

**NIGERIA POLIO ERADICATION SUPPORT  
PROJECT (NPESP)**

**(ADDITIONAL FINANCING 3)**

**ENVIRONMENTAL AND SOCIAL  
MANAGEMENT FRAMEWORK (ESMF)**

**DRAFT FINAL**

**February, 2018**

<b>LIST OF TABLES .....</b>	<b>4</b>
<b>ACRONYMS .....</b>	<b>5</b>
<b>EXECUTIVE SUMMARY .....</b>	<b>7</b>
ES 1: Background.....	7
ES 2: Brief Project Description .....	7
ES 3: Overview of Environmental and Social Risks in Project Areas.....	9
ES 4: Legal and Institutional Framework .....	9
ES 5: Generic Risks and Impacts.....	10
ES 6: Framework Environmental and Social Management Plan (Framework ESMP).....	12
ES 7: Public Consultation .....	13
ES 8: Safeguard Documents and Public Disclosure.....	14
ES 9: Institutional Arrangement for the Implementation of the ESMP-F.....	14
ES 10: Roles and Responsibilities in Implementing the ESMP-F.....	14
<b>CHAPTER ONE: BACKGROUND .....</b>	<b>16</b>
1.1 Background .....	16
1.2 Justification for Environmental and Social Management Framework (ESMF).....	17
1.3 Objectives of the Environmental and Social Management Framework (ESMF) .....	18
1.4 Methodology.....	19
<b>CHAPTER TWO: NATIONAL POLICIES, ACTS, REGULATIONS AND REGULATORY AND                         INSTITUTIONAL FRAMEWORK .....</b>	<b>21</b>
2.1 Nigeria’s National Policies.....	21
2.2 Acts.....	22
2.3 Regulations.....	23
2.4 State Laws .....	24
2.5 International Environmental Treaties.....	25
2.6 Other Relevant Treaties and Conventions.....	25
2.7 Institutional Framework .....	25
2.8 World Bank Safeguard Policies .....	30
<b>CHAPTER THREE: PROJECT DESCRIPTION.....</b>	<b>32</b>
3.1 Project Description.....	32
3.2 Project Objectives .....	32

3.3 Project Components .....	32
<b>CHAPTER FOUR: BASELINE STUDIES .....</b>	<b>35</b>
4.1 General Overview of Nigeria.....	35
4.2 General Description and Location of Kano State.....	36
4.3 Environmental and Social Baseline for Kano State.....	36
4.4 General Description and Location of Lagos State.....	39
4.5 Environmental and Social Baseline for Lagos State.....	39
<b>CHAPTER FIVE: POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS.....</b>	<b>43</b>
5.1 Environmental and Social Screening Process .....	43
5.2 Impacts Classification.....	44
5.3 Impact Analysis and Prediction Ratings.....	45
5.4 Environmental Impacts.....	46
5.5 Social Impacts .....	46
5.6 Mitigation.....	47
5.7 General and Healthcare Waste Management .....	51
5.8 National Healthcare Waste Management Plan (NHWMP).....	51
<b>CHAPTER SIX: FRAMEWORK ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP-F) 52</b>	
6.1 Institutional Arrangement for Implementation of AF3 .....	52
6.2 Institutional Arrangement and Roles in the ESMF Implementation and Management.....	55
6.3 Roles and Responsibilities of PIU in Implementing the ESMP-F.....	55
6.4 Monitoring of ESMF Implementation .....	58
6.5 Training and Capacity Strengthening Program.....	58
6.6 Estimated Budget for Implementing the ESMF .....	59
6.7 Disclosures of Safeguard Instruments .....	60
<b>CHAPTER SEVEN: GRIEVANCE REDRESS MECHANISM (GRM) .....</b>	<b>61</b>
<b>CHAPTER EIGHT: STAKEHOLDER CONSULTATION .....</b>	<b>66</b>
8.1 Objectives.....	66
8.2 Outcome and Discussions from Stakeholder Consultation .....	66
<b>ANNEX ONE: SUMMARY OF WORLD BANK ENVIRONMENTAL AND SOCIAL SAFEGUARD POLICIES. ....</b>	<b>68</b>
<b>ANNEX TWO: SCREENING REPORT FOR STANDARD FORMAT AND SCREENING CHECKLIST ....</b>	<b>71</b>

**ANNEX THREE: ESMP FRAMEWORK ..... 72**

**ANNEX FOUR: ENVIRONMENTAL AND SOCIAL MANAGEMENT RATINGS..... 78**

**ANNEX FIVE A: HEALTHCARE WASTE MANAGEMENT PLAN ..... 81**

**ANNEX FIVE B: HEALTHCARE WASTE CLASSIFICATION AND TREATMENT ACCORDING TO THE  
NHCWM ..... 82**

**ANNEX SIX: STAKEHOLDERS CONSULTATION ATTENDANCE SHEET ..... 83**

**ANNEX SEVEN: TERMS OF REFERENCE..... 84**

## LIST OF TABLES

Table 2.1: Nigerian Policies that are Relevant to the NPESP AF3..... 21

Table 2.2: Nigerian Acts that are Relevant to the AF3. .... 22

Table 2.3: Regulations Relevant to AF3. .... 23

Table 2.4: State Laws Relevant to AF3..... 24

Table 2.5: Relevant Treaties Related To the AF3..... 25

Table 2.6: Other Relevant Treaties and Conventions Related to AF3 ..... 25

Table 2.7: Relevant Ministries to AF3, their functions and responsibilities ..... 26

Table 2.8 shows other relevant ministries relevant to this project. .... 28

Table 2.9 Relevant Ministries/Agencies to AF3, Enacting Laws and their Functions. .... 29

Table 2.10: World Bank Safeguard Policies ..... 30

Table 3.1 Project Components..... 33

Table 5.1 Evaluation and Considerations of Identified Potential Impacts ..... 45

Table 5.2: Potential Environmental and Social Impacts and Mitigation Measures..... 48

Table 6.1: Responsibilities of Various Stakeholder at the Federal Level ..... 52

Table 6.2: Institutional Arrangements and Responsibilities for Safeguards Management..... 55

Table 6.3: Roles and Responsibilities for Implementing the ESMP-F ..... 57

Table 6.4 Training and Capacity Strengthening Program ..... 58

Table 6.5 Summary of Indicative Budget Breakdown and Responsibility of the Cost for  
Implementing the ESMF Instruments ..... 59

Table 6.6: Disclosure of Safeguards Instruments ..... 60

Table 8.1: Summary of the Outcome of Stakeholders Consultation ..... 66

## ACRONYMS

AF	Additional Financing
CCE	Cold Chain Equipment
CCEOP	Cold Chain Equipment Optimization Platform
EA	Environmental Assessment
EAR	Environmental Audit Report
EVMA	Effective Vaccine Management Assessment
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
EU	European Union
EVM	Essential Vaccine Management
FEPA	Federal Environmental Protection Agency
FGN	Federal Government of Nigeria
FME <sub>env</sub>	Federal Ministry of Environment
FMoF	Federal Ministry of Finance
FMoH	Federal Ministry of Health
GAVI	Global Alliance for Vaccines and Immunizations
GoN	Government of Nigeria
GRS	Grievance Redress Service
GPEI	Global Polio Eradication Initiative
GRM	Grievance Redress Mechanism
GRM	Grievance Redress Mechanism
HCF	Health Care Facility
IDA	International Development Association
IPD	Inactive Polio Vaccine
HWMP	Health Waste Management Plan
KASEPPA	Kano State Environmental Protection Agency Law
KSPHCMB	Kano State Primary Healthcare Management Board
LASAA	Lagos State Signage and Advertisement Agency
LASEPA	Lagos State Environmental Protection Agency
LAWMA	Lagos State Waste Management Authority
LERICC	Local Government Emergency Routine Immunization Coordination Centre
LFN	Laws of the Federation of Nigeria
LGA	Local Government Area
LSPHCB	Lagos State Primary Healthcare Board
LSWMO	Lagos State Waste Water Management Office

MDG	Millennium Development Goals
MICS	Multi Indicators Cluster Survey
NERICC	National Emergency Routine Immunization Coordination Centre
NESREA	National Environmental Standards Regulatory Enforcement Agency
NHP	National Health Policy
NPHCDA	National Primary Healthcare Development Agency
NSCS	National Strategic Cold Store
NSHIP	National State Health Investment Project
MoU	Memorandum of Understanding
OPV	Oral Polio Vaccine
PAD	Project Appraisal Document
PCN	Project Concept Notes
PHC	Primary Healthcare Centre
POPs	Persistent Organic Pollutants
PDO	Project Development Objectives
PP	Project Paper
REMASA	Kano State Refuse Management & Sanitation
RI	Routine Immunization
RIFP	Routine Immunization Focal Persons
PHC	Primary Health Care
SERICC	State Emergency Routine Immunization Coordination Centre
SMEnt,	State Ministry of Environment
SMoH,	State Ministry of Health
SPHCDA	State Primary Healthcare Development Agency
SIAs	Supplementary Immunization Activities
SDD	Solar Direct Drive
TOR	Terms of Reference
UN	United Nations
UNICEF	United Nations Childrens Fund
WB	World Bank
WHO	World Health Organization
WPV	Wild Polio Virus

## EXECUTIVE SUMMARY

### ES 1: Background

On July 12, 2012 the World Bank approved the first Polio financing project for Nigeria for an amount US\$95 million, with a closing date of July 31, 2015. Subsequently, two other Additional Financing projects (AF) were approved - the first AF of US\$200 million was approved by the Board on April 10, 2015 with a closing date of July 31, 2017, and the second AF of US\$125 million was approved by the Board on June 7, 2016 with an original closing date of December 31, 2018.

The outbreak of insurgencies in the North East coupled with the economy of the country entering into recession in the early part of 2016 have marked a significant decline in the immunization against polio. One of the greatest threats to polio eradication has been poor routine immunization coverage since the insurgencies started. Hence, there is a pressing need to boldly address the low routine immunization coverage found particularly in the very low coverage States.

Thus on July 3, 2017, the FGN made a request to the Bank for the proposed Additional Financing (AF). The FGN made this request because

- It has already made large investments in Polio Eradication that has resulted in no new cases of polio in the last 16 months and would want to maintain the progress till total eradication; and
- It had proposed an additional component to address low routine immunization coverage in 12 states in the North of the country and extending the closing date.

In view of these, the WB through the AF3 will continue to assist the GoN in its polio eradication mission by providing financial support to the government's efforts in finally eradicating polio.

### ES 2: Brief Project Description

Under this new NPESP Additional Financing (AF3), the Bank will support the strengthening of the cold chain and supply logistics for immunization by addressing the insufficient cold and dry storage capacity in Lagos State and cold chain storage capacity in Kano State. By supporting the cold chain and logistics system, every Nigerian child will have access to vaccines of assured quality, delivered at the right time through efficient logistics, proper vaccine management and a functioning cold chain. This will also help address wastage of vaccines resulting from poor cold chain supply and logistics.

**ES 2.1 Objectives:** The Project Development Objective (PDO) is “To assist the Recipient, as part of a global polio eradication effort, to achieve and sustain at least 80 percent coverage with oral polio vaccine immunization in every state in the Recipient’s territory, and strengthen Routine Immunization in selected lagging states”.

**ES 2.2 Components:** AF3 is designed similarly to AF1 and AF2 except for the addition of component 3. Thus AF3 has 3 components. The Components for NPESP AF3 are

- **Component 1: Polio Eradication Support (US\$65 million)**
  - Subcomponent 1a. Within this subcomponent, UNICEF will procure OPV (US\$50 million).
  - Subcomponent 1b: Polio Eradication Operations Support (US\$15 million)
- **Component 2: Routine Immunization Support (US\$69 million)**
- **Component 3: Health Systems Strengthening (newly introduced and proposed financing is US\$16 million)**
  - Component 3a. Expansion of two national Cold Chain hubs (in Lagos and Kano) the proposed AF will finance the expansion of the cold store in Lagos and renovate the Kano cold store (US\$8 million);
  - Component 3b. Supply Chain and Logistics Systems Strengthening – the proposed AF will finance the logistics strengthening (US\$3.5 million) including supply chain systems strengthening; and
  - Component 3c. Strengthening Management at national and sub-national levels (US\$4.5 million): To address the widely-perceived weaknesses in management of RI programs at national and sub-national levels, the AF will pilot a management strengthening approach and support the following activities in 12 poorly-performing states [Sokoto, Jigawa, Kebbi, Gombe, Adamawa, Zamfara, Kogi, Taraba, Nasarawa, Yobe, Bayelsa and Plateau].

**ES 2.3 Major Activities:** For the NPESP AF3, there will be construction and rehabilitation works (civil works) particularly under Component 3. These activities will include construction and expansion of cold stores in the Lagos State national hub and renovations of the Kano State hub. Thus the subprojects to be carried out under Component 3 of the NPESP AF3 are subject to screening.

The government will prepare and disclose an Environmental Social Management Framework (ESMF) and an Environmental and Social Management Plan (ESMP) as soon as site specific activities and locations are identified.



## ES 3: Overview of Environmental and Social Risks in Project Areas

### Environmental Risks and Impacts

- Deterioration of ambient air quality due to emissions and dust particles;
- Noise & vibration from machineries and other equipment;
- Loss of flora and fauna which could alter the ecosystem where sub projects are to be carried out;
- Soil erosion due to compaction and top soil exposure to forces of erosion;
- Soil contamination from accidental leakage/spillage of fuel, oil/lubricants from equipment as well as vehicles;
- Surface water pollution from sediment run-off from excavated areas; and
- Generation of waste including spoils and possibility of leachate forming and infiltrating into the surface and ground water.

### Social Risks and Impacts

- Increased demand on existing health and sanitation infrastructure due to influx of temporary workers and camp service providers of basic services such as canteens;
- Increased crimes as a result of influx of temporary workers and camp followers;
- Children being lured into prostitution, youth being introduced into hard drugs etc;
- Risk of child labour;
- Risk of communicable diseases such as STDs including HIV/AIDS from influx of temporary construction workers; and
- Risks of occupational accidents and injuries to workers.

## ES 4: Legal and Institutional Framework

The following Federal and State Ministries, institutions and agencies are responsible for regulating and monitoring environmental and social issues as well as waste management

### ES 4.1 Relevant Federal and State Ministries

- Federal Ministry of Health (FMoH)
- Federal Ministry of Environment (FMEnv)
- National Primary Healthcare Development Agency (NPHCDA)
- Kano State Ministry of Health
- Kano State Ministry of Environment
- Lagos State Ministry of Health
- Lagos State Ministries of Environment

## ES 4.2 Relevant Agencies

- Kano State Environmental Planning & Protection Agency (KASEPPA)
- Kano State Refuse Management & Sanitation Board (REMASAB)
- Lagos State Environmental Protection Agency (LASEPA)
- Lagos Waste Management Authority (LAWMA)

Civil works under Component 3 of the NPESP AF3 trigger OP4.01 Environmental Assessment thus the ESMF has been prepared to comply with this policy.

## ES 5: Generic Risks and Impacts

ENVIRONMENTAL PARAMETER	POTENTIAL RISKS AND IMPACTS
LOSS OF FLORA	<p><b><u>Pre-Construction and Construction Phases</u></b></p> <p>Rehabilitation works could possibly involve the removal of vegetation cover in a bid to create work areas. This loss of plant cover could lead to vegetation loss and exposure of the top soil. Depending on the topography of the area, the removal of the vegetation cover and the subsequent exposure of the top soil could start the process of erosion</p>
LOSS OF FAUNA	<p><b><u>Pre-Construction and Construction Phases</u></b></p> <p>The removal of top soil could reduce the habitat of a number of organisms. This will alter the food chain in that habitat and eventually create an imbalance in the immediate ecosystem depending on the scale of vegetation removed.</p>
SOIL CONTAMINATION	<p><b><u>Preconstruction, Construction and Operation Phases</u></b></p> <p>Soil can be contaminated from the spilling of petrol being used by generator sets and vehicles.</p>
SOIL EROSION	<p><b><u>Preconstruction, Construction and Operation Phases</u></b></p> <p>The topography of the sites will play a significant role in the process of erosion. When vegetation is removed and the top soil is exposed, the sun tends to dry up the moisture in the soil and water and wind acting under the force of gravity will push soils downhill. The steeper the slope the faster the rate of erosion in most cases.</p>
AIR POLLUTION AND QUALITY	<p><b><u>Preconstruction, Construction and Operation Phases</u></b></p> <p>Air pollution may arise from the indiscriminate open air burning of wastes such as woods, plastics and other wastes generated during the construction and operation phases. Air pollution could also occur from using diesel powered generator sets and vehicles with poor or high emission rates. All these activities would negatively affect air quality. Also waste stored for too long on site could release offensive smells into the atmosphere</p>
SURFACE WATER CONTAMINATION	<p><b><u>Preconstruction, Construction and Operation Phases</u></b></p> <p>Accidental spillage of fuel, lubricants and other chemicals may run-off onto surface waters and eventually into streams. This can lead to surface water contamination and eutrophication in extreme cases. Also infiltration of wastes such as unfinished chemicals and paints can find their way into surface water drainages causing contamination.</p>
GROUNDWATER CONTAMINATION	<p><b><u>Preconstruction, Construction and Operation Phases</u></b></p> <p>Fuel, diesel and other lubricants leakages from storage tanks, light machinery and vehicles can infiltrate/percolate into the soil and find their way into the ground water causing groundwater contamination. The human effect of this is more pronounced if the source of water is a borehole drilled in or around the site. Lastly, leachate produced at onsite dump sites could percolate into ground waters causing contamination</p>

