine initial options that parties have considered and explore various approaches for settlement.
- Classify the complaint in terms of its seriousness (high, medium, or low). Using this category, seriousness, will measure the potential to impact the

community. The factors to consider will include: the gravity of the allegation, the potential impact on an individual's or a group's welfare and safety, or the public profile of the issue.

• Engage more directly with the complainant in the assessment process, and involve the complainant in influencing the resolution process to be selected, and settlement options.

#### iv. Formulate a Response

Procedures to formulate responses are as follows:

- The Complaint Coordinator will be responsible for preparing the response that will consider the complainants' views about the process for settlement as well as provide a specific remedy. The response may suggest an approach on how to settle the issues, or it may offer a preliminary settlement.
- Meeting may be coordinated which will serve as a forum for the complainant to present the persons complaints; discussion amongst the complainant, the Complaint Coordinator, member(s) of the GRC will follow. If a direct meeting is not possible, consider meeting with a neutral third party serving as facilitator. The group would also discuss appropriate next steps during this meeting. If the proposal is a settlement offer and it is accepted, the complaint is resolved successfully and there is no need to proceed to the next step of selecting a resolution approach. If the complainant is not happy with the response about a resolution process or substance, the group should try to reach an agreement that would be mutually acceptable.
- If the case is complex and a resolution time frame cannot be met, provide an interim response facilitated through oral or written communication (best to the complainants preference) that informs the person of the delay, explains the reasons, and offers a revised date for next steps.

Further details for the grievance redress mechanisms shall be in accordance to the guidelines outlined in the Resettlement Policy Framework (RPF) for RAAMP.

# 6.8 GENDER BASED VIOLENCE (GBV) RISK MANAGEMENT MECHANISM

A GBV workshop was conducted to sensitize the SPIU staff on the key principle and specific requirements to address GBV/Sexual Exploitation and Abuse (SEA) have been included in the bidding documents ('pre-qualification and employers' requirement'). Thus including specific measures to reduce and mitigate the risk of GBV/SEA in the project.

Such measures will include:

- viii) GBV/SEA assessment of project.
- ix) Mandatory contractors' Code of Conduct on sexual harassment.
- x) Appointment of NGO to monitor GBV/SEA in RAAMP.
- xi) Community and workers' sensitization on GBV/SEA.
- xii) Provision of referral units for survivors of GBV/SEA.
- xiii) Provision in contracts for dedicated payments to contractors for GBV/SEA prevention activities against of completion.
- xiv) Contractor and SPIU requirement to ensure a minimum target of female employment with incremental rewards for the attainment of this target.

The following actions are recommended for immediate implementation:

- Hiring a dedicated GBV/SEA specialist for the project.
- Hiring NGOs at the state level to manage 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.
- Developing a clear RAAMP specific internal 'Reporting and Response Protocol' to guide relevant stakeholders in case of GBV/SEA incidents.
- Strengthening operational processes of RAAMP states project area on GBV/SEA.
- Identifying development partners and cultivating pragmatic partnership on GBV/SEA prevention measures and referral services.
- Developing Code of Conduct for civil works contractors with prohibition against GBV/SEA.
- Strengthening consultations and making operational GBV/SEA specific grievance redress mechanism.
- Providing financial support implementation of the GBV/SEA actions described here-in including training and awareness building for various stakeholders.
- Establishing the 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 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 'Labour Influx Management Plan' or Camp Management Plan. A sample Camp Management Plan is attached to this ESMF as Annex 11.

## CHAPTER 7: ESMF IMPLEMENTATION ARRANGEMENTS

## 7.1 INTRODUCTION

This section captures the institutional arrangements for ESMF implementation by officials of executing and implementing agencies, their consultants and working contractors. An organizational structure shall be developed at the corporate and site level to aid effective implementation of the ESMF. The beneficiary states through their requisite agencies are the Implementing Agencies for the RAAMP and will be responsible for the implementation and compliance with the ESMF, ESMPs, EAs and Monitoring Plans. Implementing agencies shall also be responsible for:

- Implementation of requests for environmental protection given by: Government environmental authorities in this case the FMEnv via EIA Studies, World Bank and other related institutions.
- Compliance with the Laws on Environmental Protection.
- Implementation of requests for environmental protection through contractors' specifications.
- Supervision of the project through the consulting services for supervision and implementation of the project.
- Supervision of environmental monitoring through the consulting services.
- Preparation of the final environmental reports.

The Federal Project Management Unit (FPMU) within FDRD will be responsible for day to day project implementation, while the implementing agencies will use own staff to implement the Bank financed projects. The FPMU will be staffed with specialists to manage financial management, procurement, environmental, social and technical aspects.

The FPMU shall be made of the following: Project Director, Project Coordinator, Project Procurement Specialist, Project Financial Specialist, Environmental and Social Safeguards Specialist(s), Infrastructure Safety Specialist, Road Construction/Rehabilitation Manager, Rehabilitation and Construction Specialists.

## 7.2 ENVIRONMENTAL AND SOCIAL MANAGEMENT UNIT

An Environmental and Social Management Unit (ESMU) will be formed as a part of FPMU. In order to effectively manage the EA process and ESMP implementation, EMU shall be established and made operational prior to appraisal of the subprojects by the Bank. The Environmental and Social Safeguards Specialist of FPMU and the Rehabilitation and Construction Specialists shall be engaged during the project implementation period as an ESMU.

## 7.3 MANAGEMENT SUPPORT CONSULTANTS

RAAMP includes Project Management Support (PMS) and capacity building to implementing agencies, as may be necessary in procurement, financial management, environmental and social safeguards including gender and GBV and annual program planning. Project will finance consultants to provide project management support to the FPMU during project implementation. The support to the FPMU shall include the Supervision of the implementation of civil works; Environmental and social supervision of safeguards implementation; Annual program planning and preparation including the economic analysis and overall project management. In addition to the consultants, the FPMU will draw staff members from other implementing agencies departments as necessary. Prior to project take off, the World Bank together with the FDRD shall provide a training workshop for the FPMU so as to manage the implementation of the Projects.

## 7.4 PROJECT SUPERVISION CONSULTANTS

In respect to environmental/social requirements, the specific roles and responsibilities of Project Supervision Consultant shall include the following:

- Supervision of the implementation of the ESMP by the Contractors;
- Monitoring and review of the screening and categorization process for each sub-project.
- Review and approval of site specific environmental enhancement/mitigation designs worked out by the Contractor.
- ✤ Holding regular meetings with the ESMU.
- Review of the Contractors Environmental Implementation Plans to ensure compliance with the Environmental and Social Management Plan (ESMP).
- Development of good practice construction guidelines to assist the contractors in implementing ESMPs.
- Preparation and submission of regular environmental monitoring and implementation progress reports.
- Continuous interaction with the Environmental Engineers/Safeguard specialist of ESMU regarding the implementation of the environmental/social provisions;
- Ensure that proper environmental/social safeguards are being maintained at all ancillary sites such as borrow areas, materials storage yards, worker's camps etc. from which the contractor procures material for subproject works.

Ensure that al GBV mitigation and response measures are in place and working correctly.

# 7.5 CONTRACTOR

The Contractor will be responsible for implementation of all environmental and social related activities under the subproject. Each Contractor is obliged to follow the ESMF and ESMP provisions during project implementation, including preparation and delivering to implementing agencies for approval of the site specific implementation plans. Construction Contractor will make proposal for environmental/social protection, including safety of persons associated with the works and the public, during a preconstruction period. The proposal will be reviewed and approved by implementing agencies. In this regard, attention will be given to:

- Taking all reasonable steps to protect the environment on and off-site to avoid damage or nuisance to implementing persons or property arising from its operations,
- Maintaining conditions of safety for all Implementing persons entitled to be on site, and
- Provision of all lights, guards, fencing, warning signs, traffic control and watching for protection of the works and other property and for the safety and convenience of the public.
- Ensure separate, safe and easily accessible facilities for women and men working on the site. Locker rooms and/or latrines should be located in separate areas, well-lit and include the ability to be locked from the inside.

During implementation of the subprojects, a Community Liaison Officer (CLO), employed by the Contractor will establish communication with the local residents affected with the project and will be responsible to inform them about all project activities, especially related to environmental and social impacts of the project and planed mitigation measures. The Contractor will also be responsible for familiarizing themselves with the following "Chance Finds Procedures" in case culturally valuable materials are uncovered during excavation or any project activities, namely:

- Stop work immediately following the discovery of any materials with possible archaeological, historical, paleontological, or other cultural value, announce findings to project manager and notify relevant authorities and implementing agencies;
- Protect artefacts using plastic covers, and implement measures to stabilize the area, if necessary, to properly protect artefacts;
- Prevent and penalize any unauthorized access to the artefacts; and
- Restart road rehabilitation works only upon the authorization of the relevant authorities.

## 7.6 **PROJECT MONITORING**

The FPMU will be responsible for collecting the data required for monitoring and evaluation which will in turn be reviewed by implementing agencies. Indicators shall be measured against the agreed targets and compared to the defined baselines. Project progress reports, including monitoring indicators and reporting on the implementation of the requirements set in the ESMPs will be prepared on a quarterly basis and submitted for WB review. Monthly progress reports prepared by the supervision consultants will be submitted by FPMU to World Bank for review upon a request. The Construction contractor or the consultant engaged is obliged to perform all monitoring activities (sampling, measurement, etc.) prescribed within the Monitoring Plan of ESMP document produced for subproject on which the Contractor/consultant is engaged.

## 7.7 ROLES AND RESPONSIBILITIES FOR THE ESMF IMPLEMENTATION

The Project Implementing Entity (PIE), and any institution participating in the implementation, will not issue a Request for Proposal (RFP) of any activity subject to Environmental and Social Impact Assessment (ESIA), without the construction phase's Environmental and Social Management Plan (ESMP) inserted in, and will not authorize the works to commence before the contractor's ESMP (C-ESMP) has been approved and integrated into the overall planning of the works The environmental safeguards specialist and social safeguard specialist in the PIU will be responsible for the implementation of the ESMF in close collaboration with the Federal and State Ministries of Environment and relevant MDAs. Subsequently, they shall be required to prepare a quarterly audit on ESMF implementation in addition to the project reports as may be required. In addition, each sub-project requiring an ESMP will also be required to produce an annual audit report for delivery to the PIU. See table 7.1 below

| S/N | Activities  | Institutional<br>Responsibility                                 | Institutional<br>Collaboration  | Implementation<br>Responsibility                   |
|-----|---|---|---|--|
| 1   | Identification and/or<br>siting of the<br>sub-project                               | SPIUs   | FMA&RD<br>• Local authority   |  |
| 2   | Screening,<br>categorization and<br>identification of the<br>required<br>instrument | Environmental<br>Safeguards<br>Specialist (ESS)<br>in the SPIUs | <ul> <li>beneficiary;</li> <li>local authority</li> <li>Social</li> <li>Safeguards</li> <li>Specialist (SSS)</li> <li>on the PIU</li> </ul> |  |
| 3   | Approval of the classification and  | SPIUs<br>coordinator  | . ESS-PIU<br>• SSS-PIU<br>• FPMU  | <ul><li>FMEnv</li><li>The World<br/>Bank</li></ul> |

