



FEDERAL MINISTRY OF POWER



Nigeria Distribution Sector Recovery Program (DISREP)

Environmental and Social Management
Framework (ESMF)

Draft Report

November 2020

DISREP

Nigeria Distribution
Sector Recovery
Program

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ACRONYMS AND ABBREVIATIONS

ACHPR	African Charter on Human and Peoples' Rights
BOF	Budget Office of the Federation
BPE	Bureau of Public Enterprises
CBD	Capacity Building and Development
CBN	Central Bank of Nigeria
CBOs	Community Based Organization
CEDAW	Convention on the Elimination of All Forms of Discrimination against Women
C-ESMP	Contractor's Environmental and Social Management Plan
COC	Code of Conduct
COVID-19	Corona Virus Diseases -2019
CRA	Child Rights Act
CRPD	Convention on the Rights of Persons with Disabilities
DAP	Data Aggregation Platform
DG	Director General
DISCOs	Distribution Companies
DISREP	Distribution Sector Recovery Program
DLIs	Disbursement Linked Indicators
DMO	Debt Management Office
EA	Environment Assessment
ECN	Energy Commission of Nigeria
ECOWAS	Economic Community of West African States
EHS	Environmental, Health and Safety
EHSGs	Environmental, Health and Safety Guidelines
EIA	Environmental Impact Assessment
EMS	Environmental Management Systems
EMSL	Electricity Management Services Ltd
EPA	Environmental Protection Agency
EPSRA	Electric Power Sector Reform
ESCP	Environmental and Social Commitment Plan
ESF	Environmental and Social Framework
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMF	Environmental and Social Management Framework
ESMMP	Environmental and Social Management Monitoring Plan
ESMP	Environmental and Social Management Plan
ESMS	Environmental and Social Management System
ESS	Environmental Safeguards Specialist
ESS	Environmental and Social Standards
ESSA	Environmental and Social Systems Assessment
FCT	Federal Capital Territory
FGN	Federal Government of Nigeria
FMEnv	Federal Ministry of Environment
FMLP	Federal Ministry of Labour and Productivity
FMoFBNP	Federal Ministry of Finance, Budget and National Planning
FMoP	Federal Ministry of Power
FMWASD	Federal Ministry of Women Affairs and Social Development
GBV	Gender Based Violence
GENCOs	Generation Companies
GIIP	Good International Industry Practice
HSE	Health Safety and Environment
ICCPR	International Covenant on Civil and Political Rights
ICESCR	International Covenant on Economic, Social and Cultural Rights
IDA	International Development Association
IEC	Information Education Communication
ILO	International Labour Organization
IPF	Investment Project Financing
LFN	Law of Federal Government of Nigeria
LGAs	Local Government Areas

LMP	Labour Management Procedures
MDAs	Ministries, Departments and Agencies
MSDs	Musculoskeletal Disorders
NAPTIN	National Power Training Institute of Nigeria
NBET	Nigerian Bulk Electricity Trading Company
NCDC	Nigerian Centre For Disease Control
NDPHC	Niger Delta Power Holding Company Limited
NEGIP	Nigeria Electricity and Gas Improvement Project
NELMCO	Nigeria Electricity Liability Management Company Limited
NEMSA	Nigerian Electricity Management Services Agency
NEP	Nigeria Electrification Project
NEPA	National Electricity Power Authority
NERC	Nigeria Electricity Regulatory Commission
NESREA	National Environmental Standards and Regulations Enforcement Agency
NETAP	Nigeria Electricity Transmission Project
NSO	Nigeria System Operator
NTDP	Nigeria Transmission Development Project
OHS	Occupational Health and Safety
OHSMPs	Occupational Health and Safety Management Plans
OHSMS	OHS Policy and Occupational Health and Safety Management System
ONEM	Operator of the Nigerian Electricity Market
PAPs	Project Affected Persons
PCB	Polychlorinated Biphenyls
PDOs	Program Development Objectives
PforR	Programs for Results
PHCN	Power Holding Company of Nigeria
PIP	Project Implementation Plan
PPE	Personal Protective Equipment
PSR	Power Sector Recovery
PSRP	Power Sector Recovery Program
PTFP	Presidential Task Force on Power
REA	Rural Electrification Agency
SEA	Sexual Exploitation and Abuse
SEP	Stakeholder Engagement Plan
SH	Sexual Harassment
SME _{env}	State Ministry of Environment
SOGI	Sexual Orientation and Gender Identity
SON	Standard Organization of Nigeria
TA	Technical Assistance
TCN	Transmission Company of Nigeria
TMP	Traffic Management Plan
TTL	Task Team Leader
VAC	Violence Against Children
VAC	Violence Against Children
VAPP	Violence Against Persons Prohibition Act
VES	Vehicle Emission Screening
VET	Vehicle Emission Testing
WB	World Bank
WHO	World Health Organization
WMP	Waste Management Plan

EXECUTIVE SUMMARY

ES 1: Introduction - Project Background

The World Bank has proposed a large integrated programmatic engagement to support the FGN's comprehensive reform effort starting with financing, through a PSRP Programs for Results (PforR). The programmatic engagement will involve a series of integrated operations under two streams – i) Power Sector Recovery (PSR) PforRs and ii) Distribution PforRs, to holistically address the sector issues.

Distribution PforRs - Specifically, to address power sector recovery for the distribution sub-sector, the World Bank has developed the Distribution Sector Recovery Program (DISREP). The proposed DISREP involves financing and supporting the key elements of the FGN's PSRP program of activities through the on-lending by the Bureau of Public Enterprises (BPE) to a selected number of majority private DISCOs. PforR financing is identified as the most relevant instrument for the proposed DISREP. The financing will be for implementation of a wide variety of DISCO-led activities and expenditures across the distribution sub-sector. The DISREP will be combining Program for Results (PforR), Investment Project Finance (IPF) and Technical Assistance (TA) components targeted at supporting improvement of DISCOs in their operational performance, service delivery and governance.

This Environmental and Social Management Framework (ESMF) addresses the IPF and TA components of the Program.

ES 2: Need for the project

DISREP is targeted at increasing access to electricity across Nigeria through new connections and investments that bridge the supply-demand gap. Also, investments in infrastructure rehabilitation and customer metering will improve the quality and quantity of electricity supply to those already connected as well as improve customer experience through improvements in billing accuracy for currently unmetered customers. Through the provision of new and improved connections to the power network, DISREP will contribute to reducing the current reliance on alternative, carbon-intensive energy sources such as diesel/petrol-based generators, kerosene, or firewood, which are expensive and are associated with significant health and environmental impacts, including climate impacts. The DISREP boundary will be limited to the distribution sub-sector elements of the PSRP and only those investments and interventions detailed in the NERC approved PIPs.

ES 3: Project locations

The locations where the IPF component of DISREP will support, are the eleven (11) distribution zones, overseen by the 11 privately owned distribution companies in Nigeria. The distribution companies are responsible for electricity supply in Nigeria; where their services span across the entire nation. They include the following:

S/N	Registered Name with the Corporate Affairs Commission (CAC)	Common Name	Distribution Zone
1.	Abuja Electricity Distribution Company	Abuja DISCO	Abuja Distribution Zone
2.	Benin Electricity Distribution Company	Benin DUSCO	Benin Distribution Zone
3.	Enugu Electricity Distribution Company	Enugu DISCO	Enugu Distribution Zone
4.	Eko Electricity Distribution Company	Eko DISCO	Eko Distribution Zone
5.	Ibadan Electricity Distribution Company	Ibadan DISCO	Ibadan Distribution Zone
6.	Ikeja Electricity Distribution Company	Ikeja DISCO	Ikeja Distribution Zone
7.	Jos Electricity Distribution Company	Jos DISCO	Jos Distribution Zone
8.	Kaduna Electricity Distribution Company	Kaduna DISCO	Kaduna Distribution Zone
9.	Kano Electricity Distribution Company	Kano DISCO	Kano Distribution Zone
10.	Port Harcourt Electricity Distribution Company	Port Harcourt DISCO	Port Harcourt Distribution Zone
11.	Yola Electricity Distribution Company	Yola DISCO	Yola Distribution Zone

ES 4: Project Description

DISREP is a hybrid operation, combining **Program for Results (PforR), Investment Project Finance (IPF) and Technical Assistance (TA) components** targeted at supporting the improvement of DISCOs in their operational performance, service delivery and governance. While the PforR component is expressively described in the PAD, and will be implemented by BPE, the IPF and TA components for which this ESMF addresses, are elaborately described in Chapter 3 of this ESMF report. The Transmission Company of Nigeria (TCN) will be the Implementing Agency for the IPF component of the DISREP. TCN has extensive in-house capacity and experience in undertaking procurement using World Bank funds. TCN will receive World Bank funds and undertake all procurement associated with the IPF component of the program as well as the TA component. The IPF component of the Program will involve the bulk procurement and distribution of meters to DISCOs warehouses and the procurement of a DAP for NERC. The proposed operation would involve two IPF components for: 1) the NERC DAP, and 2) the bulk procurement of meters for DISCOs.

IPF Component 1 (IPF1): NERC Data Aggregation Platform. To support NERC in addressing problems of inadequate data availability, inconsistent data quality, and irregular reporting of the sector operators, that impact their ability to monitor sector performance.

IPF Component 2 (IPF2): Bulk procurement of customer/retail meters for DISCOs to support DISCOs' implementation of metering as part of their PIPs.

Technical Assistance (TA) Component: The proposed operation would involve three TA components for: 1) PforR implementation support, 2) capacity building for DISCOs, and 3) the design of a social protection fund.

ES 5: Rationale for the ESMF

The ESMF is used when a project consists of a program and/or series of subprojects, where the entire range of environmental and social safeguard issues involved are not fully known. It involves the use of management plans that spell out mitigation and monitoring actions and responsibilities necessary to ensure safe and sound environmental and social sustainability of the project, during its implementation course. The main justification for the ESMF is embedded on the basis that the World Bank Environmental and Social Policy for IPF sets out the requirements which the Bank must follow regarding projects it supports through IPF. The ESMF serves as a statement of the policy, principles, institutional arrangements and procedures that high-level decision makers and stakeholders at the project management level will follow in implementing each sub-project so as to effectively and satisfactorily address environmental and social issues.

Objectives/Scope of the ESMF – The ESMF will provide the Transmission Company of Nigeria (TCN) and its implementing partners with an environmental and social screening process that will enable streamlined identification, assessment and mitigation of potential environmental and social risks and impacts associated with the DISREP IPF/TA components. The ESMF will be useful at all stages of the project, such as in the identification and screening of proposed activities (i) bulk procurement and transportation to DISCO warehouses; ii) procurement and installation of the DAP) , including their implementation and operation stages as well as to guide and inform decision makers on how the applicability of the Environmental and Social Standard (ESSs) are established during the implementation of sub-projects.

ESMF Methodology - This ESMF was prepared in accordance with standard procedures for environmental and social assessment including World Bank Environmental and Social Standards (ESSs), other relevant international environmental and social assessment regulations and guidelines, and the Nigerian environmental assessment guidelines

ES 6: Environmental and Social Baseline

Environmental Baseline: The project area of influence (which cuts across Nigeria) is divided into three main climatic regions: Tropical Rain Forest Region, Near Desert Region and Savannah Region. However, due to unequal elevations in different parts of the country, there are differences in temperature and rainfall distribution.

The climate in Nigeria is semi-arid in the north, and humid in the south. Due to its location, Nigeria has a tropical climate characterized by the hot and wet conditions linked with the movement of the Inter-Tropical Convergence Zone (ITCZ) north and south of the equator.

Vegetation: Savannah and Forest are the predominant types of vegetation in Nigeria. The savannah vegetation stretches from the central parts of Nigeria to the extreme northern parts. The tropical forest vegetation covers the remaining southern portion of the country and is divided into three types: i) Rain forest with tall trees, ii) Fresh water swamp consisting of both fresh and saltwater swamps and iii) Mangrove forest which is made up of mangrove vegetation.

Fauna: The species present in the country can be classified into major groups as: i) Herpetofauna (amphibians and reptiles), ii). Invertebrates (insects), iii). Birds (black kite, Egret, Robin, Songbird, Pigeon etc), iv). Mammals (Giant rat) etc. Some of these faunas maybe endangered and vulnerable to poaching.

Hydrology: There are many rivers in Nigeria but the two principal river systems are the Niger – Benue and the Chad. The Niger River, the largest in West Africa, flows 4,000 km from Guinea through Mali, Niger, Benin, and Nigeria before emptying into the Gulf of Guinea. The Benue River and largest tributary flows 1,400 km 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.

Social Baseline: Nigeria has the highest population in Africa. In 2019, its population amounts to over 200 million people and was estimated to constantly increase in the next decades. By 2050, this figure could double and reach 400 million people. In fact, in the last 50 years, Nigeria's population grew at a very high rate. The largest city of Nigeria is Lagos, which is also the largest city in all of Sub-Saharan Africa. Abuja, the Capital City of Nigeria, counted about half a million inhabitants in 2020, ranking 15th among the largest cities in Nigeria

Energy Consumption- 80% of the total electricity demand and consumption are from residential and commercial sectors. The rest is covered by the Industrial, Street Lighting and Special Tariff sectors. The share of large consumers, such as industry or large commercial areas, only represented 1% of the total electricity consumption. Electricity distribution rates vary substantially amongst the states in Nigeria. For instance, according to the projections of the Japanese International Cooperation Agency (JICA), Taraba State had the lowest electrification rate in 2010 with 21% and Lagos the highest with 96%. Out of the 13 states that registered the lowest electrification rates, 10 were located in the North-West and North-East. The 8 states with the highest electrification rates were located in the South-West or South-South.

ES 7: Public Consultations and Concerns

Stakeholder Engagement was held on the 5th and 6th of October, 2020. The consultations fulfil the requirement of ESS 10: Stakeholder Engagement and Information Disclosure. The need was to engage with critical players such as the DISCOs, NERC and TCN. A stand -alone Stakeholder Engagement Plan (SEP) has been prepared for the IPF and TA components of DISREP. A detailed summary of the consultations is provided in Chapter 9 of this report

ES 8: Risk Assessment and Impacts of the project

The ESMF describes a risk assessment methodology for identifying environmental and social risks and impacts. Some of the potential adverse environmental and social risks and impacts associated with the bulk supply and distribution of meters to DISCO warehouses; and the procurement of the DAP for NERC are identified as follows:

IPF 1: Procurement and Installation of Data Aggregation Platform

- Procurement of DAP
- DAP receiving, collection and temporary storage at shipping yards or airports
- DAP sorting and inventory
- Transportation of DAP to NERC
- Unpacking at NERC headquarters

- Installation of DAP at NERC
- Recording of data

Potential impacts include:

- OHS risks: Workers could suffer, falls and traumatic injuries
- Noise impacts are envisaged during the movement of meters and DAP equipment and materials (if the DAP will include the transportation of DAP hardware and materials) to warehouses
- Risk of Musculoskeletal Disorders (MSDs)
- Waste Generation: Unpacking of meters at DISCO headquarters or warehouses may result in generation of solid wastes from packaging materials and casings; likewise, for the DAP at NERC (if the DAP will include DAP hardware and materials). In the case of the DAP at NERC, the impacts will be minimal. The impacts qualification for this aspect only applies to the bulk supply of meters.
- Violence and Theft: In holding areas where equipment is kept, unscrupulous attitudes and behaviour could be displayed as forms of physical harassment, theft and thuggery in holding areas could occur if unauthorized or authorized personnel seek to tamper with commodities. Fist-fights are likely and other violent acts.

IPF 2: Bulk Procurement and Supply of Meters

- Procurement of Meters
- Meters receiving, collection and temporary storage at shipping yards or airports
- Meters sorting and inventory
- Transport of Meters to DISCO warehouses
- Unpacking and Storage of meters at DISCO headquarters or warehouses

Potential impacts include:

- Air Pollution: The impacts on air may arise only from fugitive dusts and carbon emissions from exhaust fumes as meters are transported to DISCOs and in the case of NERC, if the DAP will include the transportation of DAP hardware and materials
- Soil Pollution: Leakages from (oil, vehicle fuel, hydraulic fluids) may occur when vehicles are transporting meters and DAP (if the DAP will include the transportation of DAP hardware and materials) from temporary holding or storage areas to DISCOs and NERC respectively. If this occurs in areas or roads covered by earth, the possibility of oil seeping-through into the soil may occur.
- Traffic increases and travel delay: Traffic impacts may occur when heavy duty vehicles are conveying meters and DAP (if the DAP will include the transportation of DAP hardware and materials) to and from the respective DISCOs and NERC. This is likely to occur along major inter-state highways, community/town/city routes needed to be plied during supply/delivery
- Grievances, Complaints, Disruption of activities and Vandalism: Grievances from PAPs within the program area of influence. This could be with regards to traffic delay during transportation of commodities, temporary or prolonged power outages during meter supply; or poor labour and working conditions
- Labour Influx: Conflicts of interests may arise among and between workforce
- GBV/SH/SEA: Women and girls may be exposed to sexual harassment, exploitation, abuse and violence as a result of interactions with workers and possibly followers. Illicit Behaviours: Increased risk of illicit behaviour and crime (such as theft and substance abuse) attributable to labour influx. Additionally, there may be increase in unprotected sexual intercourse due to labour influx
- Community Health and Safety: Considering that supply and transportation of meters especially to DISCO warehouses will involve cross-country movement, through densely and non-densely populated areas etc, Community Health and Safety risks are very likely

ES 9: Environmental and Social Mitigation Measures

Environmental and Social Mitigation Measures are described in Chapter 5 of this ESMF report. The mitigation measures are SMART-simple, measurable, achievable and can be accomplished in a timely manner. They are designed based on the Mitigation Hierarchy described in the World Bank Environmental and Social Framework (ESF) and are assigned responsibilities for mitigation implementation and monitoring.

ES 10: Institutional Arrangements

S/N	Institution	ESMF Roles and Responsibilities
1.	FMEnv	The FMEnv will assist TCN (Through its WB-TCN PMU) in the screening and approval of subprojects/activities. FMEnv will also provide guidance on scoping and necessary additions or modifications to the Terms of Reference of selected environmental and social assessment instruments to be prepared for sub-projects. FMEnv will also give the approval for environmental and social assessment and work in collaboration with the TCN PMU and World Bank in disclosing the environmental and social assessment instruments in-country. The FMEnv will also aid the TCN PMU in coordinating with the FMEnv's Ministries Departments and Agencies (MDAs) on monitoring responsibilities as regards this ESMF and other program instruments
2.	FMoP	The FMoP will be responsible for the IPF component of DISREP through TCN, and will indirectly play an oversight and supervisory role as the apex ministry by overseeing TCN's roles and responsibilities under DISREP, including implementation of the IPF component specifically, in disclosure of instruments and other requisite clearances or functions.
4.	TCN	TCN will be the implementing Agency for the IPF component and will operate its Environmental and Social Standards' responsibilities for DISREP through its WB-TCN PMU. At a national level, the disclosure of the ESMF will be undertaken by TCN and issues concerning the implementation of the IPF and TA components in whole; and environmental and social management aspects of the IPF activities specifically, will be communicated by TCN to the DISREP Technical Committee, chaired by the FMoP. Additionally, TCN will be responsible for the bulk procurement of meters for supply to the DISCOs warehouses; and will provide and coordinate ESS oversight to DISCOs through its WB-TCN PMU.
5.	TCN PMU	The TCN PMU is an established Unit, experienced in the implementation of Bank funded projects and programs in the power/energy sector. The TCN PMU consists of Engineers, Project Engineers, Procurement Specialists, Environmental and Social Safeguards Specialist, Monitoring and Evaluation Specialists etc. who will provide expert technical guidance on the matters concerning the IPF component and its sub-projects. Specifically, the Units Safeguards Specialists will provide Technical Assistance on the aspect of implementing the provisions of this ESMF at the level of the DISCOs; mainly in the screening and scoping of sub-projects and in the selection of appropriate environmental and social assessment instruments. It will collaborate with SMEnvs and the FMEnv accordingly, and liaise directly with the Bank on issues concerning ESF compliance and ESSs applicability relevance on IPF activities. TCN will be directly responsible for disclosure of all environmental and social assessment instruments prepared in fulfilment of IPF requirements.
6.	Chemical Resettlement and Environment Division of the HSE Dept.	The unit will provide technical support to the TCN-PMU as when necessary or required. Essentially, it will also provide guidance and advisory in the management of e-wastes.
7.	DISCOs HSE Departments	The DISCOs will ensure the proper and safe storage of meters in their respective warehouses, as well as the management of wastes generated from removed packaging. Specifically, as concerns the implementation of the ESMF and execution of environmental and social management responsibilities at the level of their DISCOs; the Health Safety and Environment Departments of each DISCO headquarters will nominate a senior manager/officer (of the HSE Department) to oversee and communicate environmental and social matters directly to the Safeguards Specialists in the TCN PMU. The Manager/Officer will work with Independent Consultants during the environmental and social assessment undertaken for their DISCO/distribution zone.
	Business Unit Managers/Environmental and Social Desk Officers	For the IPF component, the Business Unit Managers or nominated officers from each Business Unit will serve as Environmental and Social Desk Officers. These will liaise directly with the Manager (HSE Department at the DISCO headquarters) on environmental and social matters at the Business Unit Level.
8.	NERC	NERC will implement the installation of the DAP (Data Centre or Cloud-based system). Specifically, as concerns the implementation of the ESMF and execution of environmental and social management responsibilities at the level of NERC; the Health and Safety Unit of the Engineering, Performance and Monitoring Department at NERC offices will nominate a senior manager/officer to oversee and communicate environmental and social matters directly to the Safeguards Specialists in the WB-TCN PMU. The Manager/Officer will work with Independent Consultants during the environmental and social assessment undertaken for NERC
9.	Supervisory Consultants	Supervisory Consultants will supervise the activities of Contractors engaged to implement the main activities. With regards to environmental and social performance, their responsibilities will include monitoring of the implementation of mitigation measures contained in the Contract Agreement of Contractors and in the implementation of the C-ESMP.
10.	Independent Consultants	Independent Consultant(s) will be procured by the TCN PMU to undertake required environmental and social assessment(s); and likewise prepare the requisite reports. They will liaise with the Safeguards Specialists at the TCN PMU, HSE Managers at the DISCOs and Business Unit Managers/Environmental and Social Desk Officers.

S/N	Institution	ESMF Roles and Responsibilities
11.	SMEEnv, SWMAs and SEPA	Will play a vital role in environmental and social assessment and waste management at the States and DISCOs' coverage area-levels respectively. Their responsibilities will surface around, guidelines, approvals and permits.
12.	CSOs	CSOs will assist the TCN PMU and DISCOs in strategizing and developing practicable and sustainable community driven approaches for bulk metering operations and activities, specifically. At a national level, the TCN PMU and DISCO Chief Executives could suggest participatory mechanisms that allow CSOs drive proactive electricity consumer sensitization and awareness programs to aid in screening and scoping (from a social perspective) and in mitigating the social impacts associated with proposed sub-projects.
13.	Other Interested Parties	Depending how implementation progresses in the course of the implementation of the IPF component; other interested parties may be identified, and may be essential in the provision of guidance, technical, regulatory or implementation functions associated with this ESMF and other levels of environmental and social management and monitoring.
14.	The World Bank	The World Bank has overall responsibility to ensure that its ESF and ESSs are complied with. In addition, the Bank will be responsible for the final review and clearance of environmental and social assessment instruments; as well as reviews and the giving of a "no objection" to the Terms of Reference for instruments (ESIAs, ESMPs, HRAs, etc.).

ES 11: Safeguards Responsibilities and Accountabilities

TCN: Overall safeguard roles and responsibilities for TCN on DISREP, will be undertaken by the TCN PMU through the PMU's Environmental and Social Safeguards Specialists. The safeguard responsibilities will also extend to supervisory and oversight functions during procurement, transportation and storage of meters and DAP respectively, and also in the management of e-wastes generated from metering activities of the DISCOs.

The Bank is only funding supply and not installation works for meters. However, TCN will provide supervisory functions and oversight of procurement, transportation and storage of meters, similarly for the DAP, inclusive of its installation at NERC; and management of e-wastes generated in the course of carrying out these activities. This is because TCN (as implementing partner) is jointly liable for environmental and social risks and impacts that may arise from sub-projects or activities involving transportation, storage etc, of meters and DAP which it has procured for the DISCOs and NERC respectively through Bank funds. The TCN PMU will fund ESMPs for meters procurement, transportation and storage; and DAP installations respectively. The potential social risks and impacts specifically, during installation of meters are addressed in the ESSA prepared by the Bank, and are handled under the PforR component.

NERC and DISCOs: For NERC, the roles and responsibilities to ensure safeguards and the applicability of the ESSs throughout the supply and operation phases will be with the DISCOs HSE departments and NERC HSE Unit respectively. At the Business Unit Level, this responsibility will be performed by the Business Unit Manager or nominated Environmental and Social Desk officer from the Business Units of the respective DISCO(s).

ES 12: Training Programs

A robust training program is proposed for the ESMF implementation (Chapter 7). The training program will cover modules on the Nigeria EIA law, WB ESF, Environmental and Social Standards (ESSs) etc. Participants will include TCN, DISCO health and safety Dept.; Business Unit Managers, SMEEnv, FMEEnv and other institutions responsible for the ESMF implementation. The budget for capacity building is estimated at **NGN 38,000,000.00(USD 100,000.00)**, and will cater for i) Resource persons ii) participants per diems, hotel accommodation, feeding, transportation, ii) venue hiring, iv) local and international travels, v) training materials etc.

ES 13: Labor influx and child labor

Risks and impacts attributed to Labour Influx are discussed in the ESMF report, and suitable mitigation measures proffered and costed in the ESMP. A stand-alone Labour Management Procedures (LMP) instrument has been prepared for the IPF component of DISREP and addresses in detail issues of labour influx and child labour.

ES 14: Grievance Redress Mechanism

A program-level GRM will be prepared as required. The GRM must take into cognizance the program components being implemented by TCN; in terms of activities and the traditional and conventional peculiarities of the distribution zones and the communities they service. The mechanism will assume responsibility for occurrences and issues that have direct relation to or bearing on the activities that are being carried out for achieving the expected outcomes of the IPF component. The overall responsibility for the coordination of the DISREP GRM will lie within TCN (WB-TCM PMU). The PMU level will be responsible for the collection of grievances of higher severity that may come directly to the PMU office based on the procedure and grievance classification adopted. But the uptake of grievances and recording will be at different levels from the service areas and Business Units to the top. The following processes should be part of the GRM – Registration of complaints, verification, processing, implementation and closing date, feed-back.

ES 15: Budget

The total estimated cost for the ESMF implementation and monitoring for all project locations is estimated at One Hundred and Sixty-Five Thousand United States Dollars Only. **USD 165,000.00** This is equivalent to Sixty-Two Million, Seven Hundred Thousand Naira Only **62,700,000 NGN**.

S/N	Item	Responsibility	Estimated Cost (NGN)	Estimated Cost (US\$)
1.	Mitigation	Contractors and other parties involved in mitigation	TBD	TBD
2.	Monitoring	TCN PMU; FMEEnv; etc SMEnv; SEPA; DISCO Mgt, NERC Mgt	TBD	TBD
Sub-total			Nil	Nil
3.	Capacity Building	TCN PMU, Other relevant MDAs	38,000,000.00	100,000.00
4.	ESMP Preparation	TCN-PMU	19,000,000.00	50,000.00
5.	Sub - Total		57,000,000.00	150,000.00
6.	Contingency	10% of Sub-Total	5,700,000.00	15,000.00
TOTAL			62,700,000.00	165,000

Note: USD to Naira exchange rates as at 30th November, 2020 (1 USD = 380 Naira) was applied and figures rounded up.

ES 16: Disclosure

The disclosure process for the ESMF, will follow review and clearance by the World Bank. The describes the process of disclosure is described below

S/N	Action	Remarks
1	Disclosure in 2 National newspapers	The TCN PMU will disclose the ESMF as required by the Nigeria EIA public notice and review procedures
2	Disclosure in 2 state newspapers	The TCN PMU will disclose the ESMF as required by the Nigeria EIA public notice and review procedures
3	Disclosure in 2 local newspapers	The PIU will disclose the ESMF as required by the Nigeria EIA public notice and review procedures
4	Disclosure at the DISCOs, NERC, BPE, FMoP, FMEEnv office and the SMEnvs in all the Distribution Zones/States	The PIU will disclose the ESMP as required by the Nigeria EIA public notice and review procedures
5	Disclosure at the TCN office	The PIU will disclose the ESMP as required by the Nigeria EIA public notice and review procedures

S/N	Action	Remarks
6	Disclosure at the Local Government Office where Business Units are Located	The purpose will be to inform stakeholders about the program's activities; environmental and social impacts anticipated and proposed environmental and social mitigation measures.
7	Disclosure on the World Bank external website and InfoShop.	The ESMF will be disclosed according to the World Bank Disclosure Policy- OP/BP 17.50

CHAPTER ONE

INTRODUCTION

1.1 Background to DISREP

The Federal Government of Nigeria (FGN), in March 2017, initiated the Power Sector Recovery Program (PSRP) which is a comprehensive framework for addressing low and inefficient performance in the power sector through four key pillars – (i) Policy and Regulatory Environment; (ii) Network Infrastructure; (iii) Operational Efficiency; and (iv) Financial Sustainability. After the PSRP suffered a period of stalled implementation, strong ownership and commitment from the present government is driving PSRP implementation but strengthening in key areas is still required for desired and expected results. Consequently, the World Bank has proposed a large integrated programmatic engagement to support the FGN's comprehensive reform effort starting with financing, through a PSRP Programs for Results (PforR¹). The programmatic engagement will involve a series of integrated operations under two streams – i) Power Sector Recovery (PSR) PforRs and ii) Distribution PforRs, to holistically address the sector issues.

1.1.1 Power Sector Recovery (PSR) PforRs

The PSR PforRs will help establish policy, regulatory, contractual and financing conditions for power sector companies (Generation Companies – GENCOs; Transmission Company of Nigeria – TCN and Distribution Companies - DISCOs) to improve performance. The PSR PforR supports three results areas of the FGN's PSRP which are increased reliability of electricity supply; financial sustainability and enhanced accountability.

1.1.2 Distribution PforRs

Specifically, to address power sector recovery for the distribution sub-sector, the World Bank has developed the Distribution Sector Recovery Program (DISREP). The proposed DISREP involves financing and supporting the key elements of the FGN's PSRP program of activities through the on-lending by the Bureau of Public Enterprises (BPE) to a selected number of majority private DISCOs. PforR financing is identified as the most relevant instrument for the proposed DISREP. The financing will be for implementation of a wide variety of DISCO-led activities and expenditures across the distribution sub-sector. The PforR instrument allows for disbursement based on the achievement of specified indicators, based on the aggregated results of all sub-projects within each DISCO, rather than financing specific sub-projects individually. Support for majority private DISCOs is considered necessary given that the underperformance of the DISCOs is having country-wide implications on all parts of the Nigerian economy and population. Essentially, without public sector/World Bank support, the DISCOs, in their current financial state, will be unable to turn-around their performance and the severe impacts on the economy will continue. Moreover, the DISREP operation supports DISCOs in their implementation of approved PIPs and the Nigeria Electricity Regulatory Commission (NERC), in their oversight of the performance of the distribution sub-sector. The DISREP is a hybrid operation, combining Program for Results (PforR), Investment Project Finance (IPF) and Technical Assistance (TA) components targeted at supporting improvement of DISCOs in their operational performance, service delivery and governance.

Generally, the PforR support to be provided for DISREP, has been designed to achieve three (3) result areas (Result Areas 1², 2³ and 3⁴). While the potential environmental and social risks and impacts for the broader PforR Program, will be addressed under an Environmental and Social Systems Assessment (ESSA) being prepared by the Bank, to assess environmental and social systems and capacities of the DISCOs, Nigerian Electricity Management Services Agency (NEMSA), BPE, TCN and NERC etc.; this Environmental and Social Management

¹ **PforR** – Projects for Results is a World Bank Financing Instrument which links disbursement of funds directly to the delivery of defined results, helping countries improve the design and implementation of their own development programs and achieve lasting results by strengthening institutions and building capacity.