SOCIAL PARAMETER	DESCRIPTION
<b>PUBLIC HEALTH HAZARDS</b>	<p><b><u>Preconstruction, Construction and Operation Phases</u></b></p> <ul style="list-style-type: none"> <li>▪ Waste generated on site if not managed properly could accumulate, produce foul smells, and attract insects and rodents which inevitably would have health implications on the general public.</li> <li>▪ The release of carbon monoxide from machinery and vehicles into the atmosphere can cause illnesses such as asthma to those residing around the health facility.</li> <li>▪ Water left to accumulate in areas without being drained, would result in breeding habitats for mosquitoes and this could increase the occurrence of malaria.</li> </ul>
<b>PUBLIC SAFETY</b>	<p><b><u>Preconstruction and Construction Phases</u></b></p> <ul style="list-style-type: none"> <li>▪ Easy access to site areas could pose hazards to the public.</li> <li>▪ Construction items such as nails, broken wood can be harmful to the public</li> <li>▪ Items such as blocks, paint buckets, roofing items could fall down injuring passers-by</li> </ul>
<b>OCCUPATIONAL HEALTH</b>	<p><b><u>Preconstruction and Construction Phases</u></b></p> <ul style="list-style-type: none"> <li>▪ Handling and use of dangerous substances and wastes and inhaling fumes will expose the workers to occupational health risks.</li> <li>▪ Loud noise and vibrations will result from the use of equipment such as generators, vehicles, drilling machines (in the case of burrowing) etc. Such noise can easily exceed 90dBA.</li> </ul>
<b>OCCUPATIONAL SAFETY</b>	<p><b><u>Preconstruction and Construction</u></b></p> <ul style="list-style-type: none"> <li>▪ Construction works such as excavations, working with heavy equipment working in confined spaces, working under noisy conditions, heavy lifting will expose the workers to occupational safety risks</li> </ul>
<b>COMMERCIAL ACTIVITIES</b>	<p><b><u>Preconstruction and Construction</u></b></p> <ul style="list-style-type: none"> <li>▪ The noise associated with construction equipment and possible blockages of roads would serve to deter commercial activities on a temporary bases.</li> <li>▪ If the rehabilitation activities during the AF3 spread over a significant period of time. This without adequate planning, communication of activities and construction activities may cause traffic disruptions and congestion, resulting in temporary disturbance and interruption of commercial and social activities.</li> </ul>
<b>SOCIAL ACTIVITIES</b>	<p><b><u>Preconstruction, Construction and Operation Phases</u></b></p> <ul style="list-style-type: none"> <li>▪ There would be increase in the demand for basic services due to temporary influx of workers.</li> <li>▪ There is a potential for petty crime to increase in proposed sub project areas as influx of people increases</li> </ul>
<b>WASTE GENERATION</b>	<p><b><u>Preconstruction, Construction and Operation Phases</u></b></p> <ul style="list-style-type: none"> <li>▪ There is an expected increase in waste generated if not managed properly, could be harmful to the public and in extreme cases hazardous waste could lead to disease outbreak</li> <li>▪ Waste generated on site if not managed properly could accumulate and become unpleasant sights to the area.</li> </ul>
<b>WASTE MANAGEMENT</b>	<p><b><u>Preconstruction, Construction and Operation Phases</u></b></p> <ul style="list-style-type: none"> <li>▪ Waste dumped besides roads may intrude onto the roads causing vehicular hold ups and accidents.</li> <li>▪ When waste is stored for a long time, leachates may form and this could in turn percolate into the soil beneath thereby contaminating it.</li> </ul>

## ES 6: Framework Environmental and Social Management Plan (Framework ESMP)

### ES 6.1 Subprojects Environmental and Social Management Procedure

All subprojects under the NPESP AF3 shall be screened to determine the appropriate level of environmental and social impact assessment and management that would be needed for each subproject. This will be done to ascertain which subproject will have environmental and/or social impacts as well as the appropriate project categorization. Subprojects with no noticeable impacts will be cleared from an environmental perspective while those with significant potential impacts shall be subjected to another level of environmental assessment which will have to be reviewed and cleared by the Bank before commencement of the subproject.

### ES 6.2 Capacity Building and Target Audience

During consultations at the various levels, gaps emerged showing a insufficient knowledge of WB Safeguard Policies, ESMF, ESMP, environmental and social monitoring procedures, environmental and social screening and scoping procedures as well as impact identification. Training/capacity building is needed before and during project implementation and will be targeted at relevant staff of the Federal Ministry of Health, State Ministries of Health, Federal Ministry of Environment, State Ministries of Environment, National Primary Healthcare Development Agency, State Primary Healthcare Development Agencies, National Emergency Routine Immunization Coordination Centre, State Emergency Routine Immunization Coordination Centres, UNICEF and WHO. It is estimated that a total cost of \$2,000 (Two Thousand Dollars) only will be needed to complete sensitization and awareness training as well as to strengthen capacity building.

### ES 6.3 Grievance Redress Mechanism

The GRM is structured to accommodate everyone from the public and private PHC to the general public. In addition, clear procedures must be established for complaints and made easily available to the public by way of public notices and signs posted in all participating PHCs.

The grievance mechanisms will be designed to

- Provide a way to reduce risk for projects;
- Provide an effective avenue for expressing concerns and achieving remedies for grievants;
- Promote a mutually constructive relationship; and
- Prevent and address community concerns.

The responsibility, implementation of the GRM will rest with the safeguards specialists of the PIU which is under the implementing agency NPHCDA.

### ES 6.4 Performance Indicators

The following are performance indicators for monitoring of the implementation of the Framework ESMP (F-ESMP)

**Flora and fauna** - Visual Area of vegetation cover

**Soil:** In Situ testing for xenobiotic contaminants and visual observation

**Noise and air pollution** - Measurement of noise levels (not to exceed 90 decibels) and air pollution (Suspended Particulates such as TSP, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, THC)

**Public health and safety** - Frequency and number of construction related sicknesses and frequency and number of construction related injuries

**Occupational health and safety** - Frequency and number of occupational related sicknesses and frequency and number of occupational related injuries

### ES 6.5 Estimated Budget for Implementing the ESMF

The estimated cost of implementing the ESMF for NPESP AF3 is Nine Thousand Two Hundred and Forty Five Dollars Fifty cents (9,245.50) or an equivalent of Two Million Seven Hundred and Seventy Three Thousand Six Hundred and Fifty naira only (2,773,650). The full breakdown is shown in Table 6.4 of Chapter Six.

S/N	ITEM	ESTIMATE (NAIRA)	ESTIMATE (US\$)
1	Mitigation	1,830,000	6,100
2	Management (5% of Mitigation Cost)	91,500	305
3	Capacity Building	600,000	2,000
4	<b>Sub Total</b>	<b>2,521,500</b>	<b>8,405</b>
5	Contingency (10% of Sub Total)	<b>252,150</b>	<b>840.50</b>
<b>TOTAL</b>		<b>2,773,650</b>	<b>9,245.50</b>

### ES 7: Public Consultation

During the preparation of this ESMF, consultations were carried out on the 5<sup>th</sup> of February 2018 in Abuja as well as follow up consultations with NPHCDA. Stakeholders present and consulted with include

- Federal Ministry of Health (FMoH);
- Federal Ministry of Environment (FMEnv);
- Federal Ministry of Finance (FMoF);
- National Primary Healthcare Development Agency (NPHCDA);

- World Health Organization (WHO);
- United Nations Children's Fund (UNICEF);
- National Emergency Routine Immunization Coordination Centre (NERICC);
- Lagos State Primary Healthcare Board (LSPHCB); and
- Kano State Primary Healthcare Management Board (KSPHCMB).
- State Ministries of Health (SMoH) of Kano and Lagos States;
- State Primary Healthcare Development Agencies (SPHCDA) of Kano and Lagos States; and
- Staff of the Zonal Cold Stores of Kano and Lagos States.

Full details of all consultations are presented in Chapter Seven.

### ES 8: Safeguard Documents and Public Disclosure

The ESMF was prepared in consultation with the relevant Federal, State MDAs, UNICEF and the WHO. The NPHCDA will facilitate the disclosure of the ESMF as required by the Nigerian EIA public notice and review procedures document in the Federal Ministries of Environment and Health as well as in the participating states. The World Bank Disclosure Policy BP 17.50 also makes it mandatory for the ESMF to be disclosed at the World Bank Infoshop.

Once site specific subproject activities are determined, screening and other safeguards instruments such as ESIA/ESMPs that would be prepared for subprojects under the NPESP AF3 will be disclosed by NPHCDA in a similar manner as that of the ESMF.

### ES 9: Institutional Arrangement for the Implementation of the ESMP-F

The following Ministry, Agencies and bodies shall play vital roles in implementing the ESMP-F

- National Primary Healthcare Development Agency (NPHCDA) and the State Primary Healthcare Development Agency (SPHCDA)
- Project Implementing Unit (PIU) including the Safeguard Specialist
- State Ministries of Health and the State Ministries of Environment
- Federal Ministries of Health and Federal Ministry of Environment

### ES 10: Roles and Responsibilities in Implementing the ESMP-F

NO	STEPS/ACTIVITIES	RESPONSIBLE	COLLABORATION	SERVICE PROVIDER
1.	Identification and/or siting of the sub-project	PIU NPESP AF3	<ul style="list-style-type: none"> <li>▪ Local authority</li> <li>▪ FMOH</li> </ul>	
2.	Screening, categorization and identification of the required instrument (use the national EIA procedure)	Environmental Safeguards Specialist (ESS-PIU)	<ul style="list-style-type: none"> <li>▪ Beneficiary;</li> <li>▪ Local authority</li> <li>▪ Social Safeguards Specialist (SSS-PIU)</li> </ul>	

3.	Approval of the classification and the selected instrument by the FMEnv	PIU Coordinator	<ul style="list-style-type: none"> <li>▪ ESS-PIU</li> <li>▪ SSS-PIU</li> </ul>	<ul style="list-style-type: none"> <li>▪ EA Department under the FMEnv</li> <li>▪ The World Bank</li> </ul>
4.	Preparation of the safeguard document/instrument (ESIA, Env. Audit, simple ESMP, etc.) in accordance with the national legislation/procedure (taking into account the Bank policies requirements)			
	Preparation and approval of the ToRs	ESS-PIU		<ul style="list-style-type: none"> <li>▪ The World Bank</li> </ul>
	Preparation of the report		<ul style="list-style-type: none"> <li>▪ Procurement Specialist (PS-PIU)</li> <li>▪ SSS-PIU</li> <li>▪ Local authority</li> </ul>	<ul style="list-style-type: none"> <li>▪ Consultant</li> </ul>
	Report validation and issuance of the permit (when required)		<ul style="list-style-type: none"> <li>▪ Procurement Specialist (PS-PIU)</li> <li>▪ SSS-PIU</li> <li>▪ Local authority</li> </ul>	<ul style="list-style-type: none"> <li>▪ EA Department under the FMEnv</li> <li>▪ The World Bank</li> </ul>
Public Disclosure of the document	<ul style="list-style-type: none"> <li>▪ Project Coordinator</li> </ul>		<ul style="list-style-type: none"> <li>▪ Media (National Dailies)</li> <li>▪ The World Bank Infoshop</li> </ul>	
5.	(i) Integrating the construction phase mitigation measures and E&S clauses in the bidding document prior they're advertised; (ii) ensuring that the constructor prepares his ESMP (C-ESMP), gets it approved and integrates the relevant measures in the works breakdown structure (WBS) or execution plan.	Technical staff in charge of the sub-project (TS-PIU)	<ul style="list-style-type: none"> <li>▪ ESS-PIU</li> <li>▪ PS-PIU</li> </ul>	<ul style="list-style-type: none"> <li>▪ Control Firm (Supervisor) FMEnv</li> </ul>
6.	Implementation of the other safeguards measures, including environmental monitoring (when relevant) and sensitization activities	ESS-PIU	<ul style="list-style-type: none"> <li>▪ SSS-PIU</li> <li>▪ PS-PIU</li> <li>▪ TS-PIU</li> <li>▪ FS-PIU</li> <li>▪ Local authority</li> </ul>	<ul style="list-style-type: none"> <li>▪ Consultant</li> <li>▪ National specialized laboratories</li> <li>▪ NGOs</li> </ul>
7.	Oversight of safeguards implementation (internal)	SSES	<ul style="list-style-type: none"> <li>▪ M&amp;E-PIU</li> <li>▪ FS-PIU</li> <li>▪ Local authority</li> </ul>	<ul style="list-style-type: none"> <li>• Control Firm (Supervisor)</li> </ul>
	Reporting on project safeguards performance and disclosure	Coordinator	<ul style="list-style-type: none"> <li>▪ M&amp;E-PIU</li> <li>▪ ESS-PIU</li> <li>▪ SSS-PIU</li> </ul>	
	External oversight of the project safeguards compliance/performance	PEA	<ul style="list-style-type: none"> <li>▪ M&amp;E-PIU</li> <li>▪ ESS-PIU</li> <li>▪ SSS-PIU</li> <li>▪ PS-PIU</li> <li>▪ Supervisor</li> </ul>	
8.	Building stakeholders' capacity in safeguards management	ESS-PIU	<ul style="list-style-type: none"> <li>▪ SSS-PIU</li> <li>▪ PS-PIU</li> </ul>	<ul style="list-style-type: none"> <li>▪ Consultant</li> <li>▪ Other qualified public institutions</li> </ul>
9.	Independent evaluation of the safeguards performance (Audit)	ESS-PIU	<ul style="list-style-type: none"> <li>▪ SSS-PIU</li> <li>▪ PS-PIU</li> </ul>	<ul style="list-style-type: none"> <li>▪ Consultant</li> </ul>

## CHAPTER ONE: BACKGROUND

### 1.1 Background

On July 12, 2012 the World Bank approved the first Polio financing project for Nigeria for an amount US\$95 million, with a closing date of July 31, 2015. Subsequently, two other Additional Financing (AF) were approved - the first AF of US\$200 million was approved by the Board on April 10, 2015 with a closing date of July 31, 2017, and the second AF of US\$125 million was approved by the Board on June 7, 2016 with an original closing date of December 31, 2018.

Though Nigeria has made progress in the eradication of polio in the last decade, the outbreak of insurgencies in the north east coupled with the economy of the country entering into recession in the early part of 2016 have marked a significant decline in the immunization against polio. One of the greatest threats to polio eradication has been poor routine immunization coverage since the insurgencies. Hence, there is a pressing need to boldly address the low routine immunization coverage found particularly in the very low coverage states.

Nigeria needs to maintain its current efforts if it wants to eradicate polio. Both as a means of helping eradicate polio and as a way of ensuring children receive the powerful vaccines that are now available, Nigeria needs to re-double its efforts to improve routine immunization coverage. Achieving polio eradication and significantly increasing routine immunization coverage requires continuing support from all stakeholders. After more than two years of wild polio virus (WPV) transmission interruption, four new cases were reported in in Borno State in August 2016– a security-compromised area whose population has been inaccessible as a result of Boko Haram. Nigeria has now gone 16 months since its last case of wild polio virus and stands on the cusp of complete eradication (see Figure1 below).

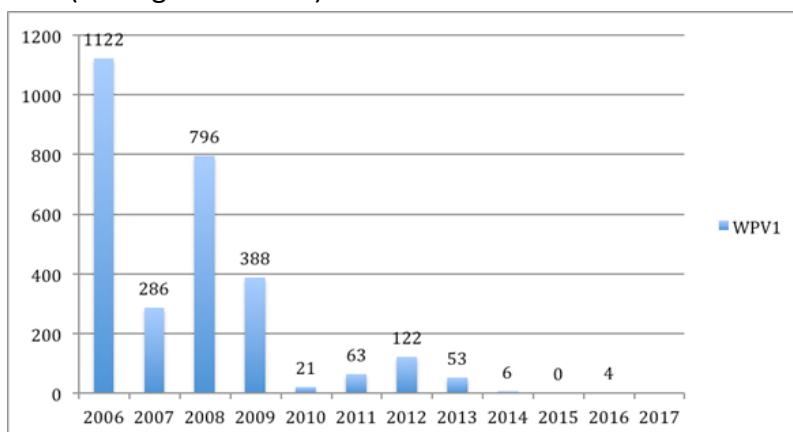


Figure 1: Trends in Wild Polio Virus in Nigeria – 2006-2017 (Source: National Polio Emergency Operation Center (EOC))



Nigeria is now out of recession and has in the 2018 appropriation bill proposed to expend \$33 million for procurement of vaccines. But the high cost of new vaccines which are co-financed between Gavi and the Federal Government of Nigeria (FGN) makes it difficult for the government to meet the cost of vaccines like rota and pneumo vaccines; and the impending transition from Global Vaccine Initiative (Gavi) and Global Polio Eradication Initiative (GPEI).

Thus on July 3, 2017, the FGN made a request to the Bank for the proposed NPESP Additional Financing (AF). The FGN made this request because:

- It has already made large investments in Polio Eradication that has resulted in no new cases of polio in the last 16 months and would want to maintain the progress till total eradication; and
- It had proposed an additional component to address low routine immunization coverage in 12 states in the North of the country and extending the closing date.

One of the weaknesses consistently observed in previous programs has been the quality of management at state and LGA levels and the AF3 will try to address this challenge. This NPESP AF3 will test innovative management approaches that could dramatically increase coverage rates.

In view of these, the WB through the NPESP AF3 will continue to assist the GoN in its polio eradication mission by providing financial support to the government's efforts to finally eradicating polio. At this critical juncture in polio eradication, any lack of funding could erase hard-earned successes and require a huge national effort and very large investments.

## **1.2 Justification for Environmental and Social Management Framework (ESMF)**

The original project (AF) was identified under Safeguard Category C but was upgraded to Category B for AF1 and AF2 because of the need for health care waste management. This proposed project (NPESP AF3) will involve some civil works which includes the expansion of the cold stores in the Lagos national hub and renovations of the Kano hub thus Operational Policy (OP) 4.01 on Environmental Assessment is triggered and it is classified as a Category B project.

There are also potential concerns around the handling of health care waste resulting from project related activities such as vaccination and routine immunization that generate healthcare waste such as expired vaccines and sharps.

Operational Policy (OP) 4.01 on Environmental Assessment allows for the use of an ESMF as an EA safeguard instrument when a project consists of a program and/or series of sub-projects, and

the impacts cannot be determined until the program or sub-project details have been identified.

The ESMF helps to:

- Establish principles and procedures for capacity building;
- Create the bases for possible environmental assessment of all sub-projects that may be carried out under NPESP AF3;
- Provide guidance for preparation of ESIA, ESMPs and EAs;
- Establish an environmental and social screening process that is consistent with both World Bank (WB) Operational policies and relevant Nigeria environmental regulations;
- Assist in ensuring all activities under NPESP AF3 are in compliance with national and local environmental regulations; and
- Clarify the roles and responsibilities of stakeholders in the implementation of the ESMF.