 Table 7.1: Roles and Responsibilities for Implementation of the ESMF

| S/N  | Activities  | Institutional<br>Responsibility                                 | Institutional<br>Collaboration   | Implementation<br>Responsibility  |
|------|---|---|--|---|
|      | the selected  | Responsibility  | Conaboration   | Responsibility  |
|      | instrument  |   |  |   |
| ESMP | , etc.) in accordance   |   |  | nental Audit and simple<br>and the Bank policies                                  |
|      | rements)  | - · · · ·   |  | <b>-</b>  |
| 5.   | Preparation and<br>approval of the<br>ToR   | Environmental<br>Safeguards<br>Specialist (ESS)<br>in the SPIUs | <ul> <li>FMEnv</li> <li>Procurement<br/>specialist (PS-<br/>PIU)</li> <li>Social<br/>Safeguards<br/>Specialist</li> </ul>  | The World<br>Bank   |
|      | Preparation of the report   |   | <ul> <li>SPIU<br/>LGAs</li> <li>FPMU</li> </ul>  | Consultants   |
|      | Report validation<br>and issuance of<br>the permit (when<br>required)   |   | Procurement<br>Specialist<br>(PS-SPIU)<br>• Ministry of Env<br>• LGAs  | <ul> <li>FMEnv-EA<br/>department</li> <li>The World Bank</li> </ul>               |
|      | Publication of document   |   | Project<br>coordinator   | Media <ul> <li>The World Bank</li> </ul>  |
| 6.   | (i) Integrating the<br>construction phase<br>mitigation measures<br>and E&S clauses in<br>the bidding<br>document prior<br>they're advertised;<br>(ii) ensuring that<br>the constructor<br>prepares his ESMP<br>(C-ESMP), gets it<br>approved and<br>integrates the<br>relevant measures<br>in the works<br>breakdown<br>structure (WBS) or<br>execution plan | Technical staff<br>in charge of the<br>sub-project (TS-<br>PIU) | <ul> <li>Environmental<br/>Safeguard<br/>Specialist -PIU</li> <li>Social Safeguard</li> <li>Specialist-PIU</li> <li>Procurement</li> <li>Specialist-PIU</li> </ul> | Control Firm<br>(Supervisor)  |
| 7    | Implementation of<br>other<br>safeguards<br>measures, including   | ESS-SPIU  | <ul><li>SSS-PIU</li><li>PS-PIU</li><li>TS-PIU</li></ul>  | <ul> <li>Consultant</li> <li>National<br/>specialized<br/>laboratories</li> </ul> |

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| S/N | Activities  | Institutional<br>Responsibility           | Institutional<br>Collaboration  | Implementation<br>Responsibility  |
|-----|---|---|---|---|
|     | environmental<br>monitoring (when<br>relevant) and<br>sensitization<br>activities |   | <ul> <li>Financial Staff<br/>(FSPIU)</li> <li>Local authority</li> </ul>                              | NGOs  |
| 8   | Oversight of<br>safeguards<br>implementation<br>(internal)                        | ESS and SSS-<br>SPIU                      | Monitoring and<br>Evaluation<br>specialist (M&E-<br>PIU)<br>• FS-PIU)<br>• Local authority            | <ul> <li>Control Firm<br/>(Supervisor)</li> </ul>                               |
| 9   | Public consultation<br>on project<br>safeguards<br>performance and<br>disclosure  | PIU<br>State<br>Coordinator               | SPIU     NGOs/CBOs  | <ul><li> PIU</li><li> FMEnv</li><li> MEnv/SEPAs</li></ul>                       |
|     | Reporting on project<br>safeguards<br>performance and<br>disclosure               | Coordinator                               | <ul> <li>M&amp;E-PIU</li> <li>ESS-PIU</li> <li>SSS-PIU</li> </ul>                                     |   |
| 10  | External oversight<br>of the project<br>safeguards<br>compliance                  | FMEnv<br>State Ministry of<br>Environment | <ul> <li>M&amp;E-PIU</li> <li>ESS-PIU</li> <li>SSS-PIU</li> <li>PS-PIU</li> <li>Supervisor</li> </ul> |   |
| 11  | Building<br>stakeholders'<br>capacity in<br>safeguards<br>management              | ESS-PIU                                   | • SSS-PIU<br>• PS-PIU   | <ul> <li>Consultant</li> <li>Other qualified<br/>public institutions</li> </ul> |
| 12  | Independent<br>evaluation of<br>safeguards<br>performance (Audit)                 | ESS-PIU                                   | <ul><li>SSS-PIU</li><li>PS-PIU</li></ul>  | Consultant  |

The State Project Implementing Units (SPIU), and any institution participating in the implementation, will not issue a Request for Proposal (RFP) of any activity subject to Environmental and Social Impact Assessment (ESIA), without the construction phase's Environmental and Social Management Plan (ESMP) inserted in, and will not authorize the works to commence before the contractor's ESMP (C-ESMP) has been approved and integrated into the overall planning of the works. This entire section above, on the roles and responsibilities for the implementation of the Framework ESMP, will be insert in the E&S safeguards management section the project implementation manual (PIM).

## 7.8 CAPACITY BUILDING

RAAMP has a sub-component which covers capacity building measures to implementing agencies, as may be necessary in environmental and social safeguards and annual program planning. Capacity building can be achieved by: Training program for the existing staff and Technical Assistance: knowledge sharing and on-the-job training and mentorship.

Specific areas for effective institutional capacity requirements are given in Table 7.2.

The indicative cost for capacity building in the 18 states is N 36,000,000 equivalent to \$117,724.00

| Program<br>me                 | Description   | Participants   | Form of<br>Training | Duration<br>/<br>Location | Training<br>Conducting<br>Agency   |
|-------------------------------|---|--|---------------------|---------------------------|--|
| Sensitizati<br>on<br>Workshop | Introduction to the<br>environment:<br>• Basic concepts of the<br>environment and<br>sustainable development.<br>• Environmental<br>regulations and statutory<br>requirements in Nigeria<br>and World Bank                    | Chief Engineer/<br>Superintending<br>Engineers of<br>Implementing<br>Agency<br>and Project<br>Coordinator,<br>Safeguards unit,<br>Procurements &<br>other<br>relevant groups | Workshop            | ½ day                     | Safeguards<br>Specialists,<br>external agency<br>engaged for<br>capacity<br>building.  |
| Module I                      | Introduction to the<br>environment:<br>• Basic concept of the<br>environment and<br>environmental<br>management.<br>• Environmental<br>regulations and statutory<br>requirements as per<br>Governments and The<br>World Bank. | Engineers of<br>implementing<br>MDAs<br>(MEnv/SEPA.  | lecture             | 1⁄4 day                   | Safeguards<br>Specialists,<br>Consultant/exter<br>nal<br>agency engaged<br>for<br>capacity<br>building.                            |
| -Module II                    | Environmental<br>considerations in<br>sub-projects:<br>• Environmental<br>components affected by<br>urban development in<br>construction and<br>operation stages.<br>• Rural agricultural<br>practices and<br>environmental   | Engineers of<br>implementing<br>MDAs<br>(MEnv/SEPA<br>units),<br>community<br>leaders/CBOs/N<br>GOs  | Workshop            | 1 day                     | Environmental &<br>Social Specialists<br>of<br>Design<br>Consultant/exter<br>nal<br>agency engaged<br>for<br>capacity<br>building. |

#### **Table 7.2: Training Modules on Environment and Social Management**

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| Program<br>me | Description  | Participants   | Form of<br>Training           | Duration<br>/<br>Location | Training<br>Conducting<br>Agency  |
|---------------|--|--|-------------------------------|---------------------------|---|
|               | degradation.<br>• Challenges of pest<br>control<br>and the environment.<br>• Environmental<br>management practices in<br>urban and rural projects.<br>• Stakeholders'<br>collaboration in rural<br>project management.   |  |                               |                           |   |
| Module III    | Review of the EIA<br>requirements<br>and its integration into<br>designs:<br>• ESIA methodology<br>• Environmental<br>provisions.<br>• Implementation<br>arrangements<br>• Methodology of<br>assessment and pollution<br>monitoring.<br>• Methodology for site<br>selection of waste<br>disposal area etc. | Engineers of<br>implementing<br>MDAs                     | Lecture<br>and field<br>visit | ½ day                     | Safeguards<br>Specialists<br>of Design<br>Consultant/exter<br>nal<br>agency engaged<br>for<br>capacity<br>building. |
| Module IV     | Stakeholders<br>participation:<br>• Overview of RAAMP<br>• Environmental & social<br>impacts<br>• Statutory permissions –<br>procedural requirements<br>• Co-operation &<br>coordination with other<br>MDAs in monitoring  | Officials of<br>MEnv/SEPA,<br>and other<br>relevant MDAs | Lecture<br>and field<br>visit | 1 day                     | Safeguards<br>Specialists<br>of Design<br>Consultant/exter<br>nal<br>agency engaged<br>for<br>capacity<br>building. |

| Program<br>me | Description   | Participants  | Form of<br>Training           | Duration<br>/<br>Location | Training<br>Conducting<br>Agency  |
|---------------|---|---|-------------------------------|---------------------------|---|
| Module V      | Stakeholders role in civil<br>works<br>and agricultural<br>practices:<br>• Roles and<br>responsibilities<br>of officials/contractors/<br>consultants in<br>environmental protection<br>and implementation<br>arrangements.<br>• Monitoring mechanisms | Officials of<br>MEnv/SEPA,<br>and other<br>relevant MDAs  | Lecture<br>and field<br>visit | 1 day                     | Safeguards<br>Specialists<br>of Design<br>Consultant/exter<br>nal<br>agency engaged<br>for<br>capacity<br>building. |
| Module VI     | Monitoring and reporting<br>system,<br>community participatory<br>monitoring and<br>evaluation  | Engineers of<br>implementing<br>Agency,<br>MEnv/SEPA, &<br>relevant<br>MDAs,<br>Community<br>leaders/CBOs/N<br>GOs  |                               | 1 day                     | Safeguards<br>Specialists<br>of Design<br>Consultant/exter<br>nal<br>agency engaged<br>for<br>capacity building     |
| Module<br>VII | Gender and GBV<br>Awareness rasing<br>Gender mainstreaming<br>in transport operations<br>GBV prevention,<br>mitigation and respose  | Chief<br>Engineer/<br>Superintending<br>Engineers of<br>Implementing<br>Agency<br>and Project<br>Coordinator,<br>Safeguards<br>unit,<br>Procurements<br>& other<br>relevant<br>groups | Workshop                      | 3 days                    | WB/Partner<br>NGO   |

# 7.9 PROJECT ENVIRONMENTAL AND SOCIAL DUE DILIGENCE IMPLEMENTATION BUDGET

The estimates of the Budget for the implementation of the project environmental and social due diligence (in local currency and US dollars, and source of financing) are presented in Table 7.3.

# Table 7.3: Estimates of Project Environmental and Social Due DiligenceImplementation Budget.

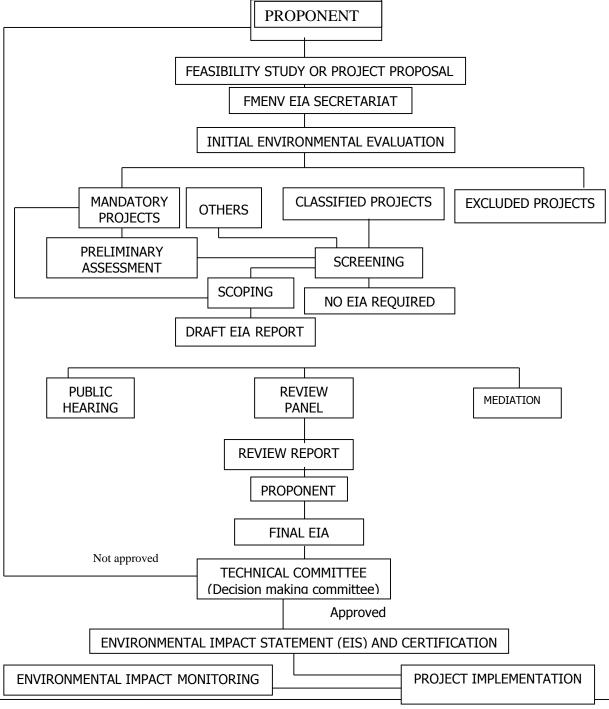
| S/ | Item   | Item Unit                           | Unit Cost      |           | Τα          | Source of financing |                               |
|----|--|-------------------------------------|----------------|-----------|-------------|---------------------|-------------------------------|
| N  |  |                                     | Local<br>(NGN) | US\$      | Local       | US\$                |                               |
| 1  | Mitigation                                   | Contract<br>ors in<br>18<br>states  | 21,144,444     | 69,099.49 | 380,600,000 | 1,243,790.85        | IDA,<br>AFD/AfDB<br>Credits   |
| 2  | Manageme<br>nt (5% of<br>Mitigation<br>Cost) | SPIUs/F<br>PMU/rel<br>evant<br>MDAs | 1,057,222      | 3,454.97  | 19,030,000  | 62,189.54           | IDA,<br>AFD/AfDB<br>Credits   |
| 3  | Preparation<br>of specific<br>ESIA           | 18<br>states                        | 7,000,000      | 22,890.77 | 126,000,000 | 412,034.00          | IDA,<br>AFD/AfDB<br>Credits   |
| 4  | Capacity<br>Building                         | 18<br>states &<br>FPMU,             | 2,000,000      | 6,540.22  | 36,000,000  | 117,724.00          | IDA,<br>AFD/AfDB<br>Credits   |
| 5  | Implement<br>ation of<br>specific<br>ESMP    | 18<br>states                        | TBD            | TBD       | TBD         | TBD                 | States<br>Counterpart<br>fund |
| 6  | Mid-term<br>audit of ES<br>performanc<br>e   | 18<br>states                        | TBD            | TBD       | TBD         | TBD                 | IDA,<br>AFD/AfDB<br>Credits   |
| 7  | Completion<br>audit of ES<br>performanc<br>e | 18<br>states                        | TBD            | TBD       | TBD         | TBD                 | IDA,<br>AFD/AfDB<br>Credits   |
|    |  | Тс                                  | otal           |           | 561,630,000 | 1,835,738.39        |                               |

Central Bank of Nigeria's exchange rate at 1USD = 305.8 NGN as at 27<sup>th</sup> June, 2018

## 7.10 NIGERIA EIA PROCEDURE AND ENVIRONMENTAL APPROVAL

In response to the promulgation of the EIA Act 86 of 1992 now EIA Act CAP E12 LFN 2004, Nigeria's Federal Ministry of Environment (FMEnv) developed a National EIA Procedure in 1995. The procedure provides steps to be followed from the stage of project conception to commissioning in order to ensure that the project is implemented with maximum consideration for the environment. Fig. 7.1 presents the EIA Process Flowchart showing the onset of EIA Registration with the Federal Ministry of Environment to Audit stage when a project becomes operational.