² **Result Area 1:** Improved DISCO performance

³ **Result Area 2:** Enabling diversification of commercial options for DISCOs to supply their demands

⁴ **Result Area 3:** Strengthened governance and transparency

Framework (ESMF) applies to the IPF/TA component of the Program and the risk associated with the IPF/TA activities. Overall, meeting the Program Development Objectives (PDOs) will improve access to and reliability of electricity services in Nigeria, especially in cities, towns and rural communities. Thus, supporting businesses, economic activities and livelihoods.

1.2 The Current Situation with Electricity Distribution in Nigeria

Nigeria now has the largest number of people without electrical supply globally and the trend is worsening. With 43% of the population (85 million people) lacking access to grid electricity, Nigeria has the largest access deficit globally. This lack of reliable electricity supply has serious repercussions to Nigeria's economy and citizens. The annual economic losses caused by Nigeria's unreliable power supply were estimated at NGN 10.1 trillion (USD 28 billion) or about 2% of the GDP (Source: **Power Sector Recovery Plan, Federal Government of Nigeria, 2017**). The average annual per capita electricity consumption of Nigeria is 147 kWh, which is a fifth of the average low middle-income country consumption.

Unreliable electricity supply forces firms and households to use alternative, carbon-intensive energy sources such as diesel/petrol-based generators, kerosene, or firewood, which are costly and detrimental to health and the environment. Other alternative energy sources used include solar home systems, solar lanterns/lighting systems, rechargeable batteries, etc. Of the households connected to grid electricity, most experience power cuts daily, as well as frequent voltage fluctuations. Consequently, in rural areas, the inefficient and unsteady supply of electricity, inadvertently lays the burden of ensuring access to energy (through electricity or traditional fuels) predominantly on women and young persons. Additionally, irrespective of the fact that consumers (in urban and rural areas) pay high electricity bills depending on their energy needs, the inability of some DISCOs to meet consumer and customer demands has resulted in consequent adverse impacts on business, economics, infrastructure and social development etc.

The Electric Power Sector Reform Act was passed in 2005 to improve the performance of the electricity sector. The enactment of the Act created the legal basis for the establishment of NERC and subsequently, the Nigerian Bulk Electricity Trading Company (NBET) in 2010. Following the passage of the Act, the sector was unbundled into six generation companies (GENCOs), eleven distribution companies (DISCOs) and the Transmission Company of Nigeria (TCN). The privatization of the DISCOs and GENCOs was largely completed in 2013 (with the exception of Yola DISCO), which services the north-eastern part of the country. The transition from a publicly owned to a largely privately-owned power sector has not brought the expected outcomes and the sector is under severe stress. Assessment of the power sector deficiencies in ensuring efficient and sufficient electricity supply to consumers, has largely been attributed to the DISCOs. High losses (both technical and non-technical) and low collections, coupled with average tariffs below cost, have resulted in an annual financial deficit in the sector in 2019 of approximately NGN 592 Billion (USD 1.65 Billion), of which NGN 524 Billion (USD 1.46 Billion) is due to the tariff shortfall. In total, the accumulated tariff shortfall was NGN 1,678 Billion (USD 4.69 Billion) between 2015 and 2019. The poor financial viability of the eleven DISCOs, which to a certain extent is caused by the inability of NERC to provide regular tariff adjustments since 2015, has resulted in low remittances to NBET under the Vesting Contracts (the estimated average remittance was about 29% for 2018).

1.3 Program Development Objectives and Level Result Indicators

The Program Development Objective(s) (PDO) and PDO Level Results Indicators for DISREP are provided subsequently.

Program Development Objective(s): The Program Development Objective (PDO) is to improve financial and technical performance of the electricity distribution companies. Consistent with the PSRP, the DISREP seeks to achieve this objective by supporting the distribution sector invest in the infrastructure and operational improvements required to turn-around their technical and financial performance, in line with approved PIPs.

PDO Level Results Indicators: The Program supports results in three areas: (1) improved DISCO operational performance; (2) enabling commercial diversification of electricity market; and (3) strengthened corporate governance and transparency. The following outcome indicators will be used to measure achievement of the PDO:

- PDO Indicator 1: Percentage of metered customers increases;
- PDO Indicator 2: Annual electricity billed for increases; number of grids with improved stability, reliability and/or capacity to reduce technical losses
- PDO Indicator 3: Annual collection of billed electricity increases;
- PDO Indicator 4: Annual verification of DISCOs compliance with Code of Corporate Governance.

1.3 Rationale for the Environmental and Social Management Framework (ESMF)

The ESMF is used when a project consists of a program and/or series of subprojects, where the entire range of environmental and social safeguard issues involved are not fully known. It involves the use of management plans that spell out mitigation and monitoring actions and responsibilities necessary to ensure safe and sound environmental and social sustainability of the project, during its implementation course. The ESMF serves as a statement of the policy, principles, institutional arrangements and procedures that high-level decision makers and stakeholders at the project management level will follow in implementing each sub-project so as to effectively and satisfactorily address environmental and social issues. This ESMF identifies Environmental and Social Standards (ESS) as contained in the Environmental and Social Framework (ESF) applicable to the IPF component of DISREP. The Federal Ministry of Power, through TCN will disclose this ESMF document in-country publicly, so that it is accessible by the general public – interested parties and potential Project Affected Persons (PAPs). The World Bank rightfully will disclose the ESMF on its external website before project appraisal.

Additionally, the application of the ESMF to DISREP, enables the preparation of standardized environmental and social assessment documents for appraisal and implementation. Although the environmental and social risks and impacts of the general PforR program are adjudged to be moderate and consistent with the Bank Policy for PforRs financing, the envisaged potential environmental and social risks and impacts of the IPF component addressing aspects of DISREP are likewise also classified as moderate. Specifically, the IPF will support **i) NERC in addressing problems of inadequate data availability, inconsistent data quality, and irregular reporting of the sector operators, through establishing a Data Aggregation Platform (DAP), and ii) Bulk procurement and distribution of meters to DISCOs warehouses.** Though the design, sub-activities and extent of bulk meter procurement and distribution are unknown at this time, the potential environmental and social risks and impacts resulting from this support, inform the need for the ESMF.

The main justification for the ESMF is embedded on the basis that the World Bank Environmental and Social Policy for IPF sets out the requirements which the Bank must follow regarding projects it supports through IPF. Importantly, these programs or projects may include technical assistance supported by the Bank through IPF, as in the case of DISREP (See Chapter 3 of this Report), whether they are stand-alone projects or part of a project. Moreover, the Bank's **Environmental and Social Standard 1 (ESS1: Assessment and Management of Environmental and Social Risks and Impacts)** (See Chapter 2, sub-section 2.3.1) applies to all IPF programs/projects.

1.4 Objectives of the ESMF

The ESMF at a broader and higher level, addresses the difficulties inherent in defining what the actual environmental and social risks and impacts of the project in terms of scope, scale of activities and likely impacts might be, thus enabling guidance and support for effective decision making in order to ensure that implementation processes are environmentally and socially sound and sustainable. The ESMF will provide the borrower and its implementing Ministries, Departments and Agencies (MDAs) and other implementing partners with an environmental and social screening process that will enable streamlined identification, assessment and mitigation of potential environmental and social risks and impacts associated with the DISREP sub-projects. The ESMF will

be useful at all stages of the project, such as in the identification and screening of sub-projects, including their implementation and operation stages as well as to guide and inform decision makers on how the applicability of the Environmental and Social Standard (ESSs) are established during the implementation of sub-projects. The framework will encourage a participatory approach to the preparation of sub-projects in respective DISCOs, also with consideration to the biophysical and socio-economic environments where they are located. Furthermore, considering the applicability of **ESS 10: Stakeholder Engagement and Information Disclosure**, and its importance in project planning, implementation and performance assessment, the ESMF will provide an overview of consultation and participation activities to be carried out in various stages of the project.

1.5 ESMF Study Approach and Methodology

This ESMF was prepared in accordance with standard procedures for environmental and social assessment including World Bank Environmental and Social Standards (ESSs), other relevant international environmental and social assessment regulations and guidelines, and the Nigerian environmental assessment guidelines.

Subsequently, a literature review of applicable World Bank ESSs, Nigeria Environmental laws, policies and regulatory frameworks, ESMFs for Nigeria Electricity Transmission Project (NETAP), Nigeria Electricity and Gas Improvement Project (NEGIP), Nigeria Electrification Project (NEP), Nigeria Transmission Development Project (NTDP), etc., was undertaken. Due to the current COVID-19 pandemic, stakeholder engagement and consultations were conducted following provisions in the “Public Consultations and Stakeholder Engagement in WB-supported Operations when there are Constraints on Conducting Public Meetings Guidelines”. Key stakeholders included the Federal Ministry of Power, NERC, TCN, BPE, and DISCOs.

1.6 Revision/Modification of the ESMF

The ESMF will be a ‘live document’ enabling revision, when and where necessary. Any unexpected situations and/or relevant changes in the design would be assessed and appropriate management measures would be incorporated by updating the ESMF. Revisions will require the Non-Objection from the World Bank.

1.7 ESMF Procedures for Screening and Institutional Arrangements

This ESMF report outlines procedures for screening sub-projects, eligible for environmental and social assessment, and provides guides to mitigation measures to form part of the Environmental and Social Management Plan (ESMP). It also describes the monitoring procedures and institutional responsibilities for ensuring sustainable environmental and social performance of the program and sub-project.

Institutional Arrangements – The institutional arrangements for implementing the ESMF are described in Chapter 7 of this report. The arrangements are established on the basis of the DISREP IPF component implementation arrangements; stakeholder analysis and feedback; relevance in activities supported by the IPF component, and understanding of the operations of the distribution sub-sector.

CHAPTER TWO

LEGAL, REGULATORY AND ADMINISTRATIVE FRAMEWORK

Several laws and regulations apply to the energy sector, and specifically to electricity distribution in Nigeria. Thus, several laws, policies, instruments and administrative frameworks are available to support sustainable environmental and social management. The ESMF aims to identify the range of obligatory environmental and social management measures including sectoral guidelines to be undertaken and followed, respectively during the planning, design, implementation and operation phases of DISREP (with considerations to the IPF components) so as to ensure compliance with the World Bank ESF as well as environmental and social compliance requirements of the Government of Nigeria. For this purpose, a number of legal, regulatory and administrative frameworks are essential to guide policy considerations and decision making in implementation of the program. These include the following:

2.1 Legal and Regulatory Frameworks

2.1.1 Federal Ministry of Environment Regulations and Guidelines

Federal Ministry of Environment

The Federal Ministry of Environment is the apex policy making body responsible for addressing environmental issues in Nigeria. To fulfil this mandate, the main instruments in ensuring that environmental and social issues are mainstreamed into development projects is the Environmental Impact Assessment (EIA) Act No. 86 of 1992. With this Act, the FMEnv prohibits public and private sectors from embarking on major prospects or activities without due consideration, at early stages, of environmental and social risks and impacts. The act makes an EIA mandatory for any development project and prescribes the procedures for conducting and reporting EIA studies. As part of the effective utilization of the EIA tool, the Ministry has produced Sectoral Guidelines detailing the necessary requirements of the EIA process for each Sector. One of these Sectoral Guidelines that apply to the proposed project is the 'Sectoral Guidelines on Infrastructure Development.

Other relevant legal and regulatory frameworks on environment are described in Table 1 below.

Table 1: Other Legal and Regulatory Frameworks on Environment

S/N	Regulations	Year	Provisions
1	National Policy on the Environment	2016	Coordinates environmental protection and natural resources conservation for sustainable development
2	National Environmental Standards and Regulations Enforcement Agency (NESREA Act)	2007	Established to ensure compliance with environmental standards, guidelines and regulations.
3	National Environmental (Ozone Layer Protection) Regulations,	2009	Seeks to prohibit the import, manufacture, sale and the use of ozone depleting substances
4	National Environmental (Soil Erosion and Flood Control) regulations	2011	The overall object of the regulation is to check all earth disturbing activities, practices, development for non-agricultural. Commercial, industrial and residential purposes
5	National Guidelines on Environmental Audit	2011	These are designed to serve as a reference for compliance with the Environmental Audit requirements of the FMEnv. It states that it is mandatory for a

S/N	Regulations	Year	Provisions
			company to carry out an audit every 3 years or at the discretion of the Hon. Minister of the FMEnv
5	National Environmental Protection (Management of Solid and Hazardous Wastes) Regulations.	1991	Regulates the collections, treatment and disposal of solid and hazardous wastes from municipal and industrial sources.
6	National Guideline and Standard for Environmental Pollution Control	1991	The regulations provide guidelines for management of pollution control measures.
7	Workmen Compensation Act	1987	Occupational health and safety
8	Urban and Regional Planning Decree No. 88	1992	Planned development of urban areas (to include and manage waste sites)
9	State waste management laws	1991	Ensure proper disposal and clearing of wastes
10	National Environmental (Hazardous Chemicals and Pesticides Regulations)	2014	The objective of the regulation is to protect human health and the environment from the hazardous effects of chemicals and pesticides.
10	Public Health Law	2014	Covering public health matters
11	National Guidelines on Environmental Management Systems (EMS)	1999	Recognizes the value of EMS to EIA and sets out objectives and guideline on general scope and content of an EMS
12	National Guidelines and Standards for Water Quality	1999	It deals with the quality of water to be discharged into the environment, sets standards and discharge measures for a wide range of parameters in water discharged from various industries. It also sets out the minimum/maximum limits for param in drinking water
13	National Air Quality Standard Decree No. 59	1991	The World Health Organization (WHO) air quality standards were adopted by the then Federal Ministry of Environment (FMEnv) in 1991 as the national standards. These standards define the levels of air pollutants that should not be exceeded in order to protect public health.
14	National Policy on Flood and Erosion Control (FMEnv)	2006	This policy addresses the need to combat erosion in the country utilizing the procedures outlined in the National Action Plan for Flood and Erosion Control and Technical Guidelines, developed by the WIC Environmental Committee which was set up to plan an operational platform for these issues
15	National Environmental (Energy Sector) Regulations, S. I. No 63	2014	The purpose of these Regulations is to prevent or minimize pollution and encourage energy efficiency in all operations and ancillary activities of the energy sector in achieving sustainable economic development in Nigeria

Other relevant statutes and laws related to Environmental and Social Management and Protection in Energy and Electricity Distribution include:

- Consumer Protection Council Act 66 (1992)
- Federal Solid and Hazardous Waste Management Regulations (1991)
- Harmful Waste (Special Criminal Provisions) Act (2004)
- Land Use Act (1978)
- National Environmental Protection (Effluent Limitation) Regulations, (1991)
- National Environmental Protection (Management of Solid and Hazardous Wastes) Regulations, (1991)

- National Environmental Protection (Pollution Abatement in Industries and Facilities Generating Wastes) Regulation, (1991)
- National Gender Policy (2008)
- National Guidelines on Environmental Management Systems (EMS) (1999)
- Nigeria Labour Law (2004)
- Occupational, Health and Safety Act (OSHA), 2007
- Penal Code Act (cap.63)
- Public Health Act (Cap. 242)
- Rehabilitation, Reconstruction and Development Act, 1990
- Social Development Act (1974)
- Standard Organization of Nigeria (SON) Act – Retained as Cap 412
- The Child Rights Act (2003)
- The Factories Acts 1990 being implemented by the Factories Inspectorate Division of Federal Ministry of Labour and Productivity (FMLP).
- Workers Compensation Act (2010)

2.1.2 Relevant Energy Sector Policies, Regulations and Guidelines

The following are the applicable regulations, guidelines and standards which affect the Energy Sector.

Federal Ministry of Power

The Federal Ministry of Power develops and implements policies for the provision of adequate and reliable power supply in Nigeria. The policy establishing the Ministry extends its responsibilities to influence generation, transmission and distribution projects in the sector, thus it provides general direction and facilitates the emergence of private sector participation towards a competitive and efficient electric power industry.

2.1.2.1 National Energy Policy, 2018 (Updated)

The national energy policy recognizes the multi-dimensional nature of energy and therefore addresses diverse issues such as research and development, energy pricing and financing, legislation, energy efficiency, environment etc. The overall thrust of the energy policy is the optimal utilization of the nation's energy resources for sustainable development with the active participation of the private sector. Essential and sensitive policies associated with the National Energy Policy and relevant to DISREP include:

2.1.2.2 Electricity Policy, 2018

The objectives of the Electricity Policy are to make electricity available, accessible, affordable and reliable 100% to the population by the year 2030. It seeks to stimulate industrialization in the rural areas in order to minimize rural-urban migration, and to provide reliable, stable and secured power supply to the populace consumers, especially to industries. Furthermore, the policy supports broadening the energy options for generating electricity, attracting adequate investment capital, both foreign and domestic, for the development of the electricity industry and to maximize access by Nigerians to the investment opportunities in the electricity industry. Other new policies under the National Energy Policy are:

- Policy on Energy Utilization, 2018
- Energy Efficiency and Conservation Policy, 2018
- Environment and Climate Change Policy, 2018
- Policy on Other Energy Issues, 2018
- Policy on Energy Financing, 2018

2.1.2.3 Electric Power Sector Reform Act, 2005

The Electric Power Sector Reform (EPSRA) Act, 2005 can aptly be described as the foundation of the restructured power sector in Nigeria. The Act, which evolved from the National Electric Power Policy adopted in 2001, established the basis under which private companies can now participate in the generation, transmission and distribution of electricity. The Act amongst others:

- Provides for the creation of a holding company for the assets and liabilities of the then National Electricity Power Authority (NEPA).
- Provides for the unbundling of the Power Holding Company of Nigeria (PHCN) through the formation of several companies to take over the assets, liabilities, functions and staff of the PHCN.
- Establishes the Nigeria Electricity Regulatory Commission.
- Provides for the development of a competitive electricity market.
- Provides the basis for determination of tariffs, customer rights and obligations and other related matters.

2.1.2.4 Selected Regulations made by NERC

The EPSR Act conferred on NERC, the powers to make regulations necessary to give effect to the provisions of the Act. Some key regulations that have been made by NERC are presented in Table 2 below:

Table 2: Selected Electricity Regulations by NERC

S/N	Regulations	Year	Provisions
1	Regulations for the Investment in Electricity Networks	2015	These regulations provide for the procedure for investing in electricity networks in Nigeria. The objectives of these Regulations are mainly to create strong incentives to encourage TCN and the DISCOs to make appropriate and sustainable investments in capacity expansion.
2	Nigerian Electricity Supply and Installation Standards Regulations	2015	The regulations are a compendium of standards for the design, construction and commissioning of electrical infrastructure in the Nigerian Electricity Supply Industry. The regulations were issued by NERC to replace the Electricity Supply (S. I. 5) Regulations and the Electrical Installation Regulations (S.I.6) of 1996 issued under the repealed Electricity Act.
3	Regulations on National Content Development for the Power Sector	2014	The objective of the regulation is to promote the deliberate utilization of Nigerian human and material resources, goods, works and services in the industry as well as building capabilities in Nigeria to support increased investment in the industry.
4	NERC (Independent Electricity Distribution Networks) Regulation	2012	These Regulations provide a legal and regulatory framework for the issuance of licences to qualified operators to engage in electricity distribution, independent of the already existing PHCN Successor distribution companies, and to ensure compliance with set standards.

2.1.2.5 International Treaties/Agreements/Conventions Applicable to the Sub-projects

These include:

- Bamako Convention on Ban on the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa (1991)
- Basel Convention on the control of Transboundary Movement of Hazardous Wastes and their Disposal (1991)

- Convention on Oil Pollution Preparedness, Response, and Co-operation (1990)
- International Energy Charter (2015)
- Protocol on Water and Health (1999)

Relevant International Labour Organization (ILO) Instruments

- Convention concerning Safety in the use of Chemicals at Work (Entry into force: 04 Nov 1993) Adoption: Geneva, 77th ILC session (25 Jun 1990) - Status: Up-to-date instrument (Technical Convention)
- ILO Convention on the Safety of Chemicals at the Workplace, 1990 (No.170)
- Occupational Health Services Convention, 1985 (No.161)
- Occupational Safety and Health Convention (1981) and its Protocol of 2002
- Promotional Framework for Occupational Safety and Health Convention, 2006 (No. 187)

2.1.3 Gender Based Violence – Relevance, Legal and Policy Importance in Nigeria

2.1.3.1 Nigeria Legal and Regulatory Framework on GBV

Nigeria's national government has taken steps to penalize and address GBV and SEA, although a clear leadership with the leverage to garner multi sectoral support to address this complex problem seems absent. The institutional champion of women's and children's rights and GBV issues within the government is the Federal Ministry of Women Affairs and Social Development (FMWASD). But it has limited influence on sectoral ministries who need to enforce policy, insufficient budgetary resources⁵ and insufficient institutional capacity to enact its mandate.

The regulatory framework to address GBV, SEA and VAC is uneven because the Nigerian legal system is plural, and different legal systems co-exist, namely, the statutory law, Sharia law in the northern regions, and customary law in rural areas. The simultaneous application of this three-tier system creates differentiated degrees of protection to women's and children's rights⁶ which varies in every state and its enforcement is weak. There is a lack of clear mandates regarding which institutions oversee child protection and the design and implementation of violence prevention strategies and the provision of services. Insufficient budget allocation both at national and state levels, coupled with inadequately trained and staffed structures to provide social welfare, justice, education and health services that are women, child and survivor centred. While efforts to provide GBV survivors with basic response services are concentrated in the NE by international non-governmental organizations or the UN system, there are very limited government or non-governmental services in the rest of the country, those that exist are for the most part unregulated, uncoordinated and unpredictable.⁷ This is aggravated by a generalized lack of trust of citizens, particularly women, in the criminal justice system to enforce the existing laws. Moreover, lack of awareness of laws and knowledge of rights, amidst a context dominated by social norms that legitimate the perpetration of abuse, stigma and underreporting, results in the consequent impunity of perpetrators, possible re-victimization of survivors and the reproduction of the cycle of violence.

Two key national laws address GBV, the Child Rights Act (CRA, 2003), and the Violence Against Persons Prohibition Act (VAPP, 2015) which have been passed by the Federal Capital Territory (FCT) but not by many of the 36 states, making them inapplicable in those States that have not adopted them. While CRA has been passed in 25 states, VAPP has been passed in 4 states in addition to the FCT. Where laws are domesticated, implementation remains weak as institutional capacities are weak (social welfare, police, family courts). In practice, the legal and judicial systems provide women and children with little protection against violence, and timely and adequate support services are scarce and often ill-equipped to respond to survivors' needs.

Nigeria has ratified or acceded to the core international human rights treaties and is a party to the major regional human rights instrument which obliged States to respect, protect and fulfil human rights of all persons within the territory and subject to the jurisdiction of the State, without discrimination. Rape may violate several human rights obligations enshrined in the instruments ratified by Nigeria and is also a form of gender-based violence and a brutal

⁵ UN Women data from 2011.

⁶ UN CEDAW 2017.

⁷ UNICEF 2018.

manifestation of violence against women, children and men. Also, bias and unfairness towards certain genders with regards employment; promotion, privacy in using bathrooms or restrooms and granting of work-related benefits, may also communicate gender-based violence. 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 and has signed international treaties as such. These include:

- Convention concerning the Prohibition and Immediate Action for the Elimination of the worst forms of Child Labour (2002)
- Discrimination (Employment and Occupation) Convention
- Equality of Treatment (Accident Compensation) Convention (1925)
- International Convention on the Elimination of All Forms of Racial Discrimination (1976)
- Optional Protocol to the Convention on the Rights of Persons with Disabilities (2007)
- The Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) (1985),
- The Convention on the Rights of Persons with Disabilities (CRPD) (2012)
- The International Covenant on Civil and Political Rights (ICCPR) (2004);
- The International Covenant on Economic, Social and Cultural Rights (ICESCR) (2004)

Regional Treaties Relevant to GBV, SEA, VAC and People Living with Disabilities

- Abolition of Forced Labour Convention (1957)
- Convention Against Torture & other Cruel, Inhuman or Degrading Treatment or Punishment (CAT) 2001
- Convention on the Rights of Persons with Disabilities (2007)
- The Convention on the Rights of the Child (CRC) (1990),
- The National Action Plan for the Implementation of United Nations Security Council Resolution 1325 (2009);
- The Protocol to the ACHPR on the Rights of Women in Africa (the "Maputo Protocol") (2007).

Besides, Nigeria also has obligations to protect the environment through various commitments to the African Union, the Economic Community of West African States and the Commonwealth. It is also committed through relations with the European Community under the Lome IV Convention.

2.2 Administrative Structure for the Energy Sector in Nigeria

Federal Ministry of Power (FMP): The FMP is the Government administrative arm that deals with policy formulation and provides general direction to other agencies involved in the power sector. In carrying out its functions, it is guided by the provisions of the National Electric Power Policy, 2001, the Electric Power Sector Reforms (EPSR) Act, 2005, the Roadmap for Power Sector Reform, 2010 as well as the Transformation Agenda on Power of the Federal Government. Oversight functions in the Ministry are the responsibility of the Honourable Minister and the Permanent Secretary.

Nigerian Electricity Regulatory Commission (NERC): The Nigerian Electricity Regulatory Commission (NERC) was established by the EPSRA, 2005. It is an independent regulatory agency mandated to regulate and monitor the Nigerian power sector. The activities of the NERC are coordinated by an Executive Chairman, who is assisted by a Deputy, and a group of Commissioners who manage and control the NERC's various departments.

Energy Commission of Nigeria: The Energy Commission of Nigeria (ECN) was established in 1988 with the statutory mandate for strategic planning and coordination of national policies in the field of energy. It was established in line with the declaration of the Heads of The Economic Community of West African States (ECOWAS) in 1982 for the establishment of an Agency in each member state charged with the responsibility of coordinating and supervising all energy functions and activities.

Rural Electrification Agency: The Rural Electrification Agency (REA) is a Federal Government Parastatal under the Federal Ministry of Power. It was established by the EPSR Act with the statutory functions of promoting, supporting and providing electricity access to rural and semi-urban areas of the country. The Agency also administers the Rural Electrification Fund (REF). The purpose of the REF is to promote, support and provide rural electrification programmes through public and private sector participation in order to achieve more equitable regional access to electricity, and promote the expansion of the grid and development of off-grid electrification.

Electricity Management Services Ltd (EMSL): EMSL was established by the Federal Government to take over the responsibilities of some non-core operational and subsidiary assets of the defunct PHCN and with the mandate to provide ancillary and support services to the electricity generation, transmission, distribution sectors of the rapidly evolving electric power sector, end-user consumers and other related businesses.

Presidential Task Force on Power: The Presidential Task Force on Power (PTFP) was established in 2010 to drive the implementation of the reform of Nigeria's power sector. The role of the PTFP is to co-ordinate the activities of the various agencies charged with ensuring the removal of legal and regulatory obstacles to private sector investment in the power industry. It also has the mandate to monitor the planning and execution of various short-term projects in generation, transmission, distribution and fuel-to-power that are critical to meeting the stated service delivery targets of the power sector roadmap. The PTFP is administered by a Board of Directors headed by a Chairman.

Niger Delta Power Holding Company Limited: The Niger Delta Power Holding Company Limited (NDPHC) is a special purpose vehicle jointly owned by the three tiers of government (Federal, State and Local). It is charged with the responsibility for the implementation of the National Integrated Power Project (NIPP). The Government conceived the NIPP in 2004 as a fast-track government-funded initiative to stabilize Nigeria's electricity supply system while the private-sector led structure envisaged in the EPSR Act develops. Wholly-owned subsidiaries of NDPHC own each of the ten (10) power generation stations that have been developed under the NIPP. The Managing Director is the Chief Executive officer of the NDPHC.

Nigerian Bulk Electricity Trading Plc: The Nigerian Bulk Electricity Trading Plc (NBET) is a government-owned public liability company. The Bureau of Public Enterprises and Ministry of Finance Incorporated are its two shareholders with shareholdings of 80% and 20%, respectively. The NBET, established in line with the provisions of the EPSR Act, is an electricity trading licensee that engages in the purchase of electrical power and ancillary services (from independent power producers and the successor generation companies) and subsequent resale to distribution companies and eligible consumers. It is not envisaged to be the sole authorized or designated electricity buyer, as other entities, such as distribution companies that have attained commercial viability, will also be able to procure power directly from the generation companies.

Operator of the Nigerian Electricity Market: The Operator of the Nigerian Electricity Market (ONEM) is licensed to function as the Market Operator of the wholesale electricity market of the Nigerian electricity supply industry. It is responsible for the operation of the electricity market and settlement arrangements. A key function of the ONEM is the administration of the metering system among generation, transmission and distribution companies.

Nigeria System Operator: The Nigeria System Operator (NSO) is licensed to provide system operation services to the Nigerian electricity supply industry. The NSO is primarily responsible for the planning, dispatch and operation of the transmission system. It is also responsible for the security and reliability of the electricity network grid.

National Power Training Institute of Nigeria: The National Power Training Institute of Nigeria (NAPTIN) was established in 2009 to serve as a focal point for human resource development and workforce capacity building, and act as a research centre on matters relating to power in Nigeria. A key objective of the Institute is to design, develop and deliver a wide variety of training courses that will enhance the skills and capacity of both technical and non-technical power utility personnel.

Nigeria Electricity Liability Management Company Limited: The Nigeria Electricity Liability Management Company Limited (NELMCO) was established in 2006 as a company limited by guarantee, to assume and manage the non-core assets, all liabilities and other obligations that would not be taken over by the successor companies. This is to ensure that the successor companies are not encumbered by these liabilities at take-off.

2.2.1 Administrative Structure of Environmental Regulatory Bodies and Agencies in Nigeria

Besides the Federal Ministry of Environment, several other agencies are involved in enforcing environmental compliance in Nigeria, and are relevant to DISREP. These include:

National Environmental Standards and Regulations Enforcement Agency (NESREA) - is an environmental agency of the Federal Government of Nigeria that was established by law in 2007 to "ensure a cleaner and healthier environment for Nigerians". The agency functions as a parastatal of the Federal Ministry of Environment and is headed by a Director General who is also the chief executive officer. NESREA has recorded several achievements in the area of environmental compliance monitoring and enforcement since its establishment, including the enactment of several regulations pertaining to environmental protection, monitoring environmental compliance and enforcement actions. NESREA has established the application of the extended producer responsibility principle in e-waste management especially.

State Environmental Protection Agencies (SEPAs) – The SEPAs enforce environmental regulatory compliance at the state levels respectively. They are mainly responsible for ensuring the overall protection of various aspects of the built, physical and biological environment by ensuring limits set by the FMEnv are not exceeded during development works, also ensuring that building constructions meets environmental requirements, proper siting of factories, air, noise, water quality monitoring etc. In some cases, they may be directly involved in waste management activities or allow the responsibility for waste management to be handled by the State Waste Management Agencies (SWMAs).

State Waste Management Agencies (SWMAs) – Generally at the state level, the SWMAs undertake the task of providing guidelines or enforcing proper waste management procedures. In some instances, the SWMAs may have designated dumpsites for specific types of waste and guide the process for waste conveyance to the dumpsites by waste generators or procure the services of licenced waste collection vendors to carry out the services of waste collection, treatment and final disposal.

2.3 World Bank Environmental and Social Framework (ESF)

The World Bank Environmental and Social Framework sets out the Bank's commitment to sustainable development, through a Bank Policy and a set of Environmental and Social Standards that are designed to support Borrowers' projects, with the aim of ending extreme poverty and promoting shared prosperity.

2.3.1 Environmental and Social Standards (ESSs)

The Environmental and Social Standards (ESSs) set out the requirements for Borrowers relating to the identification and assessment of environmental and social risks and impacts associated with projects supported by the Bank through IPF. The Bank believes that the application of these standards, by focusing on the identification and management of environmental and social risks, will support Borrowers in their goal to reduce poverty and increase prosperity in a sustainable manner for the benefit of the environment and their citizens. The standards will: (a) support Borrowers in achieving good international practice relating to environmental and social sustainability; (b) assist Borrowers in fulfilling their national and international environmental and social obligations; (c) enhance non-discrimination, transparency, participation, accountability and governance; and (d) enhance the sustainable development outcomes of projects through ongoing stakeholder engagement. The ESSs are:

ESS 1 Assessment and Management of Environmental and Social Risks and Impacts,
ESS 2 Labour and Working Conditions,
ESS 3 Resource Efficiency and Pollution Prevention and Management,
ESS 4 Community Health and Safety,

ESS 5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement,
 ESS 6 Biodiversity Conservation and Sustainable Management of Living Natural Resources,
 ESS 7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities,
 ESS 8 Cultural Heritage,
 ESS 9 Financial Intermediaries,
 ESS10 Stakeholder Engagement and Information Disclosure

2.3.2 Applicability of the Environmental and Social Standards (ESSs) to DISREP

All ESSs apply to projects supported by the Bank through IPF. Due to the envisaged potential environmental and social risks and impacts associated with the IPF component of DISREP, the following ESSs are of relevance. See Table 3 below.