### 1.3 Objectives of the Environmental and Social Management Framework (ESMF)

The ESMF represents a framework for screening, monitoring, and mitigating potential impacts, to improve decision making and to ensure that the structures, either new constructions or rehabilitations being considered under the proposed NPESP AF are environmentally and socially sound, sustainable and also take into consideration mitigation measures for possible adverse effect(s) on stakeholders. The specific objectives of the ESMF are to:

- Provide a structure and strategy for the integration of environmental and social aspects into all phases of the project and sub-projects;
- Identify relevant environmental and social policies of Nigeria at national and State levels
- Identify legislations, regulatory and administrative frameworks in conjunction with the World Bank's Safeguard Policies;
- Develop a comprehensive baseline of the geographical area in which the proposed project will take place;
- Establish clearly defined procedures and methodologies for incorporating environmental and social management requirements including stakeholder involvement in the implementation of all sub-projects;
- Assess the potential environmental and social impacts (both positive and negative) of the different sub project;
- Recommend appropriate cost effective mitigation measures and strategies to mitigate negative environmental and social impacts while enhancing the positive impacts of the project;
- Develop a proposed Environmental and Social management Plan (ESMP) for the project as a whole (understanding that site specific activities may require site specific plans);
- Estimate the costs of recommended mitigation measures;

- Clarify institutional responsibility for implementing and monitoring recommended mitigation strategies;
- Assess the current institutional capacity at the Federal, State and local levels to implement the recommendations of the ESMF and make appropriate capacity strengthening recommendations;
- Establish clear directives and methodologies for the preparation of Environmental and Social Impact Assessments (ESIAs) and Environmental and Social Management Plans (ESMPs) as might be needed for sub-projects;
- Develop an outline review and approval process for the screening results and as necessary for separate ESIA/ESMP reports; and
- Develop and outline appropriate mitigation measures as well as a monitoring framework with key indicators for envisioned activities.

## 1.4 Methodology

The methodology to carry out this ESMF was done to accommodate all components of the NPESP AF3 project and it is prepared in accordance with all relevant WB Safeguard policies as well as the Nigerian environmental impact assessment guidelines. The following phases were thus chosen and designed

- Data collection;
- Literature review;
- Potential impact identification;
- Identification and proffering impact mitigation measures; and
- Preparation of the ESMF.

### 1.4.1 Data Collection

Relevant environmental and social baseline data pertaining to Nigeria and in particular, Kano and Lagos States were collected, discussed and analyzed. Baseline data reviewed included data on

- Physical Environment (Air, climate, soil, topography, vegetation, water);
- Demography; and
- Socio-economics.

### 1.4.2 Literature Review

The approach was based on the review of available literature. Documents consulted in the process of preparing the ESMF include:

- Federal and State environmental laws, Regulations, Acts, Policies and Guidelines of Nigeria;
- Draft Project Concept Notes (PCN);
- Project Paper (PP);
- Draft Project Appraisal Document (PAD); and
- World Bank Safeguards Policies.

### **1.4.3 Stakeholder Consultations**

Consultations was held with relevant stakeholders including the Federal Ministry of Health (FMOH), Federal Ministry of Environment (FMEnv), Federal Ministry of Finance (FMOF), National Primary Healthcare Development Agency (NPHCDA), World Health Organization (WHO) and the United Nations Childrens Fund (UNICEF). Consultations were also carried out with State Ministries and MDAs including the National Emergency Routine Immunization Coordination Centre (NERICC), Lagos State Primary Healthcare Board (LSPHCB), Kano State Primary Healthcare Management Board (KSPHCMB) and staff of the Zonal Cold Stores of Kano and Lagos States.

Environmental and social issues discussed with stakeholders included

- Transportation for monitoring teams
- Waste: Construction waste that would be generated during the Construction Phase as well as healthcare waste that would be generated particularly during the Operation Phase
- Monitoring of the project and responsibilities of stakeholders.

Other issues discussed included the process of implementing the ESMF as well as the time line for disclosure of the ESMF.

## CHAPTER TWO: NATIONAL POLICIES, ACTS, REGULATIONS AND REGULATORY AND INSTITUTIONAL FRAMEWORK

### 2.1 Nigeria’s National Policies

This chapter presents an overview of applicable federal, state and international policies and regulations that guides the implementation of the ESMF in addition to an assessment of the institutional framework for the implementation of the sub-projects.

Table 2.1 below shows Acts relevant to the NPESP AF3 as well as their objectives.

**Table 2.1: Nigerian Policies that are Relevant to the NPESP AF3.**

S/N	POLICY DOCUMENT	OBJECTIVES
1	National Health Policy (Revised 2016)	<ul style="list-style-type: none"> <li>▪ Secure a quality environment adequate for good health and well-being;</li> <li>▪ Conserve and use the environment and natural resources for the benefit of present and future generations;</li> <li>▪ Restore, maintain and enhance the ecosystems and ecological processes essential for the functioning of the biosphere to preserve biological diversity and the principle of optimum sustainable yield in the use of living natural resources and ecosystems;</li> <li>▪ Raise public awareness and promote understanding of the essential linkages between the environment, resources and development, and encourage individuals and communities participation in environmental improvement efforts; and</li> <li>▪ Co-operate with other countries, international organizations and agencies to achieve optimal use of trans-boundary natural resources and effective prevention or abatement of trans-boundary environmental degradation.</li> </ul>
2	National Policy on the Environment (Revised 2016)	<ul style="list-style-type: none"> <li>▪ Securing quality of environment adequate for good health and well-being;</li> <li>▪ Promoting sustainable use of natural resources and the restoration and maintenance of the biological diversity of ecosystems;</li> <li>▪ Promoting an understanding of the essential linkages between the environment, social and economic development issues;</li> <li>▪ Encouraging individual and community participation in environmental improvement initiatives;</li> <li>▪ Raising public awareness and engendering a national culture of environmental preservation; and</li> <li>▪ Building partnership among all stakeholders, including government at all levels, international institutions and governments, non-governmental agencies and communities on environmental matters.</li> </ul>

## 2.2 Acts

Table 2.2 below shows the Acts relevant to the AF3 as well as their objectives.

**Table 2.2: Nigerian Acts that are Relevant to the AF3.**

S/N	ACT	DESCRIPTION / SUMMARY OF OBJECTIVES
1	National Health Act, 2014	<ul style="list-style-type: none"> <li>▪ Promote improvement and maintenance of the health of the citizens of Nigeria;</li> <li>▪ Encompass public and private providers of health services;</li> <li>▪ Promote a spirit of cooperation and shared responsibility among all providers of health services in the Federation and any part thereof;</li> <li>▪ Provide for persons living in Nigeria the best possible health services within the limits of available resources;</li> <li>▪ Set out the rights and obligations of health care providers} health workers} health establishments and users;</li> <li>▪ Protect, promote and fulfil the rights of the people of Nigeria to have access to health care services; and</li> <li>▪ Define and provide a framework for standards and regulation of health services.</li> </ul>
2	National Primary Health Care Development Agency Act CAP. N69 L.F.N. 2004	<ul style="list-style-type: none"> <li>▪ Provide support to the National Health Policy with particular emphases on primary health care;</li> <li>▪ Promote primary health care, health system research; and</li> <li>▪ Promoting women participation in primary health care.</li> </ul>
3	Environmental Impact Assessment Act - CAP. E12 L.F.N. 2004	<ul style="list-style-type: none"> <li>▪ To carry out an EIA on all projects likely to have significant impact on the environment;</li> <li>▪ Encourage information exchange and consultation between all stakeholders when proposed activities are likely to have significant impact on the environment.</li> </ul>
4	National Environmental Standards and Regulations, Enforcement Agency Act, (NESREA) 2007	<ul style="list-style-type: none"> <li>▪ Enforce compliance with national (and international) laws, legislations, guidelines, policies and standards on environmental matters;</li> <li>▪ Coordinate and liaise with, stakeholders, within and outside Nigeria on matters of environmental standards, regulations and enforcement;</li> <li>▪ Ensure that environmental projects funded by donor organizations and external support agencies adhere to regulations in environmental safety and protection;</li> <li>▪ Enforce environmental control measures through registration, licensing and permitting Systems other than in the oil and gas sector; and</li> <li>▪ Conduct environmental audit and establish data bank on regulatory and enforcement mechanisms of environmental standards other than in the oil and gas sector.</li> </ul> <p>Relevant Sections are</p> <ul style="list-style-type: none"> <li>• <b>Section 7:</b> Authority to ensure compliance with all of Nigeria’s environmental laws and treaty obligations; and</li> <li>• <b>Section 8 (1) K and Section 27:</b> Authority to make and review regulations on air and water quality, discharge of effluents and other harmful substances as well as control of other forms of environmental pollution.</li> </ul>
5	Factories Act, Cap F1, LFN 2004	<ul style="list-style-type: none"> <li>▪ Provide a legal framework for the regulation of safety standards for the operation of factories in Nigeria;</li> <li>▪ Set out minimum standards for clean and conducive working environments;</li> </ul>

		<ul style="list-style-type: none"> <li>▪ Protect of workers exposed to occupational hazards;</li> <li>▪ To provide for factory workers and a wider spectrum of workers and other professionals exposed to occupational hazards, but for whom no adequate provision had been formerly made;</li> <li>▪ To make adequate provision regarding the safety of workers to which the Act implies; and</li> <li>▪ To impose penalties for any breach of its provision.</li> </ul>
6	Nigerian Urban and Regional Planning Act CAP. N138 L.F.N. 2004	<ul style="list-style-type: none"> <li>▪ Facilitates the preparation and implementation of development plans and planning schemes; and</li> <li>▪ Creating a better environment for living, working and recreation</li> </ul> <p>Relevant Sections are:</p> <ul style="list-style-type: none"> <li>• <b>Section 30:</b> Requirement for a building plan by a registered architect before commencement of any building project;</li> <li>• <b>Section 39:</b> Making the acceptance of a land development plan contingent on proof it would not harm the environment or constitute nuisance to the community; and</li> <li>• <b>Section 74:</b> Ensures effective control in special cases like wasteland</li> </ul>
7	Harmful Waste (Special Criminal Provisions, etc.) Act 1988	<ul style="list-style-type: none"> <li>▪ Criminalizes all activities relating to the purchase, sale, importation, transit, transportation, deposit, storage of harmful wastes</li> </ul>

## 2.3 Regulations

Table 2.3 below shows Regulations relevant to the AF3 as well as their objectives/description.

**Table 2.3: Regulations Relevant to AF3.**

S/N	REGULATION	DESCRIPTION
1	National Environmental (Sanitation and Wastes Control) Regulations, 2009	The purpose of this Regulation is to provide the legal framework for the adoption of sustainable and environment friendly practices in environmental sanitation and waste management to minimize pollution.
2	National Environmental (Noise Standards and Control) Regulations, 2009.	The objective of the provisions of this Regulation is to ensure tranquility of the human environment or surrounding and their psychological well-being by regulating noise levels.
3	National Environmental (Surface and Groundwater Quality Control) Regulations, 2010	The purpose of this Regulation is to restore, enhance and preserve the physical, chemical and biological integrity of the nation's surface waters, and to maintain existing water uses.
4	National Environmental (Control of Vehicular Emissions from Petrol and Diesel Engines) Regulations, 2010.	The purpose of this regulation is to restore, preserve and improve the quality of air. The standards contained herein provide for protection of the air from pollutants from vehicular emissions.

5	National Environmental (Construction Sector) Regulations, 2010. S. I. No. 19.	The purpose of this Regulation is to prevent and minimize pollution from construction, decommissioning and demolition activities to the Nigerian Environment.
6	National Effluent Limitation Regulations, 1991	This Regulation requires that every industry shall install anti-pollution equipment for the detoxification of effluent and chemical discharges emanating from the industry and specify selected waste water parameters for the industries in the First Schedule to these Regulations. The anti-pollution equipment shall be based on the Best Available Technology (BAT), the Best Practical Technology (BPT) or the Uniform Effluent Standard.
7	National Environment Protection (Pollution Abatement in Industries and Facilities Producing Waste) Regulations, 1991	By this Act, no industry or facility shall release hazardous or toxic substances into the air, water or land of Nigeria's ecosystems beyond limits approved by the Federal Environmental Protection Agency. Discharge, including solid, gaseous and liquid waste from any industry or facility shall be analyzed and reported to the nearest office of the Agency.
8	National Environmental Protection (Management of Solid and Hazardous Wastes) Regulations 1991	This Regulation regulates the handling and management of solid, radioactive and (infectious) hazardous waste. It defines objectives of the management of solid and hazardous waste, the functions of appropriate Governmental agencies and the obligations of industries. It also classifies waste, makes provision for contingency plans, emergency procedures, groundwater protection, ground water monitoring requirements.

## 2.4 State Laws

Table 2.4 below shows State laws that are relevant to the AF3.

**Table 2.4: State Laws Relevant to AF3.**

S/N	STATE LAW
1	Kano State Environmental Protection Agency Law
2	Kano State Refuse Management & Sanitation Law
3	Kano State Rural Water Supply & Sanitation Agency Law
4	Lagos State Waste Disposal Law
5	Lagos State Environmental Protection Agency Law
6	Lagos State Waste Management Authority Law



## 2.5 International Environmental Treaties

Table 2.5 below shows Relevant International Treaties to the AF3 to which Nigeria is signatory.

**Table 2.5: Relevant Treaties Related To the AF3**

S/N	TREATIES	DESCRIPTIONS
1	Basel Convention on the Control of Trans-boundary Movements of Hazardous Waste and their Disposal (1992).	Nigeria ratified this treaty in March 1991 and it came into effect in 1992. It is a treaty designed to reduce the movements of hazardous waste between nations, and to prevent the illegal transfer of hazardous waste between developed and under-developed countries. Annex 1 of this treaty lists hazardous wastes while the Annex 3 lists characteristics. For a substance to be a hazardous waste it must be listed on Annex 1 and possess the characteristics on Annex 3. Characteristics include being explosive, flammable, toxic and/or corrosive.
2	Rotterdam Convention on Prior Informed Consent (1998)	Nigeria ratified this treaty in October 2001 and it came into effect in February 2004. This treaty promotes shared responsibilities in relation to importation and international trade of hazardous chemicals (such as mercury compounds) and pesticides (such as 1, 2-Dibromoethane and Polychlorinated biphenyl).
3	Stockholm Convention on Persistent Organic Pollutants (2002)	Nigeria signed this treaty in 2001 and it became effective in May 2004. This treaty aims to eliminate or restrict the production and use of Persistent Organic Pollutants (POPs).

## 2.6 Other Relevant Treaties and Conventions

Table 2.6 below shows other relevant Treaties and Conventions to which Nigeria is a signatory

**Table 2.6: Other Relevant Treaties and Conventions Related to AF3**

S/N	TREATIES AND CONVENTIONS	YEAR
1	The African Convention on the Conservation of Nature and Natural Resources, the African Convention	1968
2	The Convention on the Prevention of Marine Pollution by Dumping of Waste, MARPOL	1972
3	The Convention Concerning the Protection of the World Cultural and Natural Heritage, the World Heritage Convention	1972
4	The convention on International Trade in Endangered Species of Wild Fauna and Flora, CITES	1973
5	The Convention on Biological Diversity	1992
6	The Framework Convention on Climate Change, Kyoto Protocol	1995

## 2.7 Institutional Framework

The following Ministries, institutions and agencies are responsible for regulating and monitoring environmental issues as well as waste management in Kano and Lagos States.

## 2.7.1 Relevant Ministries

**Table 2.7: Relevant Ministries to AF3, their functions and responsibilities**

S/N	MINISTRY	FUNCTIONS AND RESPONSIBILITIES
1	Federal Ministry of Health (FMoH)	<ul style="list-style-type: none"> <li>▪ Collaborate with the states and local governments to ensure that appropriate mechanisms are set up for the implementation of the national health policy;</li> <li>▪ Coordinate the efforts of the State, Local Governments and private health care providers and development partners to ensure effective implementation;</li> <li>▪ Collaborate with national health departments in other countries and international agencies;</li> <li>▪ Promote adherence to norms and standards for the training of human resources for health;</li> <li>▪ Ensure the continuous monitoring, evaluation and analysis of health status and performance of the functions of all aspects of the National Health System;</li> <li>▪ Conduct and facilitate health systems research in the planning, evaluation and management of health services;</li> <li>▪ Promote availability of good quality, safe and affordable essential drugs, vaccines, medical commodities, hygienic food and water;</li> <li>▪ Issue guidelines and ensure the continuous monitoring, analysis and good use of drugs and poisons including medicines, vaccines and medical devices;</li> <li>▪ Provide technical assistance to State ministries of health in the development of plans, technical materials, policies and standards to properly perform their functions;</li> <li>▪ Promote adherence to norms and standards and provide guidelines on health matters and any other matter that affects public health;</li> <li>▪ Promote adherence to norms and standards for the training of human resources for health; and</li> <li>▪ Supervise the provision of health services for the management, prevention and control of communicable and non-communicable diseases.</li> </ul>
2	Federal Ministry of Environment (FMEnv)	<ul style="list-style-type: none"> <li>▪ Prepare a comprehensive National Policy for the protection of the environment and conservation of natural resources, including procedure for environmental impact assessment of all developing projects;</li> <li>▪ Prepare in accordance with the National Policy on Environment, periodic master plans for redevelopment of environmental science and technology and advise the Federal Government on the financial requirements for the implementation of such plans;</li> <li>▪ Advise the Federal Government on National Environmental Policies and priorities, the conservation of natural resources and sustainable development and scientific and technological activities affecting the environment and natural resources;</li> <li>▪ Cooperate with Federal and State Ministries, Local Government, statutory bodies and research agencies on matters and facilities relating to the protection of the environment and the conservation of natural resources;</li> <li>▪ Prescribe standards for and make regulations on water quality, effluent limitations, air quality, atmospheric protection, ozone protection, noise control as well as the removal and control of hazardous substances;</li> <li>▪ Monitoring and enforcing environmental protection measures;</li> <li>▪ Enforcing international laws, conventions, protocols and treaties on the environment;</li> </ul>

		<ul style="list-style-type: none"> <li>▪ Prescribing standards for and making regulations on air quality, water quality, pollution and effluent limitations, atmosphere and ozone protection, control of toxic and hazardous substances; and</li> <li>▪ Promoting cooperation with similar bodies in other countries and international agencies connected with environmental protection.</li> </ul>
3	National Primary Healthcare Development Agency (NPHCDA)	<ul style="list-style-type: none"> <li>▪ Controlling preventable diseases by eradicating polio, and limiting the occurrence and impact of diseases using education, immunization and other proven interventions;</li> <li>▪ Improving access to basic health services by making basic health services available and ensuring communities have access to health facilities, services and basic health insurance;</li> <li>▪ Improving quality of care by ensuring basic health services are people-oriented and delivered according to established quality standards and protocols;</li> <li>▪ Strengthening the institution including zonal structures, State representation, internal communications, monitoring and evaluation, procurement as well as the financial management system;</li> <li>▪ Developing a high-performing and empowered health workforce by organizing systems and structures to deliver effective support services;</li> <li>▪ Strengthening partnerships by mobilizing and coordinating stakeholders such as Ministries, Departments and Agencies and development partners to support the implementation of PHC; and</li> <li>▪ Strengthening community engagement by promoting community participation, ownership and responsibility for health through Ward Development Committees and programmes.</li> </ul>
4	Kano State Ministry of Health	<ul style="list-style-type: none"> <li>▪ Providing a people-oriented and sustainable health care delivery system in the State;</li> <li>▪ Creating an enabling environment and better regulatory frame work to encourage, among others, private sector participation;</li> <li>▪ Introducing community operational Research for Health;</li> <li>▪ Providing a people-oriented and sustainable health care delivery system in the State;</li> <li>▪ focus on preventive health service with emphasis on the major elements of primary Health Care System;</li> <li>▪ Focusing on Primary the health care system in order to improve management and ensure community participation in planning and administration of health activities;</li> <li>▪ Improving human resource for health; and</li> <li>▪ Focusing on preventive health service with emphasis on the major elements of primary Health Care System and targeted interventions to convert the spread of communicable and non-communicable diseases.</li> </ul>
5	Kano State Ministry of Environment	<ul style="list-style-type: none"> <li>▪ Execute programmes relating to the control of draughts, desertification, flood, erosion and management of forests estate;</li> <li>▪ Ensure bio-diversity conservation and sustainable ecosystem;</li> <li>▪ Ensure institutional reforms for effective environmental management;</li> <li>▪ Ensure qualitative and healthy environment;</li> <li>▪ Conserve, protect and enhance the environment, the ecosystem and ecological processes; and</li> <li>▪ Reduce land degradation, and develop alternative and renewable energy.</li> </ul>