The process is initiated when a proponent makes a project proposal or registers a project with the FMEnv. The FMEnv then carries out an initial environmental evaluation which includes a site verification exercise for the visual assessment of a proposed project site. The outcome of the initial environmental evaluation categorizes a project as requiring mandatory EIA (category 1 of the EIA Act or category 2 if project is located in an environmental sensitive area/site) or not. For projects requiring EIA, scooping is carried out to determine the extent of EIA studies required. A draft EIA Report produced for a project is subjected to a 21 work days public display followed by Panel Review (Public or In-House). The review comments are addressed in a final EIA Report and an EIS/permit is issued by FMEnv to a project proponent. An impact mitigation monitoring is carried out during project implementation while an environmental audit is carried out every three years after project commissioning.



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## Fig. 7.1: Federal Ministry of Environment's EIA Procedure.

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# **ANNEX 1**

## Terms of Reference (ToR) for the ESMF

An Environmental and Social Management Framework (ESMF) is required to address all environmental and social safeguards issues on subprojects from preparation, through review and approval, to implementation. It will identify the environmental/social impacts of the rural roads destined for rehabilitation and maintenance, and to ensure that project activities will contribute to environmentally sound use of the land and its resources.

The services will cover the following states namely; Bauchi, Taraba, Kano, Sokoto, Katsina, Zamfara, Kebbi, Plateau, Kogi, Kwara, Benue, Abia, Anambra, Oyo, Ogun, Akwa Ibom, Ondo and Cross River

In the course of carry out this consultancy the consultant should among others;

Identify any regulations and guidelines, which will govern the conduct of the framework or specify the content of its report. They may include the following:

- World Bank Operational Policy 4.01, "Environmental Assessment", and related guidelines such as Operational Policy 4.04, "Natural Habitats", and Operational Policy OP 4.12, "Involuntary Resettlement";
- national laws and/or regulations on environmental reviews and impact assessments;
- Selected States/LGAs environmental regulations; and
- Environmental assessment regulations of French Development Agency (AFD) or any other financing organizations involved in the project.
- ESMFs prepared for other recent World Bank projects in Nigeria and other comparable contexts e.g Rural Access Mobility Project (RAMP), FADAMA and Stable Crop Processing Zones (SCPZs).

The ESMF should include:

A description of Proposed Project and Analysis of Alternatives where applicable;

- A comprehensive assessment of the potential environmental and social impact of the RAAMP
  - E.g- Changes to existing land uses (legal and illegal), agricultural processing centers and resulting risk of pollution, Health and Safety of workers (accidents, etc) and communities, disease transmission (HIV/AIDs, STDs) to communities along route from construction workers;
- Baseline Data
  - E.g- socio-economic profile of areas/communities, key cultural sites etc.;
- Recommendations of practical and cost-effective actions and processes to mitigate any potential negative environmental and/or social impacts that could arise during project - implementation;
- Identification of the capacity building needs for the RAAMP and recommendations of actions to strengthen the line Ministries to ensure sustained environmental and social compliance; and to successfully implement the provisions of the ESMF and;
- An environmental and social assessment screening checklist for screening the potential impacts of site specific interventions which would provide guidance for the preparation of site specific safeguards instruments.

Specifically the Consultant should work closely with:

- RAAMP PIU Project Coordinator, State Ministry of Environment and Ministry of Works and Transport (MWT);
- States Waste Management Authority;
- States Ministry of Agriculture and Rural Development
- State Sustainable Development Agencies etc.

Specifically the consultancy should carry out the following tasks.

- (1) Present an overview of Nigeria's environmental policies, legislation, regulatory and administrative frameworks in conjunction with the World Bank's safeguard policies. Where gaps exist between these policies, make recommendations to bridge the gaps in the context of the proposed project.
- (2) Develop a stakeholders' consultation process that ensures that all key stakeholders are adequately consulted, including potentially affected persons, to ensure that they are aware of the objectives and potential environmental and social impacts of the proposed project, and that their views are incorporated into the projects' design as appropriate.
- (3) Develop a comprehensive baseline for the project, including a review of the biophysical and socio-economic characteristics of the environment to be covered by the project, highlighting the major constraints that need to be taken into account in the course of the project implementation-

- (a) Physical environment: geology; topography; soils; climate and meteorology; ambient air quality; surface and ground water hydrology(b) Biological environment: flora; fauna; rare or endangered species; sensitive habitats, including parks or preserves, significant natural sites, etc
- (b)Socio-economic environment: land use, land tenure and land titling and human settlements.
- (c) Public Health condition of each project specific area- water and sanitation conditions, communicable and non- communicable disease profile, access to health services
- (4) Assess the potential environmental and social impacts (positive and negative) of the different project components, including, constructions/rehabilitation of rural roads, river crossings, agricultural processing plants, construction of market sheds, storage facilities etc. and recommend appropriate mitigation measures;
- (5) Develop a proposed Environmental and Social Management Plan for the project as a whole (understanding that site specific activities may require site specific plans). The ESMF should recommend feasible and cost-effective measures to prevent or reduce significant impacts to acceptable levels, estimate the impacts and costs of those measures. Institutional responsibility for mitigation and monitoring should be clearly specified and articulated.
- (6) Assess the current institutional ability at the community, local and state levels to

Implement the recommendations of the ESMF and make appropriate capacity strengthening recommendations;

- (7) In light of the available information, develop an environmental and social screening process, including monitoring indicators for future rehabilitation and construction activities referred to above, capturing the below mentioned steps:
  - (i) Screening of physical infrastructure investments;
  - (ii) Assigning the appropriate environmental categories;
  - (iii) Outline steps for carrying out environmental work, i.e. preparation of:
    - a) Environmental and social checklist;
    - b) Draft terms of reference to facilitate preparation of separate

Environmental and Social Impact Assessment (ESIAs) during project implementation;

(iv) To develop an outline review and approval process for the screening results and as necessary for separate ESIA reports;

- (v) Procedures for public consultations and disclosure of project safeguard instruments prior and during project implementation;
- (vi) To develop an outline appropriate mitigation measures as well as a monitoring framework with key indicators for envisioned activities; describe relevant institutions in charge of monitoring and their capacity strengthening measures;

## ANNEX 2

# General Environmental Management Conditions for Construction Contracts

## General

1. In addition to these general conditions, the Contractor shall comply with any specific Environmental Management Plan (EMP) or 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 State Project Implementation Unit (SPIU) to fulfil his obligation within the requested time, the FPMU reserves the right to arrange through the SPIU for execution of the missing action by a third party on account of the Contractor.

2. Notwithstanding the Contractor's obligation under the above clause, the Contractor shall implement all measures necessary to avoid undesirable adverse environmental and social impacts wherever possible, restore work sites to acceptable standards, and abide by any environmental performance requirements specified in an 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 of dust producing activities.

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

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

(d) Prevent bitumen, oils, lubricants and waste water used or produced during the execution of works from entering into rivers, streams, irrigation channels and other natural water bodies/reservoirs, and also ensure that stagnant water in uncovered borrow pits is treated in the best way to avoid creating possible breeding grounds for mosquitoes. (e) Prevent and minimize the impacts of quarrying, earth borrowing, piling and building of temporary construction camps and access roads on the biophysical environment including protected areas and arable lands; local communities and their settlements. In as much as possible restore/rehabilitate all sites to acceptable standards.

(f) Upon discovery of ancient heritage, relics or anything that might or believed to be of archaeological or historical importance during the execution of works, immediately report such findings to the SE so that the appropriate authorities may be expeditiously contacted for fulfilment of the measures aimed at protecting such historical or archaeological resources.

(g) Discourage construction workers from engaging in the exploitation of natural resources such as hunting, fishing, and collection of forest products or any other activity that might have a negative impact on the social and economic welfare of the local communities.

(h) Implement soil erosion control measures in order to avoid surface run off and prevents siltation, etc.

(i) Ensure that garbage, sanitation and drinking water facilities are provided in construction workers camps.

(j) Ensure that, in as much as possible, local materials are used to avoid importation of foreign material and long distance transportation.

(k) Ensure public safety, and meet traffic safety requirements for the operation of work to avoid accidents.

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

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

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

#### Worksite/Campsite Waste Management

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

7. All drainage and effluent from storage areas, workshops and camp sites shall be captured and treated before being discharged into the drainage system in line with applicable government water pollution control regulations.

8. Used oil from maintenance shall be collected and disposed off appropriately at designated sites or be re-used or sold for re-use locally.

9. Entry of runoff to the site shall be restricted by constructing diversion channels or holding structures such as banks, drains, dams, etc. to reduce the potential of soil erosion and water pollution.

10. Construction waste shall not be left in stockpiles along the road, but removed and reused or disposed of on a daily basis.

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

## Material Excavation and Deposit

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

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

14. New extraction sites:

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

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

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

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

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

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

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

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

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

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

#### **Rehabilitation and Soil Erosion Prevention**

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

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

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

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

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

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

25. Remove toxic materials and dispose of them in designated sites. Backfill excavated areas with soils or overburden that is free of foreign material that could pollute groundwater and soil.

26. Identify potentially toxic overburden and screen with suitable material to prevent mobilization of toxins.

27. Ensure reshaped land is formed so as to be inherently stable, adequately drained and suitable for the desired long-term land use, and allow natural regeneration of vegetation.

28. Minimize the long-term visual impact by creating landforms that are compatible with the adjacent landscape.

29. Minimize erosion by wind and water both during and after the process of reinstatement.

30. Compacted surfaces shall be deep ripped to relieve compaction unless subsurface conditions dictate otherwise.

31. Revegetate with plant species that will control erosion, provide vegetative diversity and, through succession, contribute to a resilient ecosystem. The choice of plant species for rehabilitation shall be done in consultation with local research institutions, forest department and the local people.

#### Water Resources Management

32. The Contractor shall at all costs avoid conflicting with water demands of local communities.

33. Abstraction of both surface and underground water shall only be done with the consultation of the local community and after obtaining a permit from the relevant Water Authority.

34. Abstraction of water from wetlands shall be avoided. Where necessary, authority has to be obtained from relevant authorities.

35. Temporary damming of streams and rivers shall be done in such a way avoids disrupting water supplies to communities down stream, and maintains the ecological balance of the river system.

36. No construction water containing spoils or site effluent, especially cement and oil, shall be allowed to flow into natural water drainage courses.

37. Wash water from washing out of equipment shall not be discharged into water courses or road drains.

38. Site spoils and temporary stockpiles shall be located away from the drainage system, and surface run off shall be directed away from stockpiles to prevent erosion.

## Traffic Management

39. Location of access roads/detours shall be done in consultation with the local community especially in important or sensitive environments. Access roads shall not traverse wetland areas.

40. Upon the completion of civil works, all access roads shall be ripped and rehabilitated.

41. Access roads shall be sprinkled with sufficient water at least five times a day in settled areas, and three times in unsettled areas, to suppress dust emissions.