Table 3: ESSs Relevant to DISREP

S/N	Environmental and Social Standards (ESSs)	Relevance to DISREP
1	ESS 1 Assessment and Management of Environmental and Social Risks and Impacts	ESS 1 sets out the Borrower's responsibilities for assessing, managing and monitoring environmental and social risks and impacts associated with each stage of a project supported by the Bank through IPF, to achieve environmental and social outcomes consistent with the ESSs. With regards to DISREP, activities involving bulk procurement and supply of meters to the DISCOs' warehouses; resulting in the subsequent generation of wastes from containers used in packaging, and e-wastes generated from disused meters, ancillary equipment and materials may pose potential environmental and social risks and impacts. In this regard, project management responsible for the IPF component will conduct environmental and social assessments for IPF component activities (meters procurement, transportation, storage and supply; DAP procurement, transportation, installation and operation, and e-waste management) which should be proportionate to their identified risks and impacts. The TA component activities are judged to be low-risk and generally beneficial (No environmental and social assessment will be required. See Chapter 5).
2	ESS 2 Labour and Working Conditions	The applicability of ESS 2 is established during the environmental and social assessment process (ESS 1). From the Bank's perspective, IPF should ensure that Bank funded projects promote safety and health at work, fair treatment, non-discrimination and equal opportunity of project workers; including the protection of vulnerable workers such as women, persons with disabilities, migrant workers, contracted workers, community workers, primary supply workers and children (of working age, in accordance with this ESS and national Child Labour Laws), as appropriate etc. More so, considering the roles of workers in the DISCOs, specifically to proposed activities under the Program, and broader social aspects such as GBV and SEA, the applicability of ESS 2 is mandatory. A Labour Management Procedure (LMP) for DISREP is being prepared under the IPF Component as a Stand-alone document
3	ESS 3 Resource Efficiency and Pollution Prevention and Management	The objectives of ESS 3 aim to promote the sustainable use of resources, including energy, water and raw materials. Additionally, amongst many, it aims to minimize adverse impacts on human health and the environment by avoiding or minimizing pollution from project activities. The IPF component of DISREP will fund bulk procurement of meters, which is likely to result in waste generation. Although the types of wastes are not fully known at this stage of project conceptualization; pollution prevention and management are foreseeable and therefore a critical aspect of DISREP activities (country-wide transportation of meters, etc.). The applicability of ESS 3 is established in the environmental and social assessment.
4	ESS 4 Community Health and Safety	In line with ESS 4, some DISREP project activities under IPF (meter supply and distribution), may increase community exposure to risks and impacts such as traffic and risk of accidents. The DISCOs in Nigeria cover electricity supply according to a "zonal

S/N	Environmental and Social Standards (ESSs)	Relevance to DISREP
		arrangement ⁸ extending to states, cities and rural areas. Most DISCO infrastructure such as business units, sub-stations, repair shops, transformers, feeders etc are located in communities, where operations and activities associated with DISREP may expose community members to adverse environmental and social risks and impacts. The applicability of ESS 3 is established in the environmental and social assessment
5	ESS10 Stakeholder Engagement and Information Disclosure	ESS 10 applies to all projects funded by the Bank through IPF. At all levels of implementation of DISREP, a systematic approach to stakeholder engagement relevant to the program design, PDOs, and expected results is mandatory. Open and transparent engagement, recording suggestions and concerns; including assessing the level of stakeholder interest and support is essential for decision making at the institutional and administrative level of DISREP. This is critical throughout the program life cycle and is expected to extend even during project implementation. The application of ESS 10 to DISREP will provide the platform for participatory harmony, essential to the valued involvement of Interested Parties and PAPs. A Stakeholder Engagement Plan (SEP) for DISREP is being prepared under the IPF Component as a Stand-alone document

2.4 Harmonization of the Nigeria EA Guidelines and the World Bank ESF

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: According to the provisions of this act, the IPF component is a Category II.

- 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.

Whereas based on the ESF, the Bank will require the Borrower to carry out appropriate environmental and social assessment of subprojects, and prepare and implement such subprojects, as follows:

- a) **High Risk** subprojects, in accordance with the ESSs;
- b) **Substantial Risk, Moderate Risk and Low Risk** subprojects, in accordance with national law and any requirement of the ESSs that the Bank deems relevant to such subprojects. The environmental and social assessment will be proportionate to the risks and impacts of the project. It will inform the design of the project and be used to identify mitigation measures and actions and to improve decision making.

The Bank will review the risk classification assigned to the project on a regular basis, including during implementation, and will change the classification where necessary, to ensure that it continues to be appropriate. Any change to the classification will be disclosed on the Bank’s website. It is noteworthy to state that If the Bank is not satisfied that adequate capacity exists on the part of the Borrower, all High Risk and, as appropriate, Substantial Risk subprojects will be subject to prior review and approval by the Bank until it is established that adequate capacity exists. DISREP is classified as a Moderate Risk program

⁸ **Zonal arrangement** – In Nigeria, the influence of the operations of the DISCOs is organized through zones. This means that based on geographical criteria and location of distribution assets, DISCOs ensure electricity supply to geographical areas under the coverage of their infrastructural network.

Use of borrower’s environmental and social framework

When a project is proposed for Bank support, the Borrower and the Bank will consider whether to use all, or part, of the Borrower’s ES Framework in the assessment, development and implementation of a project. Such use may be proposed provided this will to address the risks and impacts of the project and enable the project to achieve objectives materially consistent with the ESSs. See table 4 below for comparison between Nigeria environmental laws and the ESSs.

Table 4: Comparison of Key Elements of Nigerian Environmental and Social Legal Provisions and the World Bank ESF in Relation to DISREP

Key Element	Nigerian Provisions	WB ESF	Comparison
ESMF for Programs involving multiple but still unidentified sub-projects.	Not a national requirement	ESS 1: Assessment and Management of Environmental and Social Risks and Impacts	No comparison
Screening	EIA Act Cap E12 LFN 2004	ESS 1: Assessment and Management of Environmental and Social Risks and Impacts	This law sets out the general principles, procedures and methods of environmental impact assessment in various sectors; similarly, to ESS1, it mandates that development sub-projects or activities be screened in order to ascertain their eligibility for environmental and assessment by the proponent prior to their implementation
Scoping	EIA Act Cap E12 LFN 2004	ESS 1: Assessment and Management of Environmental and Social Risks and Impacts	Similarly, to ESS1, it mandates that the nature, scope, environment and preliminary impacts of screened development sub-projects or activities be established so that they guide the preparation of the Terms of Reference for the environmental and social assessment
Environmental and Social Impact Assessment Guideline	EIA Procedural Guidelines, 1995 EIA Sectoral Guidelines for Power Sector, 2013	ESS 1: Assessment and Management of Environmental and Social Risks and Impacts	The sectoral guidelines serve as stringent provisions for considerations in EIAs across various sectors of the economy. These compare to the Banks ESS 1 requirement and the World Bank Group Environmental, Health and Safety Guidelines (EHSGs), which provide provisions to support the ESSs
Environmental Categorization	EIA Procedural Guidelines, 1995 Categories I, II & III	Environmental and Social Risk Classification	The guidelines propose the categorization for projects eligible for EIA mainly on the extent of the potential impacts, their magnitude, spread, range and irreversibility. This however varies from the Environmental and Social Risk Classification of the Bank, which rather follows a risk-based approach
Environmental and Social	EIA Act Cap E12 LFN 2004	ESS 1: Assessment and Management of	Sets out the general principles, procedures and methods of

Key Element	Nigerian Provisions	WB ESF	Comparison
Assessment		Environmental and Social Risks and Impacts	environmental impact assessment in various sectors; it mandates that development sub-projects or activities undertaken by public and private sector establishments with the potential to impact adversely on the environment must undergo Environmental Impact Assessment following their categorization (category I or II)
Environmental and Social Management Plan	EIA Act Cap E12 LFN 2004	ESS 1: Assessment and Management of Environmental and Social Risks and Impacts	Its provisions mandate that an Environmental Management Plan (similar to the Environmental and Social Management Plan – ESMP) for Bank funded projects be part and included in the EIA report
Consultation and Participation	EIA Act Cap E12 LFN 2004	ESS 1: Assessment and Management of Environmental and Social Risks and Impacts ESS 10: Stakeholder Engagement and Information Disclosure	The law mandates that stakeholder consultations be conducted during the EIA process and continuously during project implementation. This is consistent with the requirements of ESS 10 of the. ESS 10 recognizes the importance of open and transparent engagement between the Borrower and project stakeholders as an essential element of good international practice, and must be read in conjunction with ESS1.
Pollution Prevention and Control	National Environmental Protection (Pollution Abatement in Industries and Facilities Generating Wastes) Regulations, 1991; and National Environmental (Surface & Groundwater Quality Control) Regulations 2011	ESS 3: Resource Efficiency and Pollution Prevention and Management	Sets out clauses and guidelines to be followed and complied with as regards air, water and land pollution. Additionally, it addresses waste generation and management in a consistent way as to ESS 3 which recognizes that economic activity and urbanization often generate pollution to air, water, and land, and consume finite resources that may threaten people, ecosystem services and the environment at the local, regional, and global levels.
Waste and Hazardous Materials	National Environmental Protection (Management of Solid and Hazardous Wastes) Regulations, 1991	ESS 3: Resource Efficiency and Pollution Prevention and Management	Same as above
Labour Conditions	Employee Compensation Act, 2010 Labour Act, 1990	ESS 2: Labour and Working Conditions	Provides comprehensive legislation on conditions of work and employment. Part I sets out general provisions relating to wages, contracts and terms of employment. Part II regulates

Key Element	Nigerian Provisions	WB ESF	Comparison
			recruiting, including the licensing of recruiters, and the right to be accompanied by family Part III relates to special classes of workers, including apprentices, women and young persons. This could be consistent with ESS 2 which requires that the Borrower will develop and implement written labour management procedures applicable to the project.
Health and Safety	Factories Act (CAP F1), 2004	ESS 2: Labour and Working Conditions ESS 4: Community Health and Safety	Same as above
Gender	National Gender Policy 2010	World Bank, Good Practice Note, Addressing Gender Based Violence in Investment Project Financing involving Major Civil Works, 28 September 2018,	Brings a gender perspective into all aspects of planning policy, developing legislation and transformation activities in Nigeria. The gender policy addresses the systematic inequalities between women and men in society without ignoring the fundamental differences between them. The WB GPN compliments the Policy in the above, and also in providing actual steps in GBV risk assessment and mapping of GBV services which when applied in projects in-country, help to achieve the same objectives of the National Gender Policy
Environmental Monitoring	EIA Act Cap E12 LFN 2004	ESS 1: Assessment and Management of Environmental and Social Risks and Impacts	Similar to the provisions in the ESF for the Borrower to monitor the environmental and social performance of the project(s) in accordance with the legal agreement, and likewise in the ESMP (as part of the ESIA or as a stand-alone document) which identifies monitoring objectives; this law requires the same for EIAs prepared for sub-projects.
Disclosure and Access to Information	EIA Act Cap E12 LFN 2004	ESS 1: Assessment and Management of Environmental and Social Risks and Impacts ESS 10: Stakeholder Engagement and Information Disclosure	The law emphasizes that EIAs be publicly disclosed to the public for a period of 21 days for the purpose of access to information. The requirements of ESS 1 and ESS 10 likewise are consistent with information disclosure for environmental and social assessments to stakeholders (Interested parties and Project Affected Persons)

The World Bank Group Environmental, Health and Safety Guidelines (EHSGs), also provides provisions to support the ESSs.

The Environmental, Health and Safety Guidelines⁹ are technical reference documents with general and industry-specific examples of Good International Industry Practice (GIIP). When one or more members of the World Bank Group are involved in a project, these EHS Guidelines are applied as required by their respective policies and standards. These General EHS Guidelines are designed to be used together with the relevant Industry Sector EHS Guidelines which guide users on EHS issues in specific industry sectors. For complex projects, use of multiple industry-sector guidelines may be necessary.

The Bank developed Good practice notes that the Borrower is obliged to apply appropriate level of performance or measures referred to in the Good practice notes for the subproject activities during preparation of subproject documentation as well as during its implementation.

Good Practice Notes

- World Bank, Good Practice Note Environment & Social Framework for IPF Operations, Non-discrimination and Disability, 2018,
- World Bank, Good Practice Note, Addressing Gender Based Violence in Investment Project Financing involving Major Civil Works, 28 September 2018,
- World Bank, Good Practice Note: Assessing and Managing the Risks and Impacts of the Use of Security Personnel, October 2018,
- World Bank, Good Practice Note: Environment & Social Framework for IPF Operations Road Safety, October 2019
- World Bank, Good Practice Note: Environment & Social Framework for IPF Operations Non-discrimination: Sexual Orientation and Gender Identity (SOGI), October 2019.

⁹ www.ifc.org/ifcext/enviro.nsf/Content/EnvironmentalGuidelines

CHAPTER THREE

PROJECT DESCRIPTION

3.1 DISREP OVERVIEW

DISREP is targeted at increasing access to electricity across Nigeria through new connections and investments that bridge the supply-demand gap. Also, investments in infrastructure rehabilitation and customer metering will improve the quality and quantity of electricity supply to those already connected as well as improve customer experience through improvements in billing accuracy for currently unmetered customers. Through the provision of new and improved connections to the power network, DISREP will contribute to reducing the current reliance on alternative, carbon-intensive energy sources such as diesel/petrol-based generators, kerosene, or firewood, which are expensive and are associated with significant health and environmental impacts, including climate impacts. The provision of reliable electricity access in particular will benefit women and girls, with evidence showing that new energy access and improved energy services can improve development outcomes for women and girls and help bridge the gender gap in many communities. The DISREP boundary will be limited to the distribution sub-sector elements of the PSRP and only those investments and interventions detailed in the NERC approved PIPs

3.2 Program Components and Emphasis on IPF/TA

DISREP is a hybrid operation, combining **Program for Results (PforR), Investment Project Finance (IPF) and Technical Assistance (TA) components** targeted at supporting the improvement of DISCOs in their operational performance, service delivery and governance. While the PforR component is expressively described in the PAD, and will be implemented by BPE, the IPF and TA components for which this ESMF addresses, are hereby elaborately described in this section.

3.2.1 Investment Project Financing (IPF) Component

The proposed operation would involve two IPF components for: 1) the NERC DAP, and 2) the bulk procurement of meters for DISCOs.

IPF Component 1 (IPF1): NERC Data Aggregation Platform. To support NERC in addressing problems of inadequate data availability, inconsistent data quality, and irregular reporting of the sector operators, that impact their ability to monitor sector performance, the IPF1 project will support the scoping and implementation of a comprehensive DAP within NERC. The development and implementation of the DAP will be complemented by the parallel deployment of customer meters and the improvements in data management and reporting by DISCOs

IPF Component 2 (IPF2): Bulk procurement of customer/retail meters for DISCOs. To support DISCOs' implementation of metering as part of their PIPs, the IPF 2 project will facilitate the bulk procurement of customer/retail level meters on behalf of DISCOs. The centralized procurement of meters will also ensure that meters are of a minimum standard and standardized where possible, which will facilitate the integration of metering data with the NERC DAP. The specification of the meters will adhere to the NERC Meter Code and will be established in partnership with DISCOs.

3.2.2 Technical Assistance (TA) Component

The proposed operation would involve three TA components for: 1) PforR implementation support, 2) capacity building for DISCOs, and 3) the design of a social protection fund.

TA Component 1 (TA1): PforRs Implementation Support.

- The TA1 would include the establishment of a Project Management Unit (PMU) in Bureau of Public Procurement (BPE) to assist with the functions of the PforR Implementing Agency.

- Implementation support to BPE will include support for verification of the DISCOs DLIs, working closely with an independent verification agent.
- The TA1 would include capacity building for implementation of measures identified in the Program Action Plan (e.g. strengthening of Safeguards, financial management, procurement capacity).

TA Component 2 (TA2). Technical assistance will be designed as Programmatic Technical Assistance (PTA) over a five-year period. The PTA will be supported and co-financed by the WB Energy Sector Management Assistance Program and include the following pillar, under which specific activities will be defined and implemented:

Sub-Component 2.1 Capacity Building: will involve capacity building for the MoP as well as DISCOs.

- This would include development of a roadmap on electricity sector market evolution along with sector policies and regulation.
- Support DISCO capacity building and change management programs focusing on the application of new business models and commercial operations in DISCO services
- A review of the current sector contractual frameworks and provide recommendations on potential changes as the market evolves, including options for direct sourcing of power supply from GENCOs as well as from embedded generation such as wind and solar
- Support participating DISCOs to apply innovative approaches to identify gender gaps as well as the main impediments of disadvantaged customers to access electricity and to address them through the development of DISCO-specific gender strategies

Sub-Component 2.2 Design of a Consumer Assistance Fund:

- assess the impact of the tariff increases on the poor;
- identify suitable delivery mechanisms of the assistance and targeting principles that will minimize inclusion and exclusion errors for both metered and unmetered consumers;
- model the possible financing sources and ranges of this fund and the financial support at the consumer level, while adhering to the Act of 2005; and,
- propose a realistic and feasible design of the Consumer Assistance Fund, whilst adhering to principles of good program design, including outreach, in-take, and registration, assessment of conditions and needs, enrolment, payments, tools (e.g. ICT), and communication schemes to increase citizen engagement.

Project Activities: The project activities under the IPF component of DISREP which will require screening and environmental and social assessment include:

1. Procurement and installation of DAP for NERC, and
2. Bulk procurement of meters to be supplied to the DISCOs warehouses

BPE will be the Implementing Agency for the PforR component of DISREP. BPE, as a shareholder of the DISCOs and the FGN agency responsible for receiving World Bank funds and on-lending to the DISCOs, is the most appropriate agency to fulfil this role. BPE will be responsible for the management of funds and financial reporting on the program to the DISREP Technical Committee and to the World Bank. BPE will not be responsible for any DISREP procurement or environmental or social safeguards. Rather the procurement, environmental and social safeguard functions and compliance for the **PforR component** of the Program will be the responsibility of DISCOs as the ultimate recipient of World Bank funds.

3.2 Description of the IPF Component Implementation Arrangement

The IPF component of the Program will involve the bulk procurement and distribution of meters to DISCOs warehouses and the procurement of a DAP for NERC. The implementing arrangements for the IPF component of the Program are presented in Figure 1.

IPF Implementing Agency - TCN will be the Implementing Agency for the IPF component of the operation. TCN is currently the Implementing Agency for the ongoing Nigeria Electricity Transmission Project (NETAP) and as such has extensive in-house capacity and experience in undertaking procurement using World Bank funds. TCN will receive World Bank funds and undertake all procurement associated with the IPF component of the program as well as the TA component. Once procured, the meters will be supplied to DISCOs for installation, and the DAP to NERC for operationalization. TCN will therefore be responsible for the management of funds and procurement but will have limited environmental or social safeguards responsibility other than in relation to the supply chain and logistics for the delivery of the meters to DISCOs. Given TCN's extensive experience from the NETAP project, it is expected that they will have sufficient capacity to fulfil their role as IPF Implementing Agency.

IPF funds flow - DISREP IPF funds will be disbursed via the Federal Ministry of Finance, Budget and National Planning (FMOFBNP) to a TCN controlled designated account held at the Central Bank of Nigeria (CBN). TCN will then utilize the funds for the bulk meter procurement and procurement of the DAP. **TA Implementing Arrangements.** TA implementation will involve a number of different agencies including BPE, FMOF and DISCOs. Technical assistance will include project implementation support with a focus of establishing a PMU in BPE. It will also involve design of a consumer assistance fund with Federal Ministry of Power (FMOF) as well as provide capacity building for multiple agencies. Any procurement required in association to the DISREP TA component, will be undertaken by TCN on behalf of the relevant FGN agency.

Broader and Higher level Institutional and Implementation Arrangement for DISREP (for all 3 Components)

DISREP falls under the auspices of the Presidency with implementation oversight delegated to the appropriately constituted committees, focused on strategic and financial oversight as well as technical oversight. DISREP shares an oversight structure with the complementary PSR PforR operation to ensure the continued alignment of the two programs (PSR PforR program and DISREP). A dedicated FGN technical oversight committee will be established to oversee all the components of the DISREP operation. The implementation arrangements for each of the three components have been designed to reflect the specific needs of the component as well as the capacity of the selected agency with respect to governance, financial management, procurement, environmental and social safeguards.

A PSRP Finance and Policy Oversight Committee – The committee will be chaired by the Federal Minister of Finance, Budget and National Planning with the Federal Minister of Power as co-Chair and Director General (DG) Budget as Secretary. The Committee members will include the heads of all relevant FGN Ministries, Departments and Agencies (NERC, NBET, BPE, Debt Management Office (DMO), Budget Office of the Federation (BOF)) and designated officials from the Presidency. This committee will carry out the strategic oversight of the overarching PSRP implementation as well as the implementation of the DISREP and PSR PforR operations. The Chairs of the Oversight Committee will report to the Presidency (Office of the Chief of Staff and Office of the Vice President) providing updates and escalating issues requiring attention. The Oversight Committee will meet twice annually for strategic oversight of the DISREP implementation.

DISREP Technical Committee – The committee will be chaired by the FMOF and supported by BPE who will provide the Secretariat. Committee members will include senior management-level representatives of NERC, TCN, BPE, and NBET, as well as the FMOF and officials from the Presidency. The DISREP Technical Committee will monitor the implementation of the elements of the PSRP and PIPs supported by the DISREP and the Disbursement Linked Indicators (DLIs) linked to these actions. BPE will report to the Technical Committee on the monitoring and verification process and disbursements against achieved DLIs, and NERC will report to the Technical Committee on the overall implementation of PIPs. The Technical Committee will convene quarterly.

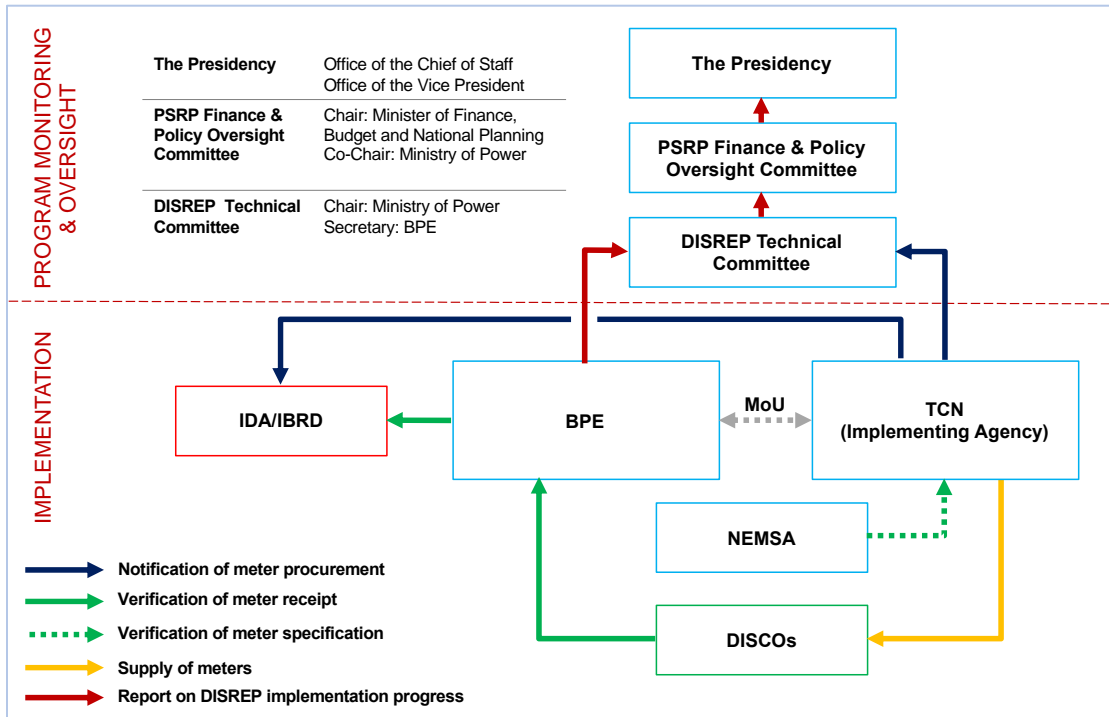


Figure 1: IPF Implementation Arrangements

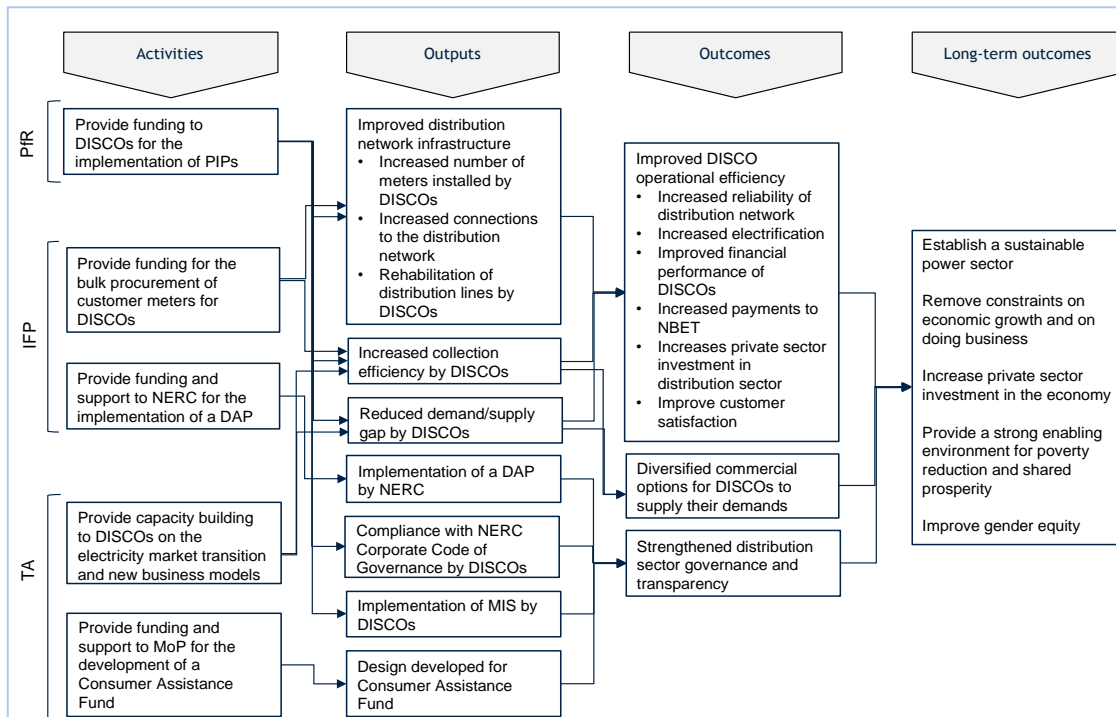


Figure 2: DISREP Operation Summary

CHAPTER FOUR

ENVIRONMENTAL AND SOCIAL BASELINE

4.1 Environmental Baseline

DISREP will have a nationwide coverage considering that the 11 DISCOs are widely distributed across the geographical zones, and respective states of Nigeria; likewise, are their operations. In this regard, the chapter presents a general overview of the environmental baseline of Nigeria; with a social baseline on general energy distribution and consumption rates based on previous studies and data. It is expected that the eventual and more elaborate environmental and social assessment studies to be undertaken will provide in detail, the specific and peculiar environmental and social baseline conditions within each distribution zone. See section 4.2 for Program Area of Influence; and Project locations.

4.2 Program Area of Influence

The DISREP area of influence will be country-wide, given that the DISCOs cover electricity supply throughout the entire country. The DISCO operations in Nigeria are executed through their respective distribution zones, which spread across the respective geopolitical zones, States and Local Government Areas (LGAs). The bulk procurement of meters (IPF component) will involve transportation of meters to respective DISCO headquarters and warehouses. Similarly, installations and removal of disused meters will be a door-to-door activity; covering every LGA and State likewise. Figure 3 shows the list of DISCOs and their distribution zones.

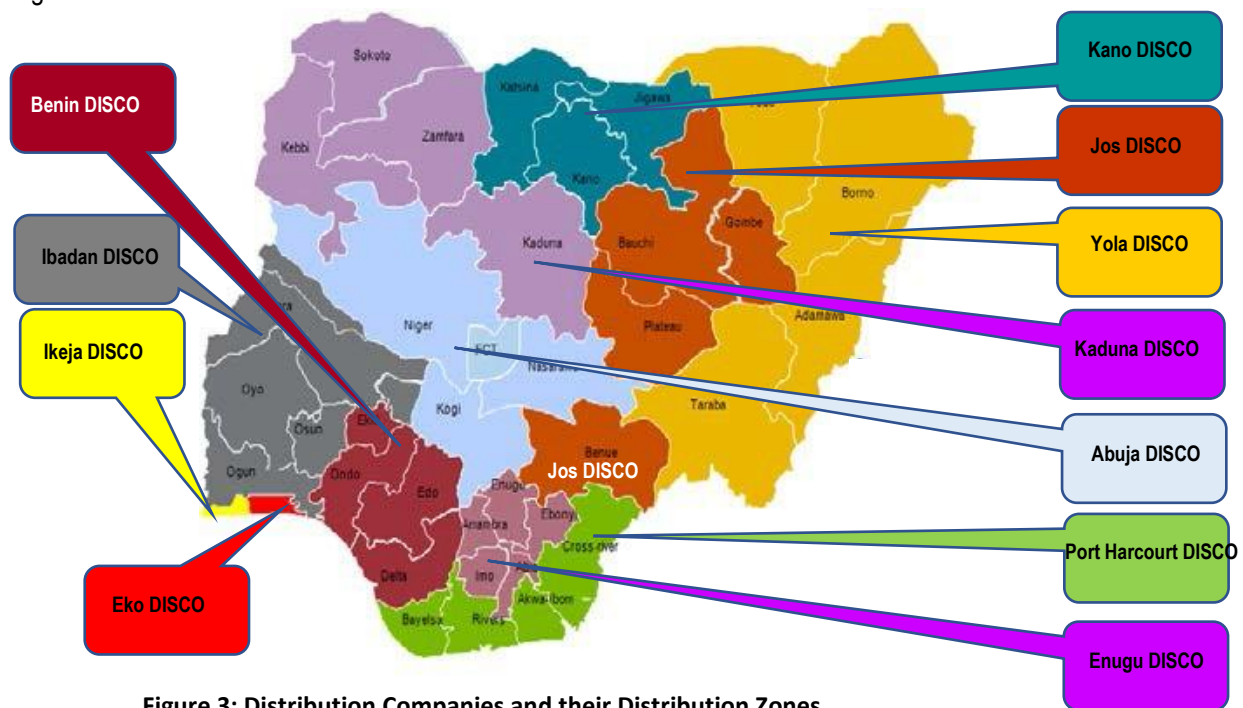


Figure 3: Distribution Companies and their Distribution Zones

Project locations - The locations where the IPF component of DISREP will support, are the eleven (11) distribution zones, overseen by the 11 privately owned distribution companies in Nigeria. The distribution companies are responsible for electricity supply in Nigeria; where their services span across the entire nation. They include:

S/N	Registered Name with the Corporate Affairs Commission (CAC)	Common Name	Distribution Zone
1.	Abuja Electricity Distribution Company	Abuja DISCO	Abuja Distribution Zone
2.	Benin Electricity Distribution Company	Benin DUSCO	Benin Distribution Zone
3.	Enugu Electricity Distribution Company	Enugu DISCO	Enugu Distribution Zone
4.	Eko Electricity Distribution Company	Eko DISCO	Eko Distribution Zone
5.	Ibadan Electricity Distribution Company	Ibadan DISCO	Ibadan Distribution Zone
6.	Ikeja Electricity Distribution Company	Ikeja DISCO	Ikeja Distribution Zone
7.	Jos Electricity Distribution Company	Jos DISCO	Jos Distribution Zone
8.	Kaduna Electricity Distribution Company	Kaduna DISCO	Kaduna Distribution Zone
9.	Kano Electricity Distribution Company	Kano DISCO	Kano Distribution Zone
10.	Port Harcourt Electricity Distribution Company	Port Harcourt DISCO	Port Harcourt Distribution Zone
11.	Yola Electricity Distribution Company	Yola DISCO	Yola Distribution Zone

4.2.1 Climate

The project area of influence (which cuts across Nigeria) is divided into three main climatic regions: Tropical Rain Forest Region, Near Desert Region and Savannah Region. However, due to unequal elevations in different parts of the country, there are differences in temperature and rainfall distribution. The tropical rain forest region covering the southern part of the country, has an annual rainfall of around 2,000 mm (80 inches), the near desert region covering the far north of the country with an annual rainfall around 500 mm (20 inches) and the savannah region covering the central portion of the country has annual rains around 1,000 mm (40 inches).