6	Lagos State Ministry of Health	<ul style="list-style-type: none"> <li>▪ Improve the health status and socio-economic advancement of individuals in the State using preventive, promotive and curative approaches;</li> <li>▪ Establish Health Institutions in under-served areas and expand existing Health Centres all over the State;</li> <li>▪ Maintain existing Training Institutions for Health workers in the State;</li> <li>▪ Ensure that satisfactory standards are maintained in both Government and private health institutions throughout the State;</li> <li>▪ Provide essential infrastructure in all Public Health Institutions in the State for efficient, qualitative, affordable and effective health services;</li> <li>▪ Ensure adequate provision of Essential drugs, equipment and other materials for Health Care Delivery Services;</li> <li>▪ Ensure good working environment and reduce occupational hazards in both Public and private Sectors; and</li> <li>▪ Strengthening of capacity of local governments to manage health programs and plans</li> <li>▪ Monitoring and evaluation of health institutions and the control of eradication of specific preventable diseases, Improvement of access to reproductive/sexual health services.</li> </ul>
7	Lagos State Ministries of Environment	<ul style="list-style-type: none"> <li>▪ Policy matters on air, water and other forms of pollution;</li> <li>▪ Field laboratory and geo-physical survey in conjunction with other stakeholders;</li> <li>▪ Collation of data on industrial hazards and setting of standards;</li> <li>▪ Liaison with NAFDAC, NDLEA, FMENV and Lagos State Environmental and Special Offences and Enforcement Unit on any related matter;</li> <li>▪ Supervision of LASEPA, LAWMA, LASAA and LSWMO;</li> <li>▪ Development, control and maintenance of public parks and gardens;</li> <li>▪ Evaluation of EIAs and EARs;</li> <li>▪ Supervision of projects on major channels being funded by World Bank;</li> <li>▪ Laboratory services for sewage, water and environmental pollution;</li> <li>▪ Initiation, formulation, execution and monitoring of all issues relating to climate change towards mitigating the negative impact of climate change; and</li> <li>▪ Supervision and management of donor agencies assisted projects.</li> </ul>

## 2.7.2 Other Relevant Ministries

**Table 2.8 shows other relevant ministries relevant to this project.**

S/N	MINISTRY	FUNCTIONS
1	Ministry for Local Government & Community Development, Kano	<ul style="list-style-type: none"> <li>▪ Effective administration and monitoring of the 44 local Governments;</li> <li>▪ Effective control of local government funds and finances;</li> <li>▪ Effective supervision of sustainable projects in the 44 Local Government Areas; and</li> <li>▪ Effective property rating administration.</li> </ul>

### 2.7.3 Relevant Ministries/Agencies for Kano and Lagos State

**Table 2.9 Relevant Ministries/Agencies to AF3, Enacting Laws and their Functions.**

KANO STATE			
S/N	AGENCY	ENACTING LAW	FUNCTIONS
1	Kano State Environmental Planning & Protection Agency (KASEPPA)	Kano State Environmental Protection Agency Law - Edict No.15 of 1990	<ul style="list-style-type: none"> <li>▪ Urban centre planning;</li> <li>▪ Control of development in urban centers;</li> <li>▪ Granting of building, designing and construction permission;</li> <li>▪ Pollution control and abatement;</li> <li>▪ Provision of amenities, conveniences and infrastructures;</li> <li>▪ Safeguard ground water from pollution; and</li> <li>▪ Ensure a healthy environment.</li> </ul>
2	Kano State Refuse Management & Sanitation Board (REMASAB)	Kano State Gazette No.7 Vol. 35 of November 2003 as law No.7. Section 4(1)	<ul style="list-style-type: none"> <li>▪ Refuse collection and disposal;</li> <li>▪ Management of refuse collection centers and dump sites;</li> <li>▪ Land reclamation;</li> <li>▪ Street sweeping and cleaning;</li> <li>▪ Control of street hawking and random refuse disposal;</li> <li>▪ Liaise with self-help group in relation to waste collection and disposal;</li> <li>▪ Vector control (mosquito control) by means of fumigation and other mean of control;</li> <li>▪ Inspection and enlightenment programs on sanitation; and</li> <li>▪ Liaise with all metropolitan local governments towards a sustainable sanitation operation.</li> </ul>
LAGOS STATE			
S/N	AGENCY	ENACTING LAW	FUNCTIONS
1	Lagos State Environmental Protection Agency (LASEPA)	Lagos State Environmental Protection Law (1997 No 9) of the State Law	<ul style="list-style-type: none"> <li>▪ Advising the State Government on all environmental management policies;</li> <li>▪ Protecting and improving the environment;</li> <li>▪ Maintaining a healthy environment through adequate regulatory mechanism;</li> <li>▪ Monitoring and controlling the disposal of waste in Lagos State;</li> <li>▪ Give direction to the affairs of the Agency on all environmental matters;</li> <li>▪ Prepare periodic master plans to enhance capacity building of the Agency and for the environment and natural resources management;</li> <li>▪ Carry out appropriate tests on insecticides, herbicides and other agricultural chemicals;</li> <li>▪ Carry out public enlightenment and educate the general public on sound methods of environmental sanitation and management;</li> <li>▪ Monitor and control disposal of solids, gaseous and liquid wastes generated by both government and private facilities in the State;</li> <li>▪ Monitor and control all forms of environmental degradation from agricultural, industrial and government operations;</li> <li>▪ Set, monitor and enforce standards and guidelines on vehicular emission;</li> </ul>

			<ul style="list-style-type: none"> <li>▪ Survey and monitor surface, underground and potable water, air, land and soil environments in the State to determine pollution levels in them and collect baseline data; and</li> <li>▪ Promote co-operation in environmental science and technologies with similar bodies in other countries and international bodies connected with the protection of environment.</li> </ul>
2	Lagos Waste Management Authority (LAWMA)	Edict 55 of 1992 of Lagos State Law	<ul style="list-style-type: none"> <li>▪ Management of commercial, industrial, and medical waste streams, highway sanitation;</li> <li>▪ Cleaning of drainage and other water bodies; and</li> <li>▪ Management of construction and demolition waste.</li> </ul>

## 2.8 World Bank Safeguard Policies

### 2.8.1 Project Safeguards Instruments

The World Bank has 10 + 2 Safeguard Policies to reduce or eliminate the negative environmental and social impacts of potential projects, and improve decision making. World Bank safeguard policies are shown in Table 2.10 below. See Annex One for more on Safeguard Policies.

**Table 2.10: World Bank Safeguard Policies**

S/N	WORLD BANK SAFEGUARD POLICIES	POLICY CLASSIFICATION	TRIGGERED
1	Environmental Assessment (OP 4.01)	Environmental	✔
2	Natural Habitats (OP 4.04)	Environmental	✘
3	Pest Management (OP 4.09)	Environmental	✘
4	Physical Cultural Resources (OP 4.11)	Environmental	✘
5	Indigenous Peoples (OP 4.10)	Social	✘
6	Involuntary Resettlement (OP 4.12)	Social	✘
7	Forests (OP 4.36)	Environmental	✘
8	Safety of Dams (OP 4.37)	Environmental	✘
9	Projects on International Waterways (OP 7.50)	Legal	✘
10	Projects in Disputed Areas (OP 7.60)	Legal	✘

### 2.8.2 Components Triggering Environmental Assessment OP 4.01

The NPESP AF3 has been classified as a Category B project due to activities in Components 3a and 3b of the project. The activities of Component 3a and 3b that trigger OP 4.01 on Environmental Assessment include:

- **Component 3a (Civil Works):** Expansion of two national Cold Chain hubs (in Lagos and Kano) - the proposed AF will finance the renovation and expansion of the cold store in Lagos and the renovation of the Kano cold store. Both activities will involve civil works

and constructions which will impact on the environment. Impacts will range from pollution, general waste, losses in flora and fauna etc. See Table 5.2; and

- **Project Activities/Vaccination including RI (Waste Management):** There is also an expected increase in the generation of HCW which will include expired vaccines, syringes, needles (sharps), blood clotted cotton wools and drugs (pharmaceutical waste). All health care wastes expected to be generated as a result of the activities of the NPESP AF3 can be classified into Classes 2, 3, 5 and 6 in accordance with the National Healthcare Waste Policy of 2013. See Annex Five B.

## CHAPTER THREE: PROJECT DESCRIPTION

### 3.1 Project Description

Under the NPESP AF3, the Bank will support the strengthening of the cold chain and supply logistics for immunization by addressing the insufficient cold and dry storage capacity in Lagos and cold chain storage capacity in Kano state. By supporting the cold chain and logistics system, we are well assured that every Nigerian child will have access to vaccines of assured quality, delivered at the right time through efficient logistics, proper vaccine management and a functioning cold chain. This will also help reduce the wastage of vaccines resulting from poor cold chain supply and logistics.

All of the funds under the proposed AF3 will be channeled through the World Health Organization (WHO) and United Nations Children’s Emergency Fund (UNICEF) which have a large and well-functioning presence on the ground including field level workers with access to communities in the North-Eastern States. These are the financing arrangements that the FGN itself uses and which have proven to be very successful.

### 3.2 Project Objectives

Project Development Objective is “to assist the recipient (FGN), as part of a global polio eradication effort, to achieve and sustain at least 80 percent coverage with oral polio vaccine (OPV) immunization in every state in the recipient’s territory, and sustain national routine immunization coverage”.

### 3.3 Project Components

The NPESP AF3 will fund the procurement of OPV and the implementation of national and state level polio immunization campaigns and support the procurement of vaccines for RI like in previous AFs. Sub-components under Component 1 will be consolidated into a single component which will be renamed as “Polio Eradication Support”. In addition to the existing second component on Routine Immunization Support, a new, third component has been added to AF3. Component 3 on Health System Strengthening will strengthen the health systems, including the expansion of two national Cold Store hubs, strengthening of the cold chain logistics for vaccines, and improving management at the national and sub-national levels in 12 States. Table 3.1 shows the three components of the project.



**Table 3.1 Project Components**

PROJECT COMPONENT	DESCRIPTION
<p><b>COMPONENT 1:</b> Polio Eradication Support (financing up-to-date is US\$245 million, and proposed financing is US\$65 million)</p>	<p>This component will support the procurement of OPV and the operational requirements of polio eradication activities.</p> <p><b>Subcomponent 1a.</b> Within this subcomponent, UNICEF will procure OPV (US\$50 million). The total estimated costs for OPV is US\$ 40.7 million for 2018 and US\$ 32.6 for 2019.</p> <p><b>Subcomponent 1b:</b> Polio Eradication Operations Support (US\$15 million). This will include payment for any of the following activities where a funding gap is identified and the funds will be managed by either UNICEF or WHO as required.</p> <ul style="list-style-type: none"> <li>▪ Vaccination personnel allowances during Immunization Plus Days (IPDs) ( WHO)</li> <li>▪ Immunization Plus Days (IPD) Training and planning (WHO)</li> <li>▪ Supervision, monitoring and evaluation (WHO)</li> <li>▪ Transport and logistics (UNICEF)</li> <li>▪ Supplementary Immunization Activities (SIAs) social mobilization (UNICEF)</li> <li>▪ Engagement of traditional leaders (UNICEF)</li> <li>▪ Payment mechanisms and others (WHO)</li> <li>▪ Intensified SIAs and transport for supervision (WHO)</li> <li>▪ Contingency counterpart funding for mop-ups (WHO)</li> </ul> <p>Monitoring and evaluation (M&amp;E) will be carried out through the existing mechanisms where the WHO surveillance system provides weekly information on polio cases, their typology and distribution. Data from this system will feed into the results framework. The Project’s outcome measures e.g., “immunization coverage of OPV is at least 80 percent in each endemic state” the quality of the OPV campaigns while the monitoring of the cases of AFP measures the quality of surveillance. Furthermore, the monitoring of the Vaccine Vial Monitoring will measure the quality of the cold chain. These findings are externally validated through the LQAS.</p>
<p><b>COMPONENT 2:</b> Routine Immunization Support (financing up-to-date is US\$175 million, and proposed financing is US\$69 million)</p>	<p>This component will finance the procurement of traditional RI vaccines (\$30 million); partly co-finance new vaccines with Gavi to the tune of US\$36 million based on Gavi’s decision letter of September 2017; special vaccines for outbreaks and travelers (US\$2 million); and devices (US\$1 million). Procurement of RI vaccines and some devices is managed by UNICEF; the GON will finance some of the devices and RI operations including measles and yellow fever campaigns. M&amp;E for this component will be carried out through the annual household survey (SMART survey) that will be conducted by the National Bureau of Statistics (NBS) in collaboration with stakeholders while UNICEF will provide technical assistance.</p>
<p><b>COMPONENT 3:</b> Health Systems Strengthening (proposed financing is US\$16 million) – This is the new additional Component</p>	<p>This component will include support in expanding two Cold Chain hubs, strengthening supply chain and logistics systems, and strengthen management at national and sub-national levels and has three (3) sub-components</p> <p><b>Component 3a:</b> Expansion of two national Cold Chain hubs (in Lagos and Kano) - the proposed AF will finance the expansion of the cold store in Lagos and renovate the Kano cold store (US\$8 million). The Lagos hub would be enabled to receive vaccine supply directly through the Lagos airport in order to relieve the Abuja hub and reduce the cost and frequency of freights to Abuja. According to the request by the GoN, NPHCDA with support from UNICEF's construction unit will handle the construction and renovation</p>

	<p>work. NPHCDA will ensure that the procurement procedures for procurement of contractors and monitoring of the project are in line with the Bank’s procurement processes. The recruitment of construction firms and the bill of quantity and drawings for the expansion and renovation will be sent to the Bank for a formal No Objection.</p> <p><b>Component 3b:</b> Supply Chain and Logistics Systems Strengthening – the proposed AF will finance the logistics strengthening (US\$3.5 million) including supply chain systems strengthening which will support the optimization of the vaccine and devices supply chain and strengthening of cold chain management systems at national and sub-national levels to ensure uninterrupted availability of potent vaccines. The support will mainly focus on: vaccine and devices customs clearance from port of entry and distribution from the National Strategic Cold Store to state stores and LGAs, warehouse management activities, effective vaccine management capacity building; strengthen temperature monitoring control systems; data management software licenses and server services; implementation of 2017 Essential Vaccine Management (EVM) improvement plan, deployment of cold chain equipment procured through Gavi Cold Chain Equipment Optimization Platform (CCEOP) support to equip wards; and implementation of the Primary Health Care (PHC) Revitalization Supply Chain Strategy.. This subcomponent will be implemented by NPHCDA.</p> <p><b>Component 3c:</b> Strengthening Management at national and sub-national levels (US\$4.5 million): To address the widely-perceived weaknesses in management of RI programs at national and sub-national levels, the AF will pilot a management strengthening approach and support the following activities in 12 poorly-performing states [Sokoto, Jigawa, Kebbi, Gombe, Adamawa, Zamfara, Kogi, Taraba, Nasarawa, Yobe, Bayelsa and Plateau]</p> <ul style="list-style-type: none"> <li>▪ Conduct of quarterly lot quality assurance sampling (LQAS) surveys that provide robust estimates of immunization coverage at state level and can provide a pass/fail assessment at LGA level;</li> <li>▪ Competitive recruitment of state program managers and deputy program managers (from public sector candidates) through a selection process that includes diverse stakeholders. The selection procedures will also include objective testing of the candidate’s analytical skills and knowledge of immunization program implementation;</li> <li>▪ Payment of performance-based bonuses to these state level managers that are calculated from quantitative improvements in vaccination coverage as observed in quarterly LQAS surveys;</li> <li>▪ Competitive recruitment from the private sector of individual consultants to support the state level programs. Part of the consultant’s pay (about 30 percent) will be linked to the performance of the state they are working in as judged by quarterly LQAS surveys. This ensures that the incentives of the consultants and the state level managers are fully aligned. Selection of these consultants will also be done by selection committees comprising members from diverse stakeholders;</li> <li>▪ Competitive recruitment, in each of the state’s LGAs, of two routine immunization focal persons (RIFPs). These RIFPs will be identified from public sector candidates, where they are available, and meet minimum standards. The successful candidates will be paid a performance bonus based on vaccination coverage as observed in quarterly LQAS surveys.</li> </ul>
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## CHAPTER FOUR: BASELINE STUDIES

### 4.1 General Overview of Nigeria

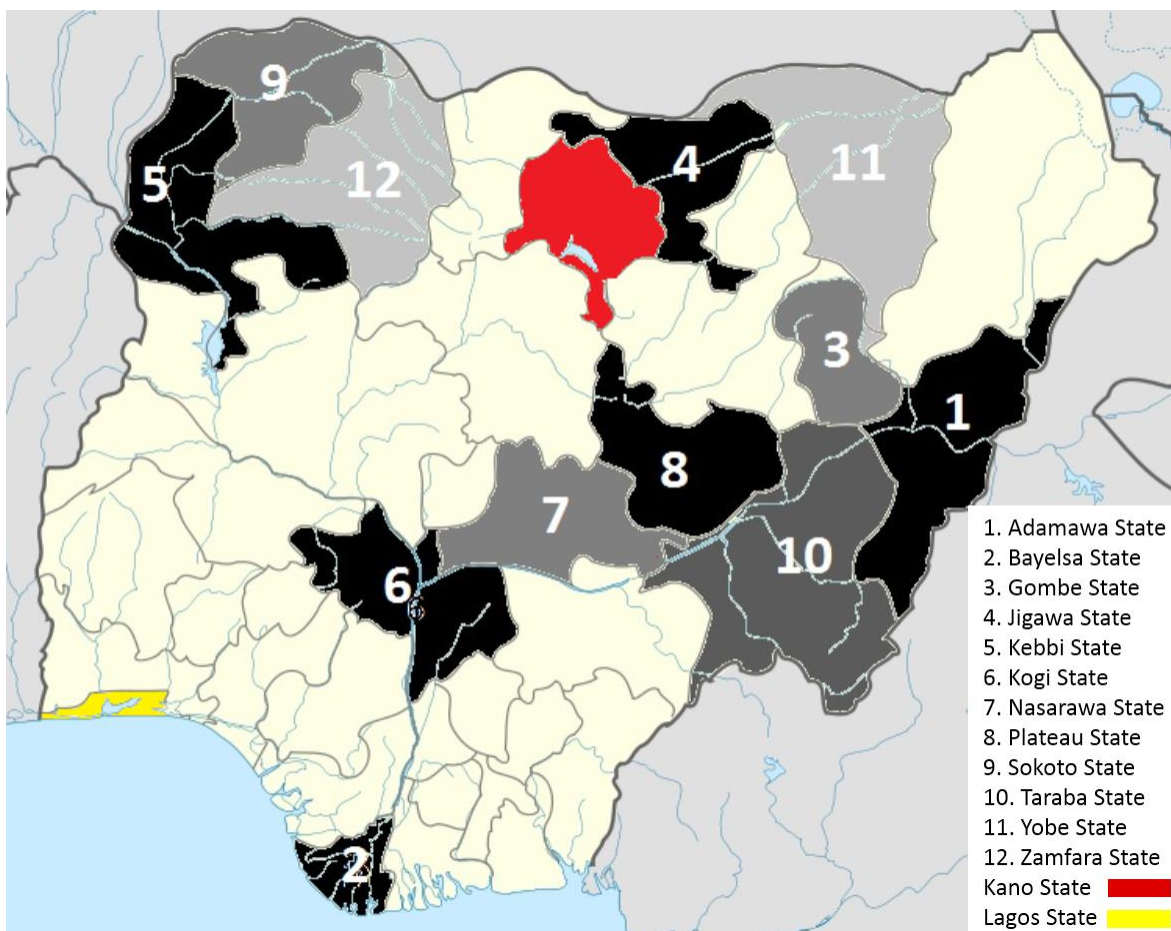


Figure 4.1 Map of Nigeria showing Kano and Lagos States as well as 12 States to support the strengthening of the cold chain and supply logistics for immunization)

Nigeria is located between latitude 9°4'N and longitude 7°29'E and is bordered by the Republic of Benin in the west, Chad and Cameroon in the east, Niger in the north and the Atlantic Ocean in the south. It covers a geographic landmass of 923,768 square kilometres.