## Blasting

42. Blasting activities shall not take place less than 2km from settlement areas, cultural sites, or wetlands without the permission of the SPIU.

43. Blasting activities shall be done during working hours, and local communities shall be consulted on the proposed blasting times.

44. Noise levels reaching the communities from blasting activities shall not exceed 90 decibels.

#### **Disposal of Unusable Elements**

45. Unusable materials and construction elements such as electro-mechanical equipment, pipes, accessories and demolished structures will be disposed of in a manner approved by the SPIU. The Contractor has to agree with the SPIU which elements are to be surrendered to the Client's premises, which will be recycled or reused, and which will be disposed of at approved landfill sites.

46. As far as possible, abandoned pipelines shall remain in place. Where for any reason no alternative alignment for the new pipeline is possible, the old pipes shall be safely removed and stored at a safe place to be agreed upon with the SPIU and the local authorities concerned.

47. AC-pipes as well as broken parts thereof have to be treated as hazardous material and disposed of as specified above.

48. Unsuitable and demolished elements shall be dismantled to a size fitting on ordinary trucks for transport.

## Health and Safety

49. In advance of the construction work, the Contractor shall embark upon an awareness and hygiene campaign. Workers and local residents shall be sensitized on health risks particularly of AIDS.

50. Adequate road signs to warn pedestrians and motorists of construction activities, diversions, etc. shall be provided at appropriate points.

51. Construction vehicles shall not exceed maximum speed limit of 40km per hour.

## **Repair of Private Property**

52. Should the Contractor, deliberately or accidentally, damage private property, he shall repair the property to the owner's satisfaction and at his own cost. For each repair, the Contractor shall obtain from the SPIU, a certificate that the damage has been made good satisfactorily in order to indemnify the Client from subsequent claims.

53. In cases where compensation for inconveniences, damage of crops etc. are claimed by the owner, the FPMU has to be informed by the Contractor through the SPIU.

# ANNEX 3

## Sample Health, Safety and Environment (HSE) Management Plan (HSE-MP)

1. Within 6 weeks of signing the Contract, the Contractor shall prepare a HSE-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 HSE-MP will serve two main purposes:

- For the Contractor, for internal purposes, to ensure that all measures are in place for adequate HSE management, and as an operational manual for his staff.
- For the Client (FPMU/SPIU) to ensure that the Contractor is fully prepared for the adequate management of the HSE aspects of the project, and as a basis for monitoring of the Contractor's HSE performance.

2. The Contractor's HSE-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.

3. The Contractor's HSE-MP will be reviewed and approved by the Client before start of the works. This review shall demonstrate if the Contractor's HSE-MP covers all of the identified impacts, and has defined appropriate measures to mitigate any potential impacts.

## HSE Reporting

4. The Contractor shall prepare bi-weekly progress reports on compliance with these general conditions, the project EMP if any, and his own HSE-MP. An example format for a Contractor HSE Report is given below. It is expected that the Contractor's Reports will include information on:

• HSE management actions/measures taken, including approvals sought from local or national authorities;

- Problems encountered in relation to HSE 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 HSE aspects; and
- Observations, concerns raised and/or decisions taken with regard to HSE management during site meetings.

5. It is advisable that reporting of significant HSE incidents be done "as soon as practicable". Such incident reporting shall therefore be done individually. Also, it is advisable that the Contractor keeps his own records on health, safety and welfare of persons, and damage to property. It is advisable to include such records, as well as copies of incident reports, as appendixes to the bi-weekly reports. Example formats for an incident notification and detailed report are given below.

## Training of Contractor's Personnel

6. 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 HSE-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 HSE-MP. General topics should include:

- HSE in general (working procedures);
- Emergency procedures; and
- Social and cultural aspects (awareness raising on social issues).

#### SAMPLE HSE REPORT FORMAT Contract: Period of reporting:

#### HSE management actions/measures:

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

#### HSE Incidents:

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

#### **HSE compliance:**

Report on compliance with Contract HSE conditions, including any cases of noncompliance.

**Changes:** Report on any changes of assumptions, conditions, measures, designs and actual works in relation to HSE aspects.

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

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

Contractor Representative

#### SAMPLE FORMAT: HSE INCIDENT NOTIFICATION

Provide within 24 hrs to the Supervising Engineer Originators Reference No: Date of Incident: Time: Location of incident: Name of Person(s) involved: Employing Company: Type of Incident: Description of Incident: Where, when, what, how, who, operation in progress at the time (only factual)

#### Immediate Action:

Immediate remedial action and actions taken to prevent reoccurrence or escalation

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

Contractor Representative

#### ANNEX 4

## Indicative Framework for Assessing and Mainstreaming Gender Concerns

#### Preamble

Nigeria made several commitments to ensuring that gender issues are not only a part of the national discourse but also that they are integrated into policies and development programs. These commitments are contained in frameworks such as the Vision 20:2020 Plan, the National gender Policy and the United Nations' MDGs framework.

To this end and as part of project preparation, a gender study and consultations with communities should be conducted to assess the challenges and opportunities for the mainstreaming of gender concerns in the use of, access to and maintenance of roads.

#### Objective

1. Ascertain how to promote women's participation in the project and in particular in road maintenance activities.

2. Determine under what conditions women could participate in the communitybased road maintenance activities.

As part of project preparation, a gender study and consultations with communities should be conducted to assess the challenges and opportunities for the mainstreaming of gender concerns in the use of, access to and maintenance of roads.

#### Focus/Scope of the Study

In particular, the study should provide information on:

- **Women's transport needs**: aims to assess women's transport needs and identify ways to address such needs, including during road selection.

- **Women's voice in community consultation**: aims to identify mechanisms to ensure women's preferences are reflected in community consultations, whether for consultations on social safeguards or road selection.

- **Women's participation in community-based maintenance**: aims to identify context-specific entry points and mechanisms (e.g. quotas) for women's participation in the maintenance of rehabilitated roads.

- **Project impact on women's livelihoods**: recommend indicators or give indications on sex-disaggregation of existing indicators to reflect the project direct and indirect impact on women's livelihoods.

# ANNEX 5

# Standard Format for Environmental and Social Management Plan (ESMP)

EXECUTIVE SUMMARY

- 1. PROJECT DESCRIPTION
- 1.1. Overview of the State (s) where the specific road is passing through
- 1.2. List of Selected "Unity" roads
- 1.3. Environmental Screening Category

2. POLICY AND ADMINISTRATIVE AND LEGAL FRAMEWORK

- 3. ROAD-SPECIFIC ESMPs (FOR EACH ROAD IN A PHASE):
- 3.1. Location and Existing Alignment
- 3.2. Proposed Works
- 3.3. Estimated Cost
- 3.4. Baseline Data
- 3.4.1. Land Resources
- 3.4.2. Hydrology and Water Resources
- 3.4.3. Air and Noise
- 3.4.4. Biological Resources
- 3.4.5. Socio-Economic and Cultural
- 3.5. Potential Impacts
- 3.5.1. Land Resources
- 3.5.1.1. Construction Phase
- 3.5.1.2. Post Construction Phase
- 3.5.2. Hydrology and Water Resources
- 3.5.2.1. Construction Phase
- 3.5.2.2. Post Construction Phase
- 3.5.3. Air Quality and Noise
- 3.5.3.1. Construction Phase
- 3.5.3.2. Post Construction Phase
- 3.5.4. Biological Resources
- 3.5.4.1. Construction Phase
- 3.5.4.2. Post Construction Phase
- 3.5.5. Socio-Economic and Cultural
- 3.5.5.1. Construction Phase
- 3.5.5.2. Post Construction Phase
- 3.6. Analysis of Alternatives
- 3.7. Mitigation Measures
- 3.7.1. Construction Phase
- 3.7.2. Post Construction Phase
- 3.8. Monitoring and Supervision Arrangements
- 3.9. Summary ESMP Table
- 4. ATTACHMENTS
- 4.1. Photos
- 4.2. Summary of Consultations and Disclosure
- 4.3. Other

# ANNEX 6a

## ESIA Terms of Reference (ToR) Rural Access Roads Rehabilitation and River Crossings

## INTRODUCTION

A Terms of Reference (ToR) is essentially a document that describes the purpose and structure of a project, committee, meeting, negotiation, study or contract. Nigeria's EIA Process requires that project proponents prepare Terms of Reference (ToR) for projects that require Environmental and Social Impact Assessment (ESIA). The ToR should be submitted to the authorizing agency (Federal Ministry of Environment) for review and approval.

## **1.** Typical Terms of Reference of an ESIA of Proposed Sub Project. Introduction

The environmental screening and scoping exercise shall classify the Sub Projects into the appropriate ESIA Categories. This Terms of Reference (ToR) is designed to guide the project proponent in the preparation of an Environmental and Social Impact Assessment (ESIA) in line with the national (FMEnv) regulatory requirement and the World Bank safeguard policy on environmental assessment (OP. 4.01).

## Scope of ESIA Report

FPMU will prepare and submit an ESIA report in accordance with these Terms of Reference and the environmental information prescribed by the FMEnv regulations and World Bank.

- the study area for the ESIA shall include the Project Corridor, as well as, the spatial and temporal limits of individual environmental components outside the corridor where an effect can be reasonably expected;
- the ESIA report will assist the public and government in understanding the environmental and socioeconomic consequence of the roads rehabilitation
- the ESIA shall include data gathering on the existing baseline (climate, air quality, surface water, soil, flora and fauna, geology) of the project area and a discussion on the measures to address
  - ✓ project impacts,
  - ✓ prevent or mitigate impacts
  - $\checkmark$  mitigation options, and
  - $\checkmark$  residual effects relevant to the assessment of the Project
- As appropriate for the various types of impacts, the ESIA shall discuss impact predictions in terms of magnitude, frequency, duration, seasonal timing, reversibility, and geographic extent.
- The preparation of the ESIA report will include a public consultation program (agencies, departments, communities, NGOs and other stakeholders) to assist with project scoping and issue identification. The results of these consultations will be documented as part of the ESIA report.
- The ESIA report will include a glossary of terms and a list of abbreviations to assist the reader in understanding the material presented.

## ESIA Studies / Report Preparation

ESIA studies and report preparation are the responsibilities of the project client. In the course of preparing an EIA Report of a proposed sub-project, all stakeholders should be consulted. The objective of such consultation is to identify early in the ESIA process, the worries of stakeholders regarding the impacts of the proposed sub-project in order to address such issues during the actual study and to reflect such comments in the sub-project's ESIA report.

## **ESIA Review Process**

To establish the type of review to be adopted, a draft ESIA report should be submitted to the Oyo State Ministry of Environment and Habitat and also the Federal Ministry of Environment by a client for evaluation. There are different forms of reviews, depending on the nature, scope, anticipated impact, risks, etc that may arise in project planning and implementation, and an ESIA report may be subject to any or a combination of these reviews. The various types of review are an in-house review, public review, panel review and mediation.

## In – House Review

In order to assess how far issues raised in the Terms of Reference (ToR) have been addressed and to determine if the draft ESIA reports are suitable for public review (if necessary), all draft ESIA reports forwarded to the Ministry are reviewed in-house. If the in-house review finds that the issues in the report do not merit putting it on public display, the review process may be terminated at the in-house review stage. Some projects (e.g. those that fall under Category III of the EIA Act) may be recommended for approval by the Ministry's In-House Panel of Experts.

## Public Review (Public Display)

The provisions of Section 25 of the EIA Act states that, 'interested members of the public are given the opportunity to participate in the ESIA review process through comments on project reports that are put on display'. Displays are usually done for a 21 working day period at strategic locations. Notices of such venues of display are usually published in the National and relevant State daily newspapers and information about such display are complemented with further announcements on the relevant state electronic media. Often times, the venues of displays include the Local Government Headquarters, where a project is located, the State Ministry of Environment or Environmental Protection Agency(s), The Federal Ministry of Environment. Comments received from the display venues are forwarded to the Federal Ministry of Environment and Habitat for collation and evaluation preparatory to the Review Panel meeting for the project.

## **Review Panel**

FINAL REVISED REPORT

After the public display exercise, The Federal Ministry of Environment and Oyo State Ministry of Environment and Habitat may decide to set up a review panel to review the draft ESIA report depending on the sensitivity or significance of the comments received.