The climate in Nigeria is semi-arid in the north, and humid in the south. Due to its location, Nigeria has a tropical climate characterized by the hot and wet conditions linked with the movement of the Inter-Tropical Convergence Zone (ITCZ) north and south of the equator. The country experiences consistently high temperatures throughout the year. However, there are wide diurnal ranges in temperature particularly in the very hot months. The mean monthly temperatures during the day sometimes exceed 36°C while monthly average temperatures at night fall below 22°C. Since temperature varies only slightly, rainfall distribution, over space and time, becomes an important factor in differentiating the seasons and climatic region except for the coastal zone, where it rains all year round. Rainfall is seasonal with distinct wet and dry seasons. Figure 4 below shows mean annual rainfall.

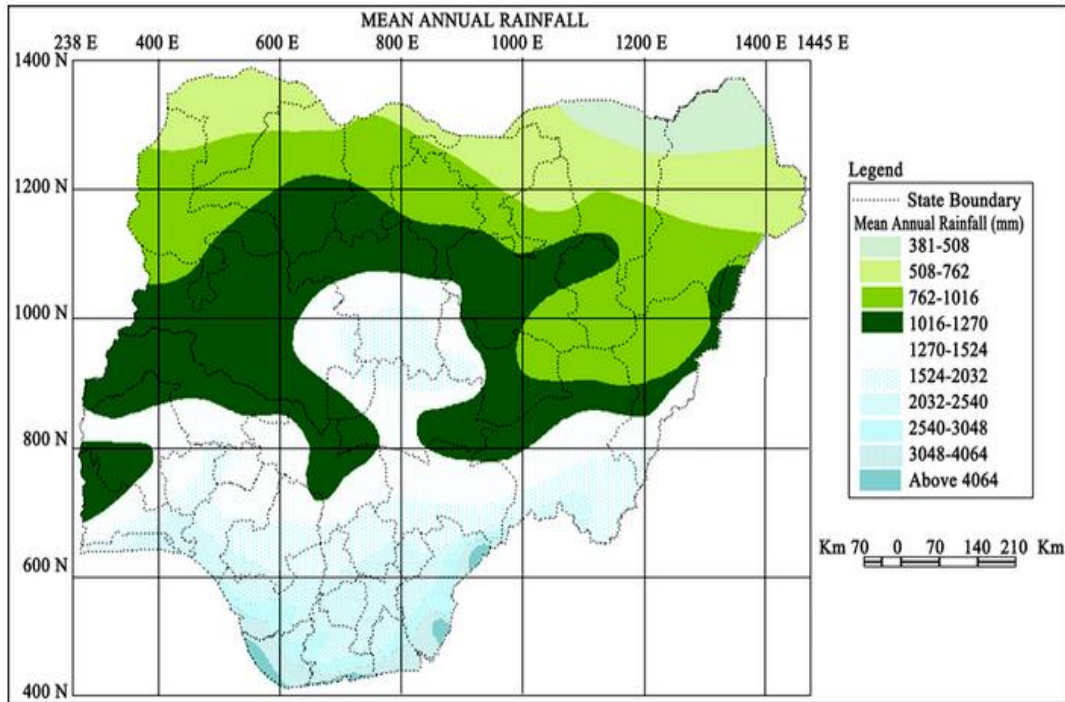


Figure 4: Mean Annual Rainfall of Nigeria

4.2.2 Vegetation

Savannah and Forest are the predominant types of vegetation in Nigeria. The savannah vegetation stretches from the central parts of Nigeria to the extreme northern parts. It is divided into marginal

- i. Sahel savannah: in the North-Eastern borders
- ii. Short grass Sudan savannah: stretching from upper western borders to the North-Western borders and
- iii. Woodland/Tall grass Guinea Savannah (lying below the short grass savannah and covering the central states and parts of the eastern region of the country).

The tropical forest vegetation covers the remaining southern portion of the country and is divided into three types: i) Rain forest with tall trees, ii) Fresh water swamp consisting of both fresh and saltwater swamps and iii) Mangrove forest which is made up of mangrove vegetation.

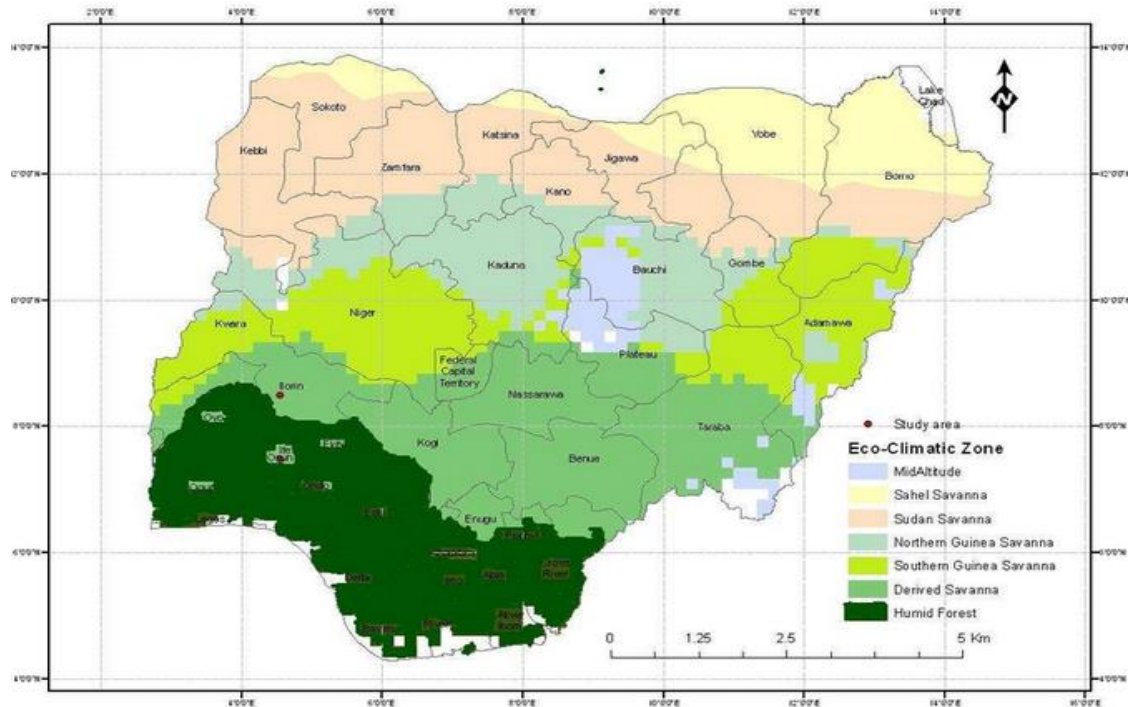


Figure 5: Vegetation Distribution Map of Nigeria

4.2.3 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 project or program 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. Figure 5 below shows vegetation distribution in Nigeria

The species present in the country can be classified into major groups as:

i) Herpetofauna (amphibians and reptiles), ii). Invertebrates (insects), iii). Birds (black kite, Egret, Robin, Songbird, Pigeon etc), iv). Mammals (Giant rat) etc. Some of these faunas maybe endangered and vulnerable to poaching.

4.2.4 Hydrology

4.2.4.1 Surface Water

There are many rivers in Nigeria but the two principal river systems are the Niger – Benue and the Chad. The Niger River, the largest in West Africa, flows 4,000 km from Guinea through Mali, Niger, Benin, and Nigeria before emptying into the Gulf of Guinea. The Benue River and largest tributary flows 1,400 km 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.

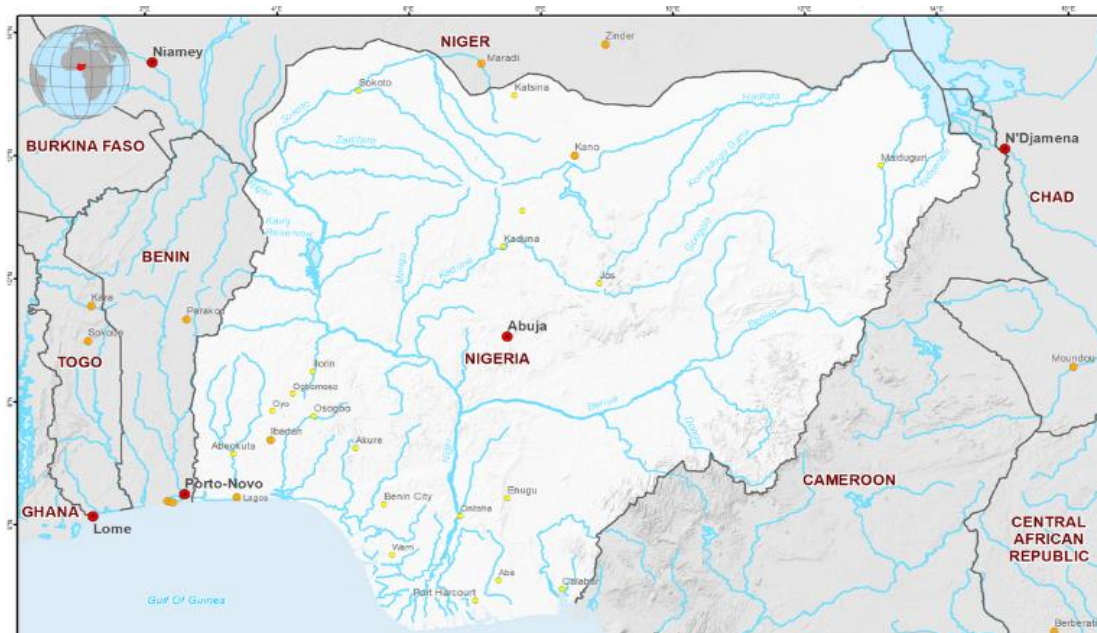


Figure 6: Nigeria Hydrological Map

Floods

Southwestern part of Nigeria is vulnerable to flooding often during the rainy season, but other parts of the country has experienced intense flooding in recent years. Floods in Sokoto, Kogi, Jigawa, Kebbi, Kwara, etc, affected thousands of households and farm produce causing considerable material damages. In Nigeria, floods are usually as a result of heavy rains or storms where major river flows overflow into urban and rural areas resulting in significant damages to infrastructure, private property, agriculture, etc. In urban areas, the effect of old network, insufficient capacity, lack of facilities for wastewater treatment and poor drainage systems increase the potency for flooding to occur during heavy rainfalls.

4.2.4.2 Ground Water/ Hydrogeology

The major aquifers in Nigeria are Basement aquifers, Sedimentary basins, Volcanic plateau, and River alluvium. There are eight major regional aquifer systems, 30 local and minor aquifers and 36 aquicludes, aquitards, and aquifuges in Nigeria. These eight mega regional aquifers have an effective average thickness of 360 m; with a range of 15–3,000m. The yields from the major aquifers range between 1.25 and 32 l/s whereby the sedimentary basins generally form the most prolific aquifers.

Groundwater quality

Generally, groundwater in most of the aquifers in Nigeria are fresh with low concentrations of total dissolved solids (<500 mg L⁻¹). However, groundwater is exposed to active pollution in major cities and rural communities due to increased urbanization, indiscriminate waste disposals, industrial activities etc.

4.2.5 Geology

Nigeria's land mass is made up of two main rocks, Precambrian basement rocks which covers about two-thirds of the country's landmass and Sedimentary rocks of Cretaceous about half of the country. Other minor formations are the Tertiary Volcanics, Tertiary sediments etc. The Precambrian basement rocks consisting of gneisses, migmatites, schist, and various metamorphic rocks and granites. Figure 7 below shows some details of the geology of Nigeria.

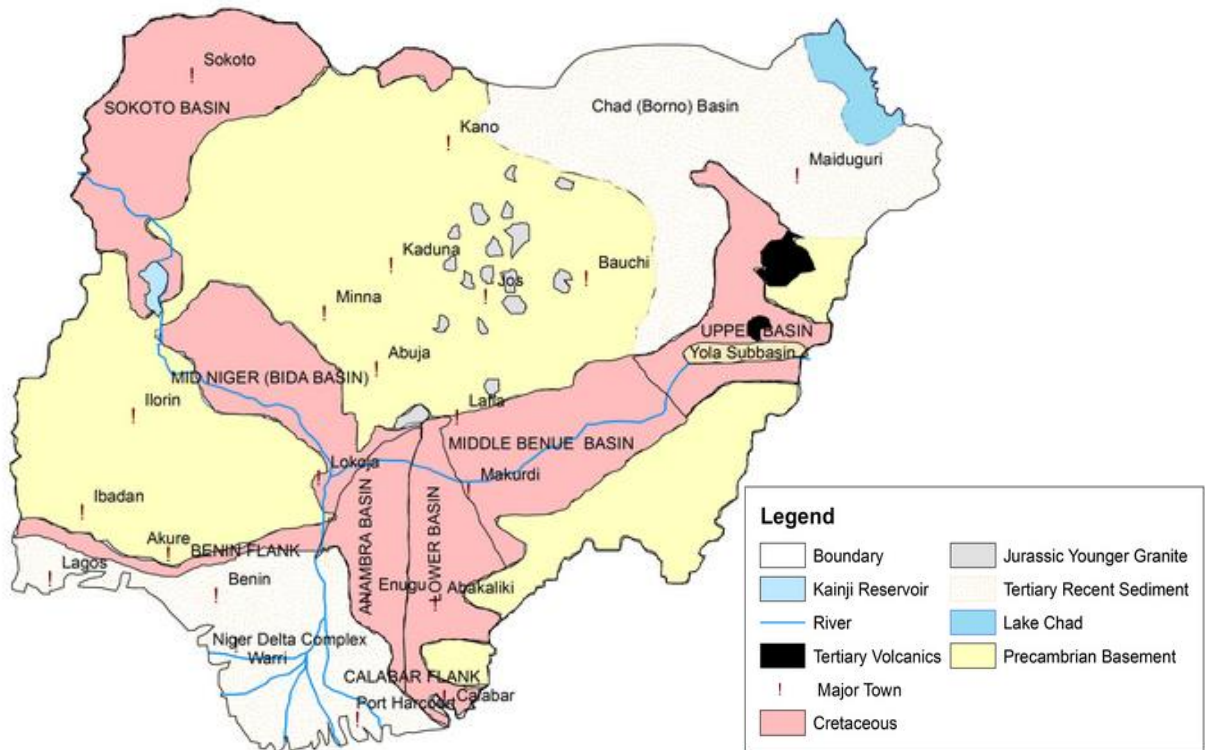


Figure 7: Nigeria Geological Map

4.2.6 Soil

Figure 8 below shows the soil types in Nigeria. Soil types in Nigeria vary according to their composition, physical, chemical, morphological and mineralogical characteristics. The pedologic map of Nigeria represents a real mosaic.

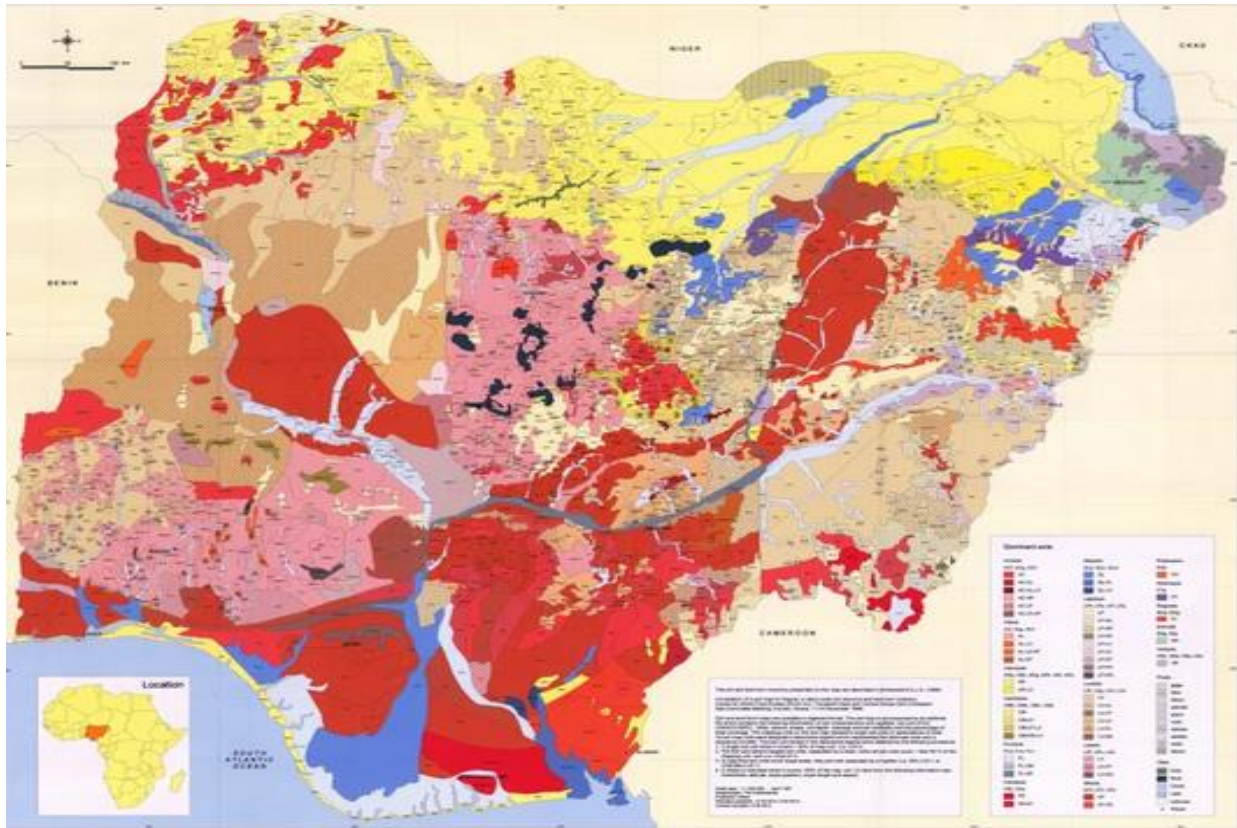


Figure 8: Nigeria Pedological Map

4.2.7 Ambient Air Quality and Noise levels in Nigeria

Air quality assessment of DISREP coverage areas will be conducted in-situ 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 are Carbon monoxide (CO), Nitrogen dioxide (NO²), Sulphur dioxide (SO²), Hydrogen sulphide (H²S), Oxygen, Ammonia and Methane (CH⁴). Since air quality parameters and noise levels are dynamic, real time values shall be obtained during the assessment reports to help mitigate potential risks and impacts during sub activities as bulk transportation of meters to various DISCOs and project locations.

4.2.8 Biodiversity and Nature Protection

Nigeria is an important centre for biodiversity. It is widely believed that the areas surrounding Calabar in Cross River State contain the world's largest diversity of butterflies. The drill monkey is only found in the wild in Southeast Nigeria. The total number of higher plant species in Nigeria is 4,715 (of which 119 are threatened). For mammals, the total number of species is 274 (27 threatened), and for breeding birds the total known species is 286. Nigeria has over 1,000 protected areas (nature reserves, wilderness areas, national parks), covering a total 5.5 million ha. The total land area under protection represents 6% of the total land area. Under categories I and II (the highest level of protection) Nigeria has 2.5 million ha.

4.3 Social Baseline

Social Assessments will be conducted for sub-activities under DISREP to be informed of social conditions, behaviours and perceptions of electricity consumers. It is mandatory to integrate community views at the program design stage and with regards to achieving the objectives of the ESSs, wide consultations will be held and community opinions will be recorded. This can be achieved using structured questionnaire, where the respondents from the sub program beneficiaries will be carefully selected to represent all parts of the country. The main objectives of the studies include but not limited to:

- i. 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.
- ii. Evaluate the possible risks and impact of the program activities on the economic and cultural structure of the communities
- iii. Assess the perception of the PAPs on the subprojects, problems affecting their communities and their needs.

4.3.1 Population and Demographics

Nigeria is the country with the highest population in Africa. In 2019, its population amounted to over 200 million people and was estimated to constantly increase in the next decades. By 2050, this figure could double and reach 400 million people. In fact, in the last 50 years, Nigeria's population grew at a very high rate. The largest city of Nigeria is Lagos, which is also the largest city in all of Sub-Saharan Africa. Abuja, the Capital City of Nigeria, counted about half a million inhabitants in 2020, ranking 15th among the largest cities in Nigeria

4.3.2 Energy Consumption

The population statistics of the country on electricity Consumption is presented in Table 4. 80% of the total electricity demand and consumption are from residential and commercial sectors. The rest is covered by the Industrial, Street Lighting and Special Tariff sectors. The share of large consumers, such as industry or large commercial areas, only represented 1% of the total electricity consumption. Electricity distribution rates vary substantially amongst the states in Nigeria. For instance, according to the projections of the Japanese International Cooperation Agency (JICA), Taraba State had the lowest electrification rate in 2010 with 21% and Lagos the highest with 96%. Out of the 13 states that registered the lowest electrification rates, 10 were located in the North-West and North-East. The 8 states with the highest electrification rates were located in the South-West or South-South. See Table 5 below.

4.3.3 Share of Households without Electricity access in Nigeria by Geopolitical Zone

According to the results of a survey from 2019, 79.1% of households in North East Nigeria did not have access to electricity, the highest share in the country. Generally, the majority of households with no electricity were located in the North of the country, whereas the South reported the lowest shares. In the South South zone, for instance, about 27% of households had no electricity access (Source: Statista, 2020).

4.3.4 Share of Households without Electricity access in Nigeria by Area

According to the results of a survey from 2019, 57.6 % of households located in rural areas of Nigeria did not have access to electricity. In urban areas, this figure was much lower. In total, roughly 45% of households in Nigeria who took part to the survey had no electricity. Generally, the majority of households with no electricity were located in the North of the country, whereas the South reported the lowest shares. (Source: Statista, 2020). See table 5 below.

Table 5: Population Statistics on Electricity Consumption in Nigeria

S/N	STATES	POPULATION 2006	POPULATION 2016	NO OF HOUSEHOLDS OF 1997 (*1)	% OF HOUSEHOLDS WITH ELECTRICITY AS OF 1997 (*2)	NO OF HOUSEHOLDS WITH ELECTRICITY AS OF 1997	ANNUAL GROWTH RATE OF CONSUMERS (%)	% OF HOUSEHOLD WITH ELECTRICITY			NO OF HOUSEHOLD WITH ELECTRICITY		
								2006	2010	2020	2006	2010	2020
1	Taraba	2,294,800	3,066,834	432,880	12	50,301	7.80	17	21	34	98,888	133,542	283,012
2	Jigawa	4,361,002	5,828,163	99,685	12	99,685	7.77	18	22	35	195,520	263,766	557,554
3	Zamfara	3,278,873	4,515,427	593,479	13	77,924	7.71	20	23	37	152,101	204,752	430,492
4	Sokoto	3,702,676	4,998,090	686,178	13	90,095	7.71	20	23	37	175,859	236,734	497,734
5	Kebbi	3,256,541	4,440,050	592,137	13	77,807	7.71	20	23	37	151,866	204,431	429,794
6	Katsina	5,801,584	7,831,319	1,074,392	14	145,902	7.69	20	23	37	284,184	382,194	801,663
7	Gombe	2,365,040	3,256,962	426,284	17	72,553	7.49	25	30	46	139,031	185,628	382,367
8	Bauchi	4,653,066	6,537,314	819,259	17	139,438	7.49	25	30	46	267,198	356,753	734,857
9	Benue	4,253,641	5,741,815	788,111	17	135,003	7.49	25	30	46	258,565	345,146	710,537
10	Yobe	2,321,339	3,294,137	400,682	19	75,729	7.39	27	32	50	143,826	191,270	390,098
11	Ebonyi	2,176,947	2,880,383	416,196	25	102,759	7.06	39	46	69	189,857	249,413	493,343
12	Enugu	3,267,837	4,411,119	608,334	25	150,198	7.06	39	46	69	277,505	364,554	721,096
13	Cross river	2,892,988	3,866,269	547,224	29	159,954	6.80	40	47	68	289,196	376,273	726,572
14	Nasarawa	1,869,377	2,523,395	345,773	31	108,607	6.68	43	49	71	194,326	251,669	480,372
15	Plateau	3,206,531	4,200,442	602,456	31	189,231	6.68	43	49	71	338,583	438,495	836,973
16	Kano	9,401,288	13,076,892	1,663,337	32	538,256	6.62	44	51	72	958,709	1,239,106	2,353,218
17	Borno	4,171,104	5,860,183	725,970	34	248,935	6.51	46	53	75	437,310	565,469	1,062,926
18	Adamawa	3,178,950	4,248,436	601,745	35	210,069	6.48	47	54	76	369,621	475,140	890,189
19	Akwa Ibom	3,178,950	5,482,177	689,703	36	246,638	6.43	47	55	77	432,200	554,578	1,034,327
20	Niger	3,952,772	5,556,247	693,215	42	288,932	6.10	54	61	83	492,124	623,542	1,126,789

S/N	STATES	POPULATION 2006	POPULATION 2016	NO OF HOUSEHOLDS OF 1997 (*1)	% OF HOUSEHOLDS WITH ELECTRICITY AS OF 1997 (*2)	NO OF HOUSEHOLDS WITH ELECTRICITY AS OF 1997	ANNUAL GROWTH RATE OF CONSUMERS (%)	% OF HOUSEHOLD WITH ELECTRICITY			NO OF HOUSEHOLD WITH ELECTRICITY		
								2006	2010	2020	2006	2010	2020
21	Kaduna	6,113,503	8,252,366	1,126,632	43	479,607	6.05	55	62	84	813,402	1,028,655	1,850,037
22	Kogi	3,314,043	4,473,490	614,828	50	309,996	5.60	62	70	90	506,218	629,499	1,085,526
23	Bayelsa	1,704,515	2,277,961	321,102	52	167,069	5.51	64	71	91	270,706	335,469	573,511
24	Rivers	5,198,605	7,303,924	912,575	52	474,813	5.51	64	71	91	769,348	953,408	1,629,926
25	Abia	2,845,380	3,727,347	547,888	52	287,587	5.48	53	58	75	464,946	575,611	981,623
26	Imo	3,927,563	5,408,756	711,551	61	433,833	5.00	72	78	96	673,132	818,258	1,333,107
27	Delta	4,112,445	5,663,362	741,568	62	462,294	4.92	73	79	96	712,530	863,590	1,396,589
28	Edo	3,233,366	4,235,595	621,770	63	388,855	4.91	73	79	96	598,757	725,382	1,171,814
29	Kwara	2,365,353	3,192,893	448,257	68	299,509	4.63	77	83	98	450,021	539,288	847,795
30	Osun	3,416,959	4,705,589	617,802	71	436,539	4.45	80	85	99	646,094	769,082	1,188,952
31	Abuja	1,405,201	3,564,126	106,397	71	75,436	4.44	80	85	99	111,517	132,676	204,841
32	Ogun	3,751,140	5,217,716	668,065	72	483,813	4.35	81	86	99	709,928	841,842	1,289,056
33	Ekiti	2,398,957	3,270,798	439,614	72	318,698	4.35	81	86	99	467,484	554,265	848,386
34	Ondo	3,460,877	4,671,695	643,968	72	466,812	4.35	81	86	99	684,748	811,860	1,242,673
35	Anambra	4,177,828	5,527,809	800,534	78	621,295	4.06	85	88	99	888,786	1,042,097	1,551,263
36	Oyo	5,580,894	7,840,864	988,394	78	771,541	4.03	85	89	100	1,101,286	1,289,986	1,915,566
37	Lagos	9,113,605	17,500,000	1,638,903	96	1,577,536	3.00	96	96	97	2,058,848	2,317,252	3,114,193
	Total Nigeria	139,705,540	206,139,589	25,475,400	44	11,263,648	6.04	53	58	70	17,776,220	21,870,672	37,168,770

Source: KPMG, Electricity Nigeria Distribution Sector Report, 2016

4.4 Guidelines for Baseline Studies

Baseline studies will be undertaken in accordance to Sectoral Guidelines provided by the FMEnv and the requirements of the ESSs. The scoping process (Chapter 6) will provide TCN with clarity on the requisite environmental and social parameters to be identified, sampled, analyzed and interpreted in relation to the proposed activities of sub-projects and their influence on environmental and social sensitivities or receptors in the program/sub-projects area(s) of influence.

CHAPTER FIVE

POTENTIAL ENVIRONMENTAL AND SOCIAL RISKS AND IMPACTS

5.1 Introduction

This chapter identifies the generic potential environmental and social risks and impacts associated with the implementation of the IPF component of DISREP, and proffers mitigation measures to in line with the mitigation hierarchy provided in the ESF. The potential for occurrence of the impacts identified has to be ascertained during further stages of project design and implementation.

5.3 Identification of Potential Environmental and Social Risks and Impacts

The object of this section is to aid institutions responsible for implementing this ESMF, to identify, evaluate and manage the environmental and social risks and impacts of the program and consequent activities in a manner consistent with the ESSs. The impact identification and assessment are based on potential impacts from anticipated project activities listed in sub-section 5.3.1 below. Site specific project impacts would be detailed for each DISCO distribution zone likewise NERC, before the commencement of activities as part of the Environmental and Social Management Plan (ESMP) implementation to be prepared by TCN; through procurement of professional environmental and social safeguards services from qualified and experienced Consultant's.

5.3.1 Project Activities

The project activities under the IPF component of DISREP which will require screening and environmental and social assessment include:

1. Procurement and installation of DAP for NERC, and
2. Bulk procurement of meters to be supplied to the DISCOs warehouses

The activities to be undertaken under the TA components have been judged to have low environmental and social risks and impacts. The social impacts, however, will be largely beneficial. No mitigation measures are thus required for the TA activities, rather potential impacts will be enhanced. Based on availability of information provided, expert judgment and opinion, and stakeholder engagement, a further breakdown of the IPF component activities has been established, including a list of major environmental and social sensitivities or receptors to be impacted adversely. Essentially, it is not known if the DAP procurement will include the set-up of a data centre at NERC for housing DAP equipment and hardware, or if the DAP will run as a cloud-based system. Nonetheless, this sub-section generically, addresses the potential environmental and social impacts of the DAP from the two assumed set-ups. See Table 6 below

Table 6: Project Activities and Potential Sensitivities/Receptors

S/N	Activities	Environmental Sensitivities and Receptors	Social Sensitivities and Receptors
Procurement and Installation of DAP (cloud-based system)			
1.	DAP designing	Nil	NERC workforce assigned to DAP designing, operation, management and maintenance
2.	Product development	Nil	Same as above
3.	Mobile application	Nil	Same as above
4.	Web application	Nil	Same as above
5.	Blockchain development	Nil	Same as above
6.	Cloud enablement	Nil	Same as above
7.	Analytics	Nil	Same as above

S/N	Activities	Environmental Sensitivities and Receptors	Social Sensitivities and Receptors
Procurement and Installation of DAP			
1.	DAP receiving, collection and temporary storage at shipping yards or airports	Soil, holding areas	TCN, NERC, and Customs workforce
2.	DAP sorting and inventory	Soil, holding areas	TCN, Customs and NERC; Customs workforce
3.	Transportation of DAP to respective NERC	Air, soil, surface water	TCN, NERC and Contractual workforce, populations within and along transportation routes
4.	Unpacking at NERC headquarters	Soil, holding areas	NERC and Contractual workforce
5.	Installation of DAP at NERC	Holding areas	NERC and Contractual workforce; Communities and households
Bulk Procurement of Meters and Supply to DISCO Warehouses			
1.	Meters receiving, collection and temporary storage at shipping yards or airports	Soil, holding areas	TCN, Customs workforce
2.	Meters sorting and inventory	Soil, holding areas	TCN, Customs and DISCO; Customs workforce
3.	Transportation of meters to respective DISCOs warehouses	Air, soil, surface water	TCN, DISCO and Contractual workforce; populations within and along transportation routes
4.	Unpacking at DISCO headquarters or warehouses	Soil, holding areas	DISCO and Contractual workforce

The program activities and generic adverse impacts likely to occur on environmental and social sensitivities are presented in Table 9 below. These are presented under the Pre-Supply, Supply and Operation Phases

Pre-Supply Phase: This phase involves the landing of procured commodities for DISCOs and NERC at shipping docks/yards and international airports in Nigeria, and their temporary storage at these facilities prior to supply/transportation to DISCO warehouses or those belonging to TCN before supply/distribution to DISCO warehouses. Other pre-supply activities such as preparation of bidding documents are not addressed here but rather; the requisite sample environmental and social clauses to be included in the bidding documents for suppliers and contractors are provided in 5.3.2

At the moment, TCN's arrangement is that meters and DAP be received at the seaports/shipping yards/airports before direct supply to the DISCOs and NERC. This means that the Contract agreements for suppliers and contractors will clearly spell out these clauses and mandates, in their scope of works. Hence, potential environmental and social impacts prior to supply are discussed in this ESMF.