Nigeria accounts for 47 percent of West Africa's population, and has one of the largest population of youths in the world. Its population is estimated to be 177.5 million inhabitants and by 2100 the UN estimates that the Nigerian population will be between 505 million and 1.03 billion people. Population is distributed between rural and urban centres at 51.7% and 48.3% respectively. However it has an average population density of 167.5 people per square kilometre.

## 4.2 General Description and Location of Kano State

Kano State is bordered by Katsina State in the north-west, Jigawa State in the north-east, Bauchi State in the south-east and Kaduna State in the south-west. The state lies between latitude 12°25' to 12°40' North and longitude 8°35'N to 8°45'E and encompasses a geographical space of 20,760 square kilometres. It has a population of 9,401,288 (2006 Census) and a population growth rate of 2.8 percent. Kano State has a population density of 470 inhabitant per square kilometre. According to the research, about 50 percent of the population in Kano State live on USD 1 or less a day and are, therefore, considered to be living in poverty.

## 4.3 Environmental and Social Baseline for Kano State

### 4.3.1 Environmental Baseline for Kano State

#### 4.3.1.1 Geology

Geologically, more than 80 percent of Kano is underlain by quartzite, undifferentiated meta sediments and basement complex rocks of the pre-Cambrian upper cambrian origin. Prolonged weathering of the rocks has produced deep clay rich regoliths, which has been subjected to laterization.

The lateritic outcrops dot the interfluvial areas of the upland plain serving as caps for regolith hills e.g. Gwauron Dutse and Dala hills. Well jointed younger granites of Jurassic origin occur in ring complexes in the extreme south. A narrow strip of the Chad Formation occurs to the east. In height, the relief ranges from lower plains 500 metres to highlands of more than 1,000 metres above sea level.

#### 4.3.1.2 Climate

Temperature in Kano is usually high all year round except between December to February when temperature drops to as low as 10°C during the harmattan season. Two seasons are prevalent in the State which are the wet season (May to September) and the dry season (October to April). The wet season is influenced by the movement of the South West maritime air masses originating from the Atlantic Ocean. This air mass carries a lot of moisture from over the Atlantic Ocean.

The dry season is influenced by a Continental air mass, which originates in the Sahara desert. During the dry season temperatures are low because the sun is in the Southern Hemisphere and because of movement of the desiccating continental air mass, which originates from the Sahara area and blows from the Northeast carrying along with it the harmattan dust.

The average rainfall ranges from 63.3mm in May to 133mm in August which is the wettest month. It has an annual rainfall of 752mm.

#### 4.3.1.3 Soil

Soils in Kano State can be categorized into four groups. First, the ferruginous tropical soils formed on crystalline acid rocks occupy about two fifth of the State to the south, southwest and south east. Secondly, the brown and reddish brown soils and latosols which occur in the northern half. Thirdly, the brown and reddish soils which are in the northeastern corner and lastly the juvenile and hydromorphic soils which occur along the alluvial channel complexes.

The soils largely reflect the influence of parent materials. Intensive use of the soils and addition of manure and chemical fertilisers have altered their character, profile, texture, structure and chemical characteristics. The state's light sandy soils are excellent for growing peanuts (groundnuts), a major export.

#### 4.3.1.4 Vegetation

Kano consists of savanna woodland in the south and scrub vegetation in the north and is drained by the Kano-Chalawa-Hadejia river system. Flora found in the state include acacia albida (Hausa: gawo), Acacia nilotica (Hausa: gabaruwa), baobab *Adanosia digitata* (Hausa: kuka), *Anogeissus leiocarpus* (Hausa: marke), neem *Azadirachta indica* (Hausa: dogon yaro).

About 80 percent of the state is now composed of farmed parkland, dotted with patches of shrub savannah. The savannah woodland, which is the second largest zone, is typified by the Falgore Game Reserve. There are few forest plantations of exotic trees.

#### 4.3.1.5 Environmental Issues

There has been top soil erosion which occurs as a result of hydro-agriculture. This in turn has led to high siltation in river basins which in turn has led to a significant reduction in the drainage basins located in the state. Also this siltation especially from areas with basement complex rocks, has led to rapid reservoir siltation, thereby reducing the life span of most of the reservoirs.

## **4.3.2 Social Baseline for Kano State**

### **4.3.2.1 Economy**

Kano State is the second largest industrial centre in Nigeria after Lagos State and the largest in Northern Nigeria. It is notable for tanning, footwear, cosmetics, plastics, enamelware, pharmaceuticals, ceramics, furniture, textiles which is a major product that is exported to North Africa.

Kano is also a major centre for the production and export of agricultural products. Subsistence and commercial agriculture is mostly practiced in the outlying districts of the State. Some of the food crops cultivated are millet, cowpeas, sorghum, maize and rice for local consumption while groundnuts and cotton are produced for export and industrial purposes.

### **4.3.2.2 Health**

Kano has several hospitals and medical facilities, which includes over 26 government hospitals and over 800 PHCs. PHCs in the State like most parts of the country lack adequate staffing. IN 2016 the Government signed into law the Contributory Health Care Agency Bill. The scheme among other things facilitates payment for medical and surgical expenses incurred by civil servants in the state to which the NHIS recommended 223 health facilities for the take-off.

Research has shown that most of the healthcare facilities are clustered within Kano Municipal, Nassarawa, Tarauni and some part of Fagge LGAs while areas like Rijiyan Zaki, Bakin Bulo, Danbare and Yan Raki are underserved.

### **4.3.2.3 Education**

Kano State in 2005 had 3446 primary and 767 secondary schools operating which together enrolled a total of 1,395,000 and 257,000 students respectively. The State also has six higher education institutions notably among these are Bayero University, Kano University of Science and Technology and Northwest University Kano. All six institutions enrolled around 40,000 students in 2005/06.

### 4.3.2.4 Age and Gender

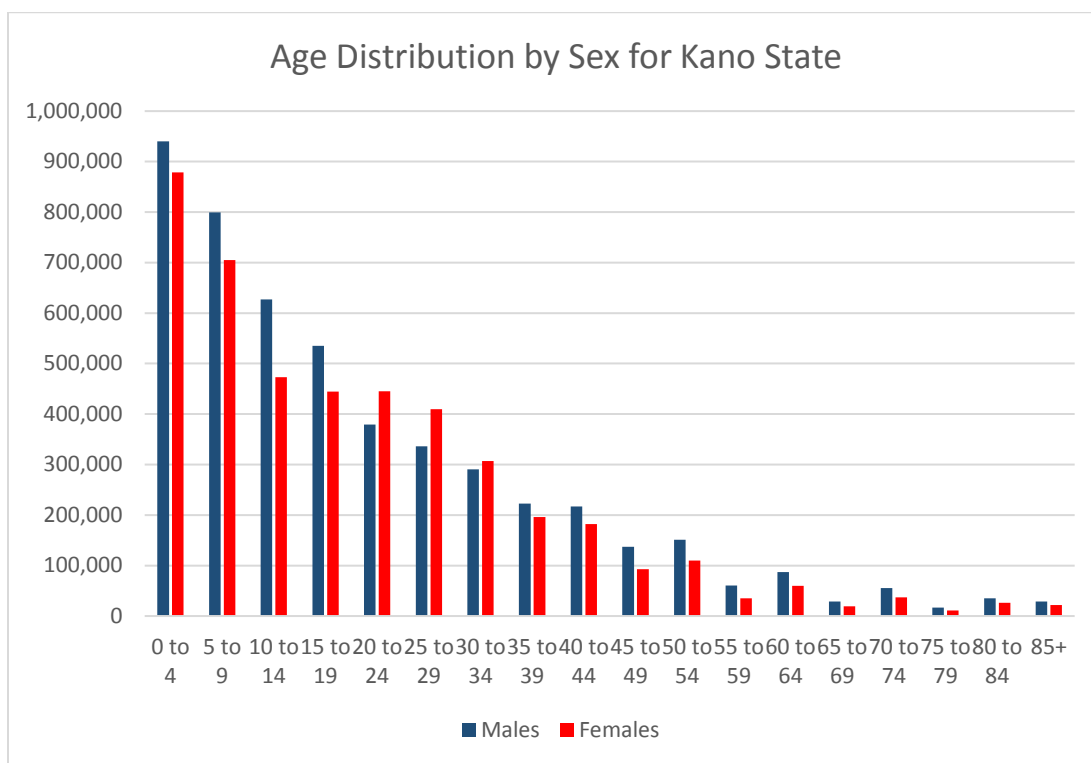


Chart 4.1 Age Distribution by Sex for Kano State (Census 2006)

## 4.4 General Description and Location of Lagos State

It extends approximately from latitude 6°2' North to 6°4' North of the equator and from longitude 2°45' East to 4°20' East of the Greenwich Meridian and covers a geographical area of 3,577 square kilometres. The population of Lagos is 9,013,534 (2006 Census) and it has a population density of 7941 inhabitant per square kilometre. The state is bordered in the west by the Republic of Benin, in the south by the Atlantic Ocean and its north and east are bordered by Ogun State.

## 4.5 Environmental and Social Baseline for Lagos State

### 4.5.1 Environmental Baseline for Lagos State

#### 4.5.1.1 Geology

Generally, Lagos state lies approximately 41 metres above sea level. Coastal deposits occur widely in Lagos State. Also, tertiary beds from the Benin Formation stretch from Calabar in the far-east through Lagos state to the borders of Benin Republic in the west.

#### **4.5.1.2 Climate**

Lagos experiences two major climates namely: the Koppen climate and the tropical Savannah climate. There are also two seasons that are prevalent in the State which are the wet season (April to October) and the dry season (November to March). The average precipitation for the state is 1693mm with June being the wettest month when precipitation total is 315.5mm and the driest month is in May when precipitation is 13.2mm. The average temperature in Lagos is 27°C with the hottest month being March while the coolest being August.

#### **4.5.1.3 Soil**

Four soil groups can be identified in Lagos state. On the western half of the coastal margin, juvenile soils on recent windborne sands occur. The rest of the coastal area towards the east is covered also by juvenile soils on fluviomarine alluvium (mangrove swamp). Thirdly, a narrow and rather discontinuous band of mineral and/or organic hydromorphic soils occurs in the middle and north eastern sections of the state. The fourth group, occurring in two rather tiny and discontinuous patches along the northern limits of the state, consists dominantly of red ferrallitic soils on loose sandy sediments.

#### **4.5.1.4 Vegetation**

Lagos is dominated by two vegetation types: the Swamp Forest of the coastal belts and the dry lowland rain forest. The swamp forests are a combination of mangrove forest and coastal vegetation developed under the brackish conditions of the coastal areas and the swamp of the freshwater lagoons and estuaries. The dry lowland stretches from the west of Ikeja through Ikorodu to an area slightly north of Epe and has economic trees such as teak, tripochiton, seletrocylon (Arere), bancelea diderrichil (Opepe) and terminahia (Idigbo).

#### **4.4.1.5 Environmental Issues**

There are several environmental issues associated with Lagos State. The major issues include flooding, waste management, air pollution and coastal erosion. As with most environmental issues, they are all related. For example indiscriminate dumping of refuse waste (poor waste management) leads to blockages in drainages which in turn has been known to have led to flooding. Poor waste disposal can also be linked to air and water pollutions.



## 4.4.2 Social Baseline for Lagos State

### 4.4.2.1 Economy

Lagos state is the commercial centre of Nigeria and contributes about 10 percent to the country’s GDP. Most of the country's commercial banks, financial institutions and major corporations have their headquarters in the State. Lagos is also the major Information Communications and Telecommunications (ICT) hub of West Africa and potentially, the biggest ICT market in the continent. Oil and petroleum products provide 14% of GDP and 90% of foreign exchange earnings in Nigeria as a whole. It has the busiest port in country which is also one of the busiest on the continent.

### 4.4.2.2 Education

Lagos has over 15 tertiary institutions which include University of Lagos, Lagos State University, Pan-Atlantic University, National Open University of Nigeria, Caleb University, Lagos State College of Health Technology, Lagos State University College of Medicine, Lagos University Teaching Hospital, Federal College of Fisheries and Marine Technology, Federal College of Education (tech) Akoka, Grace Polytechnic, Wolex Polytechnic, Lagos City Polytechnic, Lagos State Polytechnic and Yaba College of Technology. The State also has over 55 secondary schools.

### 4.4.2.3 Age and Gender

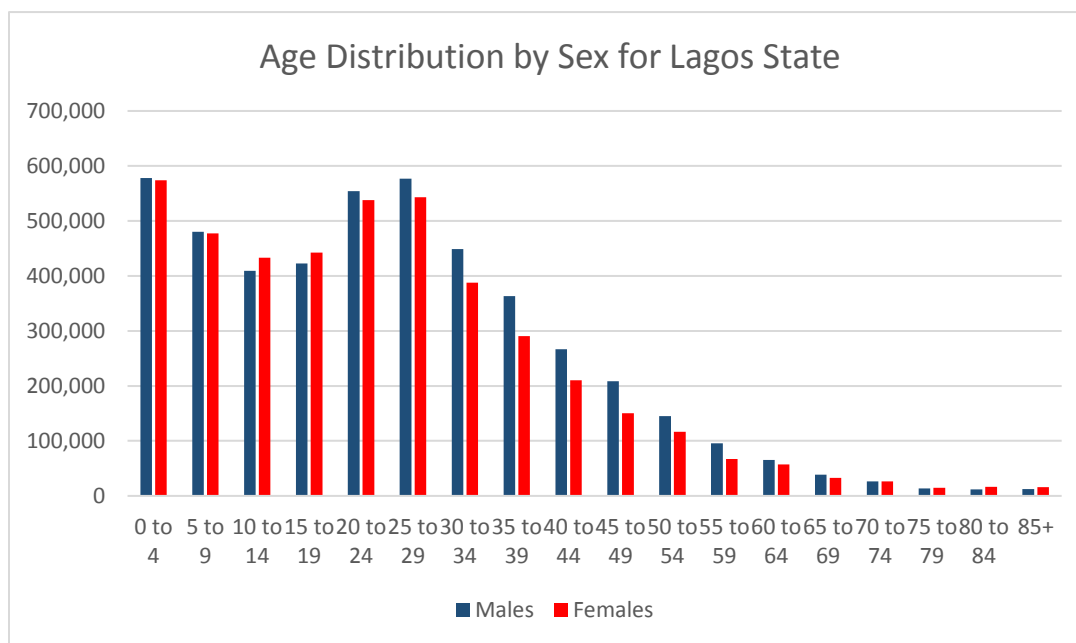


Chart 4.2: Age Distribution by Sex for Lagos State (Census 2006)

#### **4.4.2.4 Health**

Lagos has several hospitals and medical facilities, some of which have accomplished feats in Nigeria's medical history. For example, the oldest Nigerian hospital is located in the city as well as West Africa's first air-operated emergency medical service which commenced in the city. The Lagos healthcare system is generally divided into public and private sectors which provide medical services at the primary, secondary and tertiary levels. Lagos has over 288 PHC spread across the state. Although the private hospitals are usually more expensive, it does not necessarily translate to better healthcare delivery.

## CHAPTER FIVE: POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS

During the various phases of the NPESP AF3 it is expected that there will be environmental, social as well as health impacts which will involve minor civil works and the generation of healthcare wastes. Both environmental and the social impacts are expected to be easily mitigated, short termed and site specific.

The project is not envisaged to cause significant environmental and social risks and the environmental category for the project continues to be B, as with previous AFs, although the project will in this case finance civil work activities including the construction and expansion of the cold stores in Lagos national hub and renovations of the Kano hub.

The project is expected to lead to positive social impacts and benefits as it will help to continue the polio eradication efforts of the GoN as well as sustain coverage and prevent a deterioration of Routine Immunization (RI). The project will not finance any activities necessitating land acquisition which could result in (a) the involuntary resettlement of people and/or loss of (or access to) assets, means of livelihoods, or resources or (b) the involuntary restriction of access to legally designated parks and protected areas, resulting in adverse impacts on the livelihoods of the displaced persons.