The review panel meetings are held in the public so that stakeholders can utilize this opportunity to put forward their views and concerns for consideration. The choice of members of the review panel depends on the type of project, its scope as well as the ecosystem to be affected. However, the Chairman of the affected Local Government(s) and the Commissioner of Environment of the project location are always included in the Panel.

# Mediation

Projects that are likely to cause significant negative effects that are immitigable, or of public concerns are referred to Federal Ministry of Environment Ministerial council for subsequent referral to mediation. For a mediation to be set up, Ministerial Council would have been convinced that the parties involved are willing to participate in the mediation and to abide by its decisions.

# ESIA Approval

After the submission of a satisfactory final ESIA report, the Federal Ministry of Environment and Oyo State Ministry of Environment and Habitat could decide to set a number of conditions for the approval of the implementation of the project. Such conditions usually include a statement that mitigation measures highlighted in the projects ESIA report shall be complied with.

# Impact Mitigation Monitoring (IMM)

The following are the objectives of an ESIA Impact mitigation monitoring:

- Check that mitigation measures are implemented as appropriate;
- Determine whether environmental changes are as a result of project developments and/or natural variation;
- Monitor emissions and discharges at all stages of project development for compliance with regulatory standards;
- Compare effluent quality/quantity with design specifications and statutory standards;
- Determine the effectiveness of Environmental Management Plans, Environmental Monitoring Plans and especially the mitigation measures to predicted impacts and to also act as a feedback mechanism towards the improvement of the ESIA Evaluation and Approval process;
- Determine duration of identified impacts;
- Create a data bank for future development of predictive tools.

The Legal requirements for Impact Mitigation Monitoring in the EIA process are specified in Sections 16 (c), 17 (2) (c), 37 (c), (1), 40 (1) (a) (2), 41(1) and 41 (2) of the EIA Act as well as Section 11 of the EIA procedural guideline

Environmental Impact Monitoring is designed to monitor the Environmental and Social Management Plan (ESMP), and concerns during project operations. It is also designed to ascertain the extent to which commitments contained in EIA reports are reflected during the various phases of project development and operations.

Impact Mitigation Monitoring (IMM) exercises are conducted to assess the degree and effectiveness of the mitigation measures offered in an ESIA report. Hence, relevant documents, in-house monitoring records as they affect the project, the project implementation schedule, as well as all other documents to support the environmental good housekeeping of the project are scrutinized and verified.

In a typical Impact Mitigation Monitoring exercise, the following statutory actions are carried out,

- Facility inspection;
- Interactive session with project managers on the Mitigation Checklist for the ESIA of that sub-project;
- Interview and interaction with the action party responsible for ensuring full implementation of a particular action;
- Inspection and Verification of the parameters that shall be monitored to ensure effective implementation of that action;
- Check the timing for the implementation of the action to ensure that the objectives of mitigation are fully met;
- Interact with project Engineers and Technicians on mitigation measures that are not applicable, or not enforceable or still not practicable in line with good environmental principles with a view to finding out practical alternatives.

At the conclusion of an IMM exercise, a report should be written for the Minister/Head of Department's approval, after which, necessary suggested corrective measures would be communicated to the client.

# ANNEX 6b

## Terms of Reference (ToR) of an ESMP of Rural Access Roads Rehabilitation and River Crossings

**Guidelines for an Environmental and Social Management Plan (ESMP)** The ESMP would have the following format: 1. **Description of adverse impacts**: The anticipated impacts are identified and summarized.

2. **Description of Mitigation Measure**: Each measure is described with reference to the effects it is intended to deal with. As needed, detailed plans, designs, equipment description, and operating procedures are described.

3. **Description of monitoring program**: Monitoring provides information on the occurrence of impacts. It helps identify how well mitigation measures are working, and where better mitigation may be needed. The monitoring program should identify what information will be collected, how, where and how often. It should also indicate at what level of effect there will be a need for further mitigation. How environmental impacts are monitored is discussed below.

4. **Responsibilities**: The people, groups, or organizations that will carry out the mitigation and monitoring activities are defined, as well as to whom they report and are responsible. There may be a need to train people to carry out these responsibilities, and to provide them with equipment and supplies.

5. **Implementation Schedule**: The timing, frequency and duration of mitigation measure and monitoring are specified in an implementation schedule, and linked to the overall sub project schedule.

6. **Cost Estimates and Source of Funds**: These are specified for the mitigation and monitoring activities as a sub project is implemented.

7. **Monitoring methods**: Methods for monitoring the implementation of mitigation measures or environmental impacts should be as simple as possible, consistent with collecting useful information, so that the sub project implementer can apply them. For instance, they could just be regular observations of the sub project activities or sites during construction and then when in use. Are plant/equipment being maintained and damages repaired, does a water source look muddier/cloudier different than it should, if so, why and where is the potential source of contamination. Most observations of inappropriate behaviour or adverse impacts should lead to solutions.

# ANNEX 6c

# Sample ToR for Detailed ESIA for Agro-Logistics Hubs

The ToR shall include the following:

- Identify relevant regulations, guidelines and standards
- Establish the existing baseline ecological socio-economic and health condition of the project area.

- Identify, evaluate and predict the project environmental impacts, including the social and health impact assessment aspect.
- Develop mitigation measures that will address significant impacts the project would have on the environment.
- Assist project design and planning by identifying those aspects of location, construction, operation and decommissioning which may cause adverse environmental, social, health and economic effects
- Recommend measures during operations to avoid and ameliorate these effects and increase beneficial impacts.
- Identify the best practicable environmental options or alternatives.
- Identify any environmental/social issues and concerns that may affect the development which may include Gender Based Violence (GBV), labor influx, Child labor and underage girls abuse, community health, safety, GRM, Beneficiary feedback, etc.
- Recommend an environmental management plan (EMP) for the life of the development, including compliance, monitoring, auditing and contingency planning.

# Minimum content of an ESIA study

Section 4 of the EIA Act specifies the minimum content of an EIA to include the following;

- A description of the proposed activities;
- A description of the potential affected environment, including detailed information necessary to identify and assess the environmental effects of the proposed activities;
- A description of the practical activities;
- An assessment of the likely or potential environmental and social impacts of the proposed activity and the alternatives, including the direct or indirect, cumulative, short-term and long-term effects;
- An identification and description of measures available to mitigate negative environmental and social impacts of the proposed activity and assessment of those measures;
- An indication of gaps in knowledge and uncertainty, which may be encountered in computing the required information;
- An indication of whether the environment of any state or local government areas outside Nigeria is likely to be affected by the proposed activity or its alternatives and non technical summary of the report.

# ANNEX 6d

# Sample ToR for Detailed ESMP for Agro-Logistics Hubs

# Guidelines for an Environmental and Social Management Plan (ESMP)

The ESMP would have the following format:

1. Description of adverse impacts: The anticipated impacts are identified and summarized. These include displacement of market retailers (market men & women), labour influx, Gender Based Violence, temporary displacement of local subsistent economies, child labour, waste management, environmental impacts etc.

2. Description of Mitigation Measure: Each measure is described with reference to the effects it is intended to deal with. As needed, detailed plans, designs, construction equipment description and operating procedures are described.

3. Description of monitoring program: Monitoring provides information on the occurrence of impacts. It helps identify how well mitigation measures are working, and where better mitigation may be needed. The monitoring program should identify what information will be collected, how, where and how often. It should also indicate at what level of effect there will be a need for further mitigation. How environmental and social impacts are monitored is discussed below.

4. Responsibilities: The people, groups, or organizations that will carry out the mitigation and monitoring activities are defined, as well as to whom they report and are responsible. There may be a need to train people to carry out these responsibilities, and to provide them with equipment and supplies.

5. Implementation Schedule: The timing, frequency and duration of mitigation measure and monitoring are specified in an implementation schedule, and linked to the overall sub project schedule

6. Cost Estimates and Source of Funds: These are specified for the mitigation and monitoring activities as a sub project is implemented.

7. Monitoring methods: Methods for monitoring the implementation of mitigation measures or social and environmental impacts should be as simple as possible, consistent with collecting useful information, so that the sub project implementer can apply them. For instance, they could just be regular observations of the sub project activities or sites during construction and then when in use. Are there Gender Based Violence (GBV), labor influx, Child labor and underage girls abuse, community health, safety issues associated with the project? Does a nearby water source look muddier/cloudier different from what it use to be, if so, why and where is the potential source of contamination. Is there a report of a social survey of the existing market users and beneficiaries? Check to see if they were integrated into the current users/retailers or primary beneficiaries.

## ANNEX 7a

## Generic Checklist of Potential Impacts of a Proposed Project.

This list includes direct and indirect, secondary, cumulative, short, medium and long-term, reversible and irreversible, positive and negative potential impacts.

| POTENTIAL IMPACTS  | Estimated Magnitudes |
|--|----------------------|
| Effects on Human beings, buildings and man-<br>made features:  |                      |
| Change in population arising from the development, and consequential environmental effects.                    |                      |
| Visual effects of the Project on the surrounding area and landscape.   |                      |
| Levels and effects of emissions associated with<br>project implementation.                                     |                      |
| Levels and effects of noise from the ProjectimplementationEffects of the Project on local roads and transport. |                      |
| Effects of the Project on buildings and cultural properties.   |                      |
| Effects of the project on public health and safety Effects on flora, fauna                                     |                      |
| Loss of, and possible damage to, habitats and animal species.  |                      |
| Loss of, and possible damage to, geological, palaeontological and physiographic features.                      |                      |
| <b>Effects on land</b><br>Physical effects: change in local topography,<br>erosion control problems.           |                      |
| Effects of chemical emissions and deposits on soil from project machinery.                                     |                      |
| Land use effects: quality and quantity of Agricultural land taken up.  |                      |
| Deprivation of mineral resources   |                      |
| <ul> <li>Waste disposal</li> <li>Effects on surrounding land uses including agriculture.</li> </ul>            |                      |
| Effects on water   |                      |
| Effects of the project on the drainage pattern of the project area.  |                      |
| Changes in ground water level, water courses, flow of underground water.                                       |                      |
| Effects of pollutants on water quality.  |                      |
| Effects on air and climateLevel of concentration of gaseous emissions and<br>their environmental effects.      |                      |
| Particulate matter   |                      |

| Offensive odours   |  |
|--|--|
| General climatic changes<br>Effects on ambient temperature of the Project<br>Area  |  |
| Social issues & other indirect and secondary effects associated with the Project.  |  |
| Social issues associated with the project such as<br>Gender Based Violence, Labour Influx, social<br>conflicts etc.                              |  |
| Effects from traffic (road, air) related to the Project  |  |
| Effects arising from the extraction and consumption of materials, water, energy or other resources by the Project.                               |  |
| Effects of other activities associated with the<br>Project e.g., inflation, chance finds, road safety<br>issues for people with disabilities etc |  |
| Secondary effects resulting from the interaction of separate direct effects listed above.  |  |

\*Magnitude = low, medium or high

## ANNEX 7b

#### Steps for Environmental Assessment (EA)

The screening determines whether the proposed sub project requires a further EA (EIA/ESIA) or not. If it is determined that the project requires an EA, then the scoping is carried out to determine the coverage or scope of the EA study.

The necessary steps in conducting an EA are listed below:

## > Step 1: Scoping and Terms of Reference

- a process to identify issues relevant for EA consideration and determine assessment methods to be used.

- Terms of Reference (ToR) for the EA study is normally prepared as an output of the scoping exercise. The ToR needs to be approved by the Federal Ministry of Environment (FMEnv) and the World Bank before proceeding with the EA.

## > Step 2: Baseline Data Collection

Baseline data pertaining to physical, biological, cultural domain is collected to describe the status and trends of environmental factors against which predicted changes can be compared and evaluated.

## > Step 3: Identify Environmental Impacts

The EA exercise will identify potential impacts and assess its significance. The categories of impacts, direct, indirect or cumulative, should be indicated.

## > Step 4: Design Mitigation Measures

The mitigation measures should include analysis of project alternatives, compensatory measures, corrective measures and preventive measures.

## > Step 5: Public Consultation and Participation

The EA should consider public perspective and include them in the entire assessment process and should start early in the process.