Supply Phase: This phase involves the supply/distribution/transportation of procured meters to DISCO warehouses or probably those of TCN before supply to DISCO warehouses (prior to installation activities – risks for installations are covered in the ESSA). It also involves the supply and installation of the DAP for NERC.

Operation Phase: This involves the operationalization of the DAP at NERC and post supply for meters.

5.3.2 Principles for Applying Mitigation Measures to Identified Potential Adverse Environmental and Social Risks and Impacts

The Bank's ESF outlines a mitigation hierarchy to be adopted in the application of mitigation measures to address environmental and social risks and impacts. Following on the identification an assessment of impacts, the environmental and social assessment will apply a mitigation hierarchy, which will:

- a) Anticipate and avoid risks and impacts
- b) Where avoidance is not possible, minimize or reduce risks and impacts to acceptable levels
- c) Once risks and impacts have been minimized or reduced, mitigate, and
- d) Where significant residual impacts remain, compensate for or offset them, where technically and financially feasible.

In practice, application of the mitigation hierarchy shall be achieved through the implementation of environmental and social management procedures adopted for sub-projects, at the phases of implementation (in the case of DISREP - pre-supply; supply and operation phases), through monitoring and evaluation of the Environmental and Social Management Plan (ESMP) for the sub-project(s). Proffered mitigation measures must be considered in the planning or preparation of the following.

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 enhancing beneficial impacts and ensuring sustainability of the sub-projects.

Environmental and Social Clauses in Bidding Documents and Contract Agreement for Suppliers and Contractors

The project contractor(s) 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 and social clauses have been satisfactorily implemented. Very importantly, Contractor's agreements should highlight mitigation measures that address the bio-physical environmental and socially sensitive issues such as GBV and SH, SEA, VAC and other risks associated with labour influx, etc. Additionally, contractors should ensure to prepare their own independent Contractor's Environmental and Social Management Plan (C-ESMP)

Specifically, the clauses should highlight:

1. Traffic management
2. Waste management
3. Journey Management
4. Air, Noise and Soil Pollution
5. Community Health and safety
6. Labour management
7. Fleet safety management
8. SH, SEA, VAC resulting from labour influx etc
9. CESMP
10. Occupational Health and Safety

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 (if required), and waste disposal areas, as well as other site-specific environmental and social requirements. Such a clause would clearly display the cost requirements to undertake mitigation measures.

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 agreement are satisfactorily implemented. Likewise, monitoring is necessary such that mitigation measures are actually followed through, practically.

Table 7 below provides mitigation measures for identified generic potential environmental and social risks and impacts

Table7: Potential Environmental and Social Risks and Impacts Associated with the IPF Component of DISREP

Pre- Supply Phase			Mitigation Measures	
	Environmental Risks	Environmental Impacts		
Negative	Air	<ul style="list-style-type: none"> Air Pollution 	<ul style="list-style-type: none"> The release of fugitive dusts, and fibrils during offloading and storage. 	Measures should be targeted at avoiding forceful lifting and dropping down, as this will reduce chances of fugitive dust and fibrils from being released. Additionally, storage or holding areas should be cleaned and wetted, and ventilated to avoid conditions that could escalate dust release.
	Holding areas	<ul style="list-style-type: none"> Risk of overloading and congestion of holding spaces 	<ul style="list-style-type: none"> Offloaded and stored packages may overload holding areas and restrict movement and access for other operations 	<p>Measures should include ensuring holding areas are sizable to contain procured commodities. Reduction of overloading or crowding by limiting stacking to a particular area or section in the holding areas.</p> <p>Likewise, procured commodities should be stacked in such a way that allows for space so as to reduce overloading and restriction to access.</p>
	Noise	<ul style="list-style-type: none"> Noise pollution 	<ul style="list-style-type: none"> Noise impacts are envisaged during the offloading and storage in holding areas 	Measures should seek to reduce noise or using barriers to screen noise/ sound vibrations
	Occupational Health and Safety Risks	Occupational Health and Safety Impacts		
Negative	Health and Safety at Work	Falls, slips and forced-contact	Workers may engage in horse-play and expose themselves to hazards. Falls and slips are likely including "contact injuries" during offloading and heavy lifting	Preparation of an Occupational Health and Safety Management Plan (OHSMP) to guide management of OHS risks
		Exposure to air pollution	Exposure to air pollutants such as fugitive dust and fibrils from packages	
		Exposure to noise pollution	Exposure to noise pollution during offloading and storage in holding areas	
		Risks of Musculoskeletal Disorders (MSDs)	Contractual workers stand the risks of MSDs and biomechanical injuries, especially during heavy lighting activities	

Pre- Supply Phase			Mitigation Measures
	Social Risks	Social Impacts	
	Noise	<ul style="list-style-type: none"> Noise level increases 	<ul style="list-style-type: none"> Noise from offloading at shipping docks and airports is envisaged.
	Grievances	<ul style="list-style-type: none"> Grievances, Complaints, Disruption of Activities and Vandalism 	<ul style="list-style-type: none"> Grievances from contractual workers engaged to do heavy lifting and offloading. This could result from delay in payment of wages, uncomfortable working conditions, work areas and work design
	Conflicts of Interest	<ul style="list-style-type: none"> Risk of conflicts 	<ul style="list-style-type: none"> Conflicts of interests may arise between contractual workers and also between contractual workers and on-site security personnel. Conflicts could arise between the DISREP actors and management of shipping docks and airports holding their commodities; likewise, between customs.
	Violence and Theft	<ul style="list-style-type: none"> Risk of Violent Behaviour and Theft 	<ul style="list-style-type: none"> In holding areas where equipment is kept, unscrupulous attitudes and behaviour could be displayed as forms of physical harassment, theft and thuggery in holding areas could occur if unauthorized or authorized personnel seek to tamper with commodities. Fist-fights are likely and other violent acts.
	Gender-Based Violence (GBV) and Sexual Exploitation and Abuse (SEA) -	<ul style="list-style-type: none"> Sexual harassment, SEA and VAC 	<ul style="list-style-type: none"> Females working in holding areas could be physically and sexually harassed. In addition, they could be victims of SEA.

Pre- Supply Phase			Mitigation Measures
attributable to labour influx	Social Risks	Social Impacts	

Supply Phase			Mitigation Measures	
Negative	Air	<ul style="list-style-type: none"> Air Pollution 	<ul style="list-style-type: none"> The impacts on air may arise only from fugitive dusts and carbon emissions from exhaust fumes as meters are transported to DISCOs and in the case of NERC, if the DAP will include the transportation of DAP hardware and materials. 	<p>Measures should be targeted at reducing emissions by retrofitting with emission controls for vehicles.</p> <p>Vehicle inspection and servicing; including obtainment of "Road Worthiness" Clearance certificates should be mandatory.</p>
	Soil	<ul style="list-style-type: none"> Soil Pollution 	<ul style="list-style-type: none"> Leakages from (oil, vehicle fuel, hydraulic fluids) may occur when vehicles are transporting meters and DAP (if the DAP will include the transportation of DAP hardware and materials) form temporary holding or storage areas to DISCOs and NERC respectively. If this occurs in areas or roads covered by earth, the possibility of oil seeping-through into the soil may occur. In addition, stockpiling of equipment and materials at temporary holding areas before delivery to final destinations or in warehouses and storage areas belonging to DISCOs could put pressure on soil (in storage areas that are not floored) and cause compaction of soil. 	<p>Measures should address vehicle inspection; testing and tight- fitting of loosened bolts, junctions and connection points.in vehicles.</p> <p>Hard-standing materials should be placed on the ground prior to loading in warehouses. Additionally, impermeable material could be lined on hard-standing in case leakages occur</p>
	Noise	<ul style="list-style-type: none"> Noise level increases exceeding permissible limits (70dB and;90dB) FMEEnv and World Health Organization (WHO), respectively 	<ul style="list-style-type: none"> Noise impacts are envisaged during the movement of meters and DAP equipment and materials (if the DAP will include the transportation of DAP hardware and materials) to warehouses 	<p>Vehicle retrofitting with muffles and other sound-proofing or noise reduction technologies. Fulfils the requirements of ESS 3</p>

Supply Phase			Mitigation Measures
	Waste Generation	<ul style="list-style-type: none"> Generation of, and exposure to e-wastes and solid waste streams 	<p>Unpacking of meters at DISCO headquarters or warehouses may result in generation of solid wastes from packaging materials and casings; likewise, for the DAP at NERC (if the DAP will include DAP hardware and materials). In the case of the DAP at NERC, the impacts will be minimal. The impacts qualification for this aspect only applies to the bulk supply of meters.</p> <p>Removal of old and disused meters (following installations – PforRs component) from households, business and commercial areas may result in generation of stockpiles of e-wastes.</p>
	Water Resources	<ul style="list-style-type: none"> Water Pollution 	
			<p>Measures should be embedded in sub-project level waste management plans (WMPs). Measures should focus on source reduction, sorting, collection, reusing, recycling, transporting, containment, treatment final disposal etc. Fulfils the requirements of ESS 3</p> <p>Measure should include plans which address waste collection at source. Fulfils the requirements of ESS 3</p>
			<p>Leaking parts should be fixed and tightened.</p> <p>Vehicle inspection and servicing; including obtainment of “Road Worthiness” Clearance certificates should be mandatory.</p>

Supply Phase			Mitigation Measures
	Social Risks	Social Impacts	
Negative	Traffic	<ul style="list-style-type: none"> Traffic increases and Travel delay 	<p>Traffic impacts may occur when heavy duty vehicles are conveying meters and DAP (if the DAP will include the transportation of DAP hardware and materials) to and fro the respective DISCOs and NERC. This is likely to occur along major inter-state highways, community/town/city routes needed to be plied during supply/delivery:</p> <p>Noise from heavy-duty vehicles transporting commodities within and to commercial and residential areas is envisaged.</p>
	Noise	<ul style="list-style-type: none"> Noise level increases exceeding permissible limits (70dB and;90dB) FMEEnv and World Health Organization (WHO), respectively 	
	Grievances	<ul style="list-style-type: none"> Grievances, Complaints, Disruption 	<ul style="list-style-type: none"> Grievances from PAPs within the program area of influence. This could be with regards to traffic delay during transportation of
			<p>Measures should aim at establishing baseline traffic conditions in proposed sub-project locations; ascertaining traffic density and preparation and implementation of a Traffic Management Plan (TMP), Similarly, traffic management should be an important component of the C-ESMP.</p> <p>As much as possible, time scheduling options could reduce or minimize the impacts of noise disturbances in consumer areas/locations. Transporting could be started early in the morning (about 6am)</p> <p>-</p> <p>Implement GRM at the level of the sub-project</p>

Supply Phase			Mitigation Measures
	Social Risks	Social Impacts	
	of Activities and Vandalism	commodities, temporary or prolonged power outages during meter supply; or poor labour and working conditions	Early and continuous Stakeholder Engagement in mandatory and fulfils the requirements of ESS 10
Conflicts of Interest	<ul style="list-style-type: none"> Risk of violent or non-violent conflicts 	<ul style="list-style-type: none"> Conflicts of interests may arise during decision making at the program implementation level; between Contractual workers and general labour, etc. . 	<p>Implement GRM at the level of the sub-project. Frequent communication and transparency in leadership and execution of institutional responsibilities</p> <p>Mitigation measures should be implemented through provisions in the C-ESMP.</p> <p>Stakeholder Engagement, Sensitization and capacity building for all cadre of workers should be conducted.</p> <p>Importantly, the DISREP should ensure that Contractors sign a Contractor's Code of Conduct (CoC); Managers CoC and Individual CoC.</p>
Illicit Behaviour	<ul style="list-style-type: none"> Risk of Illicit Behaviour and Crime 	<ul style="list-style-type: none"> Increased risk of illicit behaviour and crime (such as theft and substance abuse) attributable to labour influx. Additionally, there may be increase in unprotected sexual intercourse due to labour influx. 	Measures should focus on labour management; awareness and training and enforcement of the CoC cadres. LMP provisions etc
Labour Influx	<ul style="list-style-type: none"> Risk of social conflicts Risk of illicit behaviour and practices 	<ul style="list-style-type: none"> Conflicts of interests may arise among and between workforce Theft, physical assaults, substance abuse and prostitution Likely increase in migrant workers/followers 	Measures should focus on labour influx management; awareness and training and enforcement of the CoC cadres. LMP provisions etc
Gender-Based Violence (GBV) and Sexual Exploitation and Abuse (SEA) - attributable to labour influx	<ul style="list-style-type: none"> Sexual harassment, SEA and VAC 	<ul style="list-style-type: none"> Women and girls may be exposed to sexual harassment, exploitation, abuse and violence as a result of interactions with workers and possibly followers. Also, females engaged in near-site petty businesses may suffer abuse from their benefactors/guardians in instances where they do not meet projected sales for the day. Sex workers may contribute to the spread or suffer contracting infectious diseases, STDs and STIs due to labour influx. There may also be the likelihood of them suffering sexual harassment, exploitation and abuse. 	<p>GBV risk assessment and mapping of GBV services.</p> <p>Sensitization campaigns and awareness creation on sexual harassment, SEA, and other social issues attributed to labour influx.</p> <p>Application of WB Guidance Notes in work procedures and interactions, especially those addressing social aspects.</p>

Supply Phase			Mitigation Measures	
	Social Risks	Social Impacts		
		<ul style="list-style-type: none"> There could be increase probability in the possibility of contracting COVID-19 amongst workers and persons within the areas where installations will be carried out. 	<p>Implementation of workers Sexual Exploitation and Abuse / Sexual Harassment code of conduct for all workers</p> <p>Inclusion of NCDC measure for COVID-19, infection, prevention and control</p> <p>These ais in fulfilling the requirements of ESS 2</p>	
	Violence Against Children (VAC) - attributable to labour influx	Child Safety	<ul style="list-style-type: none"> Children may be exposed to various forms of violence from workers. 	Enforcement of all Cadres of CoCs etc
	Community Health and Safety	Exposure to household accidents	<ul style="list-style-type: none"> Considering that supply and transportation of meters especially to DISCO warehouses will involve cross-country movement, through densely and non-densely populated areas etc, Community Health and Safety risks are very likely 	Applications of suitable measures that fulfil the requirements of ESS 4 e.g Community Health and Safety Plan
		Occupational Risks	Occupational Impacts	
	Health and Safety at Work	OHS Risks	<ul style="list-style-type: none"> Workers could suffer, falls and traumatic injuries 	<p>Measures should aim at avoidance and reducing or minimizing; and the application of the “Hierarchy of Controls” according to OHS principles – Elimination, Substitutions, Engineering Controls, Administrative Controls and PPEs.</p> <p>Risk assessment and OHS Inspection: Before a meter installer proceeds with a meter installation, he/she will undertake a personal risk assessment and a Health and Safety Inspection of the equipment to satisfy himself/herself that it is safe to proceed</p> <p>CoC should also be enforce and Contractors should implement an OHS Management Plan (OHSMP)</p>

Operation Phase			Mitigation Measures	
		Environmental Risks	Environmental Impacts	
Negative	Temperature	<ul style="list-style-type: none"> Room Temperature Spikes 	<ul style="list-style-type: none"> Temperature spikes could occur at the DAP Data centre (If this is set-up). Spikes could upset normal room temperature conditions and induce heat, consequently causing discomfort. 	Installation of temperature measuring devices (infra-red thermal imaging temperature measurement), monitors and cooling devices
	Humidity	<ul style="list-style-type: none"> Build-up of dew and vapour in the Data Centre 	<ul style="list-style-type: none"> Vapour build up in the DAP could increase atmospheric humidity conditions, thereby resulting in more moisture build-up therefore increasing risks of sparks at fires. 	Installation of humidity measuring devices, monitors and control technologies,
	Fires	<ul style="list-style-type: none"> Risk of Fire Outbreaks 	<ul style="list-style-type: none"> Ambient temperature changes (increase) may arise if data centre internal temperature rises. System heat increase and thermo-electro reactions may cause sparks and eventual fires. 	Installation of fire alarms, and fire control systems ie hydrants, hoses and cooling devices etc
	Performance	<ul style="list-style-type: none"> Malfunction 	<ul style="list-style-type: none"> Operation Failure or malfunction of DAP data centre - due to mechanical failure or third-party interference. Power outages, which may disrupt work processes. 	Regular checks and inspections

CHAPTER SIX

ENVIRONMENTAL AND SOCIAL ASSESSMENT, AND INSTRUMENTS' APPLICABILITY

6.1 Environmental and Social Assessment Synopsis

The purpose of this Chapter is to provide expert direction on the approach to conducting environmental and social assessments for potential activities under the IPF component of the DISREP. In consistence with the requirements of ESS 1, The IPF implementing Agency (TCN) will carry out environmental and social assessments of the program/activities to assess the environmental and social risks and impacts.

The assessment to be carried should be proportionate to the potential risks and impacts of the project, and will assess, in an integrated way, all relevant direct, indirect and cumulative environmental and social risks and impacts throughout the project life cycle, including those specifically identified in ESSs 2–10. The full information on the ESSs can be obtained at: [Environmental and Social Framework \(ESF\)](#).

6.2 Environmental and Social Screening Process

The first step in the screening process is the determination of the environmental and social aspects of activities under the IPF component so as to ascertain the type of environmental and social assessment required (if any) in accordance with ESS 1 and consistent with the ESSs. Each activity (i) Procurement and installation of DAP, and ii) Bulk procurement and supply of meters to DISCO warehouses shall be appraised through primary environmental and social screening. This will be undertaken by TCN in conjunction with the FME_{env}. The objectives of screening are to (i) *screen the environmental and social risks and impacts of a subproject; and (ii) determine the type/s of mitigation measures, assessment, specific plan(s) or safeguard instrument(s) to be prepared based on the outcomes of the screening.* The screening process could also be used to identify eligible or ineligible project/program activities¹⁰ for further or no environmental and social assessment, respectively. This is done by analyzing the proposed activities in relation to their environmental & social context (area of influence) using a checklist approach. An Environmental and Social Screening Form is provided in Annex 1. It is essential to state that from a general program conceptualization perspective, the IPF component for DISREP has been classified as low risk. Nonetheless, the screening process of the IPF component activities will inform decision makers and the project management of the true nature and extent of potential environmental and social risks and impacts.

The project activities with physical works/interventions require screening (i.e., bulk procurement and supply of meters and procurement and installation of DAP). The environmental and social safeguard screening will occur during the project preparation stage as a soon as the fairly accurate site location(s) is (are) known for the sub-project(s).

Scoping

Once field visits and investigations have been completed by the IPF implementing agency (TCN) and the FME_{env}, Scoping will be conducted to identify the various aspects (sub-activities) that could have significant environmental and social risks and impacts. The scoping activity will identify issues of critical concerns and also seek to provide solutions to issues such as:

- What the potential risks and impacts from the execution and operation of the proposed sub-project are?

¹⁰ **Ineligible project activities/sub-projects** – Sub-projects screened and identified to have no significant environmental and social risks and impacts can move straight to implementation in accordance with pre-approved standards, guidelines or codes of practices for environmental and social management.

- What will be the magnitude, extent and duration of the risks and impacts?
- What relevance are the impacts on the environmental and social, contexts? Consequently, scoping will be used to identify the biophysical, health, and socioeconomic components of the environment that will significantly be affected by the proposed sub-project activities.

Key Considerations for Proposed Environmental and Social Assessments to be Prepared under DISREP

- The environmental and social assessment should be based on current information (which can be obtained through literature reviews, field studies, stakeholder engagement, etc.), including an accurate description and delineation of sub-projects and any associated aspects.
- It should include collection, collation, analysis and interpretation of environmental and social baseline data at an appropriate level of detail sufficient to inform characterization and identification of risks and impacts and mitigation measures.
- The assessment should evaluate the IPF component activities' **i) Potential environmental and social risks and impacts; ii) Examine project alternatives; iii) Identify ways of improving project selection, siting, planning, design and implementation** in order to apply the mitigation hierarchy for adverse environmental and social impacts and seek opportunities to enhance the positive impacts of the project.
- The environmental and social assessment will include stakeholder engagement as an integral part of the assessment, in accordance with ESS 10.
- The environmental and social assessment should be an adequate, accurate, and objective evaluation and presentation of the risks and impacts, prepared by qualified and experienced persons.
- TCN, specifically its TCN, Project Implementation Unit (TCN PMU) which will be responsible for DISREP directly, will procure qualified and experienced professionals and also retain independent specialists to carry out the environmental and social assessment.

6.2.1 Environmental and Social Assessment Instruments

The TCN PMU, in consultation with the Bank, will identify and use appropriate methods and tools, (scoping, environmental and social analyses, investigations, audits, surveys and studies, to identify and assess the potential environmental and social risks and impacts of the proposed project. The TCN PMU, and the DISREP Task Team Leader (TTL), will review the IPF activities in terms of their proposed works, area of influence, nature, environmental

and social concerns and receptors and interim assessment of potential impacts, undertake a selection process for the appropriate tool(s) to suitably address the environmental and social concerns of the proposed sub-project(s).

The approval to conduct the assessment will be given by the Environmental Assessment Department of the FMEnv. These methods, tools and instruments should reflect the nature and scale of the sub-project(s), and will include, as appropriate, a combination (or elements of) the following:

- Environmental and Social Management Plan (ESMP)
- Hazard or Risk assessment

The instruments proposed and discussed may not be the entirety of instruments to be prepared under the IPF component, considering that the provisions of the ESF allow for flexibility and change adaption to the Risk Classification of programs/projects/sub-projects. However, they include:

Environmental and Social Management Plan (ESMP) – Based on screening and scoping outcomes, the ESMP will be prepared as a stand-alone document when the scoping report suggests that impacts will be site specific and manageable (the activities will involve limited adverse social or environmental impacts that are few in number, generally

site-specific, largely reversible, and readily addressed through mitigation measures). For site-specific projects and likewise, site-specific environmental and social risks and impacts, the most suitable instrument may be an ESMP. The ESMP will identify the environmental and social impacts of the proposed activities and define the roles and responsibilities of all critical stakeholders throughout the life cycle of project activities in order to ensure that mitigation measures including cost estimates are implemented and overall sustainability is assured. Importantly, the mitigation measures for which the Contractor is responsible, must be included in the bidding documents. (See section titled: **Important Note**)

Hazard or Risk Assessment – The supply of bulk meters and the DAP, under the IPF component may result in OHS and community level hazards and risks (ESS1,2 and 4 relevance to the IPF component) as a result of associated works/activities. A Hazard or risk assessment is an instrument for identifying, analyzing, and controlling hazards associated with the presence of **dangerous materials** and **conditions** at a project site, and may be suitable and applicable, following decision making. The Bank requires a hazard or risk assessment for projects involving certain inflammable, explosive, reactive, and toxic materials when they are present in quantities above a specified threshold level. For certain projects, the environmental and social assessment may consist of the hazard or risk assessment alone; in other cases, the hazard or risk assessment forms part of the environmental and social assessment.

Important Note:

The TCN PMU, World Bank, FMEnv and other stakeholders involved in the screening and scoping process, must take into consideration the operational arrangement of the DISCOs so that the type of environmental and social assessment and instrument to be prepared captures the true nature of potential risks and impacts. As much as the environmental and social assessment should be proportionate to the identified risks and impacts, a proper understanding of the operational structure of the DISCOs in their coverage areas and consumers population in each distribution zone will aid decision making on the most appropriate and suitable environmental and social assessment instrument to be prepared. On a general operational description, each DISCO is structured as follows:

1. DISCO Headquarters, where the top-level management and key officials operate from.
2. DISCOs operate through Business Units and are managed by Business Managers
3. These Business Units operate sub-stations housing 33kv transformers which supply electricity to 11kv transformers located in several areas comprising numerous consumers. It is essential to note that distribution zones spread across states, and LGAs, and the consumer numbers may exceed thousands or tens of thousands.

In this regard, this ESMF proposes that the environmental and social assessment be conducted at either the following levels:

1. One Environmental and Social Assessment for both bulk meter supply to DISCO warehouses and transportation and installation of DAPs
2. Level of each distribution zone (i.e. one assessment per distribution zone)
3. Business Units could be grouped into “clusters”, and the environmental and social assessment conducted for each cluster, provided the proposed works are similar, across all Business Units in the cluster.
4. Level of Business Units, individually. This may appear reasonable from diverse schools of thought because the Business Units span across several LGAs and states in a single distribution zone, and assessing the true nature of impacts is vital and important for proposing appropriate and sustainable mitigation measures. Nonetheless, conducting the environmental and social assessments for each Business Unit per DISCO (distribution zone) will/may not be the best approach. The reasons are that i) too many ESMPs will be prepared ii) the cost implications will be extremely high, iii).

Note: The discretion and decision making to what option or options are most practicable economically, technically and otherwise; will lie eventually with the TCN PMU and the Bank. Level 1/Option 1 has been considered in this ESMF.

It is noteworthy to state that if the risk rating of a subproject increases to a higher risk rating, the TCN PMU will apply the relevant requirements of the ESSs and the Environmental and Social Commitment Plan (ESCP) prepared by the Government of Nigeria prior to the DISREP start-up, which will be updated as appropriate. (The 'requirements of the ESSs' will relate to the reasons for which the risk rating has increased).

ESMP Matrix Table

The mitigation measures and other relevant details in the ESMP included in the ESIA report or Stand a-lone ESMP report may be best presented as a matrix table. The matrix table amongst other inclusions should present and describe the following:

Environmental and Social Risks and Impacts: This should outline all the potential adverse environmental and social risks and impacts that are associated with the sub-projects especially as it affects environmental and social aspects such as air quality, water (ground and surface water), flora/fauna, soil, waste management issues, labour influx, grievances, GBV/SH, for the pre-supply, installation and operation phases.

Mitigation: Based on the environmental and social risks and impacts identified in the prepared ESIAs/ESMPs, the ESMP matrix table should describe with technical details the mitigation measures, (applied according to the mitigation hierarchy) as appropriate.

Monitoring: The ESMP should also outline the environmental and social monitoring procedure that will be implemented during the execution of the sub-projects and during operation in order to determine the success of the mitigation measures (environmental and social performance of the ESMP). The ESMP should include monitoring objectives that specify the type of monitoring activities that will be linked to the mitigation measures, cost and responsible institution for monitoring. Specifically, the monitoring section of the ESMP provides: A specific description and technical details of monitoring measures that include the parameters to be measured, the methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions. Monitoring and reporting procedures should aid to ensure early detection of conditions that necessitate particular mitigation measures and to furnish information on the progress and results of mitigation.

Institutional Arrangements: The ESMP should also provide a specific description of institutional arrangements, (i.e., who is responsible for implementing the mitigation measures and carrying out the monitoring regime for operations, supervision, enforcement, monitoring of implementation, mitigation action, financing, reporting and staff training). Additionally, the ESMP should include an estimate of the costs of the measures and activities recommended so that the DISCOs can budget the necessary funds. Similar to the process for carrying out the ESIA, the mitigation and monitoring measures recommended in the ESMP should be developed in consultation with all the affected groups to include their concerns and views in the program/sub-project design.

The box below: describes general statutory procedures for approval of the environmental and social assessment

Submission of Proposals to respective State Ministry of Environment for onward forwarding to the Federal Ministry of Environment

The respective Ministry of Environment of the state in which the participating DISCO Headquarters is located will review and clear the sub-projects from an environmental and social standpoint only, (or as best guided (by the FMEEnv) by ensuring sub project designs have identified environmental and social impacts (through scoping), and included in the Terms of Reference to be submitted to the SMEnv and/or FMEEnv . This is to ensure that activities in their state(s), meet environmental and social requirements of the state and national and federal level, and that they are consistent with the Bank's ESS 1 requirement and other ESSs; including guidelines provided in this ESMF Report. If, however the sub-project proposal unsatisfactorily addresses these issues it will be sent back to the DISCO and WB-TCN PMU for re-design and re-screening and then it must be re-submitted to the SMEnv for re-review. The revised design will be reviewed again by the respective SMEnv, and if acceptable, will be cleared for onward forwarding to the FMEEnv and World Bank for final review and approval. Any proposed sub-project(s) that does not comply with the federal, state and local requirements of the Environmental Laws of Nigeria and Social requirement guidelines of this project, and the requirements of the World Bank ESF and ESSs specifically, may/will not be cleared.

This process is designed to ensure that the environmental and social assessment process is part of, and conducted during the project activities' design process thereby ensuring that activities are environmentally and socially acceptable and sustainable. The process will be guided by the generic potential adverse environmental and social impacts often associated with electricity metering and DAP installation projects.

Approval for Funding.

Approval for funding will be referred to TCN given only when the SMEnv/FMEEnv have given environmental and social clearance of the sub-projects. However, this will be subject to the FMEEnv and Bank's review and approvals of the ESIA/ESMPs/HRAs.

Costs of Preparing ESIA/ESMPs/HRAs

The number of ESIA/ESMPs/HRAs will be concluded by TCN (WB-TCN PMU) and the TTL in consultation with the Bank's Environmental and Social Development Specialists. The cost for each instrument will be determined by the TCN PMU and the TTL.

CHAPTER SEVEN

INSTITUTIONAL ARRANGEMENTS FOR ESMF IMPLEMENTATION

7.1 Institutional Arrangements

The institutional arrangements for the wider and broader DISREP PforR program takes into note, the importance and relevance of all critical and major stakeholders holders concerned with the DISREP implementation as a whole in Nigeria (PForRs; IPF and TA components respectively). However, considering that this ESMF is prepared on the basis of fulfilment of the Bank's Environmental and Social Framework Policy for IPF, the institutional arrangement herein described will address only roles and responsibilities as concerns the implementation of the ESMF. For successful and coordinated implementation of the provisions in this ESMF specially with regards to the environmental and social context and aspects of the IPF component activities ((i) *Bulk supply of meters, and ii) Installation of DAP for NERC*), the implementation arrangement is presented in Table 8 below.