### 5.1 Environmental and Social Screening Process

The objective of screening is to determine before commencement of sub-projects the appropriate level of environmental and social impact assessment and management that would be needed for a proposed subproject. It will also seek to integrate relevant mitigation measures into all subproject that require mitigations.

The screening process determines which sub project will have environmental and/or social impacts. After the process of screening;

- Sub-projects with no noticeable impacts are cleared from an environmental perspective;
- Sub-projects with some impacts proceeds to another level of conducting an environmental assessment, which will be evaluated to clear the subproject.

See Annex Two for generic Screening Process.

The environmental and social screening process is put in place in order to ensure all potential civil work activities are adequately screened for environmental and social impacts. This will include an environmental screening sheet showing the estimated impact category of each sub-

project to be carried out in Lagos and Kano States. Thus the process will involve an assessment of the project to determine:

- The appropriate project categorization for the EA;
- Applicable World Bank environmental and social safeguards;
- Potential for environmental and social impacts; and
- Cultural or other sensitivities.

Every project will also be screened to identify relevant stakeholders and the nature and the extent of their engagement.

Categorization of projects are done through the use of an Environmental and Social Screening Checklist (ESSC) (See Annex Two) of the proposed sub-projects in both States to determine if they fall under EA Category A, B, C of FI.

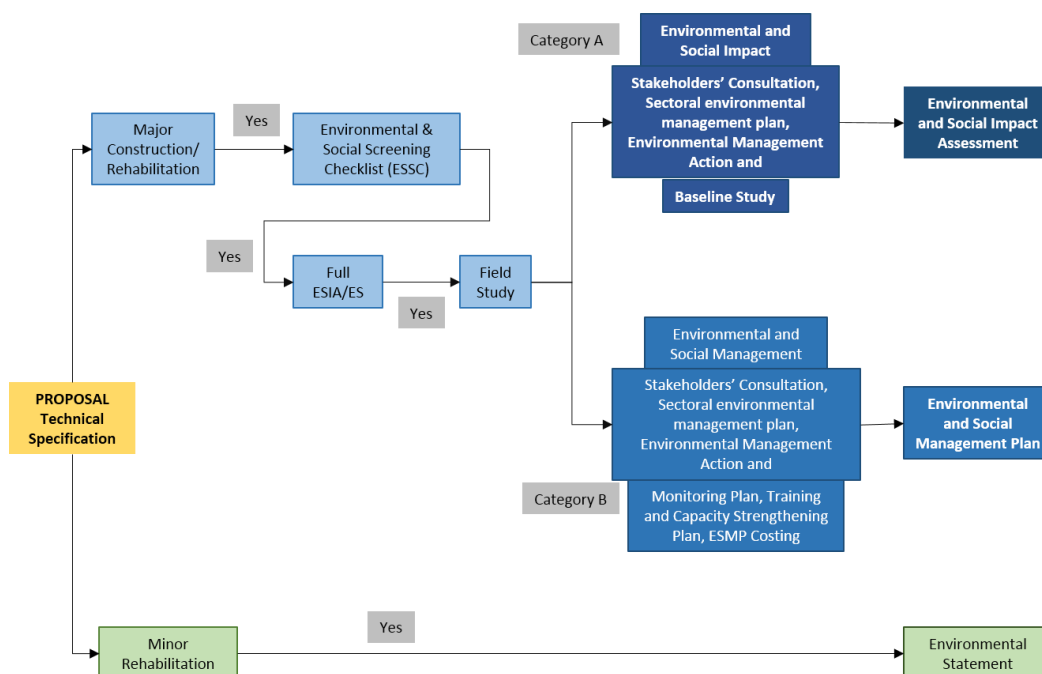


Figure 5.1: Typical Environmental Screening Procedure

## 5.2 Impacts Classification

The environmental and social impact associated with the proposed sub-project activities are expected to be moderate and reversible with no cumulative or long term impacts. Three phases of this project have been identified as

- Pre-Construction
- Construction
- Operation and Maintenance

Impacts identified with this project are classified and discussed under these three phases.

The proposed NPESP AF3 will involve civil works, such as new expansion works in Lagos and renovation works in Kano States. Specific environmental and social impacts and mitigation measures will only be known after the subproject are identified, and the specific ESIA/ESMPs prepared.

### 5.3 Impact Analysis and Prediction Ratings

The core of an environmental and social assessment process is predicting the likely magnitude of a development and its respective significance. Predictions should be based on the available environmental and social baseline of the location in which the sub project is taking place. Specific environmental and social impacts and measures will only be known after the subproject locations are identified, and the specific ESIA/ESMPs prepared. However, Table 5.1 below highlights criteria used in assessing environmental and social impacts. Table 5.2 shows impact rating and classification. See Annex Four for the environmental and social management impact significance prediction and ratings envisaged for the AF3 across Kano and Lagos States.

**Table 5.1 Evaluation and Considerations of Identified Potential Impacts**

CONSIDERATION	DESCRIPTION
<b>Significance of Environmental / Social Aspect</b>	<p>This takes into consideration the importance of the environmental and social aspects that would be effected. Also taken into consideration is the location of which the aspect will be impacted. For example, in Kano state where top soil loss is an environmental problem, the soil and vegetation aspect of the environment will be given more importance than in Lagos where vegetation loss is less of a major environmental issue.</p> <p>The baseline study is key in evaluating the significance of an environmental aspect in relation to the specific geographical location the proposed sub-project would take place.</p>
<b>Magnitude of Impact</b>	<p>This is the severity of each potential impact. The magnitude of an impact cannot be rated as high if it can be mitigated. The magnitude will also indicate whether the impact is reversible or irreversible.</p> <p><i>As with this project all impacts are envisaged to be reversible impacts.</i></p>
<b>Spatial Extent of Impact</b>	<p>The spatial geographical space over which an impact can be felt is also taken into consideration</p> <ul style="list-style-type: none"> <li>▪ <b>Site specific:</b> Impact is felt or limited to the geographical space of the project area</li> <li>▪ <b>Non-site specific:</b> Impact extends wider than just the project area.</li> </ul> <p><i>As with this project all impacts are envisaged to be site specific impacts.</i></p>
<b>Duration of Impact</b>	<p>Environmental impacts have a temporal dimension</p> <p>An impact can also be</p> <ul style="list-style-type: none"> <li>▪ <b>Short Term:</b> Impact that lasts shorter than nine years after project completion;</li> <li>▪ <b>Medium Term:</b> Impact that last beyond 9 years but less than 20 years after project completion; and</li> </ul>

	<ul style="list-style-type: none"> <li>▪ <b>Long Term:</b> Impacts that last beyond 20 years after project completion.</li> </ul> <p>As with this project all impacts are envisaged to be short term impacts</p>
<b>Significance of Impact</b>	<p>This refers to the importance of the impact. Impacts must be evaluated using the same and appropriate choice of criteria. The most important forms of criteria often used include:</p> <ul style="list-style-type: none"> <li>▪ Specific legal requirements e.g. state, national laws, standards, international agreements and conventions, relevant policies etc;</li> <li>▪ Public views and complaints;</li> <li>▪ Threat to sensitive ecosystems and resources e.g. can the impact lead to extinction of species and depletion of resources, which can result, into conflicts;</li> <li>▪ Cost of mitigation;</li> <li>▪ Likelihood or probability of occurrence (very likely, unlikely, etc.);</li> <li>▪ Reversibility of impact (natural recovery or aided by human intervention);</li> <li>▪ Number (and characteristics) of people likely to be affected and their locations;</li> <li>▪ Cumulative impacts e.g. adding more impacts to existing ones; and</li> <li>▪ Uncertainty in prediction due to lack of accurate data or complex systems. Precautionary principle is advocated in this scenario.</li> </ul>

Impacts where rated from 1 to 5 with 1 and 5 being the lowest and highest value respectively. See Annex Four for impact rating for environmental impacts

#### 5.4 Environmental Impacts

Potential adverse environmental impacts that would be associated with the AF3 will largely be site specific and easily mitigated. Such impacts will likely range from air pollution to minor losses in vegetation cover. There could be adverse impacts on soil and surface water though this will likely not be very significant. Annex Four shows potential environmental impacts; their level of significance and ratings for both Kano and Lagos during the Pre-Construction, Construction and Operation and Maintenance phases. A more detailed explanation of the impacts is included in Annex Three.

#### 5.5 Social Impacts

It is envisaged that social impacts would be similar across both states. All the sub projects will have a minimal impact on social considerations. During the construction phase, the potential adverse social impacts could arise mainly from

- noise pollution;
- waste generation and management;
- occupational health and hazard; and
- Public health and safety
- Restricted access to source of livelihood and other assets

During the Operation and Maintenance phase the major adverse impacts would rise from improper waste management. Annex Four shows potential social impacts; their level of significance and ratings for both Kano and Lagos during the Pre-Construction, Construction and Operation and Maintenance phases.

## 5.6 Mitigation

Sub-projects will have site specific impacts and so mitigation measures adopted include mainly avoidance and minimization. In addition, they are designed to ensure the projects are environmentally sustainable and socially acceptable. The aim of the mitigation process are to:

- Enhance environmental and social benefits of AF3;
- Avoid, minimize and/or remedy all adverse impacts to such a level that is environmentally and socially acceptable;
- Discover and suggest better alternatives to producing better sustainable projects and environments

Cost of impact mitigation is estimated to be Six Thousand One Hundred Dollars only. See Annex Three - ESMP framework.

Table 5.2 on the next page shows the potential environmental and social impacts and mitigation measures.

**Table 5.2: Potential Environmental and Social Impacts and Mitigation Measures**

ENVIRONMENTAL ASPECTS IMPACTS AND MITIGATIONS			
	ENVIRONMENTAL PARAMETER	POTENTIAL IMPACT	MITIGATION MEASURES
ECOSYSTEM	LOSS OF FLORA	<p><b>Pre-Construction and Construction Phases</b></p> <p>Rehabilitation works could possibly involve the removal of vegetation cover in a bid to create work areas. This loss of plant cover could lead to vegetation loss and exposure of the top soil. Depending on the topography of the area, the removal of the vegetation cover and the subsequent exposure of the top soil could start the process of erosion</p>	<ul style="list-style-type: none"> <li>▪ The Contractor should minimize the work site to the minimum possible size in an attempt to minimize the destruction on flora were found and thus prevent of ecological damages.</li> <li>▪ Removal of vegetation should be reduced to the barest minimum</li> <li>▪ Ecological restoration through environmental engineering should be undertaken after any human intervention. This may include restoration of top soils and introduction of local plant species to restore the local ecology</li> </ul>
	LOSS OF FAUNA	<p><b>Pre-Construction and Construction Phases</b></p> <p>The removal of top soil could reduce the habitat of a number of organisms. This will alter the food chain in that habitat and eventually create an imbalance in the immediate ecosystem depending on the scale of vegetation removed.</p>	
SOIL	SOIL CONTAMINATION	<p><b>Preconstruction, Construction and Operation Phases</b></p> <p>Soil can be contaminated from the spilling of petrol being used by generator sets and vehicles.</p>	<ul style="list-style-type: none"> <li>▪ Civil works should be done during the dry seasons and NOT during the raining season. November to March in Lagos and October to April in Kano</li> <li>▪ During civil works, all earth removed should be stored for use during foundation laying so as to reduce the amount of loose soil laying around</li> <li>▪ Soils excavated, lumped and gathered on-site should be covered by impermeable materials</li> </ul>
	SOIL EROSION	<p><b>Preconstruction, Construction and Operation Phases</b></p> <p>The topography of the sites will play a significant role in the process of erosion. When vegetation is removed and the top soil is exposed, the sun tends to dry up the moisture in the soil and water and wind acting under the force of gravity will push soils downhill. The steeper the slope the faster the rate of erosion in most cases.</p>	
AIR	AIR POLLUTION AND QUALITY	<p><b>Preconstruction, Construction and Operation Phases</b></p> <p>Air pollution may arise from the indiscriminate open air burning of wastes such as woods, plastics and other wastes generated during the construction and operation phases. Air pollution could also occur from using diesel powered generator sets and vehicles with poor or high emission rates being used for transportation of vaccines. All these activities would negatively affect air quality. Also waste stored for too long on site could release offensive smells into the atmosphere</p>	<ul style="list-style-type: none"> <li>▪ Burning of wastes at site should be avoided to reduce air pollution during all phases of the project.</li> <li>▪ Vehicles and machinery used should be well serviced with low emission ratings.</li> <li>▪ All waste should be directed to an approved dumpsite.</li> </ul>
WATER	SURFACE WATER CONTAMINATION	<p><b>Preconstruction, Construction and Operation Phases</b></p> <p>Accidental spillage of fuel, lubricants and other chemicals may run-off onto surface waters and eventually into streams. This can lead to surface water contamination and eutrophication in extreme cases. Also infiltration of wastes such as unfinished chemicals and paints can find their way into surface water drainages causing contamination.</p>	<ul style="list-style-type: none"> <li>▪ Proper containment of water being used for rehabilitation works</li> <li>▪ Tanks and storage facilities should be placed on impermeable surfaces</li> <li>▪ All storage facilities should have collecting trays in case of tank leakages</li> </ul>



	<b>GROUNDWATER CONTAMINATION</b>	<b>Preconstruction, Construction and Operation Phases</b> Fuel, diesel and other lubricants leakages from storage tanks, light machinery and vehicles can infiltrate/percolate into the soil and find their way into the ground water causing groundwater contamination. The human effect of this is more pronounced if the source of water is a borehole drilled in or around the site. Lastly, leachate produced at onsite dump sites could percolate into ground waters causing contamination	
<b>SOCIAL ASPECTS IMPACTS AND MITIGATIONS</b>			
	<b>SOCIAL PARAMETER</b>	<b>DESCRIPTIONS</b>	<b>MITIGATION MEASURES</b>
<b>PUBLIC HEALTH AND SAFETY</b>	<b>PUBLIC HEALTH HAZARDS</b>	<b>Preconstruction, Construction and Operation Phases</b> <ul style="list-style-type: none"> <li>▪ Waste generated on site if not managed properly could accumulate, produce foul smells, and attract insects and rodents which inevitably would have health implications on the general public.</li> <li>▪ The release of carbon monoxide from machinery and vehicles into the atmosphere can cause illnesses such as asthma to those residing around the health facility.</li> <li>▪ Water left to accumulate in areas without being drained, would result in breeding habitats for mosquitoes and this could increase the occurrence of malaria.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Stagnant water on the construction site should be avoided through proper maintenance of the site and through the removal of water from trenches especially after rainfall.</li> <li>▪ Waste generated on-site should be evacuated at least once a week</li> <li>▪ Waste should be stored inside impermeable containers</li> <li>▪ Select an exhaust system with lowest emission rates</li> <li>▪ Ensure well maintained machinery to reduce emission levels</li> <li>▪ Select an exhaust system with lowest emission rates</li> </ul>
	<b>PUBLIC SAFETY</b>	<b>Preconstruction and Construction Phases</b> <ul style="list-style-type: none"> <li>▪ Easy access to site areas could pose hazards to the public.</li> <li>▪ Construction items such as nails, broken wood can be harmful to the public</li> <li>▪ Items such as blocks, paint buckets, roofing items could fall down and injury passers-by</li> </ul>	<ul style="list-style-type: none"> <li>▪ Prohibition of access to the work site by any person having no work permits.</li> <li>▪ Areas occupied by operational, mechanical and electrical machinery and equipment should be marked as 'restricted' and cordoned off from the public</li> <li>▪ Proposed site should be completely marked and cordoned off to prevent access by the public</li> <li>▪ Local Exhaust Ventilation (LEV) to extract the dust close to the source</li> <li>▪ Vertical &amp; perimeter debris netting should be used around building particularly in Lagos where expansion works will take place</li> </ul>
<b>OCCUPATIONAL HEALTH AND</b>	<b>OCCUPATIONAL HEALTH</b>	<b>Preconstruction and Construction Phases</b> <ul style="list-style-type: none"> <li>▪ Handling and use of dangerous substances and wastes and inhaling fumes will expose the workers to occupational health risks.</li> <li>▪ Loud noise and vibrations will result from the use of equipment such as generators, vehicles, drilling machines (in the case of burrowing) etc. Such noise can easily exceed 90dBA.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Civil work should be avoided at night.</li> <li>▪ Dampen areas with water before dust collection</li> <li>▪ Select an exhaust system with lowest emission rates</li> <li>▪ Limit the time of exposure of workers in dusty areas</li> <li>▪ Rotate workers to other areas so that individual operatives do not get a high exposure</li> </ul>

	<b>OCCUPATIONAL SAFETY</b>	<p><b>Preconstruction and Construction</b></p> <ul style="list-style-type: none"> <li>Construction works such as excavations, working with heavy equipment working in confined spaces, working under noisy conditions, heavy lifting will expose the workers to occupational safety risks</li> </ul>	<ul style="list-style-type: none"> <li>Workers should be equipped with appropriate Protective Personal Equipment (PPE) and use of PPEs should be enforced on site at all times</li> <li>There should be a first aid kit at all times on each site</li> <li>Clear markings and signage should be used in all areas of the site</li> </ul>
SOCIAL AND COMMERCIAL	<b>COMMERCIAL ACTIVITIES</b>	<p><b>Preconstruction and Construction</b></p> <ul style="list-style-type: none"> <li>The noise associated with construction equipment and possible blockages of roads would serve to deter commercial activities on a temporary bases.</li> <li>If the rehabilitation activities during the AF3 spread over a significant period of time. This without adequate planning, communication of activities and construction activities may cause traffic disruptions and congestion, resulting in temporary disturbance and interruption of commercial and social activities.</li> </ul>	<ul style="list-style-type: none"> <li>Ensure civil works progress on schedule by supervising contractors</li> <li>Contractor to put in place a Traffic Management Plan in to be cleared and supervised by Resident Engineer( RE)</li> </ul>
	<b>SOCIAL ACTIVITIES</b>	<p><b>Preconstruction, Construction and Operation Phases</b></p> <ul style="list-style-type: none"> <li>There would be increase in the demand for basic services due to temporary influx of workers.</li> <li>There is a potential for petty crime to increase in proposed sub project areas as influx of people increases</li> <li>Loud noise and vibrations will result from the use of equipment such as generators, vehicles, drilling machines (in the case of burrowing) etc.</li> </ul>	<ul style="list-style-type: none"> <li>Well serviced equipment should be used at all times during construction</li> <li>There should be designated and approved areas for basic services such as canteens, restaurants and temporary car transport parks</li> <li>Adequate security should be put in place by contractor</li> <li>To avoid impacts associated with influx of workers, labor will be sourced locally as anticipated civil works will be in two of Nigeria’s biggest cities ( Kano and Lagos)</li> <li>A code of conduct would be for contractor employees and contract workers, acknowledging a zero-tolerance policy towards child labor and child sexual exploitation. In addition, there would be sanctions in the contracts for non-compliance (e.g. , termination)</li> <li>Training of workforce about refraining from unacceptable conduct as well as informing workers about national laws</li> </ul>
WASTE	<b>WASTE GENERATION</b>	<p><b>Preconstruction, Construction and Operation Phases</b></p> <ul style="list-style-type: none"> <li>There is an expected increase in waste generated if not managed properly, could be harmful to the public and in extreme cases hazardous waste could lead to disease outbreak</li> <li>Waste generated on site if not managed properly could accumulate and become unpleasant sights to the area.</li> </ul>	<ul style="list-style-type: none"> <li>Ensure proper handling, and disposal of wastes</li> <li>Waste must be stored temporarily in designated areas daily</li> <li>Waste should be evacuated weekly</li> <li>On site waste collection and storage points should be located in areas that can easily be accessed by waste collection trucks without hindrance to traffic on the main road.</li> </ul> <p>For HCW (See Annex Five for HCWMP)</p>
	<b>WASTE MANAGEMENT</b>	<ul style="list-style-type: none"> <li>Waste dumped besides roads may intrude onto the roads causing vehicular hold ups and accidents.</li> <li>When waste is stored for a long time, leachates may form and this could in turn percolate into the soil beneath thereby contaminating it.</li> </ul>	<ul style="list-style-type: none"> <li>A well detailed HCWMP should be put in place and should be prepared in accordance with the released                         <ul style="list-style-type: none"> <li>National Healthcare Waste Management Policy;</li> <li>National Healthcare Waste Management Guidelines (NHCWMP); and</li> <li>N47ational Healthcare Waste Management Plan (NHCWMP).</li> </ul> </li> </ul>

## 5.7 General and Healthcare Waste Management

General waste generated during the NPESP AF3 will come largely under the Pre-Construction, Construction and Operation phases. The waste streams here are expected to be food left-overs, sachets of water plastic bottles used by workers as well as residues from civil works such as cement, paper, woods, paint, plastics, removed vegetation etc. All these will be site specific and thus easily managed.