#### > Step 6: Develop Environmental Management Action Plan (EMP)

The EMP should be developed primarily to document key environmental issues likely to arise from project implementation, prescribe mitigation measures to be integrated in the project design, design monitoring and evaluation schedules to be implemented during project construction and operation, and estimate costs required for implementing mitigation measures. This plan must be reviewed by the project management and approved before any construction activity is initiated by the subproject.

## > Step 7: Prepare EA Report

An EIA/ESIA report should be prepared in line with the Federal Ministry of Environment (FMEnv) and World Bank Format.

## > Step 8: Clearance

All EIA/ESIAs or EMP will be sent to the World Bank for review and clearance to ensure compliance with OP4.01 and any other relevant policies, procedures and guidelines.

## ANNEX 7c DESCRIPTION/CONTENT OF AN ESIA REPORT

An ESIA report shall be presented in chapters and shall include the following:

1. Chapter one shall be introduction; giving background information about the project proponent, the legal and administrative framework, the scope of work and terms of reference as well as the objectives of carrying out this EIA study.

- 2. Chapter two discusses justification for the project, stating the need and value of the project including the envisaged sustainability of the project.
- 3. Chapter three shall give the description of the project, project design, project works, operations, waste streams/handling and project schedule.
- 4. Chapter four describes the ecological, socio-economic and health baseline data acquired.
- 5. Chapter five discusses associated/potential impacts of the proposed project.
- 6. Chapter six proffers mitigating/ameliorating measures for addressing negative impacts of the project.
- 7. Chapter seven presents a pragmatic Environmental Management Plan (EMP) including a monitoring program to be adopted for the project.
- 8. Chapter eight presents the decommissioning/abandonment plan for the project while Chapter nine presents the conclusion of the report.
- 9. A list of literature consulted shall be presented in bibliography while all the other relevant descriptive materials and environmental data are presented as appendices.

## ANNEX 8

# Sample Chance Find Procedure for the Protection of Physical Cultural Resources.

The Federal Ministry of Culture and Tourism is responsible for the protection of Physical Cultural Resources.

Chance find procedures will be used as follows:

a) Stop the construction activities in the area of the chance find;

b) Delineate the discovered site or area;

c) 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 present until the responsible local authorities and the equivalent take over;

d) Notify the supervisory Engineer who in turn will notify the SPIU and FPMU who in turn will notify the national authority responsible for Antiquities immediately (within 24 hours or less):

e) Responsible local authorities and the national authority for Antiquities would be in charge of protecting and preserving the site before deciding on subsequent appropriate procedures. This would require a preliminary evaluation of the findings to be performed by the archaeologists of the national authority of Antiquities (within 72 hours). The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage; those include the aesthetic, historic, scientific or research, social and economic values:

f) 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 are irremovable remain of cultural or archaeological importance) conservation, preservation, restoration and salvage;

q) Implementation for the authority decision concerning the management of the finding shall be communicated in writing and

h) Construction work could resume only after permission is given from the responsible authority for Antiquities concerning safeguard of the heritage.

These procedures must be referred to as standard provisions in construction contracts, when applicable.

During project supervision, the SPIU and FPMU shall monitor the above regulations relating to the treatment of any chance find encountered.

|     | LIST OF THOSE ( | CONSULTED IN THE ESMF FOR R   | AAMP      |
|-----|-----------------|-------------------------------|-----------|
| S/N | NAME            | <b>COMMUNITY/ORGANISATION</b> | TELEPHONE |
| -   |                 |                               | NO.       |

SPC Ogun RAAM,P

Dcom Specialist, Ogun RAAMP

0803 711 7333

0803 405 0367

# **ANNEY Q**

Engr. Say Onabanjo

Segun Adeleve

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|-----|--------------------------|---|---------------|
| 3.  | Engr. Olaniran O.R       | Infrastructure Engr., Ogun<br>RAAMP     | 0803 719 2101 |
| 4.  | David O. Abiola          | Procurement Specialist, Ogun<br>RAAMP   | 0803 539 5751 |
| 5.  | Adeniram S.O             | Auditor, Ogun RAAMP                     | 0803 333 3192 |
| 6.  | Erhunmwunfe O.M          | Project accountant                      | 0803 377 3524 |
| 7.  | Engr Funmi               | Monitoring and Evaluation               | 0806 300 394  |
|     | Adegbesan                | Specialist                              |               |
| 8.  | James Eze                | Senior Special Assistant Media, to      | 0803 309 0972 |
|     |                          | Anambra Governor                        |               |
| 9.  | Engr Joe                 | SPC Anambra RAAMP                       | 0803 653 6170 |
|     | Onyejekwe                |   |               |
| 10. | Engr Obiudu Chidi        | Ministry of Works, Anambra              | 0806 400 1560 |
| 11. | Engr Ifedi Odera         | Ministry of Agriculture, Anambra        | 0803 733 2841 |
| 12. | Augustina                | RAAMP Anambra                           | 0803 751 7347 |
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| 13. | Angela Okoli             | RAAMP Anambra                           | 0803 430 8378 |
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| 15. | Dr. John Babington       | SPC, Abia RAAMP                         | 0818 798 5653 |
| 16. | Obinna Aguoche           | Procurement Officer, Abia RAAMP         | 0806 887 7353 |
| 17. | Engr Justin Nwogu        | Infrastructure Engr. Abia RAAMP         | 0803 084 3959 |
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| 19. | Kalu Chinyere C.         | Project Accountant, Abia RAAMP          | 0803 543 0734 |
| 20. | Orji Daniel O.           | M/E Specialist, Abia RAAMP              | 0806 6285637  |
| 21. | Mr. Olorunnegan Z.       | SPC, Ondo RAAMP                         | 0803 352 9540 |
| 22. | Dada Olusola             | Procurement Officer, Ondo<br>RAAMP      | 0803 350 0474 |
| 23. | Yomi-Martins A.          | Communication officer, Ondo<br>RAAMP    | 0806 043 9074 |
| 24. | Adelanmi Femi            | Project Engr Ondo RAAMP                 | 0703 551 8607 |
| 25. | Owolabi Olufunke         | ESG, Ondo RAAMP                         | 0803 584 8675 |
| 26. | Elder Gideon C.          | SPC, Akwa Ibom RAAMP                    | 0808 034 5445 |
|     | Akpan                    |   |               |
| 27. | Ekong J. Inyang          | Akwa Ibom RAAMP                         | 0806 254 3943 |
| 28. | Nse Abasi R. Udom        | Akwa Ibom RAAMP                         | 0803 573 4014 |
| 29. | Eminor Elebe             | Akwa Ibom RAAMP                         | 0803 760 3800 |
| 30. | Charles N. Okongoh       | SPC, Cross River RAAMP                  | 0803 702 9993 |
| 31. | Nkebem Alice A.          | Project Secretary, Cross River<br>RAAMP | 0806 360 8317 |
| 32. | Engr. Benson             | Cross River RAAMP                       | 0803 549 3335 |
|     | Ogban                    |   |               |
| 33. | Ogban<br>Engr. R.O Alabi | SPC, Kogi State RAAMP                   | 0803 587 2378 |

|     | Abubakar                    |                                |             |
|-----|-----------------------------|--------------------------------|-------------|
| 43. | Tambuwal<br>Abdulrazaq      | RAAMP Sokoto                   | 08038338056 |
| 11  | Abubakar<br>Muhammad N.     | RAAMP Sokoto                   | 08067870879 |
| 44. | Adamu                       | KAAMP SOKOLO                   | 08067870879 |
| 45. | Nasiru Bello                | RAAMP Sokoto                   | 08067786524 |
| 46. | Abubakar Abbas              | RAAMP Sokoto                   | 07038689397 |
| 47. | Mustapha A.S.               | RAAMP Sokoto                   | 08068238271 |
| 48. | Engr. Idris Adamu           | SPC Kebbi RAAMP                | 08060053452 |
| 49. | Engr. Bello B.<br>Mohammed  | Civil Engineer                 | 08065955345 |
| 50. | Engr. Mohammed<br>Jega      | Procurements                   | 08032405733 |
| 51. | Alh. Ahmadu<br>Hodiyo       | Sarkin Kebbi Kandi             |             |
| 52. | Engr. Falalu<br>Hussaini    | SPIU, Katsina RAAMP            | 08066202459 |
| 53. | Engr. Yusuf Yahaya          | SPIU, Katsina RAAMP            | 08069522287 |
| 54. | Hussaini Usman              | K & A Ltd, Katsina State       | 07034610513 |
| 55. | Engr. Sunusi S.<br>Sulaiman | RAAMP Kano                     | 08053303749 |
| 56. | Engr. Rabiu Sanka           | RAAMP Kano                     | 08028714000 |
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|     | Engr. Matawal D.            | SPC, Plateau RAAMP             | 08037000081 |
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| 62. | Thomas G.                   | Environmental Officer, Plateau | 08036187940 |
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| 62 |                 |                              | 00005074060   |
|----|-----------------|------------------------------|---------------|
| 63 | Davida Kaze     | Project Accountant Plateau   | 08035074268   |
|    |                 | RAAMP                        |               |
| 64 | Samuel Obadiah  | Roads Engr. Plateau RAAMP    | 08036275828   |
| 65 | Engr. Akorede   | SPC, Kwara RAAMP             | 08035815091   |
|    | Wahab           |                              |               |
| 66 | Mohammed Dily   | Borno State Commissioner for | 0803 548 5752 |
|    |                 | Agriculture                  |               |
| 67 | Malami Umar     | SPC, Sokoto RAAMP            | 0803 606 7476 |
| 68 | Mr. Chuntai     | SA on Agriculture to Taraba  | 0803 786 9819 |
|    |                 | Governor                     |               |
| 69 | Zaki Tor Julius | Benue community leader       |               |
|    | Nege            |                              |               |

#### ANNEX 10 Sample Company Code of Conduct Preventing Gender Based Violence and Violence Against Children

The company is committed to creating and maintaining an environment in which gender based violence (GBV) and violence against children (VAC) have no place,

and where they will not be tolerated by any employee, associate, or representative of the company. Therefore, in order to ensure that all those engaged in the project are aware of this commitment, and in order to prevent, be aware of, and respond to any allegations of GBV and VAC, the company commits to the following core principles and minimum standards of behaviour that will apply to all company employees, associates, and representatives including sub-contractors, without exception:

- 1. The company and therefore all employees, associates, and representatives commit to treating women, children (persons under the age of 18), and men with respect regardless of race, color, language, religion, political or other opinion, national, ethnic or social origin, property, disability, birth or other status. Acts of GBV and VAC are in violation of this commitment.
- 2. Demeaning, threatening, harassing, abusive, culturally inappropriate, or sexually provocative language and behavior are prohibited among all company employees, associates, and its representatives.
- 3. 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.
- 4. In addition to company sanctions, legal prosecution of those who commit acts of GBV or VAC will be pursued if appropriate.
- 5. Sexual contact or activity with children under 18—including through digital media—is prohibited. Mistaken belief regarding the age of a child is not a defense. Consent from the child is also not a defense or excuse.
- 6. Sexual favors—for instance, making promises or favorable treatment dependent on sexual acts—or other forms of humiliating, degrading or exploitative behavior are prohibited.
- 7. Unless there is full consent<sup>1</sup> 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.
- 8. All employees, including volunteers and sub-contractors are highly encouraged to report suspected or actual acts of GBV and/or VAC by a

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

fellow worker, whether in the same company or not. Reports must be made in accordance with GBV and VAC Allegation Procedures.