Table 8: Institutional/Implementation Arrangement for the ESMF

S/N	Institution	ESMF Roles and Responsibilities
1.	FMEnv	The FMEnv will assist TCN (Through its WB-TCN PMU) in the screening and approval of subprojects/activities. FMEnv will also provide guidance on scoping and necessary additions or modifications to the Terms of Reference of selected environmental and social assessment instruments to be prepared for sub-projects. FMEnv will also give the approval for environmental and social assessment and work in collaboration with the TCN PMU and World Bank in disclosing the environmental and social assessment instruments in-country. The FMEnv will also aid the TCN PMU in coordinating with the FMEnv's Ministries Departments and Agencies (MDAs) on monitoring responsibilities as regards this ESMF and other program instruments
2.	FMoP	The FMoP will be responsible for the IPF component of DISREP through TCN, and will indirectly play an oversight and supervisory role as the apex ministry by overseeing TCN's roles and responsibilities under DISREP, including implementation of the IPF component specifically, in disclosure of instruments and other requisite clearances or functions.
4.	TCN	TCN will be the implementing Agency for the IPF component and will operate its Environmental and Social Standards' responsibilities for DISREP through its WB-TCN PMU. At a national level, the disclosure of the ESMF will be undertaken by TCN and issues concerning the implementation of the IPF and TA components in whole; and environmental and social management aspects of the IPF activities specifically, will be communicated by TCN to the DISREP Technical Committee, chaired by the FMoP. Additionally, TCN will be responsible for the bulk procurement of meters for supply to the DISCOs warehouses; and will provide and coordinate ESS oversight to DISCOs through its WB-TCN PMU.
5..	TCN PMU	The TCN PMU is an established Unit, experienced in the implementation of Bank funded projects and programs in the power/energy sector. The TCN PMU consists of Engineers, Project Engineers, Procurement Specialists, Environmental and Social Safeguards Specialist, Monitoring and Evaluation Specialists etc. who will provide expert technical guidance on the matters concerning the IPF component and its sub-projects. Specifically, the Units Safeguards Specialists will provide Technical Assistance on the aspect of implementing the provisions of this ESMF at the level of the DISCOs; mainly in the screening and scoping of sub-projects and in the selection of appropriate environmental and social assessment instruments. It will collaborate with SMEnvs and the FMEnv accordingly, and liaise directly with the Bank on issues concerning ESF compliance and ESSs applicability relevance on IPF activities. TCN will be directly responsible for disclosure of all environmental and social assessment instruments prepared in fulfilment of IPF requirements.
6.	Chemical Resettlement and Environment	The unit will provide technical support to the TCN-PMU as when necessary or required. Essentially, it will also provide guidance and advisory in the management of e-wastes.

S/N	Institution	ESMF Roles and Responsibilities
	Division of the HSE Dept.	
7.	DISCOs HSE Departments	The DISCOs will ensure the proper and safe storage of meters in their respective warehouses, as well as the management of wastes generated from removed packaging. Specifically, as concerns the implementation of the ESMF and execution of environmental and social management responsibilities at the level of their DISCOs; the Health Safety and Environment Departments of each DISCO headquarters will nominate a senior manager/officer (of the HSE Department) to oversee and communicate environmental and social matters directly to the Safeguards Specialists in the TCN PMU. The Manager/Officer will work with Independent Consultants during the environmental and social assessment undertaken for their DISCO/distribution zone.
	Business Unit Managers/Environmental and Social Desk Officers	For the IPF component, the Business Unit Managers or nominated officers from each Business Unit will serve as Environmental and Social Desk Officers. These will liaise directly with the Manager (HSE Department at the DISCO headquarters) on environmental and social matters at the Business Unit Level.
8.	NERC	NERC will implement the installation of the DAP (Data Centre or Cloud-based system). Specifically, as concerns the implementation of the ESMF and execution of environmental and social management responsibilities at the level of NERC; the Health and Safety Unit of the Engineering, Performance and Monitoring Department at NERC offices will nominate a senior manager/officer to oversee and communicate environmental and social matters directly to the Safeguards Specialists in the WB-TCN PMU. The Manager/Officer will work with Independent Consultants during the environmental and social assessment undertaken for NERC
9.	Supervisory Consultants	Supervisory Consultants will supervise the activities of Contractors engaged to implement the main activities. With regards to environmental and social performance, their responsibilities will include monitoring of the implementation of mitigation measures contained in the Contract Agreement of Contractors and in the implementation of the C-ESMP.
10.	Independent Consultants	Independent Consultant(s) will be procured by the TCN PMU to undertake required environmental and social assessment(s); and likewise prepare the requisite reports. They will liaise with the Safeguards Specialists at the TCN PMU, HSE Managers at the DISCOs and Business Unit Managers/Environmental and Social Desk Officers.
11.	SMEEnv, SWMAs and SEPA	Will play a vital role in environmental and social assessment and waste management at the States and DISCOs' coverage area-levels respectively. Their responsibilities will surface around, guidelines, approvals and permits.
12.	CSOs	CSOs will assist the TCN PMU and DISCOs in strategizing and developing practicable and sustainable community driven approaches for bulk metering operations and activities, specifically. At a national level, the TCN PMU and DISCO Chief Executives could suggest participatory mechanisms that allow CSOs drive proactive electricity consumer sensitization and awareness programs to aid in screening and scoping (from a social perspective) and in mitigating the social impacts associated with proposed sub-projects.
13.	Other Interested Parties	Depending how implementation progresses in the course of the implementation of the IPF component; other interested parties may be identified, and may be essential in the provision of guidance, technical, regulatory or implementation functions associated with this ESMF and other levels of environmental and social management and monitoring.
14.	The World Bank	The World Bank has overall responsibility to ensure that its ESF and ESSs are complied with. In addition, the Bank will be responsible for the final review and clearance of environmental and social assessment instruments; as well as reviews and the giving of a "no objection" to the Terms of Reference for instruments (ESIAs, ESMPs, HRAs, etc.).

Figure 9 below shows a schematic representation of the institutional responsibilities

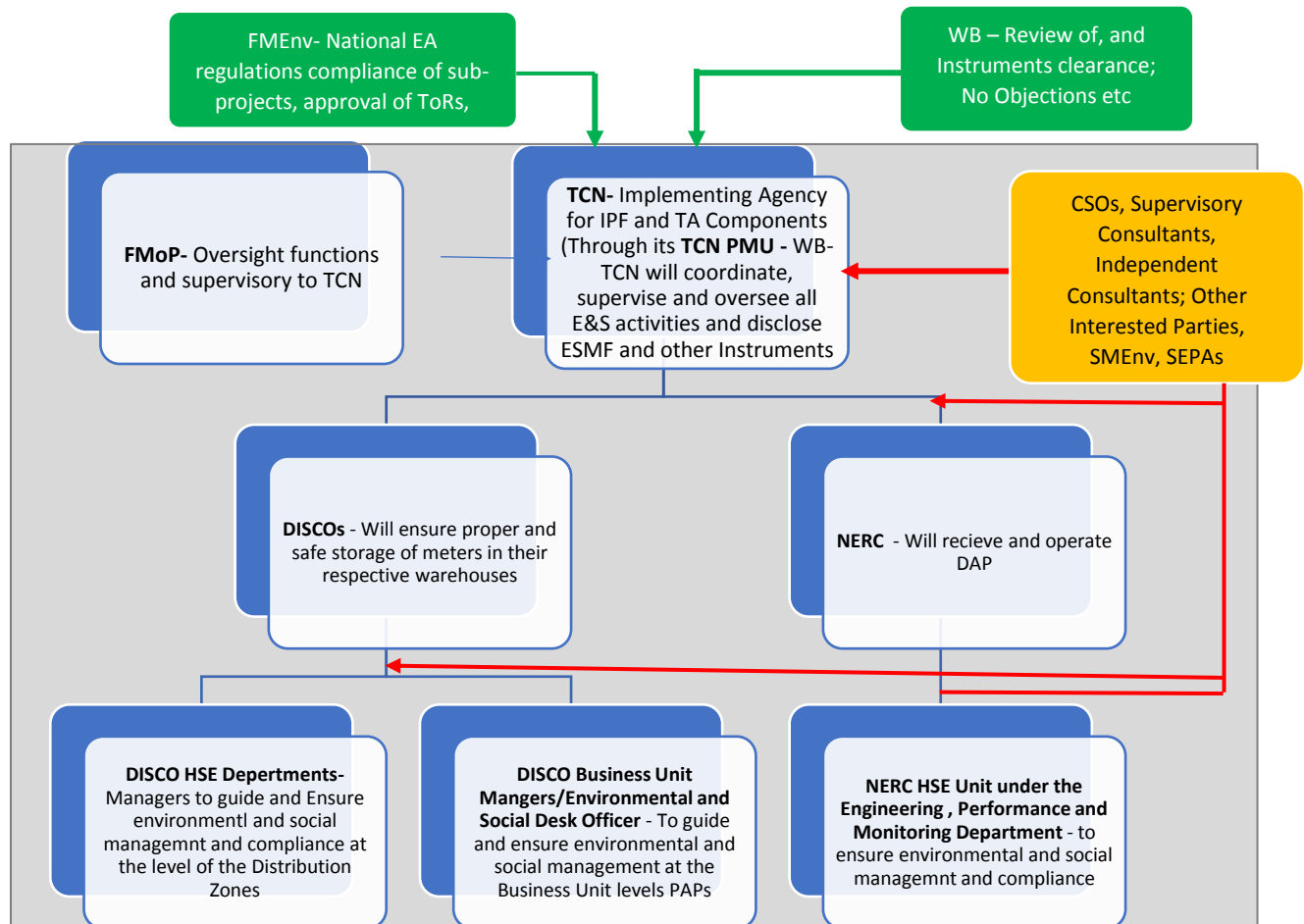


Figure 9: Institutional Arrangement Summary

7.2 Capacity Assessment to Perform Attributed Institutional Roles

The environmental and social sustainability of the DISREP IPF component and its proposed sub-projects is highly and unavoidably dependent on the capacity of the WB-TCN PMU, DISO HSE Departments, NERC HSE Unit, SMEnv, SEPAs and FMEnv to carry out the associated design, planning, approval and implementation activities. It is therefore vital that adequate capacity is available at all levels to carry out respective ESMF responsibilities as well as the implementation of Environmental & Social Management Plans (ESMPs). An assessment of the existing institutional capacity is discussed below. The TCN PMU has the capacity to implement the ESMF, oversee and conduct environmental and social assessment/implementing ESMPs as it is trained on Bank procedures including the ESF and ESSs. The staffing levels at the EA Department of the FMEnv and the Impact Mitigation and Monitoring (IMM) Branch of the EIA division are sufficient with adequate experience to carry out assigned roles. Similarly, the SMEnv, can replicate the responsibilities of the FMEnv at the state levels, SEPAs are mandated by state environmental law to manage municipal wastes and other waste types. Although capacity building will be required, they have in the institutional structure performed assigned responsibilities in this ESMF. CSOs, Supervisory Consultants, Independent Consultants are skilled and experienced organizations or individuals and have capacity to perform respective responsibilities assigned; they will also be responsible for delivering on certain modules for capacity building as

described in sub-section 7.2.1 of this ESMF report. For the DISCOs and NERC, the organizational structure to drive their responsibilities exist, with limitations in the processes and procedures that ensure social development, inclusion, non-discrimination accountability and the management of social risks and impacts. This cadres will require capacity building to strengthen the functionality of their HSE departments and units respectively.

7.3 Institutional Analysis for Assessment and Management of Environmental and Social Risks and Impacts

An analysis of the applicable administrative and legal framework for this ESMF shows that there are adequate legal and regulatory instruments for environmental and social management in Nigeria. TCN which will be implementing the IPF component of DISREP, is knowledgeable in the Bank's Environmental and Social Framework Policy as some staff who have participated in implementing Bank funded projects in-country have been trained on the ESF and applicability of the ESSs. Moreover, TCN has considerable experiences in the ESIA/EIA/ESMP process. NERC and the DISCOs have also participated in the Bank's financed Nigeria Polychlorinated Biphenyls (PCB) Management Project (Closed), where an inventory of PCBs and PCB containing equipment was conducted, and an assessment of their environmental and social management procedures. The likely challenge, to environmental and social assessment and management could be in monitoring and enforcement due to inadequate capacity with regards to skills, knowledge, manpower and equipment for other stakeholders significant to the implementation of the ESMF. Therefore, enhancing the knowledge of program stakeholders and staff, especially those charged with the responsibility to implement this ESMF and subsequent safeguards instruments shall be paramount.

7.3.1 Capacity Building Requirements

The capacity building requirements for the implementation of the ESMF is described in Table 9 below.

Table 9: ESMF Implementation Capacity Building Requirements

S/N	Training Modules	Participants	No. of Participants	Location	Duration	Estimated Cost NGN	Estimated Cost USD
1.	Nigeria EIA Law, EA Processes and Proponent Procedures (Screening, Scoping etc)	TCN PMU; DISCOs HSE Department; NERC HSE Unit; Business Unit Managers/E&S Desk Officers	15	Abuja/Lagos	3 days each	6,361,200.00,	16,740.00
2.	World Bank ESF, and ESSs (Risk classification, Mitigation hierarchy etc)/ Gender Based Violence (SH/SEA/VAC	TCN PMU; FMEEnv, SMEEnv; SEPAs; DISCOs HSE Department; NERC HSE Unit; Business Unit Managers/E&S Desk Officers	15	Abuja/Lagos	5 days each	6,668,620.00,	17,549.00
5.	Labour Management Procedures	TCN PMU; DISCOs HSE Department; NERC HSE Unit; Business Unit Managers/E&S Desk Officers; Supervisory Consultants; CSOs	10	Asaba/ Kano	1 day each	3,800,000.00	10,000.00
6.	Environmental and Social Monitoring and Reporting	TCN PMU; SMEEnv; SEPAs; DISCOs HSE Department; NERC HSE Unit; Business Unit Managers/E&S Desk Officers; Supervisory Consultants; CSOs	20	Abuja/Port Harcourt	2 days each	8,000,000.00	21,053.00
7.	Journey Management Procedures	TCN PMU; Supervisory Consultants;	7-10	Calabar/ Akwa Ibom	1 day each	2,470,000.00	6,500.00

S/N	Training Modules	Participants	No. of Participants	Location	Duration	Estimated Cost NGN	Estimated Cost USD
8.	E-waste Management and considerations for ESS 3	TCN PMU; SMEnv; SEPAs; DISCOs HSE Department; NERC HSE Unit	20	Lagos	3 days including field visits to Hinckley and E-Terra (see Chapter 8: stakeholders Engagement	7,220,000.00	19,000.00
9.	Atmospheric Conditions and Relevance in DAP Data Centre Management	TCN PMU; NERC HSE Unit	10	Lagos	1 days	3,480,040.00	9,158.00
Total						38,000,000.00	100,000.00

The exchanged rate use was at November 30th, 2020 1 USD = NGN 380

Note: Training estimates are considered to cater for i) Resource persons ii) participants per diems, hotel accommodation, feeding, transportation, ii) venue hiring, iv) local and international travels, v) training materials etc.

The estimated Budget for capacity building is **NGN 38,000,000.00, (USD100,000.00)**

7.4 Safeguard Roles and Responsibilities

TCN: Overall safeguard roles and responsibilities for TCN on DISREP, will be undertaken by the TCN PMU through the PMU's Environmental and Social Safeguards Specialists. The safeguard responsibilities will also extend to supervisory and oversight functions during procurement, transportation and storage of meters and DAP respectively, and also in the management of e-wastes generated from metering activities of the DISCOs.

The Bank is only funding supply and not installation works for meters. However, TCN will provide supervisory functions and oversight of procurement, transportation and storage of meters, similarly for the DAP, inclusive of its installation at NERC; and management of e-wastes generated in the course of carrying out these activities. This is because TCN (as implementing partner) is jointly liable for environmental and social risks and impacts that may arise from sub-projects or activities involving transportation, storage etc, of meters and DAP which it has procured for the DISCOs and NERC respectively through Bank funds. The TCN PMU will fund ESMPs for meters procurement, transportation and storage; and DAP installations respectively. The potential social risks and impacts specifically, during installation of meters are addressed in the ESSA prepared by the Bank, and are handled under the PforR component.

NERC and DISCOs: For NERC, the roles and responsibilities to ensure safeguards and the applicability of the ESSs throughout the supply and operation phases will be with the DISCOs HSE departments and NERC HSE Unit respectively. At the Business Unit Level, this responsibility will be performed by the Business Unit Manager or nominated Environmental and Social Desk officer from the Business Units of the respective DISCO.

Note: An ESMP for the bulk supply of meters to DISCO warehouses and supply and installation of the DAP at NERC, will be prepared. The ESMP is estimated at USD 50,000.00 each.

CHAPTER EIGHT

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

8.1 Overview

This Chapter describes a generic ESMP for ESMF implementation. This is also a guide for the ESMPs (Matrix Table) to be included in ESIA or stand-alone ESMP reports under IPF component implementation for DISCOs and NERC. Following on Chapters 5, 6 and 7 where potential generic environmental and social risks and impacts; mitigation measures; and institutional responsibilities have been established, this ESMP brings to synergy and alignment the implementation of mitigations measures to address risks and impacts, and the responsibilities for mitigation and monitoring. The costs for mitigation and monitoring cannot be determined at this point as specific details are unknown. Nonetheless, a site-specific ESMP to be prepared for [(a) Bulk procurement of meters and supply to DISCO warehouses, and b) Procurement and installation of DAP]; will contain actual estimates.

For sub-projects which may require environmental and social assessment, the mitigation measures assigned to contractors and their associated cost estimates should be included in the bidding documents to be prepared by the Procurement Specialist(s) at the TCN PMU.

See Table 10 below for ESMP Matrix covering the i) **Pre-Supply** ii) **Supply** d iii) **Operation Phases**.

Table 10: Mitigation and Monitoring Plan

ESMP – PRE-SUPPLY PHASE

S/N	Activity	Potential Impacts	Mitigation Measures	Responsibility For Mitigation	Cost of Mitigation USD (Naira)	Parameters to be Measured	Method of Measurement	Performance Indicator	Sampling Location	Frequency of Monitoring	Responsibility for Monitoring	Cost of Monitoring USD (Naira)
A. ENVIRONMENTAL IMPACTS												
1.	Receiving of Meters/DAP etc. at shipping docks, yards and airports: Offloading and temporary storage	Release of fugitive dusts, and fibrils during offloading and storage.	Avoiding forceful lifting and dropping down, as this will reduce chances of fugitive dust and fibrils from being released. Cleaning of storage areas and controlled wetting; ventilate areas	Contractor	To be Determined (TBD)	Cleaning and Watering schedule	Inspection	Reduction in onsite/work area dust levels	Holding and storage areas	Weekly	TCN PMU (Safeguards Specialists); SME nvs; Supervising Consultant	To be Determined (TBD)
2.	Same as A1	Offloaded and stored packages may overload holding areas and restrict movement and access for other operations	Ensure holding areas are sizable to contain procured commodities. Limit stacking to a particular are, zone or section in the holding areas. stack in such a way that allows for space so as to reduce overloading and restriction to access.	Contractor	To be Determined (TBD)	Holding areas' congestion rate Compliance to zone limiting Stacking arrangement	Inspection	Contractor's Compliance	Holding and storage areas	One-off	TCN PMU (Safeguards Specialists); SME nvs; Supervising Consultant	To be Determined (TBD)
3.	Same as A1	Soil contamination/ Pollution Soil Compacts	Tighten loose connection points; place impermeable material Place Hard standing platform	Contractor	To be Determined (TBD)	Compliance with mitigation measures	Inspection	Contractor's Compliance	Shipping dock, airports Holding and storage areas	Weekly	PIU Safeguards TCN PMU (Safeguards Specialists); SME nvs; Supervising Consultant	Same as above

S/N	Activity	Potential Impacts	Mitigation Measures	Responsibility For Mitigation	Cost of Mitigation USD (Naira)	Parameters to be Measured	Method of Measurement	Performance Indicator	Sampling Location	Frequency of Monitoring	Responsibility for Monitoring	Cost of Monitoring USD (Naira)	
4.	Same as A1	Noise pollution during the offloading and storage in holding areas	Mitigation at source; Use noise barriers; conduct works when human population in the premises is low	Contractors	To be Determined (TBD)	Noise levels	Noise level measurement	Noise levels are within permissible ranges.	Shipping dock, airports Holding and storage areas	Weekly	TCN PMU (Safeguards Specialists); SMEEnvs; Supervising Consultant	Same as Above	
B. SOCIAL RISKS AND IMPACTS													
1.	Receiving of Meters/DAP etc. at shipping docks, yards and airports: Offloading and temporary storage	Noise disturbances from offloading.	Set up temporary noise barriers during offloading and storage. Conduct activities when human population in the area is low	Contractors	TBD	Noise levels	Noise level measurement	Noise levels are within permissible ranges	Shipping dock, airports Holding and storage areas	Weekly	TCN PMU (Safeguards Specialists); SMEEnvs; Supervising Consultant	TBD	
2.	Same as B1	Grievances from contractual workers	Establish Grievance Redress Mechanism (GRM)	WB-TCN PMU Independent Consultant	TBD	GRM processes	One- on - Interviews; Site visits	Rate of grievance resolve	Shipping dock, airports Holding and storage areas	Weekly	TCN PMU, TCN Management	TBD	
3.	Same as B1	Conflicts of interests between contractual workers; on-site security personnel; DISREP actors; management of shipping, etc.	Establish GRM	Contractor WB-TCN PMU	TBD	Contractors' Compliance; GRM Process	One- on - Interviews; Site visits	Conflict Rates	Shipping dock, airports Holding and storage areas	Weekly	TCN PMU, TCN Management	TBD	
4.	Same as B1	Physical harassment, theft and thuggery in holding areas; Substance abuse etc.	C-ESMP. Continuous Stakeholder Engagement, Sensitization and capacity building.	Contractor WB-TCN PMU (Safeguards Specialists)	TBD	Contractors' Compliance; Frequency of Stakeholder Engagements	Inspections and Report reviews	Rate of illicit behaviours	Shipping dock, airports Holding and storage areas	Weekly	TCN PMU	TBD	

S/N	Activity	Potential Impacts	Mitigation Measures	Responsibility For Mitigation	Cost of Mitigation USD (Naira)	Parameters to be Measured	Method of Measurement	Performance Indicator	Sampling Location	Frequency of Monitoring	Responsibility for Monitoring	Cost of Monitoring USD (Naira)
			Ensure CoC compliance									
5.	Same as B1	Females working in holding areas could be physically and sexually harassed. In addition, they could be victims of GBV and SEA.	Train Contractor Personnel and organize workshops on GBV and SEA for Contractor staff. Align with DISREP GBV/SH/SEA mitigation plan if available	WB-TCN PMU (Safeguards Specialist) Independent Consultant	TBD	Training Schedule	Training Reports	Compliance to project GBV requirements (mandates in code of conduct	Shipping dock, airports Holding and storage areas	One-off	TCN PMU	TBD
Sub-total cost					TBD							TBD
C. OCCUPATIONAL HEALTH AND SAFETY RISKS AND IMPACTS												
1.	Receiving of Meters/DAP etc at shipping docks, yards and airports: Offloading and temporary storage	Falls, slips and forced-contact Exposure air pollutants such as fugitive dust and fibrils from packages Exposure to noise pollution during offloading and storage in holding areas Risks of Musculoskeletal Disorders (MSDs)	Implement project specific Occupational Health and Safety Management Plan (OHSMP)	Contractor	TBD	Compliance with OHSMP - No of workers Trained No of accidents & injuries	Visual Observation Interviews	Compliance to mitigation measures proffered in OHSMP; Increase/ decrease in Lost Time Injuries (LTI). Near Misses or accidents; Reports on unsafe acts or conditions	Project Facilities	Weekly	TCN PMU Supervisory Consultant	TBD
Sub-Total					TBD							TBD
Total					TBD							TBD

ESMP – SUPPLY PHASE

S/N	Activity	Potential Impacts	Mitigation Measures	Responsibility For Mitigation	Cost of Mitigation USD (Naira)	Parameters to be Measured	Method of Measurement	Performance Indicator	Sampling Location	Frequency of Monitoring	Responsibility for Monitoring	Cost of Monitoring USD (Naira)
A. ENVIRONMENTAL IMPACTS												
1.	Supply of bulk meters to DISCOs (warehouses)	Air Pollution from fugitive dusts and carbon emissions from exhaust fumes as meters and DAP are transported to DISCOs and NERC, respectively	Reduce emissions by retrofitting with emission controls for vehicles. Vehicle inspection and servicing; (Vehicle Emission Testing – VET and Vehicle Emission Screening - VES	Contractor	TBD	CO levels Testing Compliance	Inspection Testing	Reduction in CO levels	Holding and storage areas	One-off	TCN PMU (Safeguards Specialists); SMEs; Supervising Consultant	TBD
2.	Same as A1	Soil Pollution: Leakages from (oil, vehicle fuel, hydraulic fluids) may occur when vehicles are transporting meters and DAP Compaction of soil in warehouses when commodities are being offloaded and stored.	Vehicle inspection; testing and tight-fitting of loosened bolts, junctions and connection points.in vehicles. Install hard-standing material and line with impermeable material	Contractor	TBD	DISO/NERC warehouses Compliance to hardstanding installation	Inspection	Contractor's Compliance	Warehouses	Weekly	TCN PMU (Safeguards Specialists); SMEs; DISCO HSE Dept./NERC HSE Unit Supervising Consultant	TBD
3.	Same as A1	Noise level increases during transportation;	Vehicle retrofitting with muffles and other sound-proofing or noise reduction technologies.	Contractor	TBD	Compliance to noise control measures	Inspection	Contractor's Compliance	In transit	As when required	TCN PMU (Safeguards Specialists); SMEs; Supervising Consultant	TBD

S/N	Activity	Potential Impacts	Mitigation Measures	Responsibility For Mitigation	Cost of Mitigation USD (Naira)	Parameters to be Measured	Method of Measurement	Performance Indicator	Sampling Location	Frequency of Monitoring	Responsibility for Monitoring	Cost of Monitoring USD (Naira)
4.	Same as A1	Associated activities following supplies could result in generation of, and exposure to e-wastes and solid waste streams	Implement (WMPs) for solid wastes and e-wastes.	Contractors	TBD	Waste management procedures	Observations, checklist etc	Reduction in waste quantities Compliance to WMP	Business Unit coverage areas DISCO warehouses	Weekly	DISCO HSE Dept./NERC HSE Unit Supervising Consultant	TBD
Sub-total												
B. SOCIAL RISKS AND IMPACTS												
1.	Supply of bulk meters to DISOs (warehouses) & associated activities	Traffic build up and travel delay for motorists and commuters	Implementation Traffic Management Plan (TMP)	Contractor	TBD	Traffic build up rates associated with the activities	TMP Report	Reduction in traffic rates associated with activities	In transit	As when required	TCN PMU (Safeguards Specialists); SME nvs; Supervising Consultant	TBD
2.	Same as B1	Noise from heavy-duty vehicles transporting commodities within, and to commercial and residential areas	As much as possible, time scheduling options could reduce or minimize the impacts of noise disturbances in consumer areas/locations. Movement to locations could be started early in the morning when most consumers may be off to work. Additionally, suitable and practicable noise control designs and technologies should be applied	Contractors	TBD	No of complaints	Noise Measurement	Noise levels are within permissible limits	In transit	As when required	TCN PMU (Safeguards Specialists); SME nvs; Supervising Consultant	TBD
3.	Same as B1	Grievances from PAPs within the program area of influence. Prolonged power outages during	Implement GRM at the level of the sub-projects	TCN PMU(Safeguards Specialists)	TBD	GRM processes	Effectiveness and efficiency in redressal	Rate of grievance resolve	Shipping dock, airports Holding and storage areas	Business Unit Coverage Areas	TCN PMU TCN Management	TBD

S/N	Activity	Potential Impacts	Mitigation Measures	Responsibility For Mitigation	Cost of Mitigation USD (Naira)	Parameters to be Measured	Method of Measurement	Performance Indicator	Sampling Location	Frequency of Monitoring	Responsibility for Monitoring	Cost of Monitoring USD (Naira)
		meter installations; or poor labour and working conditions etc	Early notifications and continuous Stakeholder Engagement									
4.	Same as B1	Conflicts of interests may arise during decision making at the program implementation level; between Contractual workers and general labour, etc. .	Implement GRM at the level of the sub-project. Implement mitigation measures in the C-ESMP. Stakeholder Engagement, Sensitization and capacity building. Enforce CoC;	TCN PMU (Safeguards Specialists) Contractor TCN PMU (Safeguards Specialists) Supervisory Consultant	TBD	Compliance to all requirements and procedures	Report reviews Inspections One-on-One interviews etc	Effectiveness of instruments and procedures	Business Unit coverage areas	Weekly	TCN PMU	TBD
5.	Same as B1	Temporary power outages. Also, during disconnection and removal of old meters. This might result in temporary interruption of business, commercial, work and livelihood processes and activities that rely on electricity.	Community-driven and participatory initiatives. (road shows, community electricity maintenance groups etc. Early communication and channelling through State governments, LGAs, community leaders, religious leaders, youth groups, women groups etc.	Business Unit Mangers/E&S Desk officers DISCO HSE Dept.	TBD	Community perception and behaviour patterns	Focus-group discussion; interviews; radio shows etc	Consumers Electricity supply accreditation feedback levels	Business Unit coverage areas	Bi-Monthly	TCN PMU; DISCO Headquarters	TBD
6.	Same as B1	Labour Influx: Risk of social conflicts Risk of illicit behaviour and practices	Implement Labour Management Plan, LMP; training and enforcement of the CoC cadres.	Contractors	TBD	Contractors Compliance	Inspections, observations	Better and safer working conditions	Business Unit coverage areas	Bi-Monthly	TCN PMU; DISCO Headquarters	TBD

S/N	Activity	Potential Impacts	Mitigation Measures	Responsibility For Mitigation	Cost of Mitigation USD (Naira)	Parameters to be Measured	Method of Measurement	Performance Indicator	Sampling Location	Frequency of Monitoring	Responsibility for Monitoring	Cost of Monitoring USD (Naira)	
7.	Same as B1	GBV- Sexual harassment, SEA and VAC	GBV risk assessment and mapping of GBV services; Align with Program GBV mitigation Plan Sensitization campaigns and awareness	TCN PMU (Safeguards Specialists) Independent Consultant CSOs	TBD	Frequency of sensitization programs	Reports	No. of trained/sensitized persons	Business Unit Coverage areas	Bi-Monthly	TCN PMU	TBD	
8.	Same as B1	Child Safety/Child/forced labour	Enforcement of all Cadres of CoCs etc.	TCN PMU (Safeguards Specialists) Independent Consultant/ CSOs	TBD	Unacceptable Workforce behaviours	Reports, inspections	Compliance to CoC enforcement	Business Unit Coverage areas	Bi-Monthly	TCN PMU	TBD	
9.	Same as B1	Community Safety	Community Health and Safety Plan; Awareness and sensitization	DISCO HSE Dept. Independent Consultant CSOs	TBD	Unacceptable Workforce behaviours; unsafe works and hazardous conditions	Reports and inspections; audits		Business Unit Coverage areas	Bi-Monthly	TCN PMU	TBD	
10.	Same as B1	Possibility of contracting and transmission of COVID-19	Sensitization and awareness for Contractors Ensure compliance to guidelines prepared by the NCDC and WHO	TCN PMU (Safeguards Specialists) CSOs/NGOs	TBD	Sensitization record sheets COVID-19 Sensitization reporting	Surveys and interviews	Number of COVID-19 suspected cases	Project facility and proximal communities	Monthly	TCN PMU DISCO HSE Dept. Supervising Consultant; NCDC	TBD	

S/N	Activity	Potential Impacts	Mitigation Measures	Responsibility For Mitigation	Cost of Mitigation USD (Naira)	Parameters to be Measured	Method of Measurement	Performance Indicator	Sampling Location	Frequency of Monitoring	Responsibility for Monitoring	Cost of Monitoring USD (Naira)
C. OCCUPATIONAL HEALTH AND SAFETY RISKS AND IMPACTS												
1.	Supply of bulk meters to DISOs (warehouses) & associated activities	Worker could suffer electrocution, electric burns, falls and traumatic injuries	Implement project (OHSMP)	Contractor	TBD	Compliance with OHSMP - No of workers Trained No of accidents & injuries	Visual Observation Interviews	Compliance to mitigation measures proffered in OHSMP; Increase/ decrease in Lost Time Injuries (LTI). Near Misses or accidents; Reports on unsafe acts or conditions	Project Facilities	Weekly	TCN PMU Supervisory Consultant	TBD
Sub-total cost												
Total												

ESMP – OPERATION PHASE

S/N	Activity	Potential Impacts	Mitigation Measures	Responsibility For Mitigation	Cost of Mitigation USD (Naira)	Parameters to be Measured	Method of Measurement	Performance Indicator	Sampling Location	Frequency of Monitoring	Responsibility for Monitoring	Cost of Monitoring USD (Naira)
A. ENVIRONMENTAL IMPACTS												
5.	Operation of DAP	Room Temperature Spikes in Data Centre	Installation of temperature measuring devices (infra-red thermal imaging temperature measurement), monitors and cooling technologies	NERC HSE Unit	TBD	Temperature changes	Temperature Measurement	Room temperature levels are within normal ranges	Data Centre	Daily	TCN PMU (Safeguards Specialists); FMEInvS; NERC Mgt	TBD
6.	Same as A1	Build-up of dew and vapour in the Data Centre	Installation of humidity measuring devices, monitors and control technologies, SMART systems	NERC HSE Unit	TBD	Humidity level changes	Humidity Measurement	Low vapour formation rates	Data Centre	Daily	TCN PMU (Safeguards Specialists); FMEInvS; NERC Mgt	TBD
7.	Same as A1	Risk of Fire Outbreaks	Installation of fire alarms, and fire control systems ie hydrants, hoses etc	NERC HSE Unit	TBD	Internal heat level of Data Centre appliances and hardware	Fire Alarm System	Fire rates	Data Centre	Daily	TCN PMU (Safeguards Specialists); FMEInvS; NERC Mgt	TBD
8.	Same as A1	Exposure to dioxin and furans from burning meters	Regular checks and inspections; physical visits could be limited if DISCOs adopt technological monitoring platforms to aid in observing meter health status.	DISCOs	TBD	GHG Emissions – Carbon Monoxide	CO air quality analysis	Compliance to proffered mitigation measures.	Project site	Weekly	TCN PMU (Safeguards Specialists); SMEInvS; Supervising Consultant	TBD
9.	Meter operations and maintenance	System failure	Regular checks and inspections	NERC HSE Unit DISCO HSE Dept.	TBD	Monitors and dashboard readings	Review of System computer/Artificial Intelligence (AI) generated reports	Normalization of system performance	Data Centre DISCO control rooms	Daily	TCN PMU (Safeguards Specialists); NERC Mgt DISCO Mgt	TBD

S/N	Activity	Potential Impacts	Mitigation Measures	Responsibility For Mitigation	Cost of Mitigation USD (Naira)	Parameters to be Measured	Method of Measurement	Performance Indicator	Sampling Location	Frequency of Monitoring	Responsibility for Monitoring	Cost of Monitoring USD (Naira)
B. SOCIAL RISKS AND IMPACTS												
1.	Supply of bulk meters to DISCOs (warehouses) & associated activities	Loss of employment	Describing clauses clearly, and duration of engagement in contract agreements. Transparency in engagement negotiations and timely notification on end of contracts prior to end-dates	. DISCOs NERC	TBD	Contract Agreements	Review of acknowledgement copies of Contract Agreements	Acceptance and understanding of Contract clauses	DISCOs NERC	Monthly	WB-TCN PMU NERC Mgt DISCO Mgt	TBD
					TBD							TBD
C. OCCUPATIONAL HEALTH AND SAFETY RISKS AND IMPACTS												
1.	TBD	Health and safety risks associated with DAP and Meter inspections	TBD	DISCO HSE Dept.; NERC HSE Unit	TBD	Incident rates; Accident rates Fires etc	Reviews and OHSMS Audit	Compliance to Corporate OHSMP	DISCO/NERC Headquarters and facilities	Monthly	DISCO/NERC Mgt	TBD
Sub-total cost					TBD							TBD
Total					TBD							TBD

8.2 Safeguard Implementation Processes

8.2.1 Monitoring and Reporting

As described in the ESMP matrix table (Table 13), monitoring for evaluating the environmental and social performance of mitigation measures will be done all through the program/sub-project phases (Pre-supply, Supply and Operation Phases) and specifically for sub-projects screened for approval for the preparation of an environmental and social assessment. Summarily, monitoring will be conducted for ESMF implemented and subsequently ESMP implementation for sub-projects.