For the NPESP AF3, there will be concerns from handling of healthcare waste resulting from project related activities such as Vaccination and Routine Immunization that generate healthcare waste such as expired vaccines and sharps, needles and syringes. This waste will be dominant in the Operation and Maintenance phases. See Table 5.2 and Annexes Three, Five A and Five B.

Currently, improper and unsafe health care waste management (HCWM) practices put at risk healthcare workers, patients, and communities at large who are exposed both within Health Facilities (HFs) and the surrounding communities. The potential risks are considered to be small in scope, site specific, and easy to avoid, prevent, and manage as well as remediate to acceptable levels. Experience has proven that when healthcare waste is properly managed, generally it poses no greater risks than that of properly treated municipal or industrial waste. Thus, the risks are manageable and can be mitigated through development and implementation of the approved National Healthcare Waste Management Plan (NHWMP). See Annexes Five A and Five B on Healthcare Waste Management.

## 5.8 National Healthcare Waste Management Plan (NHWMP)

According to the NHCWMP the basic principles of HCWM involves

- Waste Minimization;
- Waste Segregation;
- Colour Coding;
- Waste Collection;
- Waste Storage; and
- Transportation.

See Annexes Five A and Five B for more on HCWM

## CHAPTER SIX: FRAMEWORK ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP-F)

### 6.1 Institutional Arrangement for Implementation of AF3

The project will be managed and implemented through the existing government structure.

#### 6.1.1 Federal Level

**Table 6.1: Responsibilities of Various Stakeholder at the Federal Level**

S/N	MINISTRY, AGENCY	RESPONSIBILITIES
1	Federal Ministry of Health (FMoH)	<ul style="list-style-type: none"> <li>Overall guidance and stewardship to the project.</li> </ul>
2	Federal Ministry of Finance (FMoF)	<ul style="list-style-type: none"> <li>Provide the financial guidance for the project</li> </ul>
3	Federal Ministry of Environment (FMEEnv)	<ul style="list-style-type: none"> <li>Provide advice on screening, scoping of sub projects;</li> <li>Oversight, monitoring and evaluation on sub projects at both federal and state levels;</li> <li>Maintain and ensure compliance with relevant policies, acts and regulations; and</li> <li>Receiving comments from stakeholders as regards environmental and social aspects of the project.</li> </ul>
4	National Primary Health Care Development Agency (NPHCDA)	<p>This is main implementing agency;</p> <ul style="list-style-type: none"> <li>Procure the services of competent cold change construction firm(s), support logistics management and funds for the health system strengthening;</li> <li>Handle the construction and renovation work with support from UNICEF’s construction unit will; and</li> <li>Ensure that the procedures for procurement of contractors and monitoring of the project are in line with the Bank’s procurement processes.</li> </ul>
5	National Emergency Routine Immunization Coordination Centre (NERICC) <sup>1</sup>	<ul style="list-style-type: none"> <li>Coordinate all governments and partners within the RI landscape and ensure accountability at all levels of implementation;</li> <li>Provide guidance and oversights to subnational levels on RI;</li> <li>Design a roadmap for rapidly improving RI coverage and long term plans for strengthening the strengthening the systems;</li> <li>Implement strategies or innovations for the revitalization of RI;</li> <li>Monitor and track implementation of such strategies and innovations;</li> <li>Review all documents for EPI capacity building and implement trainings which will allow for increase in health care workers (HCW) knowledge retention and improvement in their practice; and</li> <li>Identify states that require advocacy and advise management to conduct advocacy to such states.</li> </ul>

<sup>1</sup> NERICC is under the NPHCDA and inaugurated on the 4th of July 2017 and is chaired by the Executive Director of the NPHCDA

Due to the decline in the country’s immunization coverage, especially in the northern states, according to the 2016 MICS report, the National Emergency Routine Immunization Coordination Centre (NERICC) and similar structures at state and LGA levels in the 18 lagging states were inaugurated by the Executive Director of the NPHCDA on the 4th of July 2017. The NERICC has the overall goal of achieving more than 85% immunization coverage for all antigens in Nigeria by 2019. The Committee is chaired by the Executive Director of NPHCDA and has membership drawn from NPHCDA and representatives from development partners. Figure 3 below shows the approved organogram for NERICC.

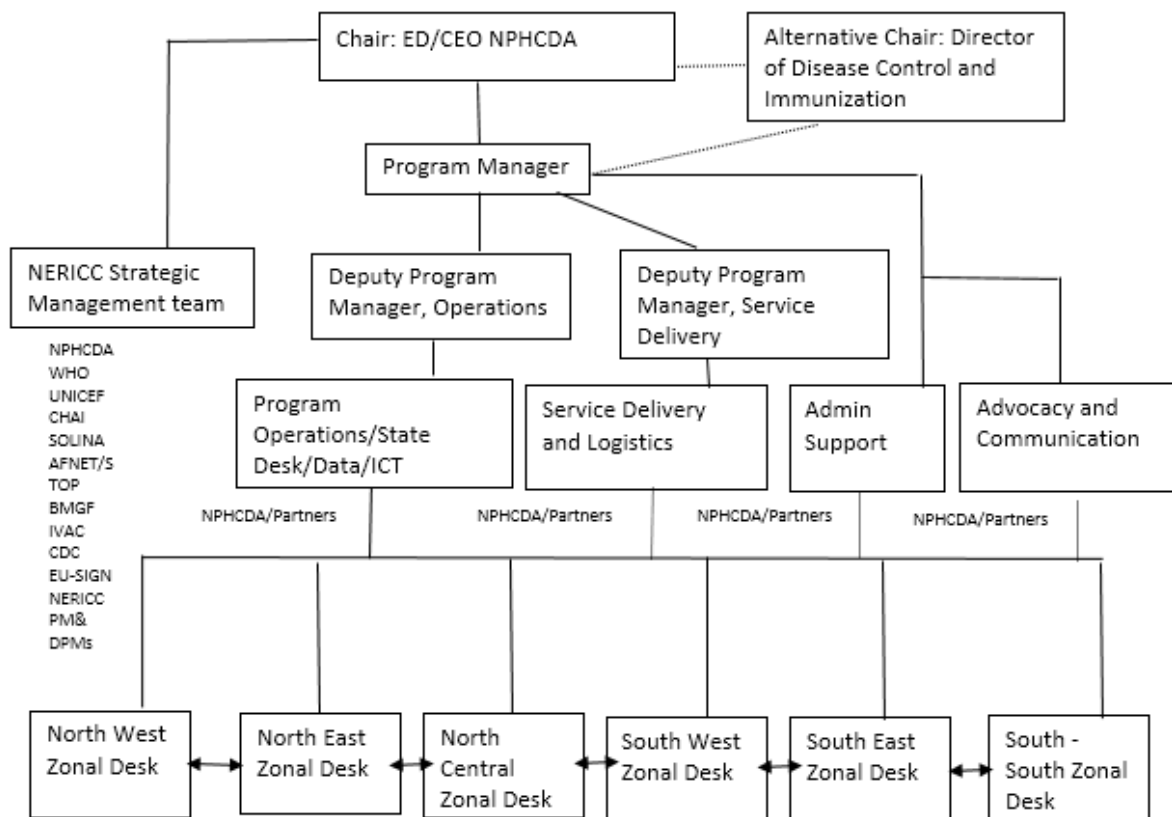


Figure 3: Approved NERICC Organogram (Source NPHCDA)

### 6.1.2 State Level

At the state level the project is managed by the State Primary Health Care Development Agencies (SPHCDA). In the eighteen lagging states, State Routine Immunization Emergency Coordination Centers (SERICC) will be inaugurated to provide implementation oversight, coordination and monitoring of all RI activities in the state. The SERICC is expected to meet daily to review implementation status of RI in the state with particular attention to the implementation of the RI quick win action plan for the state. The SERICC is expected to support the functioning of the Local Government Routine Immunization Emergency Coordination Center (LERICC).

### 6.1.3 Local Government Level

The Local Government Agency Primary Health Care Development is responsible for managing the local level activities such as the planning, supervision of local staff and overall implementation of the immunization activities. Ultimately, it is the capacity and accountability of managers at this level across the country which determine the outcome of polio eradication and immunization efforts. The LERICC in the poorly performing states is responsible for ensuring that priority activities required to ensure high quality implementation of RI activities in the LGA are fully implemented as recommended. LERICC is expected to provide regular feedback to SERICC.

### 6.1.4 Project Implementing Unit (PIU)

Project Implementation Units have often been used to fill in the technical skills gap in the administration of development assistance programs in the Bank's borrower countries. Findings of the WB indicate that PIU are best used in post-conflict or in emergency situations. In such cases, PIUs should play an integral role in ensuring rapid and efficient completion of the project. It is expected that the PIU should be closely integrated into line ministries with other public entities of the borrower countries, leveraging on available resources (of existing agencies) rather than setting them up as independent units and having them operate autonomously. It is thus expected that a PIU be set up for the AF3.

The PIU would be housed in the NPHCDA which is the implementing agency for NPESP AF3. In addition, a Safeguard Consultant will be engaged and would be part of the PIU team.

### 6.1.5 World Health Organization (WHO)

The following responsibilities will be that of the WHO

- Payment mechanisms and others
- Intensified SIAs and transport for supervision
- Contingency counterpart funding for mop-ups

### 6.1.6 United Nations Childrens Fund (UNICEF)

The following responsibilities will rest on the UNICEF

- procurement of Vaccines for Polio as well as RI and devices
- Transportation and Logistics
- Supplementary Immunization Activities (SIAs)
- Engagement of traditional leaders

## 6.2 Institutional Arrangement and Roles in the ESMF Implementation and Management

For the successful implementation of the ESMF, the safeguard responsibilities is shown in Table 6.2 below.

**Table 6.2: Institutional Arrangements and Responsibilities for Safeguards Management**

S/N	AGENCY/BODY/ MINISTRY	RESPONSIBILITY
1	PIU	<ul style="list-style-type: none"> <li>▪ Overall monitoring of Project implementation by the project teams and various contracting agents;</li> <li>▪ Ensure that the PDOs of the project are fully achieved;</li> <li>▪ Co-ordinate programmes and actions related to the project;</li> <li>▪ Ensure implementation of the project’s technical programmes;</li> <li>▪ Plan, coordinate, manage and develop projects to ensure success;</li> <li>▪ Monitor the sub-project works to ensure that the activities are carried out in a satisfactory manner;</li> <li>▪ Support local governments in carrying out the recommendations in the ESMF;</li> <li>▪ Ensure that progress reports are submitted to the World Bank regularly; and</li> <li>▪ Monitor the implementation of the HCWMP which will be based on the NHCWMP. See Annex Five.</li> </ul>
2	Safeguards Specialist Under the PIU	<ul style="list-style-type: none"> <li>▪ Prepare appropriate and coordinated response to environmental and social aspects of the project and sub-projects;</li> <li>▪ Ensuring all activities of sub projects are in line with best practices and the framework of the ESMF as well as the guidelines of the country;</li> <li>▪ Assess each sub-project and its environmental and social impacts;</li> <li>▪ Monitoring of mitigation measures put in place for each sub-project; and</li> <li>▪ Monitor the implementation of the HCWMP which will be based on the NHCWMP.</li> </ul>
3	FMEEnv (Federal and State)	<ul style="list-style-type: none"> <li>▪ Provide advice on screening, scoping of sub projects;</li> <li>▪ Oversight, monitoring and evaluation on sub projects at both federal and state levels;</li> <li>▪ Maintain and ensure compliance with relevant environmental policies, acts and regulations; and</li> <li>▪ Receiving comments from stakeholders as regards environmental and social aspects of the project.</li> </ul>
4	NPHCDA and SPHCDA	<ul style="list-style-type: none"> <li>▪ Handle the construction and renovation works</li> <li>▪ Implementing all Safeguard instruments associated with the NPESP AF3</li> </ul>
5	World Bank	<ul style="list-style-type: none"> <li>▪ Supervisions and provisions of technical support and guidance</li> <li>▪ Advisory and Supervision of the implementations of sub projects</li> </ul>

## 6.3 Roles and Responsibilities of PIU for Implementing the ESMP-F

### ▪ Project Coordinator

- Head and pilot the PIU
- Responsible for project management specifically linked to administration of the

- NPESP AF3;
- Oversee the implementation and monitoring of all Safeguard instruments associated with the NPESP AF3.
- **Environmental Safeguards Specialist (ESS-PIU)**
  - Prepare appropriate and coordinated response to environmental aspects of the project and sub-projects;
  - Assess each sub-project and its environmental impacts; and
  - Assess and monitor environmental mitigation measures for relevant subproject(s).
- **Social Safeguards Specialist (SSS-PIU)**
  - Preparing appropriate and coordinated response to social aspects of the project and sub-projects;
  - Assessing each sub-project and its social impacts; and
  - Assess and monitor social mitigation measures for relevant subproject(s).
- **Procurement Specialist (PS-PIU)**
  - Ensuring and monitoring all procurements procedures including the procurement of contractors are in line with the Bank's procurement processes; and
  - Ensuring that financial funds disbursed by the Bank directly to NPHCDA are
- **Financial Management Specialist (FS – PIU)**
  - Ensuring all financial funds are in line with the Bank-UN Financial Management Framework Agreement; and
  - Ensuring that all funds disbursed directly to the NPHCDA by the Bank for Component 3 (Health System Strengthening) are used for the purpose intended with due regard to economy and efficiency.
- **Monitoring and Evaluation Specialist (M&E-PIU)**
  - Monitoring of mitigation measures that would be put in place for each sub-project;
  - Perform periodic monitoring of all aspects as contained in the sub-project Environmental and Social Monitoring Plan;
  - Monitoring the implementation of the ESMP to ensure it keeps to schedule; and
  - Monitoring the implementation of the HCWMP which will be based on the NHCMWP.

Subprojects requiring ESMPs will require that an audit report be prepared and delivered to the PIU. The Environmental Safeguards Specialist (ESS-PIU) and the Social Safeguards Specialist (SSS-PIU) shall both be part of the PIU and shall have the major responsibility of implementing the ESMP-F. They shall collaborate with the Federal and State Ministries of Environment as well as with relevant MDAs to achieve this. Table 6.3 shows the roles and responsibilities of to be assigned for the successful implementation of the ESMP-F.