9. 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:

- 10. 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'.
- 11. All employees sign the project's 'Individual Code of Conduct' confirming their agreement not to engage in activities resulting in GBV or VAC.
- 12. Displaying the Company and Individual Codes of Conduct prominently and in clear view at workers' camps, offices, and in in public areas of the work space. Examples of areas include waiting, rest and lobby areas of sites, canteen areas, health clinics.
- 13. 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.
- 14. 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).
- 15. Ensuring that an effective Action Plan is developed in consultation with the GCCT which includes as a minimum:
  - a. **GBV and VAC Allegation Procedure** to report GBV and VAC issues through the project Grievance Redress Mechanism (GRM);
  - b. **Accountability Measures** to protect confidentiality of all involved; and,
  - c. **Response Protocol** applicable to GBV and VAC survivors and perpetrators.
- 16. That the company effectively implements the Action Plan, providing feedback to the GCCT for improvements and updates as appropriate.
- 17. 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.
- 18. 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:         |  |

## Sample Manager's Code of Conduct

# **Preventing Gender Based Violence and Violence Against Children**

Managers at all levels have particular responsibilities to uphold the company's commitment to preventing and addressing GBV and VAC. This means that managers have an acute responsibility to create and maintain an environment that prevents GBV and VAC. Managers need to support and promote the implementation of the Company Code of Conduct. To that end, managers must adhere this Manager's Code of Conduct and also sign the Individual Code of Conduct. This commits them to supporting and developing systems that facilitate the implementation of the Action Plan and maintain a GBV-free and VAC-free environment at the workplace and in the local community. These responsibilities include but are not limited to:

## Implementation

- 1. To ensure maximum effectiveness of the Company and Individual
  - Codes of Conduct:
    - a. Prominently displaying the Company and Individual Codes of Conduct in clear view at workers' camps, offices, and in in public areas of the work space. Examples of areas include waiting, rest and lobby areas of sites, canteen areas, health clinics.
    - b. 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.
- 2. Verbally and in writing explain the Company and Individual Codes of Conduct to all staff.
- 3. Ensure that:
  - a. All direct reports sign the 'Individual Code of Conduct', including acknowledgment that they have read and agree with the Code of Conduct.
  - b. Staff lists and signed copies of the Individual Code of Conduct are provided to the GCCT and the client.
  - c. Participate in training and ensure that staff also participate as outlined below.
  - d. Staff are familiar with the Grievance Redress Mechanism (GRM) and that they can use it to anonymously report concerns of GBV or VAC incidents.
  - e. 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.
- 4. 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.

- 5. Ensure that when engaging in partnership, sub-contractor or similar agreements, these agreements:
  - a. Incorporate the GBV and VAC Codes of Conduct as an attachment.
  - b. Include the appropriate language requiring such contracting entities and individuals, and their employees and volunteers, to comply with the Individual Codes of Conduct.
  - c. 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.
- 6. Provide support and resources to the GCCT to create and disseminate internal sensitization initiatives through the awareness-raising strategy under the Action Plan.
- 7. Ensure that any GBV or VAC issue warranting police action is reported to the client and the World Bank immediately.

## Training

- 8. 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.
- 9. 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.
- 10. 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.
- 11. 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.
- 12. Collect satisfaction surveys to evaluate training experiences and provide advice on improving the effectiveness of training.

## Response

- 13. 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.
- 14. 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).

- 15. 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.
- 16. 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 <u>14 days</u> from the date on which the decision to sanction was made.
- 17. 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:
  - a. Informal warning.
  - b. Formal warning.
  - c. Additional Training.
  - d. Loss of up to one week's salary.
  - e. Suspension of employment (without payment of salary), for a minimum period of 1 month up to a maximum of 6 months.
  - f. Termination of employment.
- 18. 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:

Preventing Gender Based Violence and Violence Against Children

I, \_\_\_\_\_\_, acknowledge that preventing gender based violence (GBV) and violence against children (VAC) is important. The company considers that GBV or VAC activities constitute acts of gross misconduct and are therefore grounds for sanctions, penalties or potential termination of employment. All forms of GBV or VAC are unacceptable be it on the work site, the work site surroundings, or at worker's camps. Prosecution of those who commit GBV or VAC may be pursued if appropriate.

I agree that while working on the project I will:

- Consent to police background check.
- Treat women, children (persons under the age of 18), and men with respect regardless of race, color, language, religion, political or other opinion, national, ethnic or social origin, property, disability, birth or other status.
- Not use language or behavior towards women, children or men that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate.
- Not participate in sexual contact or activity with children—including grooming, or contact through digital media. Mistaken belief regarding the age of a child is not a defense. Consent from the child is also not a defense or excuse.
- Not engage in sexual favors—for instance, making promises or favorable treatment dependent on sexual acts—or other forms of humiliating, degrading or exploitative behavior.
- Unless there is the full consent<sup>2</sup> 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.

 $<sup>^{2}</sup>$  **Consent** is defined as the informed choice underlying an individual's free and voluntary intention, acceptance or agreement to do something. No consent can be found when such acceptance or agreement is obtained through the use of threats, force or other forms of coercion, abduction, fraud, deception, or misrepresentation. In accordance with the United Nations Convention on the Rights of the Child, the World Bank considers that consent cannot be given by children under the age of 18, even in the event that national legislation of the country into which the Code of Conduct is introduced has a lower age. Mistaken belief regarding the age of the child and consent from the child is not a defense.

- 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 labor 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 labor laws in relation to child labor.

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

| Signature:    |  |
|---------------|--|
| Printed Name: |  |
| Title:        |  |
| Date:         |  |

#### ANNEX 11 SAMPLE CAMP MANAGEMENT PLAN

Company X (the Company) has developed this Camp Management Plan as part of its Environmental and Social Management Plan (ESMP) outlining a range of mitigation measures designed to avoid or reduce undesired camp management impacts during construction. This document establishes a basis and template for use by the Contractor(s) to develop their own plans outlining not only mitigation measures but to also incorporate the roles and responsibilities described in the ESMP.

The objectives of the Camp Management Plan are:

- Avoid or reduce negative impacts on the community and maintain constructive relationships between local communities and workers' camps; and
- Establish standards on worker welfare and living conditions at the camps that provide a healthy, safe and comfortable environment.

This Plan should be read in conjunction with other environmental and social management plans (ESMPs), if available including:

- Traffic Management Plan
- Security Plan
- HSSE Management System
- Stakeholder Engagement Plan

## Legal Requirements and Grievances

The Contractor is required to operate within the parameters of the Nigeria Labour Law and the International Labour Organization guidelines. The World Bank Performance Standards are applicable to RAAMP and its sub projects. Furthermore, the Grievance Redress Mechanism contained in this ESMF is required to be adhered to by the Contractor.

Contractor personnel shall conduct regular safety walks and an HSE committee will track performance against requirements stipulated in this plan. The Contractor will also have its grievance mechanism developed for the project. Additionally, Contractor would be required to sign and acknowledge the Code of Conduct and agree to abide by its provisions.

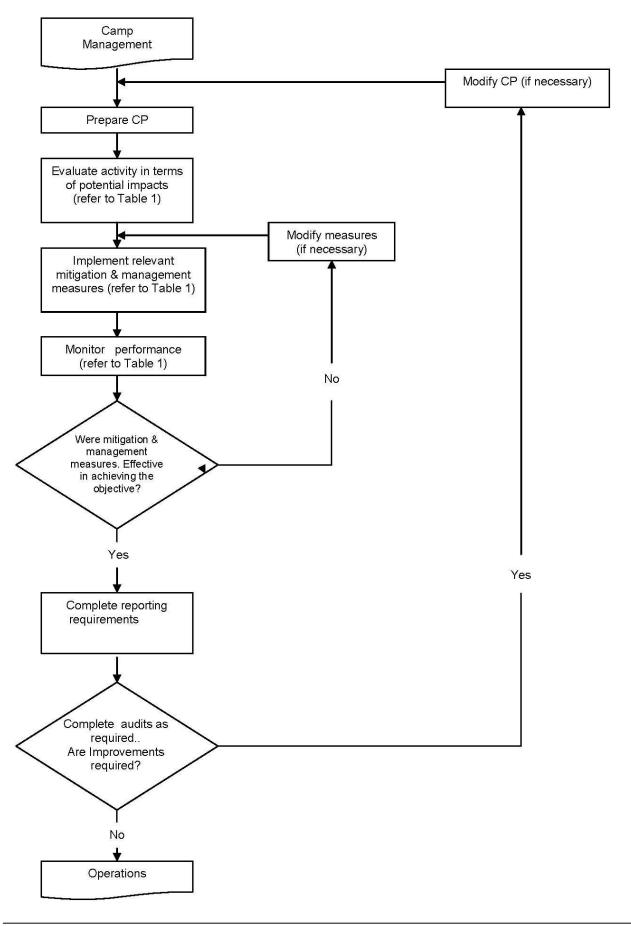
## Management and Monitoring

Figure 1 presents a flow chart summarising key management steps associated with implementation and review of this Plan, including steps to allow for continued improvement. Table 1 presents a summary of the potential impacts related to camp activities, together with mitigation and management measures to avoid or reduce these impacts, and the monitoring required to assess the performance of these measures.

The Contractor shall develop a Contractor Plan which shall, as a minimum, incorporate the camp management measures described in Table 1. The Contractor shall not be limited to these measures.

Monitoring to be undertaken as part of this Plan is described in Table 1.The Contractor is responsible for developing area or site-specific procedures for the monitoring program (where necessary) based upon the final design details of the infrastructure

#### Figure 1: Camp Management Process



| Table 1: Management and Monitoring           Assert         Detential impact         Mitigation 8: Management |  |   |  |  |   |
|---|--|---|--|--|---|
| Aspect  | Potential impact   | Mitigation & Management   | Monitoring   | Frequency  | Responsibility  |
| Community<br>Relations  | <ul> <li>Unauthorised movements of construction workers (during and after working hours) could result in trespassing, damage to local land and property and create amongst local residents a sense of their privacy being invaded.</li> <li>Residents may feel vulnerable and there may be increasing incidents of crime and or violence (GBV etc) and threats to the safety of community members.</li> <li>Disparity of pay, increase in disposable income and potential availability of illegal substances, illicit or culturally inappropriate lifestyle choices, leading to increased tension between local communities and the workers at camps.</li> </ul> | <ol> <li>Contractor shall enforce a 'closed' camp policy<br/>unless otherwise agreed and approved by<br/>Company. Workers will comply with the agreed<br/>camp closure hours.</li> <li>Contractor shall implement suitable measures to<br/>maintain the closed camp policy which may<br/>include perimeter security fences, security<br/>controls and guard houses, monitoring transfer<br/>of goods into and out of camps for contraband<br/>and stolen goods. Contractor should refer to the<br/>Project Security Management Plan.</li> <li>Contractor, as appropriate, shall provide<br/>adequate recreation facilities for workers to<br/>reduce incentive for leaving camps during<br/>leisure time.</li> <li>Contractor shall limit workers interaction with<br/>the community when outside the camp e.g., by<br/>organising transport directly to and from the<br/>worksite.</li> <li>If community members or local businesses<br/>express grievances in relation to camp related<br/>activities/operations, the Project shall respond<br/>to the grievance in accordance with the<br/>Grievance Redress Mechanism contained in the<br/>ESMF.</li> <li>FPMU/SPIU may request that camp related<br/>activities/operations be amended to address<br/>community grievances. Contractor shall comply<br/>with these requests.</li> <li>Workers shall abide by camp rules which include<br/>a disciplinary process to be developed by the<br/>contractor once appointed.</li> <li>The Project shall, be cognisant of the</li> </ol> | <ol> <li>Monitoring</li> <li>Verification</li> <li>Verification</li> <li>Verification</li> <li>Notification</li> <li>Verification</li> <li>Verification</li> <li>Verification</li> <li>Verification</li> </ol> | <ol> <li>On-going</li> <li>Every 3<br/>months</li> <li>Every 6<br/>months</li> <li>On-going</li> <li>On-going</li> <li>On-going</li> <li>Every 3<br/>months</li> <li>On-going</li> <li>Every 3<br/>months</li> </ol> | <ol> <li>Contractor</li> <li>Contractor</li> <li>Contractor</li> <li>Contractor</li> <li>Contractor         <ul> <li>and</li> <li>FPMU/SPIU</li> <li>Contractor</li></ul></li></ol> |