Reporting Procedures

The reporting procedures are presented in Table 11 below

Table 11: Reporting Procedures

Phase	Responsibilities	Deliverables	Accountability
Pre-Supply	TCN PMU Safeguards Specialists	Report of monitoring activities including any specific events	TCN PMU, FMEnv on request
Supply	TCN PMU Safeguards Specialists	Two (2) monitoring Reports, the first to be prepared mid-way into the supplies and the other upon completion of all supplies	TCN PMU, FMEnv on request
	TCN PMU Safeguards Specialists	Additional Reports according to specific conditions e.g. Installations, grievances, Accidents, serious environmental/social impacts etc	TCN PMU, FMEnv on request
Operation	TCN PMU Safeguards Specialists	Final Monitoring Report including all monitoring activities throughout project implementation	TCN PMU. Report to be archived and made available to the World Bank, & FMEnv on request

Record Keeping and Control

The TCN PMU is required to keep records providing evidence on environmental and social monitoring and E&S performance evaluation for sub-projects (under the IPF component). Such records should be built upon feedback from individual monitoring plans prepared for DISCOs and NERC subprojects; and from a general compliance perspective through the demonstration of oversight functions and supervisory by the TCN PM. These documents should be made available to the Bank and FMEnv upon request.

Contractual Measures

Most of the mitigation measures may be obligatory for the Contractors procured by DISCOs and NERC during the Pre-supply, Supply and Operation Phases. Contractual measures to be should include:

- Environmental and Social clauses: Environmental and social mitigation measures to be undertaken by the Contractor.
- Cost of mitigation measures only be added to the cost of the contractual document as a provisional sum.
- Need to prepare a Contractor's Environmental and Social Management Plan (CESMP) which should emphasise specifically, the Contractor's approach to minimizing environmental and social impacts during implementation of activities. The CESMP should take guidance from the Contractor's mitigation responsibilities as presented in the ESMP. The CESMP must be submitted by the Contractor and approved by the TCN PMU before works commence.
- **Contractor's Code of Conduct – Preventing GBV/SH, SEA, VAC:** A Contractor's Code of Conduct should be prepared by the Contractor, and signed; and forms part of the bids/contract agreement. To a minimum, the Code of Conduct should address: Standards of Conduct such as (a) Conflicts of interest (b) quality of products and services, (c) health and safety- reporting injuries and unsafe conditions (d) workplace violence, labour and human rights, ethics, customer relations, reporting violations, (e) sex with a person under 18 is prohibited etc.

- **Individual Code of Conduct Preventing GBV/SH, SEA, VAC:** At a minimum, the individual code of conduct should spell out acceptable behaviour, consequence of violation, the routes for resolution of conflicts in any instance where personal interests conflict general interests regarding to the project work, outside work conduct, due diligence in providing required services, individual commitment to sustainable environmental practice during project implementation activities, etc.
- **Manager's Code of Conduct Preventing GBV/SH, SEA, VAC:** The Manager's Code of Conduct should to a minimum address: Manager's obligations to workers which include i) worker's compensation plan, ii) resolution of conflict among workers (iii) obligations to payment of workers' salaries (iv) workers' health care (v) general communication protocol (vi) disciplinary procedures (vii) procurement recruitment and termination procedures, etc

8.2.2 Grievance Redress Mechanism (GRM)

A program-level GRM will be prepared. The GRM must take into cognizance the program components being implemented by TCN; in terms of activities and the traditional and conventional peculiarities of the distribution zones and the communities they service. The mechanism will assume responsibility for occurrences and issues that have direct relation to, or bearing on the activities that are being carried out for achieving the expected outcomes of the IPF component. The overall responsibility for the coordination of the DISREP GRM will lie within TCN (TCM PMU). The PMU level will be responsible for the collection of grievances of higher severity that may come directly to the PMU office based on the procedure and grievance classification adopted. But the uptake of grievances and recording will be at different levels from the service areas and Business Units to the top. The following processes should be part of the GRM – Registration of complaints, verification, processing, implementation and closing date, feed-back.

ESMF Cost Estimates

The total estimated cost for the ESMF implementation and monitoring for all project locations is estimated at One Hundred and Sixty-Five Thousand United States Dollars Only. **USD 165,000.00** This is equivalent to Sixty-Two Million, Seven Hundred Thousand Naira Only **62,700,000 NGN**. See Table 12 below.

Table 12: ESMF Overall Estimate

S/N	Item	Responsibility	Estimated Cost (NGN)	Estimated Cost (US\$)
1.	Mitigation	Contractors and other parties involved in mitigation	TBD	TBD
2.	Monitoring	TCN PMU; FMEEnv; etc SMEEnv; SEPA; DISCO Mgt, NERC Mgt	TBD	TBD
Sub-total			Nil	Nil
3.	Capacity Building	TCN PMU, Other relevant MDAs	38,000,000.00	100,000.00
4.	ESMP Preparation	TCN-PMU	19,000,000.00	50,000.00
5.	Sub - Total		57,000,000.00	150,000.00
6.	Contingency	10% of Sub-Total	5,700,000.00	15,000.00
TOTAL			62,700,000.00	165,000

Note: USD to Naira exchange rates as at 30th November, 2020 (1 USD = 380 Naira) was applied and figures rounded up.

ESMF Disclosures

After the ESMF review and clearance by the World Bank, the following below describes the process of disclosure as shown in Table 13.

Table 13: ESMF Disclosure Procedure

S/N	Action	Remarks
1	Disclosure in 2 National newspapers	The TCN PMU will disclose the ESMF as required by the Nigeria EIA public notice and review procedures
2	Disclosure in 2 state newspapers	The TCN PMU will disclose the ESMF as required by the Nigeria EIA public notice and review procedures
3	Disclosure in 2 local newspapers	The PIU will disclose the ESMF as required by the Nigeria EIA public notice and review procedures
4	Disclosure at the DISCOs, NERC, BPE, FMoP, FMEnv office and the SMEnv in all the Distribution Zones/States	The PIU will disclose the ESMP as required by the Nigeria EIA public notice and review procedures
5	Disclosure at the TCN office	The PIU will disclose the ESMP as required by the Nigeria EIA public notice and review procedures
6	Disclosure at the Local Government Office where Business Units are Located	The purpose will be to inform stakeholders about the program's activities; environmental and social impacts anticipated and proposed environmental and social mitigation measures.
7	Disclosure on the World Bank external website or InfoShop	The ESMF will be disclosed according to the World Bank Disclosure Policy- OP/BP 17.50

CHAPTER NINE

STAKEHOLDER ENGAGEMENT

9.1 Overview

Stakeholder engagement is an inclusive process conducted throughout the project life cycle. Where properly designed and implemented, it supports the development of strong, constructive and responsive relationships that are important for successful management of a project's environmental and social risks. For this reason, stakeholders' engagement must be started early in the project cycle because it guarantees the 'social license to operate' by signalling to communities and other local stakeholders that their views and well-being are considered important.

In this section, consultations with key stakeholders with regards DISREP, and the implementation of the IPF component, specifically are discussed. A Stakeholder Engagement Process (See Table 10) was developed in order to achieve proper stakeholder identification and mapping. The process is further detailed in the stand-alone SEP. The objectives focused on obtaining the views of relevant stakeholders on subject matter relating to proposed activities to be undertaken under the IPF component.

9.2 Stakeholder Engagement Process

As part of the Stakeholder engagement process, the Consultant embarked on a Stakeholder mapping with the TCN (the IPF implementing Agency)

The following steps were taken for the stakeholders' engagement process

- a) Identification of Stakeholders
- b) Prioritization of Stakeholders
- c) Understanding the Identified Stakeholders and their areas of influence/interest
- d) Mapping of Stakeholders

See Table 14 below.

Table 14: Stakeholders Engagement Process

S/N	Key Stakeholder Engagement Activities	Stakeholders Identified	Level of Influence on the Project
	<ul style="list-style-type: none"> ✓ Desktop study, Literature reviews of industry/ sub-sector operations; program area of influence ✓ Mapping of primary stakeholders (specifically interested Parties) ✓ Initial identification of stakeholders in association with Distribution Sub-Sector operations ✓ Introductory stakeholders' engagement and meetings for discussions and feedback on relevant sector and sub-sector community and local issues, including grievance redress, Gender Based Violence (sexual harassment and SEA) and opinions from Civil Society Groups 	BPE	The influence of BPE on the program extends to overall program management. BPE will operate the Project Management Unit and on-lend World Bank funds to DISCOs. BPE will also be responsible for implementing the PforR component of DISREP
		TCN	As Implementing Agency for DISREP, TCN will deal directly with the DISCOs in terms of achieving program objectives concerned with the IPF and TA components of the program
		NERC	NERC is a major actor and direct beneficiary of DISREP. NERC's involvement will cut across all three (3) components of the program
		DISCOs	The DISCOs are also major actors and beneficiaries of the program. Majorly they deal with electricity supply and distribution to customers. For the design of DISREP, the DISCOs play an important role for the achieving of the 3

S/N	Key Stakeholder Engagement Activities	Stakeholders Identified	Level of Influence on the Project
			result areas under the PforR component, but specifically as concerns the IPF component, will be recipients of the bulk meter supplies and responsible for installation activities.
		FMoP	Apex federal ministry and policy maker for the energy sector and key constituent of the DISREP Technical Committee alongside other interested parties.
		FMEEnv	The FMEEnv will collaborate with TCN for screening of sub-projects under the IPF component
		NBET	Crucial in dealing and liaisons between players in the energy sector.
		Civil Society Organizations Network for Electricity Consumer Advocacy of Nigeria (NECAN)	This CSO is responsible for providing a structure platform for electricity consumers to be better organized sensitized and constructively engaged.

9.3 Fundamentals of Stakeholder Engagement Approach for Implementation of DISREP

Consultations: The objectives of consultations for DISREP included receiving input for improved decision-making about the design and implementation arrangements of the IPF component to contribute to improved governance, operational, customer service results and sustainability.

Collaboration: Collaboration was established with identified stakeholders to allow for effective decision-making processes so as to make decisions more responsive to stakeholder needs and improve the sustainability of program and sub-project outcomes through increased ownership by stakeholders.

Collecting, Recording, and Reporting on Inputs from Stakeholders: Stakeholder feedback on various dimensions of public services provided will be collected periodically through the PMU domiciled in BPE and at TCN. These may to a minimum include: inclusiveness in decision-making, resource utilization or engagement processes.

Stakeholders-led Monitoring: Involving stakeholders in monitoring services and products delivery, revenues, budget execution, procurement, contract awards, and reform policies will increase transparency, improve efficiency of service delivery or budget execution, and reduce opportunities for corruption. Additional entry points for stakeholder's engagement in monitoring will include collaboration with national, state and local-level CBOs/NGOs, communities, local academia, or think-tanks in gathering results data and conducting joint evaluations of project results after project completion (including in the preparation of project Implementation Completion Reports).

Capacity Building for Stakeholder Engagement: Capacity building for all relevant stakeholders (CBOs, communities, government officials, and national accountability institutions) is particularly necessary and needs to be systematically integrated into World Bank Group (WBG) supported operations where Stakeholder Engagement (SE) approaches are introduced for the first time at scale at the national, sectoral, program, or project level. A focus on building government capacity is also important to ensure the sustainability of engagement processes beyond the life of a project intervention.

9.4 Stakeholder Engagement Summary

With the outbreak and spread of COVID-19, the Government of Nigeria, imposed mandatory directives and guidelines to exercise strict adherence to social distancing, to avoid public gatherings in order to prevent and reduce the risk of the virus transmission. The stakeholder consultations for this ESMF Report were undertaken in view of the **“Public Consultations and Stakeholder Engagement in WB-supported Operations when there are Constraints on Conducting Public Meetings”**. The major steps followed included *i) permitting smaller meetings, and conducting consultations in small-group sessions, such as focus group meetings ii) conducting meetings through GSM phone conference calls, online channels, zoom and skype and iii) creation of online chat groups appropriate for the purpose, based on the type and category of stakeholders;*

This section therefore provides a summary of the stakeholders’ engagement or consultation process. All consultations are summarized in a table format. Table 15 below shows the summary of stakeholders’ engagement.

Table 15: Summary of Stakeholder Consultations

Items	Description
Date of Consultation	5 th of October, 2020 Time: 10:00AM
Location	Abuja, Nigeria
Name of Stakeholder(s)	Transmission Company of Nigeria (TCN)
Language of communication	English
Subject Matter	DISREP Implementation Capacity; Environmental and Social Management Procedures
Questions/Concerns/Complaints/ Suggestions (From Stakeholders)	<p>The Consultant gave a brief overview on the ESMF in relation to the DISREP IPF component and engaged TCN management and the Coordinator, Environmental and Social Management – Transmission Rehabilitation and Expansion Program (ESM-TREP) on a focus-group discussion. He also informed that TCN is identified to be the IPF Implementing Agency for DISREP and will also implement the TA component.</p> <ul style="list-style-type: none"> At commencement, the stakeholder requested clarifications on the PforR financing and IPF; and why the ESMF is required for only the IPF component. Environmental and Social Management Procedures: The Consultant enquired to know if TCN has an organizational-level environmental and social operations manual to guide activities resulting in environmental and social risks and impacts. According to TCN, the organization does not have its Environmental and Social Management Operations Manual, rather it adopts provisions as contained in the FMEEnv Manual as well as guidelines established by international development banks and organizations e.g. World Bank. Capacity for environmental and social monitoring: Additionally, the Consultant raised concerns about the capacity of TCN for environmental and social monitoring; specifically, as regards DISREP IPF component activities. In response, TCN expressed that it is highly equipped to handle environmental and social management, and monitoring. The Company has, and is currently benefiting from Bank funded projects; in which several levels of capacity building programs on environmental and social management and monitoring have been conducted. Therefore, TCN expressed its leadership advantage in ensuring environmental and social monitoring of project activities and monitoring of environmental and social performance indicators. Environmental and Social Management System (ESMS) Compliance with ISO 14001 requirements: Respondents from TCN, did not specifically state compliance of their ESMS to ISO 14001. Nonetheless, TCN informed the consultation process that its operations are consistent with TCN's general Corporate ESMS, and management ensures to follow-up and update guidelines while carrying out environmental and social management (ESM)activities. The Chemical, Resettlement and Environment Division of the HSE department is solely responsible for ESM activities and implementation.

Items	Description
	<ul style="list-style-type: none"> • OHS Policy and Occupational Health and Safety Management System (OHSMS): The organization has an OHS policy and well-organized system in place. The Health, Safety and Environment (HSE) Department is responsible for OHS activities and the policy is upgraded considering the ISO 45001 requirements. Furthermore, during any project activity, TCN provides its workers with safety materials as well as training on safety procedures on site. The Organization also carries out safety compliance checks periodically on and off project sites. • As regards integration of environmental and social risks into the procurement process, the Director, Planning and Procurement stated that TCN has an inherent practice of integrating environmental and social risks in its procurement processes. The organization understands the legal implications associated with non-compliance to regulatory requirements and extends environmental and social accountability in practically all its activities. • Additionally, representatives from TCN informed that the Company is in the process of preparing an implementation plan to integrate environmental and social risks and impacts in the procurement process, with Green Public Procurement as a strong motive. • As regards the role of TCN as Implementing Agency of the IPF component, the Consultant enquired on how TCN plans to support the DISCOs in their eventual activity of bulk meter installations country-wide. In response, TCN stated that it carries out intensive sensitization and awareness before, during and after project implementation. In the case of DISREP, and with the objective of managing customer expectations, reactions, concerns etc; TCN will provide guidance to DISCOs in brainstorming on robust communication, awareness and sensitization modalities to effectively manage consumer responses to eventual sub-project activities. • In the light of policies and systems in place for the promotion of, social inclusion, people/workers living with disabilities and gender equality, TCN adopts International policies and standards, Nigerian legal provisions and those of international development partners. Similarly, TCN uses the World Bank Guidance Notes on Gender Based Violence and Sexual Harassment (GBV/SH) to guide its management of gender issues. • For conflicts and resolutions in operations, especially those funded by Donor agencies, the management of TCN informed that it implements Grievance Redress Mechanisms (GRMs) for each project/program.
<p>Remarks / Responses / Recommendation (By Consultant, ESM-TREP)</p>	<ul style="list-style-type: none"> • With respect to guidance to be provided to DISCOs during implementation of sub-project activities associated with “bulk supply of meters, the Consultant brought to note that social trends, behaviours, approaches and communication reception may differ in the various distribution zones. In that regard, if TCN is to guide DISCOs then it will need to examine various alternatives provided by the DISCOs and appraise them. Essentially, the appraisal should consider social dynamics and most efficient, transparent and socially accountable ways of communication e.g. the need and objective being bulk metering but also in turn, receive and address consumer complaints and concerns, in a timely and efficient manner. • A very critical input was the basis for the ESMF and why it will focus only on the IPF component. In response the Consultant made clear, that the PforR financing is basically for programs where results are the expected outcome. <i>(Projects for Results is a World Bank Financing Instrument which links disbursement of funds directly to the delivery of defined results, helping countries improve</i>

Items	Description
	<p><i>the design and implementation of their own development programs and achieve lasting results by strengthening institutions and building capacity).</i> However, the Bank’s environmental and social framework policy recommends that an environmental assessment be conducted for IPF.</p>
<p>Date of Consultation</p>	<p>6th of October, 2020 Time: 10:30AM</p>
<p>Name of Stakeholder(s)</p>	<p>Distribution Companies: Abuja DISCO, Benin DISCO, Eko DISCO, Enugu DISCO, Ibadan DISCO, Ikeja DISCO, Jos DISCO, Kaduna DISCO, Kano DISCO, Port Harcourt DISCO, Yola DISCO</p>
<p>Language of communication</p>	<p>English</p>
<p>Subject Matter</p>	<p>DISREP - Community Relations, Environmental and Social Governance, Occupational Health and Safety, Contractors Management, etc.</p>
<p>Questions/Concerns/Complaints/ Suggestions (From the Consultant)</p>	<p>Similarly, a background to DISREP was made by the ESM-TREP and the rationale and objectives of the ESMF were made known to the stakeholders by the Consultant. The DISCOs were educated on their relevance in ensuring the achievement of the program outcomes of the IPF component, including their benefits from the capacity building program included in the TA component. General introductions were made and the stakeholder engagement commenced.</p> <ul style="list-style-type: none"> • The Consultant, requested for the DISCOs to discuss their capacities and corporate management processes and procedures for the handling, containment, treatment and final disposal of e-wastes, bringing to mind the likelihood of the generation of large stockpiles of e-waste during the installation of meters (as old meters may be disused and removed from service). Specifically, the Kano DISCO, stated that decommissioned meters are inventoried and transported to their scrap room and tightly contained. Subsequently, they are sold off to registered and certified vendors with the Kano State Ministry of Environment. The end-process of disused meters would be to recycle or finally dispose according to the directives or guidelines of the Ministry. • Alternatively, the Abuja DISCO mentioned that it conducts an audit to ascertain meters that are obsolete, operational or need to be changed. Once removed from service, such meters are classified as e-waste by the Abuja DISCO. The e-waste is then aggregated (tens of thousands). The DISCO has identified 2 accredited and certified vendors (Hinckley E-Waste Recycling and E-Terra Technologies). E-wastes generated by their operations are also recycled. • The feedback from the DISCOs with regards to e-waste management, informed on further questions surrounding the management of Contractors in ensuring environmental and social management of risks and impacts when carrying out their contractual engagements. • The Ikeja DISCO stated that their agreements for contractors take into note environmental, occupational health and safety, and labour condition clauses. • Ibadan DISCO stated that the adherence to the use of Personal Protective Equipment (PPEs), is a major prerequisite for contractors, and negligence and non-compliance will most times result in a termination of contract. An induction program is also organized by the DISCO for its contractors.

Items	Description
	<ul style="list-style-type: none"> • The Jos DISCO emphasized that it follows through with its HSE policy; ensuring education and sensitization for contractors. In addition, contract agreements include strong clauses on work ethics, gender inclusion and safety requirements. • Alternatively, the Yola DISCO audits the quality management system of its contractors, and ensures that contractors develop short and long-term mitigation measures for potential risks and impacts. • On the aspect of previous activities involving the installation of meters, the Abuja DISCO specifically mentioned that it has applied various methods including public hearings, visits, road shows, town hall meetings, video adverts and notifications, one-on-one interviews and customer group interactions. The DISCO made known to all, that most information communicated on electrical matters is responded to, effectively by customers and consumers in rural and low-income areas when disseminated by the religious leaders (a useful lesson learnt). This was cited also in case of Right-of Way (ROW) violations. • Grievance Redress – For grievance redress, the Kano DISCO informed that it uses “Special Customer Groups”, to target and receive grievances from low-income households in the city areas. The DISCO also applies the Community Social Responsibility (CRS) initiative to foster good and better relations, and obtain suggestions, recommendations and complaints. Adult literacy classes are also an initiative offer by the DISCO to enhance community relations, consumer reliability and perceptions. Nonetheless, there are financial constraints in implementing these initiatives to the fullest. Importantly, consumer liaisons are extended to residential consumers and Small and Medium Enterprises (SMEs). The DISCO has also helped set-up transformer committees in neighbourhoods which facilitate the payment of electricity bills at their respective communities. The DISCO also mentioned that it conducts social education on metering, outreach programs and engages civil society organizations in their works. • In line with community metering, the Abuja DISCO stated there is a huge trust deficit between customers and DISCOs as estimated billing hasn’t exactly helped in this regard. A level of suspicion also exists in the area of capped billing, and customers may show a level of resistance when new installations are proposed to be undertaken. Resistant persons may end up bribing technicians to decline in conducting new installations. • Environmental and Social Management Procedures: The Consultant enquired to know if the DISCOs have organizational-level environmental and social operations manuals to guide activities resulting in environmental and social risks and impacts. According to them, they are guided by the Nigerian Electricity Health and Safety Standards Manual, prepared by NERC (2012) and use its provisions in their environmental and social procedures. Although limitations in their system to address social issues exist. • Capacity for environmental and social monitoring: Additionally, the Consultant raised concerns about the capacity of DISCOs for environmental and social monitoring; specifically, as regards e-wastes generation from program activities, and impacts on other environmental and social sensitivities/receptors. In response, all DISCOs have HSE Departments to address these. However, capacity building is still required. • Environmental and Social Management System (ESMS) Compliance with ISO 14001 requirements: On the issue of the ESMS, few of the DISCOs confirmed the existence of theirs. • OHS Policy and Occupational Health and Safety Management System (OHSMS): All DISCOs have an OHS or HSE policy and system in place, but the actual nature of effectiveness will be determined in further consultations precisely during detailed environmental and social assessments and in the course of implementing the Stakeholder Engagement Plan (SEP), being prepared

Items	Description
	as a stand-alone instrument in line with ESS 10. Additionally, a stand-alone Labour Management Plan (LMP) will further address issues of labour and working conditions in line with ESS 2 and capture more specific OHS issues associated with the DISCOs.
Questions/Concerns/Complaints/ Suggestions (From Stakeholders)	<ul style="list-style-type: none">• The Ministry of Lands and Survey commended the visit of the Consultant; however, the Ministry redirected the Consultant to the Ministry of Arts, Culture and Tourism for the acquisition of the cadastral map.• Further to the above, the Environmental and Social Safeguards Specialists in the PIU team were requested to make a formal request to the ministry in this regard.

ESMF Disclosures

After the ESMF review and clearance by the World Bank, the following below describes the process of disclosure as shown in Table 16.

Table 16: ESMF Disclosure Procedure

S/N	Action	Remarks
1	Disclosure in 2 National newspapers	The TCN PMU will disclose the ESMF as required by the Nigeria EIA public notice and review procedures
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3	Disclosure in 2 local newspapers	The PIU will disclose the ESMF as required by the Nigeria EIA public notice and review procedures
4	Disclosure at the DISCOs, NERC, BPE, FMoP, FMEEnv office and the SMEnvs in all the Distribution Zones/States	The PIU will disclose the ESMP as required by the Nigeria EIA public notice and review procedures
5	Disclosure at the TCN office	The PIU will disclose the ESMP as required by the Nigeria EIA public notice and review procedures
6	Disclosure at the Local Government Office where Business Units are Located	The purpose will be to inform stakeholders about the program's activities; environmental and social impacts anticipated and proposed environmental and social mitigation measures.
7	Disclosure on the World Bank external website or InfoShop	The ESMF will be disclosed according to the World Bank Disclosure Policy- OP/BP 17.50

REFERENCES

DISREP PAD
DIREP Concept Note
World Bank ESF
Nigeria EIA Sectorial Guidelines
DISREP Labour Management Procedures

ANNEX 1

SCREENING CHECKLIST

DISREP GENERIC ENVIRONMENTAL AND SOCIAL SCREENING FORM

Name of the Sub-Project:

Sub-Project:

Implementing Agency:

Contact:

No	Environmental and social Risk Questions	YES / NO	Unknown	Notes	ESS
1	Will the proposed activity include new construction and/or extension of activity?				ESS1
2	Will the proposed activity include rehabilitation of existing facilities?				ESS1
3	Does the proposed project belong to the list of projects for which full EIA is mandatory under the national law?				LFN (Law of the Fed. of Nig.)
4	Does the proposed activity require other type of EA under national or state legislation?				ESS1
5	Does the proposed activity require specific public consultations under the national legislation?				ESS10
6	Does the project support activities on WB Exclusion list?				ESS1
7	Does the project use natural resources such as land, water, materials or energy, particularly any resources which are non-renewable or in short supply?				ESS3
8	Will the project activity be performed in or around an archaeological or cultural heritage site or will the project result in an adverse impact on physical cultural resources?				ESS8
9	Will the project activity constitute a source of dust, criteria pollutants or some hazardous, toxic or harmful substances in the air?				ESS1, ESS3
10	Will the project result in or be a source of greenhouse gases or ozone depleting substances?				ESS3, ESS4
11	Will the project result in microclimate changes?				ESS3
12	Will the project constitute a source of noise and/or vibration?				ESS1, ESS3, ESS4
13	Will the project generate significant volume of waste (such as hazardous, nonhazardous, inert waste)?				ESS1, ESS3, ESS4,
14	Will the Project involve the use, storage, transport, handling or production of substances or materials which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health?				ESS1, ESS2, ESS3, ESS4,
16	Are there any risks of contamination of soil from release of waste or used materials from the project?				ESS1, ESS3, ESS4,

No	Environmental and social Risk Questions	YES / NO	Unknown	Notes	ESS
17	Will the project activities directly or indirectly present risks of potential groundwater contamination?				ESS3, ESS4
20	Are there any risks of physical changes of the terrain, soil pollution, sediment loads, etc.?				ESS1, ESS3.
22	Are there any areas on or around the location that are used by protected, important or sensitive species of fauna or flora e.g. for breeding, nesting, foraging, resting, overwintering, migration, which could be affected by the Project?				ESS1, ESS6
23	Will the project constitute the fragmentation of habitats of the flora and fauna?				ESS 1, ESS3, ESS6
24	Will the project be located in or near some sensitive or protected area?				ESS1, ESS6, ESS8
25	Are there any areas or features of high landscape or scenic value on or around the location which could be affected by the Project?				ESS1, ESS8
26	Will the project activities (E.g. Transportation of bulk meter) increase the risk of exposure to radiations?				ESS1. ESS2, ESS3, ESS4
27	Are there any transport routes on or around the location that are susceptible to congestion or which cause environmental problems, which could be affected by the Project?				ESS1 (TMP), ESS4, ESS5
28	Will the project constitute an intrusion into private places or residences or will it disrupt the normal life of the inhabitants of a place?				ESS1, ESS2, ESS4
29	Will the proposed project cause impact on community assets?				ESS5
30	Will the project constitute risk to safety and human health or will the project present an unsafe work situation? (EMF, Electric shock, etc.)				ESS2
31	Will the project result in an increase in Labor Influx in and around the area?				ESS1, ESS2, ESS4
32	Will the project likely increase the risk of exposure to any form of physical, sexual or psychological harm to women and children (E.g. SH, SEA, GBV, VAC, etc.) from Labor Influx?				ESS1, ESS2, ESS4
33	Will the project aggravate tensions or will it be affected by existing problems or social conflicts around the area?				ESS1, ESS4
34	Will the project generally present a significant impact on community health and safety?				ESS4

Date: _____

Categorization of the Risk	Low Risk	Moderate Risk	Substantial Risk	High Risk
	The Applicant need to prepare:	The Applicant need to prepare:	The Applicant need to prepare:	The Applicant need to prepare:
	ESMP	ESMP or ESIA	ESIA	Full ESIA
Approval				

ANNEX 2

SAMPLE ESMP OUTLINE

The ESMP Report should to a minimum have the following content.

- Chapter 1: Introduction
- Chapter 2: Legal and Regulatory Frameworks
- Chapter 3: Project Description and Baseline Studies
- Chapter 4: Identification and Assessment of Environmental and Social Impacts
- Chapter: Environmental and Social Monitory Plan
- Chapter 6: Stakeholders Engagement
- Chapter 7: Grievance Redress Mechanism
- Chapter 8: Recommendations

a) Mitigation

The ESMP identifies measures and actions in accordance with the mitigation hierarchy that reduce potentially adverse environmental and social impacts to acceptable levels. The plan will include compensatory measures, if applicable. Specifically, the ESMP:

- Identifies and summarizes all anticipated adverse environmental and social impacts;
- Describes--with technical details--each mitigation measure, including the type of impact to which it relates and the conditions under which it is required (e.g., continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate;
- Estimates any potential environmental and social impacts of these measures; and
- Takes into account, and is consistent with, other mitigation plans required for the project (e.g., for involuntary resettlement, indigenous peoples, or cultural heritage)

A) Monitoring

The ESMP identifies monitoring objectives and specifies the type of monitoring, with linkages to the impacts assessed in the environmental and social assessment and the mitigation measures described in the ESMP. Specifically, the monitoring section of the ESMP provides.

A specific description, and technical details, of monitoring measures, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions; and Monitoring and reporting procedures to:

- Ensure early detection of conditions that necessitate particular mitigation measures, and
- Furnish information on the progress and results of mitigation.
- Capacity development and training

To support timely and effective implementation of environmental and social project components and mitigation measures, the ESMP draws on the environmental and social assessment of the existence, role, and capability of responsible parties on site or at the agency and ministry level.

Specifically, the ESMP provides a specific description of institutional arrangements, identifying which party is responsible for carrying out the mitigation and monitoring measures (e.g. for operation, supervision, enforcement, monitoring of implementation, remedial action, financing, reporting, and staff training). To strengthen environmental and social management capability in the agencies responsible for implementation, the ESMP recommends the establishment or expansion of the parties responsible, the training of staff and any additional measures that may be necessary to support implementation of mitigation measures and any other recommendations of the environmental and social assessment.

- Implementation schedule and cost estimates
- For all three aspects (mitigation, monitoring, and capacity development), the ESMP provides: (a) an implementation schedule for measures that must be carried out as part of the project, showing phasing and coordination with overall project implementation plans; and (b) the capital and recurrent cost estimates and sources of funds for implementing the ESMP. These figures are also integrated into the total project cost tables.

B) Integration of ESMP with project

The Borrower's decision to proceed with a project, and the Bank's decision to support it, are predicated in part on the expectation that the ESMP (either stand alone or as incorporated into the ESCP) will be executed effectively. Consequently, each of the measures and actions to be implemented will be clearly specified, including the individual mitigation and monitoring measures and actions and the institutional responsibilities relating to each, and the costs of so doing will be integrated into the project's overall planning, design, budget, and implementation.

ANNEX 3

SAMPLE WORKERS OCCUPATIONAL HEALTH & SAFETY MANAGEMENT PLAN

S/n	Potential Hazards	Recommended Actions (OHS Measures/Safety Procedures)	Responsibility	Costs
1.	<p>“Unsafe behaviours” ¹¹and “Unsafe conditions”¹² will pose a serious occupational health and safety risk.</p> <p>Hazardous conditions or practices likely to impact on occupational health and safety will include:</p> <p>a) Loading and offloading of metering equipment b) Uninstallation of disused meters c) Conveying and lifting of other heavy equipment d) Use and exposure to hazardous energy i.e. electrical works</p>	<p>TCN PMUhas a responsibility to ensure the health and safety of all persons working on the TCN PMUProject including, their own employees, DISCOs and other contractual workers.</p> <ul style="list-style-type: none"> In this regard, the TCN PMUshall: Define systems of work and requirements for staff and workers, to ensure their health and safety at the loading, offloading, as well as installation sites. This means that TCN PMUwill require workers to follow safe systems of work, meet statutory and other requirements (Nigeria and International), and audit their capability to safely manage work. Provide information needed by the workers to document and carry out work in a safe manner Provision of first aid and first aiders TCN PMUshould provide information on hazards and their associated risks while working on any specific part of the different activity sites. This will workers document their procedures for managing work around hazardous conditions, and to ensure they are aware of these hazards. Review DISCOs’ Safe Work Method Statement to ensure they comply with the Bank’s Environmental and Social safeguards and statutory HSE Requirements. Any Safe Work Method Statements submitted at tender should be reviewed to ensure safety and environmental requirements have been fully met. Ensure that DISCOs follow all safety and environmental requirements. TCN PMUshould monitor health and safety during the different phases of work. Pre-start checks, inspections and audits will be conducted while on- site. These checks will look at work practices and methods, equipment conditions and suitability, and competency of people through checking the permits, licenses etc. Individuals are not permitted to bring, use or be under the influence of alcohol or non-prescribed drugs on site. 	TCN PMU	

¹¹ **Unsafe Behaviours** – are behaviours that expose workers or visitors to the work place, to hazards and risks. These may include, horse-play; not undergoing training before commencing a hazardous activity; not wearing appropriate Personal Protect Equipment (PPEs), not reporting worksite incidents or accidents etc

¹² **Unsafe Conditions** – represent onsite situations or settings that predispose works or visitors to worksite to hazards and risks such as uncovered ditches, naked energized electric wires or cables, exposed rotatory machinery, leaking poisonous or noxious gases, exposed nail-tip in a wooden floor, etc.

S/n	Potential Hazards	Recommended Actions (OHS Measures/Safety Procedures)	Responsibility	Costs
		<ul style="list-style-type: none"> Provision of Hazard Communication Procedures (HAZCOM); Job Hazard Analysis (JHA); OHS Training program; Accident Investigation; Hazard/Risk Assessment and Management; OHS responsibilities; Electrical Safety and Log out – Tag out (LOTO); Emergency management, Provision of and mandatory instructions to wear rubber gloves, fall protection gear, etc. Prohibition of drug and alcohol use by workers while on the job. Provision of adequate first aid, first aiders, PPE, signage (English languages). Restriction of unauthorized access to all areas of high-risk activities Provision of specific personnel training on worksite OHS management Workers should get a daily induction/toolbox before going on the site and a refresher of what happened on site a day before prevent harassment or kidnapping of workers 	DISCOs	
2.	Compensation claims, (MEEPS) M: Materials (Hazardous) E: Environment (Workplace) E: Equipment P: Personnel and other persons in the workplace S: System (the work system exposing workers and others to the hazard)	<ul style="list-style-type: none"> DISCOs are responsible for ensuring that safety and health hazards associated with the work they are performing, are satisfactorily controlled and do not pose a risk. In the process of carrying out their work a worker may introduce other hazards. These hazards and controls identified by the DISCOs must be considered in the Safe Work Method Statements. DISCOs are responsible for ensuring the health and safety of their workers. This means that the DISCOs is responsible for ensuring that: a) their workers are adequately trained and competent in performing their tasks, and in basic safety procedures. b) Are provided information about processes and materials which are hazardous. c) Are issued with appropriate safety equipment and have appropriate instruction in its use. d) Have safe work methods and are adequately supervised to ensure safe work. e) Workplace safety inspections are regularly carried out. f) There is access to first aid equipment and trained persons. 	DISCOs	
		Total Cost for Implementing OHSP		

It is noteworthy to state that, proper costing of the annexes will be done at the required instrument level

ANNEX 4:

SAMPLE JOURNEY MANAGEMENT PLAN (JMP)

In general, a Journey Management Plan is required for all projects that could have an impact on **MOBILITY** - including interruptions to pedestrians or motorists, road accidents, vehicle breakdown, etc.

The objective of this JMP is to ensure that the proposed journey for the distribution of meters to DISCOs warehouses is successfully done to save life, money and time, in spite of the various conditions around us and the actions of others.

Components of the Journey Management Plan

The proposed JMP for the distribution of meters to all 11 DISCOs warehouses across Nigeria should to a minimum address the following:

- a) **Drivers' selection:** The driver must have a minimum of five years of experience. He must have undergone relevant and applicable drivers training at least 3 times within the past 5 years. His experience must cover good sense of judgment and an excellent driving skill. The driver must be physically and mentally fit for the journey, no drugs (marijuana, narcotics, and tranquilizers).
- b) **Vehicle condition:** The vehicles must have a pre-mobilization certificate issued after inspection by WB-TCN PMU. The pre-mobilization should to a minimum, consider:
 - Seat belt for all occupants, except in trucks and buses where it is provided only in the front seats
 - One side mirror on each side.
 - One fire extinguisher.
 - A first aid box.
 - Indication of current tire pressure.
 - Reverse alarm for trucks and buses.
- c) **Trip condition:** Weather is the most important factor in trip condition. If it is raining, the driver must adjust his speed limit accordingly, if it is a sunny day, he should make sure that the sun will not disturb his driving else, the PMU will provide for him coloured or photo chronic glasses.
- d) **Weather condition:** Prior to the journey, drivers should study the weather conditions, especially when roads are wet and slippery, they should be aware that:
 - Reflection depending on intensity of the rays and mirage can constitute a driving hazard during the day.
 - Restricted visibility glare reflection from other vehicles may affect ones driving ability in the night, and the driver should adjust his driving to suit the current weather condition.
 - Light scattering on windscreen can affect the vision of the driver; therefore, the driver should not over drive the headlight, and ensure that the windscreen is always clean to avoid these effects.
- e) **In vehicle Monitoring System (IVMS):** The speed of all heavy-duty vehicles in use should be monitored with installed IVMS. This will help to keep track of speed, distance travelled and bad driving habits.
- f) **Vehicle Loads:** This component of the JMP puts in check that:
 - All loads shall be adequately placed and well secured.
 - Any vehicle carrying an abnormally large and heavy load shall be marked in front and rear to warn other road users.
 - Loads protruding beyond the rear of the vehicles shall be marked by a red flag by day and red light by night.
 - No load shall exceed the width of the vehicle unless the vehicle is provided with an escort, who shall be giving on-coming vehicles advance warning of the loaded vehicle.
 - Personnel shall not be carried in the load carrying area of goods vehicle.

ANNEX 5:
SAMPLE WASTE MANAGEMENT PLAN

S/N	Potential Source	Waste Streams	Waste Type	Recommended Measures	Responsibility	Costs
1.	Food wastes from Onsite food vendors; Plastic wastes	Municipal Solid Waste / Biodegradable Wastes	General Waste	<ul style="list-style-type: none"> Provide and encourage the use of waste collection bins at specific locations within the project facilities for proper disposal of wastes. This practice should be continuously encouraged throughout project implementation phase. Proper sorting, temporal onsite storage and stockpiling of all collected wastes including all organic and inorganic wastes until final disposal Grossly discourage indiscriminate waste disposal practices such as disposal into drainages All waste designated “Combustible” shall be disposed of in collaboration with the State Waste Management Agency. Wastes otherwise designated as “Recyclable” shall be disposed of in any designated dumpsite in the State 	DISCOs/SWMA/SEPAs	
2.	Disused meters and other electrical equipment at DISCOs warehouses	E-wastes	Waste wires, switches, batteries, meters etc.	<ul style="list-style-type: none"> Conduct onsite inventory of e-wastes Segregate and store e-wastes separately from other waste streams. Identify e-wastes that can be reused or repaired Where they cannot be reused; liaise with certified or accredited vendors to collect and manage e-wastes according to State and National Laws Ensure proper final disposal of all e-wastes in accordance to NESREA guidelines and collaboration with the State Waste Management Agency 	DISCOs/SWMA/SEPAs	
				Total cost for implementing WMP		

ANNEX 6

COMMUNITY OCCUPATIONAL HEALTH & SAFETY MANAGEMENT PLAN

This Community Occupational Health & Safety Management Plan addresses the TCN PMU commitment to:

1. Mitigate potential impacts of Project related activities that may affect the health, safety and security of communities within the Project areas and along the transportation route;
2. Maintain a healthy workforce and labour pool in the community; and
3. Contribute to the improved health and wellbeing of the local community in the Project areas.

S/n	Potential Hazards	Recommended Actions (OHS Measures/Safety Procedures)	Responsibility	Costs
1.	Emissions from heavy-duty vehicles	<ul style="list-style-type: none"> • Haul trucking limited to daylight hours; • Attention to haul vehicle design, avoid downward pointing exhausts; • Maintenance checks of all heavy-duty vehicles • Retrofit all heavy-duty vehicle exhaust pipes with scrubber • Use of modern well-designed vehicles and equipment; and • Regular monitoring. 	WB-TCN PMU	
2.	Electrocution	<ul style="list-style-type: none"> • Early awareness should be given to the nearby communities, with respect to project activities (installation), to prevent risk of electrocution. 	DISCOs	
3.	Road accidents	<ul style="list-style-type: none"> • Control speed limits; • Ensure haul trucks are not overloaded and are covered where necessary; • Investigate reasons and implement more strict or new measures if need it • Community awareness across all DISCOs warehouses • Strict Adherence to the Journey Management Plan development for the project 	TCN PMU/DISCOs	
		Total Cost for Implementing OHSP		

ANNEX 7: SAMPLE CODE OF CONDUCT

MANAGER'S CODE OF CONDUCT

DISCOs Managers at all levels have particular responsibilities to create and maintain an environment that prevents SH and SEA. They need to support and promote the implementation of the Company Codes of Conduct. To that end, Project Managers are required to sign up to Codes of Conduct applicable to their managerial duties within the context and also sign the Individual Codes of Conduct. This commits them to support and develop systems that facilitate the implementation of this action plan and maintain a SH-free, child-safe and conflict-free work environment. These responsibilities include but are not limited to:

Mobilization

1. Establish a SH/SEA Compliance Team from the contractor's and consultant's staff to write an Action Plan that will implement the SH and SEA Codes of Conduct.
2. The Action Plan shall, as a minimum, include the
 - i. Standard Reporting Procedure to report SH and SEA issues through the project Grievance Redress Mechanism (GRM);
 - ii. Accountability Measures to protect confidentiality of all involved; and,
 - iii. Response Protocol applicable to SH survivors/survivors (including access to support coping and post-trauma management strategies) and perpetrators.
 - iv. Engagement of the services of social service providers (NGOs) with requisite skill in the prevention and management of SH and SEA.
3. Coordinate and monitor the development of the Action Plan and submit for review to the RAMP-PIU safeguards teams, as well as the World Bank prior to mobilization.
4. Update the Action Plan to reflect feedback and ensure the Action Plan is carried out in its entirety.
5. Provide appropriate resources and training opportunities for capacity building so members of the compliance team will feel confident in performing their duties. Participation in the Compliance team will be recognized in employee's scope of work and performance evaluations.
6. Ensure that contractor, consultant and client staff are familiar with the RAMP GRM and that they can use it to anonymously report concerns over SH and SEA.
7. Hold quarterly update meetings with the compliance team to discuss ways to strengthen resources and SH/SEA support for employees and community members.
8. 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.
9. Ensure that when engaging in partnership, sub-grant or sub-recipient agreements, these agreements
 - a) incorporate this Code of Conduct as an attachment;
 - b) include the appropriate language requiring such contracting entities and individuals, and their employees and volunteers to comply with this Code of Conduct; and
 - c) expressly state that the failure of those entities or individuals, as appropriate, to take preventive measures against SH and SEA, to investigate allegations thereof, or to take corrective actions when SH/SEA has occurred, shall constitute grounds for sanctions and penalties.

Training

1. 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 SH/SEA Codes of Conduct.
2. Provide time during work hours to ensure that direct recruits attend the mandatory induction training, which covers SH/SEA training required of all employees prior to commencing work on site.
3. Managers are required to attend and assist with the NGO-facilitated monthly training courses for all employees. Managers will be required to introduce the trainings and announce results of consequential evaluations.
4. Collect satisfaction surveys to evaluate training experiences and provide advice on improving the effectiveness of training.

Prevention

1. All managers and employees shall receive a clear written statement of the company's requirements with regards to preventing SH/SEA in addition to the training.
2. Managers must verbally and in writing explain the company and individual codes of conduct to all direct recruits.
3. All managers and employees must sign the individual 'Code of Conduct for SH and SEA, including acknowledgment that they have read and agree with the code of conduct.
4. To ensure maximum effectiveness of the Codes of Conduct, managers are required to prominently display the Company and Individual Codes of Conduct in clear view in public areas of the work space. Examples of areas include waiting, rest and lobby areas of sites, canteen areas, health clinics.
5. Managers will explain the GRM process to all employees and encourage them to report suspected or actual SH/SEA
6. Managers should also promote internal sensitization initiatives (e.g. workshops, campaigns, on-site demonstrations etc.) throughout the entire duration of their appointment in collaboration with the compliance team, service providers and in accordance to the Action Plan.
7. Managers must provide support and resources to the compliance team and service provider NGOs to create and disseminate the internal sensitization initiatives through the Awareness-raising strategy under the Action Plan.

Response

1. Managers will be required to provide input, final decisions and sign off on the **Standard Reporting Procedures and Response Protocol** developed by the compliance team as part of the Action Plan.
2. Once signed off, 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 SH/SEA (unless a breach of confidentiality is required to protect persons or property from serious harm or where required by law).
3. Once a sanction has been determined, the relevant manager(s) is/are expected to be personally responsible for ensuring that the measure is effectively enforced, within a maximum timeframe of **14 days** from the date on which the decision was made.
4. Managers failing to comply with such provision can be in turn 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:
 - i. Informal warning
 - ii. Formal warning
 - iii. Additional Training
 - iv. Loss of up to one week's salary.
 - v. Suspension of employment (without payment of salary), for a minimum period of 1 month up to a maximum of 6 months.
 - vi. Termination of employment.

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

FOR THE EMPLOYER

Signed by _____

Title: _____

Date: _____

CONTRACTOR CODE OF CONDUCT

The company is obliged to create and maintain an environment which prevents Sexual Harassment (SH) and Sexual Exploitation & Abuse (SEA) issues. The company is also required to maintain an environment where the unacceptability of SH and actions against children are clearly communicated to all those involved in the project. In order to prevent SH and SEA, the following core principles and minimum standards of behaviour will apply to all employees without exception:

1. SH/SEA constitutes acts of gross misconduct and are therefore grounds for sanctions, penalties and/or termination of employment. All forms of SH/SEA including grooming are unacceptable, be it on the work site, the work site surroundings, project neighbourhoods or at worker's camps. Prosecution of those who commit SH or SEA will be followed.
2. Treat women, children (persons under the age of 18), and men with respect regardless of race, colour, language, religion, political or other opinion, national, ethnic or social origin, property, disability, birth or other status.
3. Do not use inappropriate language or behaviour towards women, children and men. This includes harassing, abusive, sexually provocative, derogatory, demeaning or culturally inappropriate words, gestures or actions.
4. Sexual activity with children under 18—including through digital media—is prohibited. Mistaken belief regarding the age of a child and consent from the child is not a defence.
5. Sexual favours or other forms of humiliating, degrading or exploitative behaviour are prohibited.
6. Sexual interactions between contractor's and consultant's employees at any level and member of the communities surrounding the work place that are not agreed to with full **consent** by all parties involved in the sexual act 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.
7. All employees are required to attend an induction training course prior to commencing work on site to ensure they are familiar with the SH/SEA Code of Conduct.
8. All employees must 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 institutional SH and SEA Code of Conduct.
9. All employees will be required to sign an individual Code of Conduct confirming their agreement to support SH and SEA activities.

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

FOR THE COMPANY

Signed by _____

Title: _____

Date: _____

WORKER'S CODE OF CONDUCT

I, _____ (*name of worker*), acknowledge that preventing Sexual Harassment (SH) and Sexual Exploitation & Abuse are important. SH/SEA activities constitute acts of gross misconduct and are therefore grounds for sanctions, penalties or termination of employment. All forms of SH or SEA are unacceptable either on the work site or neighbouring project communities. Prosecution of those who commit SH/SEA will be followed as appropriate according to applicable laws. I also acknowledge the need to maintain peaceful relationships and interactions with residents of project areas.

Specifically, I agree that while working on projects of the DISREP, I will:

- i. Maintain conflict-free relationships with residents of project areas *when such relationships and interactions become necessary*.
- ii. Consent to police background check.
- iii. Treat women, children (persons under the age of 18), and men with respect regardless of race, colour, language, religion, political or other opinion, national, ethnic or social origin, property, disability, birth or other status.
- iv. Not use language or behaviour towards women, children or men that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate.
- v. Not participate in sexual activity with children—including grooming or through digital media. Mistaken belief regarding the age of a child and consent from the child is not a defence.
- vi. Not engage in sexual favours or other forms of humiliating, degrading or exploitative behaviour.
- vii. Not have sexual interactions with members of the communities surrounding the work place and worker's camps that are not agreed to with full consent by all parties involved in the sexual act. 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.
- viii. Attend and actively partake in training courses related to HIV/AIDS, SH and SEA as requested by my employer.
- ix. Report through the GRM or to my manager suspected or actual SH and/or SEA by a fellow worker, whether in my company or not, or any breaches of this code of conduct.

With regard to children under the age of 18:

- x. Wherever possible, ensure that another adult is present when working in the proximity of children.
- xi. Not invite unaccompanied children into my home, unless they are at immediate risk of injury or in physical danger.
- xii. 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.
- xiii. 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”).
- xiv. Refrain from physical punishment or discipline of children.

- xv. 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.
- xvi. Comply with all relevant local legislation, including labour laws in relation to child labour.

Use of children’s images for work related purposes

When photographing or filming a child for work related purposes, I must:

- xvii. Before photographing or filming a child, assess and endeavour to comply with local traditions or restrictions for reproducing personal images.
- xviii. 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.
- xix. 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.
- xx. Ensure images are honest representations of the context and the facts.
- xxi. Ensure file labels do not reveal identifying information about a child when sending images electronically.

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

Signed by _____
(Worker)

Signed by _____
(Employer/Manager)

Title: _____

Title: _____

Date: _____

Date: _____

ANNEX 8:

EXERPTS FROM LABOUR MANAGEMENT PROCEDURES

The main Labor Management Procedures (LMP) was developed to identify and manage risks associated with labor and working conditions under the Distribution Sector Recovery Program (DISREP). It identifies labor requirements in line with applicable laws, standards and sets out the procedures for addressing labor conditions and risks associated with the DISREP in line with the World Bank Environmental and Social Standard 2 (ESS2).

An overview of labour use and characterization on the project has been provided. The LMP has assessed the potential labour risks associated with the project based on type of work and workers and documented appropriate mitigation measures.

Compliance obligations have also been documented which will serve as supplemental policies that will guide the implementation of this LMP including national laws, international laws, and in particular, the World Bank ESS2.

The LMP sets out policies and procedures governing the following:

- Non-discrimination and equal opportunity
- Age of employment
- Terms and conditions of employment
- Working conditions
- Occupational health and safety
- Forced labour
- Sexual harassment (SH), sexual exploitation and abuse (SEA), gender-based violence (GBV)
- Grievance Redress mechanism (GRM)
- Right of association and collective bargaining
- Community health & safety
- Contractors management
- Primary suppliers
- Discipline and termination of employment

Roles and responsibilities for implementing the LMP has also been documented in line with the project structure for implementing the DISREP. The LMP recognizes the need for establishing a grievance redress mechanism for workers and a procedure has been provided to guide development of site-specific labour management plans by contractors.

Procedures

i. **Non-discrimination and equal opportunity**

Employment of project workers will be based on the principles of non-discrimination and equal opportunity. There will be no discrimination with respect to any aspects of the employment relationship, including recruitment, compensation, working conditions and terms of employment, access to training, promotion or termination of employment. The following measures will be followed by the Implementing Agencies, DISCOs and contractors and monitored by the respective ESSHS/HSE teams:

- Recruitment procedures will be transparent, public and non-discriminatory, and open with respect to ethnicity, religion, sexuality, disability or gender;
- Clear job descriptions will be provided in advance of recruitment and will explain the skills required for each post;
- All workers will have written contracts describing terms and conditions of work and will have the contents explained to them. Workers will sign the employment contract;
- Depending on the origin of the employer and employee, employment terms and conditions will be communicated in a language that is understandable to both parties;
- In addition to written documentation, an oral explanation of conditions and terms of employment will be provided to workers who may have difficulty understanding the documentation.

ii. Age of Employment

- DISREP will only engage person at minimum age of eighteen (18) and this will be enforced at recruitment and monitored by the IAs, DISCOs and contractors.
- Contractors will verify the identify and age of all workers. This will require workers to provide official documentation, which could include a birth certificate, national identification card, passport, or medical or school record. Contractors will liaise with community members to attest to the age and conduct of all local hires and maintain a list of same.
- Hired project workers above 18 will conduct their activities in ways that are not detrimental with respect to education or be harmful to the child's health or physical, mental, spiritual, moral or social development
- If a child under the minimum age is discovered working on the project, measures will be taken to immediately terminate the employment or engagement of the child in a responsible manner, considering the best interest of the child.

iii. Terms and Conditions of Employment

- Terms and conditions of direct workers will be determined by their individual contracts and public service rules (for government staff), and are guided by terms and conditions stipulated in the Public service rules (2008 edition).
- Consultants will apply the terms and conditions stipulated in their contract of engagement.
- The conditions of employment will set out workers' rights under national labor and employment law (which will include any applicable collective agreements), including job title, supervisor, their rights related to hours of work, wages, overtime, compensation and benefits, contract duration, disciplinary procedures, rules & regulations, procedure for termination of appointment, as well as those arising from the requirements of this LMP. This information and documentation will be provided at the beginning of the working relationship and when any material changes to the terms or conditions of employment occur
- Oral communication and explanation of working conditions and terms of employment will be provided where project workers do not read or have difficulties understanding the documentation
- Project workers will be paid on a regular basis as required by national law and in the conditions of employment. Deductions from payment of wages will only be made as allowed by national law or the labor management procedures, and project workers will be informed of the conditions under which such deductions will be made

iv. Working conditions

- Project workers will be provided with facilities appropriate to the circumstances of their work, including access to canteens, hygiene facilities, and appropriate areas for rest.
- Where workers camps are provided to project workers, policies will be put in place and implemented on the management and quality of accommodation to protect and promote the health, safety, and well-being of the project workers, and to provide access to or provision of services that accommodate their physical, social and cultural needs in line with the DISREP ESMF
- Employees and contractors will ensure accessibility of facilities, resources and information communication for project workers with disabilities including the provision of wheelchair ramps or elevators, or alternative formats of communication, such as large print, Braille, accessible digital formats or audio tape
- Provide protection and assistance for pregnant women against prejudice, physical harm, unfair dismissal and allow for adequate maternity leave in line with applicable laws
- Ensure work place ergonomics including:
 - ✓ adequate lighting to avoid eyestrain including protective screens on computers
 - ✓ position computer workstation at a parallel position to the eyes
 - ✓ use of supportive chairs for good lumbar support
 - ✓ good housekeeping practices
 - ✓ proper layout of electrical wires and appliances
 - ✓ fire extinguishers

v. Occupational Health and Safety

Employees and contractors will implement the following procedures:

- Conduct hazard and risk assessment for all job types
- Provide preventive and protective measures for such risks, including modification, substitution, or elimination of hazardous conditions or substances
- Provide adequate work tools, first aid boxes, appropriate personnel protective equipment (PPEs) and implement job controls such as work permits and standard operating procedures (SOPs)
- Provide HSE/OHS training for workers and maintain records of such trainings
- Document and report occupational accidents, diseases and incidents to the relevant authority in line with the project structure, implement correction, investigate the root cause, develop and implement corrective action plan (CAP). Fatalities should be reported to DISCO/TCN/NERC, and to the World Bank within 48hours or as soon as root cause investigation has been carried out and draft CAP prepared
- Prepare emergency prevention and preparedness and response plan, assign responsibilities, train responsible parties, test and improve on such plans
- Institute Environmental, Social, Health and Safety System (ESHSS) and ensure training for associated workers in line with the required national labour requirements, World Bank ESS2 requirements and procedures set out in this LMP
- It is recommended to include women representative on OHS team to help design policies and practices responding to the needs of female project workers
- Provide mechanism for consultation and participation of workers in OHS matters and implementation of OHS measures
- Project workers have the right to report work situations that they believe are not safe or healthy, and to remove themselves from a work situation which they have reasonable justification to believe presents an imminent and serious danger to their life or health

vi. Forced Labour

- Employees and contractors will not make use of any work or service which is exacted from an individual under threat of force, penalty, coercion, abduction, fraud, deception. DISREP will not entertain any kind of involuntary or compulsory labor, such as indentured labor, bonded labor, or similar labor-contracting arrangements. No trafficked persons will be employed in connection with the project.
- Workers will be allowed free and informed consent of the type of job they are ben engaged to perform
- Where forced labor is discovered in the project's workforce, prompt action will be taken to address the practice that has coerced the worker, and reported to the DISCO, TCN, NERC as appropriate to be addressed in accordance with national law

vii. Sexual Harassment (SH), Sexual Exploitation and Abuse (SEA), Gender Based Violence (GBV)

- All category of workers in DISREP will be made aware of zero tolerance to matters relating to SEA/SH/GBV
- All contractors will sign code of conduct forms as provided in annex 2
- IAs, DISCOs, contractors will establish and inform workers of a reporting mechanism for such incidents including referral services
- Implement any World Bank approved GBV action plan prepared for the project

viii. Grievance Mechanism (GRM)

A grievance mechanism will be provided for all direct workers and contracted workers (and, where relevant, their organizations) to raise workplace concerns. Such workers will be informed of the grievance mechanism at the time of recruitment and the measures put in place to protect them against reprisal for its use.

Measures will be put in place to make the grievance mechanism easily accessible to all such project workers. The GRM will be in line with the procedures set out in chapter 7 of this LMP

ix. Right of Association and Collective Bargaining

- Workers will be allowed rights to form and to join workers' organizations of their choosing and to bargain collectively without interference
- Employees will also provide information needed for meaningful negotiation in a timely manner
- Employees will not discriminate or retaliate against project workers who participate, or seek to participate, in such workers' organizations and collective bargaining

x. Community Health & Safety

- Employees will implement site specific procedures to manage community health and safety risks including risk assessment and emergency response plan
- All workers will sign code of conduct (CoC) (see annex 2 for CoC sample and procedures) which will manage labour relations with local communities

While DISREP is committed to promote the use of local labour, the following procedures will be adopted:

- No worker will be forced to do work

- Assess the health and safety risks to which the community workers may be exposed and implement actions to avoid, minimize and mitigate such risks
- Local labour will also be provided with safe and healthy working conditions, appropriate PPEs, defined terms of engagement, adequate wages and other conditions outlined in this LMP
- Communicate with community workers in a language and form understandable to them so that they know what to expect from the project and their own responsibilities under the project

xi. Contractors Management

- The IAs and DISCOs will ensure that contracted workers (contractors, subcontractors, brokers, agents or intermediaries) are legitimate and reliable entities
- Have documentation of their business licenses, registrations, permits and approvals
- Should have safety and health personnel, review their qualifications and certifications
- Records of safety and health violations, and responses, accident and fatality records and notifications to authorities
- Records of legally-required worker benefits and proof of workers' enrolment in relevant programs, worker payroll records, including hours worked and pay received
- Contractors to prepare Labor Management Plans as part of Contractor's ESMPs based on the provisions of this LMP and the details of labor to be used in those contracts. These plans will be reviewed and cleared by the DISCOs/PMU, as appropriate.
- Contracted workers will have access to a grievance mechanism as provided in section 7 of this LMP

xii. Primary Suppliers

- The IAs and DISCOs will review industry labor issues relating to the supply of goods and materials that will be required under DISREP and the risks, and implement actions to mitigate such risks
- The IAs and DISCOs will also track suppliers' performance to help inform whether procedures and mitigation measures are being appropriately implemented and provide feedback on performance and any new areas of risk
- Specific requirements on child labor, forced labor and work safety issues will be included in all purchasing orders and contracts with suppliers

xiii. Discipline and Termination of Employment

Project workers will receive written notice of termination of employment and details of severance payments in a timely manner: one month for skilled labour, one week for unskilled labour. However, in cases of gross misconduct, termination can be immediate but must be accompanied with proper incident report, fair, without prejudice and ensure adequate documentation.