#### Table 1: Management and Monitoring

| Aspect | Potential impact   | Mitigation & Management   | Monitoring   | Frequency  | Responsibility |
|--------|--|---|--------------|--|----------------|
|        |  | <ul> <li>environment in which it works and shall, where practicable, respect local cultural events such as religious events, funerals and the like.</li> <li>9. The Project shall provide training to all workers on camp management including: <ul> <li>a. A briefing on camp rules, including closed camp policy, behaviour between fellow workers and the community;</li> <li>b. Procedures for dealing with camp related complaints, worker issues and community issues and</li> <li>c. Community relations orientation. The objective of this orientation will be to increase awareness about the local area and cultural sensitivities.</li> </ul> </li> </ul>  |              |  |                |
| Health | Potential interaction between<br>workers, persons engaged in illicit<br>activities and the community<br>increases the risk of spreading<br>communicable diseases,<br>particularly in more remote<br>communities.<br>Camp operations have the<br>potential to develop favourable<br>conditions for pests and disease,<br>which could impact the health of<br>workers and the community, as<br>well as affect community<br>livelihoods (e.g. rodent infestation<br>affecting crops). | <ol> <li>Contractor shall comply with the Minimum Health<br/>Requirements for Project Execution and the<br/>Community Health and Safety Management Plan<br/>which set out requirements and management<br/>measures on controlling communicable diseases<br/>within camps and to outside communities</li> <li>Contractor shall enforce the closed camp policy<br/>to limit interaction with community</li> <li>The Contractor shall develop a Pathogen and<br/>Pest Management Plan to prevent pathogens and<br/>pests from entering the camps and spreading<br/>outside the camps.</li> <li>Posters and informational sessions will be<br/>conducted to raise awareness among the<br/>workforce and communities locally around the<br/>worker camps.</li> </ol> | Verification | <ol> <li>Every<br/>three<br/>months</li> <li>On-going</li> <li>Every<br/>three<br/>months</li> </ol> | Contractor     |

| Aspect  | Potential impact   | Mitigation & Management   | Monitoring   | Frequency  | Responsibility   |
|---|--|---|--|--|--|
| Waste<br>management,<br>pollution and<br>environmental<br>impacts | Camp has the potential to have<br>off site pollution impacts from<br>waste disposal, emissions and<br>spills. Camp operations may also<br>cause environmental issues<br>including deteriorating water<br>quality, erosion, sedimentation,<br>noise and air quality issues. These<br>factors have the potential to<br>affect the community if not<br>adequately managed.  | <ol> <li>Contractor shall exercise all reasonable due<br/>diligence to conduct its operations in a manner<br/>that will minimize pollution.</li> <li>Contractor shall comply with the Waste<br/>Management Plan and Hazardous Materials<br/>Management Plan which define requirements to<br/>contain, transport, handle and dispose of camp<br/>wastes and hazardous materials to avoid impacts<br/>to human health and the environment.</li> <li>Contractor shall also apply appropriate mitigation<br/>measures as contained in this ESMF.</li> </ol> | <ol> <li>Verification</li> <li>Verification</li> <li>Notification</li> </ol> | On-going   | Contractor   |
| Community<br>resources  | <ul> <li>Any infrastructure, services or resources used by camps (e.g. water abstraction) that result in reductions/ shortage/interruptions for the local community will have a negative impact.</li> <li>There is potential for social envy and increased resentment from the community towards the Project and project team if camp facilities are perceived to be superior to those in the community. Services of note include camp health facilities, power supply, clean running water. Restricted ability to access these services may increase frustration at the level of the services available to them.</li> </ul> | <ol> <li>Contractor shall utilise water sources for camp<br/>use in a manner that minimises impacts on local<br/>supply and use. Where necessary, water supply<br/>should be sought outside of the community<br/>source(s).</li> <li>The Project shall routinely monitor quality and<br/>supply of water source used by camp through<br/>quarterly sampling exercises.</li> <li>Contractors shall be encouraged to extend<br/>Corporate Social Responsibility projects to host<br/>communities.</li> </ol>  | <ol> <li>Verification</li> <li>On-going</li> <li>Verification</li> </ol>     | <ol> <li>Prior to<br/>establishin<br/>g the<br/>camps</li> <li>Every 3<br/>months</li> <li>Annual</li> </ol> | <ol> <li>Contractor</li> <li>Contractor &amp;<br/>SPIU     </li> </ol> |

| Aspect                                | Potential impact   | Mitigation & Management  | Monitoring   | Frequency   | Responsibility               |
|---------------------------------------|--|--|--------------|---|------------------------------|
| Procurement<br>and supply of<br>goods | Increased demand for food and<br>other provisions may deplete<br>natural resources e.g. agriculture,<br>fisheries, etc. potentially causing<br>shortages of supply in the local<br>community, and/or increasing the<br>price of goods, affecting<br>affordability for local<br>communities.  | The Project shall not purchase products in the local<br>community unless through formal contracts with<br>approved suppliers.  | Verification | On-going  | Contractor                   |
| Camp location                         | <ul> <li>Siting of camps may result in displacement of residents, loss of productive lands and the resources upon these lands. Camps may also restrict or impede access to areas for the local community.</li> <li>Construction camps may result in a noticeable increase in traffic, noise, air emissions and light intrusion which could negatively affect the amenity and lifestyle of nearby communities and pose a potential safety issue.</li> </ul> | <ol> <li>Potential camp locations will be selected in<br/>consultation with FPMU/SPIU and affected<br/>communities will be subsequently consulted.<br/>Necessary permits will be obtained from the<br/>relevant Local Authorities for the approved camp<br/>location.</li> <li>The Project shall refer to those Environmental &amp;<br/>Social Management Plan's (ESMP) that include<br/>mitigation/avoidance measures that relate to the<br/>local community, including:         <ul> <li>Noise and Vibration Management Plan;</li> <li>Air Emissions Management Plan.</li> </ul> </li> </ol> |              | <ol> <li>Prior to<br/>establishin<br/>g the<br/>camp</li> <li>On-going</li> </ol> | Contractor and/or<br>Company |
| Labour Influx                         | There is a likelihood of influx of<br>non local labour into areas around<br>the construction camps. However,<br>people from outside of the local<br>area may migrate into existing<br>settlements or develop new<br>settlements in proximity to camps<br>and the Project area. Labour<br>Influx can result in disputes and   | <ul> <li>Contractor shall enforce a 'closed' camp policy.<br/>This is intended to deter individuals setting up<br/>near camp.</li> <li>Contractor shall develop a Labour Influx<br/>Management Plan.</li> <li>Contractor is to coordinate with Local government<br/>to ensure that no illegal and unsafe settlements<br/>develop.</li> <li>Contractor shall eview and ensure adherence to</li> </ul>   | Verification | On-going  | Contractor and<br>FPMU/SPIU  |

| Aspect                                     | Potential impact  | Mitigation & Management  | Monitoring   | Frequency | Responsibility |
|--|---|--|--------------|-----------|----------------|
|  | sometimes violence between the<br>new settlers and the resident<br>community. Migrants moving into<br>existing settlements may increase<br>demand and inflate prices for<br>housing, goods and services.<br>Increased population and<br>development of new and<br>uncontrolled settlements increase<br>pressure on infrastructure,<br>services and resources. Major<br>labour influx related risks include<br>workers' sexual relations with<br>minors and resulting pregnancies,<br>presence of sex workers in the<br>community, the spread of<br>HIV/AIDS, sexual harassment of<br>female employees, child labour<br>and abuse, increased drop out<br>rates from school, poor labour<br>practice and lack of road safety. | labour influx management plan.   |              |           |                |
| Worker welfare<br>and living<br>conditions | Construction workers living in<br>camps may encounter stresses<br>and discomforts that negatively<br>impact their health and welfare.<br>These stressors or discomforts<br>may be caused by Poor living<br>conditions (accommodation,<br>ablution and sanitary, health,<br>recreation catering and laundry).  | Contractor shall comply with minimum standards for<br>camp buildings, facilities and services in line with the<br>Bank standard or as contained in the Project<br>Invitation to Tender (ITT) requirements. | Verification | On-going  | Contractor     |
|  | Cultural issues (nationality,<br>religion, discrimination, GBV and<br>harassment, etc.).  | Contractor shall ensure that applicable ESMF mitigation measures for specific issues are applied.  | Verification | On-going  | Contractor     |

| Aspect | Potential impact   | Mitigation & Management   | Monitoring   | Frequency  | Responsibility |
|--------|--|---|--------------|--|----------------|
|        |  | <ul> <li>Contractor may provide prayer rooms and other facilities, as necessary and to the extent practicable, to satisfy the religious needs and customs of its workforce.</li> <li>Contractor's personnel shall not engage in any discrimination, GBV, SEA or harassing behaviour. Contractor shall establish an Equal Opportunity Policy to promote non-discrimination in accordance with Labour and Worker Conditions Management Plan.</li> <li>Contractor shall implement a worker grievance procedure to address grievances between workers.</li> </ul> |              |  |                |
|        | Mental health issues (morale,<br>isolation, family attachments,<br>boredom). | <ol> <li>Camps will be treated as closed camps. Camp<br/>rules in relation to alcohol consumption and drug<br/>prohibition will be complied with.</li> <li>Contractor shall provide recreational facilities<br/>where practicable.</li> <li>Contractor will provide counselling for all<br/>workers, with no discrimination by race, sex or<br/>religion.</li> </ol>  | Verification | <ol> <li>On-going</li> <li>Every 6<br/>months</li> </ol> | Contractor     |
|        | Personal security (crime, and emergencies).                                  | <ul> <li>Camps will be controlled by security to avoid<br/>intrusions from outside community.</li> <li>Work Site Security Plan to be developed by<br/>Contractor shall include security measures to be<br/>provided at the camps which may include<br/>fencing, locks, alarms, pass card systems, badge<br/>and pass system, access points, safe transport of<br/>personnel as appropriate.</li> <li>Contractor shall develop an Emergency Response<br/>Plan that meets requirements set out in ITT<br/>package</li> </ul>                                    | Verification | Prior to<br>establishing<br>camp                         | Contractor     |

| Aspect              | Potential impact   | Mitigation & Management   | Monitoring   | Frequency | Responsibility              |
|---------------------|--|---|--------------|-----------|-----------------------------|
|                     | Environmental stress (climate, noise etc.).  | <ul> <li>Contractor shall comply with Minimum Health requirements for Project Execution including the following:</li> <li>Accommodation will be designed to suit climatic conditions;</li> <li>Accommodation and surroundings shall be constructed so that noise does not interfere with sleep to the extent that is reasonably practicable; and</li> <li>Health and hygiene inspections shall be carried out.</li> </ul>   | Verification | On-going  | Contractor                  |
| Decommissio<br>ning | <ul> <li>Decommissioning of camps has<br/>several potential impacts:</li> <li>Local employment and provision<br/>of local goods and services at<br/>camps will no longer be required;</li> <li>Locals employed and previously<br/>accommodated in camps will no<br/>longer have access to services<br/>and benefits available at camps<br/>(e.g. health services, recreation<br/>facilities); and</li> <li>Infrastructure which provides<br/>benefits to communities may no<br/>longer be maintained (e.g. roads,<br/>camp boreholes ) and may be<br/>decommissioned and removed.</li> </ul> | <ul> <li>Contractor is to follow retrenchment procedure contained in Labour and Worker Conditions Management Plan (if available)</li> <li>Where Community requests, some infrastructure and services may be retained as advised by the FPMU and the World Bank:         <ul> <li>Disturbed areas will be reinstated;</li> <li>Where practicable, Contractor will return camp areas to former landforms;</li> <li>No facilities will be maintained in or near especially environmentally or socially sensitive areas; and</li> <li>Where there are negative consequences of induced access, the facility will also be decommissioned and the area reinstated.</li> </ul> </li> </ul> | Verification | On-going  | Contractor and<br>FPMU/SPIU |

## Roles and Responsibilities

The implementation of this plan requires consistent and committed resources from the FPMU/SPIU and Contractor. Below are the expectations of roles and responsibilities for this Plan:

- Contractor shall ensure sufficient resources are allocated on an on-going basis to meet the requirements of this Plan.
- The Contractor Plan shall describe the resources allocated to and responsible for the execution of each task and requirement contained therein, and shall describe how roles and responsibilities are communicated to relevant personnel.
- FPMU/SPIU shall ensure sufficient resources are allocated on an on-going basis to achieve effective implementation of its responsibilities in the Camp Management Plan.

## Training, Awareness and Competency

Training is a critical component to raise awareness on the various impacts and associated management functions of the Plan. As such, it is expected that:

- Contractor shall ensure that all personnel responsible for the execution of the tasks and requirements contained within this Plan are competent on the basis of education, training and experience.
- The Contractor Plan shall describe the training and awareness requirements necessary for its effective implementation.
- Contractor's training activity associated with the Contractor Plan shall be appropriately documented by means of a training needs assessment, training matrix/plan and records of training undertaken.
- Project shall ensure that personnel responsible for the execution of tasks and requirements in the Camp Management Plan are competent on the basis of education, training and experience.
- Project training activity associated with the Camp Management Plan shall be appropriately documented by means of a training needs assessment, training matrix/plan and records of training undertaken.