**Table 6.3: Roles and Responsibilities for Implementing the ESMP-F**

NO	STEPS/ACTIVITIES	RESPONSIBLE	COLLABORATION	SERVICE PROVIDER
1.	Identification and/or siting of the sub-project	PIU NPESP AF3	<ul style="list-style-type: none"> <li>▪ Local authority</li> <li>▪ FMOH</li> </ul>	
2.	Screening, categorization and identification of the required instrument (use the national EIA procedure)	Environmental Safeguards Specialist (ESS-PIU)	<ul style="list-style-type: none"> <li>▪ Beneficiary;</li> <li>▪ Local authority</li> <li>▪ Social Safeguards Specialist (SSS-PIU)</li> </ul>	
3.	Approval of the classification and the selected instrument by the FMEnv	PIU Coordinator	<ul style="list-style-type: none"> <li>▪ ESS-PIU</li> <li>▪ SSS-PIU</li> </ul>	<ul style="list-style-type: none"> <li>▪ EA Department under the FMEnv</li> <li>▪ The World Bank</li> </ul>
4.	Preparation of the safeguard document/instrument (ESIA, Env. Audit, simple ESMP, etc.) in accordance with the national legislation/procedure (taking into account the Bank policies requirements)			
	Preparation and approval of the ToRs	ESS-PIU		<ul style="list-style-type: none"> <li>▪ The World Bank</li> </ul>
	Preparation of the report		<ul style="list-style-type: none"> <li>▪ Procurement Specialist (PS-PIU)</li> <li>▪ SSS-PIU</li> <li>▪ Local authority</li> </ul>	<ul style="list-style-type: none"> <li>▪ Consultant</li> </ul>
	Report validation and issuance of the permit (when required)		<ul style="list-style-type: none"> <li>▪ Procurement Specialist (PS-PIU)</li> <li>▪ SSS-PIU</li> <li>▪ Local authority</li> </ul>	<ul style="list-style-type: none"> <li>▪ EA Department under the FMEnv</li> <li>▪ The World Bank</li> </ul>
Public Disclosure of the document	<ul style="list-style-type: none"> <li>▪ Project Coordinator</li> </ul>		<ul style="list-style-type: none"> <li>▪ Media (National Dailies)</li> <li>▪ The World Bank Infoshop</li> </ul>	
5.	(i) Integrating the construction phase mitigation measures and E&S clauses in the bidding document prior they're advertised; (ii) ensuring that the constructor prepares his ESMP (C-ESMP), gets it approved and integrates the relevant measures in the works breakdown structure (WBS) or execution plan.	Technical staff in charge of the sub-project (TS-PIU)	<ul style="list-style-type: none"> <li>▪ ESS-PIU</li> <li>▪ PS-PIU</li> </ul>	<ul style="list-style-type: none"> <li>▪ Control Firm (Supervisor) FMEnv</li> </ul>
6.	Implementation of the other safeguards measures, including environmental monitoring (when relevant) and sensitization activities	ESS-PIU	<ul style="list-style-type: none"> <li>▪ SSS-PIU</li> <li>▪ PS-PIU</li> <li>▪ TS-PIU</li> <li>▪ FS-PIU</li> <li>▪ Local authority</li> </ul>	<ul style="list-style-type: none"> <li>▪ Consultant</li> <li>▪ National specialized laboratories</li> <li>▪ NGOs</li> </ul>
7.	Oversight of safeguards implementation (internal)	SSES	<ul style="list-style-type: none"> <li>▪ M&amp;E-PIU</li> <li>▪ FS-PIU</li> <li>▪ Local authority</li> </ul>	<ul style="list-style-type: none"> <li>• Control Firm (Supervisor)</li> </ul>
	Reporting on project safeguards performance and disclosure	Coordinator	<ul style="list-style-type: none"> <li>▪ M&amp;E-PIU</li> <li>▪ ESS-PIU</li> <li>▪ SSS-PIU</li> </ul>	
	External oversight of the project safeguards compliance/performance	PEA	<ul style="list-style-type: none"> <li>▪ M&amp;E-PIU</li> <li>▪ ESS-PIU</li> <li>▪ SSS-PIU</li> <li>▪ PS-PIU</li> <li>▪ Supervisor</li> </ul>	

8.	Building stakeholders' capacity in safeguards management	ESS-PIU	<ul style="list-style-type: none"> <li>▪ SSS-PIU</li> <li>▪ PS-PIU</li> </ul>	<ul style="list-style-type: none"> <li>▪ Consultant</li> <li>▪ Other qualified public institutions</li> </ul>
9.	Independent evaluation of the safeguards performance (Audit)	ESS-PIU	<ul style="list-style-type: none"> <li>▪ SSS-PIU</li> <li>▪ PS-PIU</li> </ul>	<ul style="list-style-type: none"> <li>▪ Consultant</li> </ul>

#### 6.4 Monitoring of ESMF Implementation

The environmental specialist and social development specialist shall be largely responsible for monitoring the requirements of the ESMF. Subsequently, they shall be required to prepare a quarterly audit on the ESMF implementation in addition to the project reports as may be required. Also each sub-project requiring an ESIA /ESMP study will be required to produce an annual audit report for delivery to the NPHCDA. The FMEEnv, SMEnv shall carry out independent monitoring. This would take the form of giving these agencies the mandate to carry out independent monitoring of the implementation of the ESMF at periodic intervals of quarterly or biannual (as circumstances dictate) during the project life.

#### 6.5 Training and Capacity Strengthening Program

During consultations at the various levels, gaps emerged showing a lack of adequate knowledge of WB Safeguard Policies, ESMF, monitoring procedures, screening, scoping procedures as well as impact identification. Training/capacity building is needed before and during project implementation. Trainings should be targeted at the FMoH, FMEEnv, NPHCDA, SPHCDA, NERICC, SERICC and LLERIC. The training program is shown in Table 6.3 below

**Table 6.4 Training and Capacity Strengthening Program**

S/N	TRAINING PROGRAM	TIME OF TRAINING	TARGET AUDIENCE	TYPE OF TRAINING	DURATION	COST (\$)
1	WB Safeguard Policies	Before Project commencement	FMoH, SMoH, FMEEnv, SMEnv, NPHCDA, SPHCDA, NERICC, SERICC, LERICC, UNICEF and WHO	Seminar	1/2 day	250
2	General training on ESMF, Policy requirements, legal responsibilities, Scoping and Screening	Before Project commencement	FMoH, SMoH, FMEEnv, SMEnv, NPHCDA, SPHCDA, NERICC, SERICC, LERICC, UNICEF and WHO	Workshop	1 day	500

3	Environmental management, Impact identification and mitigation processes, analyses and ESMP preparation	Before Project commencement	FMoH, SMoH, FMEnv, SMEnv, NPHCDA, SPHCDA, NERICC, SERICC, LERICC, UNICEF and WHO	Workshop	1 day	500
4	ESMF monitoring and Evaluation	Before Project commencement	FMoH, SMoH, FMEnv, SMEnv, NPHCDA, SPHCDA, NERICC, SERICC, LERICC, UNICEF and WHO	Workshop	1/2 day	250
5	Occupational health and safety	Before Project commencement	FMoH, SMoH, FMEnv, SMEnv, NPHCDA, SPHCDA, NERICC, SERICC LERICC and Contractors	Seminar	1/2 day	250
6	Public health and safety and waste management	Before Project commencement	FMoH, SMoH, FMEnv, SMEnv, NPHCDA, SPHCDA, NERICC, SERICC, LERICC, UNICEF and WHO	Workshop	1/2 days	250
<b>TOTAL COST</b>						<b>2,000</b>

## 6.6 Estimated Budget for Implementing the ESMF

As part of the ESMF, necessary budgetary allocations must be provided for implementing environmental and social measures for all sub-projects to be carried out under the AF3. This enables readiness for financial requirements and allows early planning and appropriate budgeting. Each sub project includes the environmental and social management costs. The ESMF also includes cost estimates for good engineering practices as well as environmental and social monitoring. It is estimated that the cost of implementing the ESMF is **Nine Thousand Two Hundred and Forty Five Dollars Fifty cents (9,245.50)** or an equivalent of **Two Million Seven Hundred and Seventy Three Thousand Six Hundred and Fifty naira only (2,773,650)**. The breakdown is shown in Table 6.4 below

**Table 6.5 Summary of Indicative Budget Breakdown and Responsibility of the Cost for Implementing the ESMF Instruments**

S/N	ITEM	RESPONSIBILITY	COST BREAKDOWN	ESTIMATE (NAIRA)	ESTIMATE (US\$)
1	Mitigation	Contractors		1,830,000	6,100
2	Management	NPHCDA	5% of Mitigation Cost	91,500	305
3	Capacity Building			600,000	2,000
4	Preparation of ESIA/ ESMP etc	Consultant	This estimation includes cost for reconnaissance survey, field studies, public consultations and report preparation etc	To be disclosed	
5	<b>Sub Total</b>			<b>2,521,500</b>	<b>8,405</b>
6	Contingency		10% of Sub Total	<b>252,150</b>	<b>840.50</b>
<b>TOTAL</b>				<b>2,773,650</b>	<b>9,245.50</b>

## 6.7 Disclosures of Safeguard Instruments

The ESMF has been prepared in consultation with the relevant Federal, State MDAs, WHO and the UNICEF. Copies of this ESMF, like other safeguard instruments (such as ESIA/ESMPs) that would be prepared for the AF3 and all its sub-projects under it will be made available to the public by the NPHCDA. The NPHCDA will disclose the ESMF as required by the Nigeria EIA public notice and review procedures as well as the World Bank Disclosure Policy at the World Bank Infoshop. Copies of other safeguards instruments (such as ESIA/ESMPs) should be disclosed in a similar manner. Table 6.5 below outlines documents to be disclosed.

**Table 6.6: Disclosure of Safeguards Instruments**

S/N	TOPIC	DOCUMENTS TO BE DISCLOSED	FREQUENCY	MEDIA
1	Public Consultation	Minutes of formal public consultation	Within two weeks of meeting	FMEEnv, NPHCDA Website, State Ministry of Environment, Local government Secretariat, World Bank Infoshop.
2	Environmental Management	ESMF, Report & Environment and Social Management Plans (ESMPs)	Prior to awarding works and to remain on website	FMEEnv, NPHCDA Website, State Ministry of Environment, Local government Secretariat, World Bank Infoshop.

## CHAPTER SEVEN: GRIEVANCE REDRESS MECHANISM (GRM)

Grievance mechanisms are increasingly important for development projects where ongoing risks or adverse impacts are anticipated. To manage these social and other risks with a view to ensuring successful project development and implementation, experience has revealed that open dialogue and collaborative grievance resolution represent the best practice.

Having a GRM shows willingness for transparency in any project. For a GRM to be effective as an all-inclusive engagement tool, it must be structured to accommodate everyone from the public and private PHC to the general public. In addition, clear procedures must be established for complaints and made easily available to the public by way of public notices and signs posted in all participating PHCs. The FMoH, SMoH, NERICC, SERICC and LERICC should be an integral part of the GRM.

The grievance mechanisms will

- Provide a way to reduce risk for projects;
- Provide an effective avenue for expressing concerns and achieving remedies for grievants;
- Promote a mutually constructive relationship; and
- Prevent and address community concerns.

### 7.1 Guiding Principles

The GRM for the AF3 should be designed on the following universal principles:

- **Accessibility and Social Inclusion:** The process has to be accessible to everybody that feels aggrieved and affected by the project regardless of age, gender or economic status in the communities. Vulnerable groups including women, children and the physically challenged should have the same equal opportunities and access to present their complaints without complications as with other people.
- **Simplicity:** the filing of complaints and grievances will be kept simple and the process of redress will be easily understandable by all stakeholders and the public.
- **Transparency:** The system will encourage both positive and negative feedbacks. These feedbacks will be made available to all stakeholders to ensure they are adequately informed on issues that might hinder or enhance the sustenance of the project. The GRM will view and analyze all issues with transparent objectivity.
- **Inclusivity:** It is important that representatives of the community and stakeholders are involved in the GRM and everybody kept informed on any progress made in them.
- **Due Process and Impartiality:** Every grievant will have the right to be present and be heard before a duly constituted body saddled with the responsibility of hearing and

managing their grievances. The mechanism will be independent so that it will be perceived as fair by all.

- **Quick Action:** Response to grievance and feedbacks will be prompt and direct to the grievant or the feedback provider. Grievances will be acknowledged at the point of uptake and the ensuing decisions will be communicated within 48 hours of reaching them.
- **Qualification:** Personnel that would be involved in grievance redress should have basic communications skills as well as mediation, reconciliation and negotiation training.
- **Grievance Uptake Points:** There will be specified grievance uptake points where grievances/complaints will be lodged. The time frame for a response will be known to the grievant. Investigation and deliberations on the complaint will be publicly disclosed and communicated promptly.
- **Analysis:** In grievance redress it is important for handlers to be clear on all the issues. The first step is an honest appraisal of whether the feedback is proactive or reactive. Facts have to be established against the interest and goal of grievant. Fact-finding is essential for meaningful and sustainable grievance/conflict redress. The handlers of grievance redress also need to appraise the complaints against relevance to the project and the project policies. Grievance handlers also need to know the category of grievance involved and treat accordingly. Grievances need to be characterized both for the sake of proper redress and for evaluation purpose.

## 7.2 Grievance Redress Process

The best solutions to conflicts and grievances are generally achieved through localized mechanisms that take account of the specific issues, cultural context, local customs and project conditions and scale.

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

- Receive and register a complaint;
- Screen and assess the complaint;
- Formulate a response (within a specified time frame);
- Select a resolution approach;
- Implement the approach;
- Settle the issues;
- Track and evaluate results;
- Complaint escalate to appeal if not satisfactorily resolved at the first level;
- Monitoring and reporting to project management to detect systemic problems; and
- Learn from the experience and communicate back to all parties involved.

### 7.3 Expectation When Grievances Arise

When project stakeholders and beneficiaries present a grievance, they generally expect to receive one or more of the following:

- Acknowledgement of their problems/issues/concerns;
- An honest response to questions/issues brought forward; and
- An apology, adequate compensation, modification of the conduct that caused the grievance.

In voicing their concerns, the grievant expect to be heard with their complaints taken as important. Therefore, the contractor or government officials must convince people that they can voice grievances and work to resolve them without retaliation. To address these challenges, contractors are expected to work with their host communities to fund non-judicial, dialogue-based approaches for preventing and addressing community grievances.

The overall process of grievance shall take the following path;

- During the initial stages of the valuation process, the affected persons are given copies of grievance procedures as a guide on how to handle the grievances;
- The process of grievance redress will then start with the registration of the grievances to be addressed and to enable progress updates of the cases.

The response time will depend on the issue to be addressed but it should be addressed with efficiency. Nevertheless, Grievance form will be filled by the grievant with the Grievance Redress Committee which will act on it within 10 working days on receipt. If no understanding or amicable solution is reached, or the grievant does not receive a response from the first level of the GRM within 15 working days, the affected person can appeal to a designated office in the PMU, which should act on the complaint/grievance within 15 working days of its filing.

All reasonable attempts shall be made to settle any arising grievance amicably. If the grievant is not satisfied with the decision received, he/she can, as a last resort, appeal to a court of competent jurisdiction.

For Polio AF 3, it is recognized that the formal legal mechanisms for grievance redress tend to be lengthy, thus an informal GRM through the PIU Safeguard Units will be established. This unit will operationalize the GRM which is designed with the objective of solving disputes at the earliest possible time which will be in the interest of all parties concerned and therefore implicitly discourages referring such matters to the law courts for resolution which will otherwise take a considerably longer time.

## 7.4 Grievance Log

The Grievance Redress Officer in the PIU will ensure that each complaint has an individual reference number, and is appropriately tracked and recorded actions are completed. The log also contains a record of the person responsible for an individual complaint, and records dates for the following events:

- Date the complaint was reported;
- Date the Grievance Log was uploaded onto the project database;
- Date information on proposed corrective action sent to complainant (if appropriate) the date the complaint was closed out date response was sent to complainant.

## 7.5 Monitoring Complaints

The Grievance Redress Officer will be responsible for producing a monthly report detailing the number and status of complaints any outstanding issues to be addressed monthly reports, including analysis of the type of complaints, levels of complaints, actions to reduce complaints and initiator of such action.

## 7.6 Grievance Procedure for NPESP AF3

- **Registration:** This should be the first step and will involve the social contact person/institution receiving the complaint from the complainant. The complainant is expected to fill out and return a “complainant form” to the social Contact person/institution who in turn will acknowledge receipt of the complaint within 2 business working days.
- **Verification:** The verification will determine among other things whether the matter has any relationship with the Project and whether the level at which it is presented can handle it. This will mean a quick referral of the case either to the next level or the traditional rulers or to law enforcement. Part of investigation will also be assessing the cost of loss or risk involved in the grievance.
- **Processing:** The processing step is when options for the approach to resolving the case are weighed and determined. Parties involved in the case are brought together for a first attempt at resolution with suggestion from the parties by the social contact personnel. The social personnel at a certain level then decide where the case should go to for hearing and resolution if complainant decides to pursue the matter further. This should happen within five days from investigation.
- **Implementation and case closing:** The social contact personnel then refers the case to the responding authority within the level for GRM implementation. This authority may be the chairman of the GRC or the officers with direct responsibility over the nature of the



case within the PMU. Putting this in writing makes the appeal process faster in case of dissatisfaction on the part of the complainant. The outcome of the Grievance Redress process is therefore communicated to the complainant and other concerned party. The result of the process can vary. The request of the complainant may be turned down, compensation may be recommended, or Management may simply apologize to the grievant.

## CHAPTER EIGHT: STAKEHOLDER CONSULTATION

Stakeholder Consultations are a key tool for transparent and informed project implementation and policy-making.

### 8.1 Objectives

Consultations are conducted to ensure the project is carried out effectively within budget and agreed timelines and to make certain all stakeholders are involved in the process of implementing the NPESP AF3.

The following principles should be at the fore front when carrying out consultations

- Promotion of easiest means and modes of communication;
- Openness to the true state and plan of the NPESP AF3;
- Ensuring effective and deep rooted involvement of all stakeholders in the development of the project;
- Helping and increasing relevant stakeholders understanding of the project, project goals and the implementation processes;
- Using all strategies and techniques that provide prompt and adequate opportunities for all stakeholders to get involved in the project; and
- Evaluating the effectiveness of the engagement plan against the expected outcomes.

### 8.2 Outcome and Discussions from Stakeholder Consultation

A stakeholders’ consultation was held on 5 February 2018 in Abuja. In attendance included staff of NPHCDA, Lagos State Primary Healthcare Board (LSPHCB), Kano SPHCB, NERICC, FMoF, WHO, UNICEF, North West Zonal Cold Chain Officer, South West Zonal Cold Chain Officer. See Annex Eight for the attendance sheet.

**Table 8.1: Summary of the Outcome of Stakeholders Consultation**

ITEMS	DESCRIPTION
Date of Public consultation	5 February 2018
Name of Stakeholders (community)	FMoH, FMEEnv, FMoF, NPHCDA, WHO, UNICEF, NERICC, LSPHCB, KSPHCMB
Language of communication	English
Introduction	The consultant explained to all stakeholders the World Bank Safeguards Policies as well as the ESMF. He explained the purpose and importance of conducting the ESMF prior to commencement of the project and explained that after screening there could be a need to carry out further reports such as an EA or and EMP. He also explained the scope of the

	<p>ESMF and why it was very important to carry out the stakeholders consultation at this stage of the project.</p> <p>After which discussions bothering around project implementation, environmental and social impacts such as health care waste management ensued.</p>
<p>Response and feedback from stakeholders about the project</p>	<ul style="list-style-type: none"> <li>▪ They expressed good understanding of the proposed project and happiness the project was about to commence.</li> <li>▪ Dr Bassey Okposen explained in depth the monitoring at the local government and state levels as well as the KPI which the Technical Assistants (TA) would be expected to meet.</li> </ul>
<p>Concerns/Complaints</p>	<ul style="list-style-type: none"> <li>▪ The stakeholders made it clear that there could be concerns as regards two types of waste streams which included:             <ul style="list-style-type: none"> <li>▪ Construction waste; and</li> <li>▪ Healthcare waste.</li> </ul> </li> <li>▪ Modibo Kassogue (UNICEF) hoped the time frame for disclosure would be as soon as possible. He also sought confirmation as to who was going to fund the ESMF and who would pay for the mitigation costs.</li> <li>▪ There were slight concerns raised over the transportation of vaccines to the other 12 states to which rather than purchasing vehicles, it could be outsourced. Hajia Kubura Daradara (Dir Logistics and Health Commodities, NPHCDA) revealed there are already laid down criteria for engaging haulage companies which include but not limited to Comprehensive insurance and Goods in transportation insurance and police escorts.</li> <li>▪ Another issue raised was that of electricity which it was revealed there could be need to buy 500kva generators for the stores</li> </ul>
<p>Remarks/Recommendations</p>	<p>Major concerns were about the waste management and the expected waste increase expected once the project commences. A healthcare waste management plan can be adapted from NSHIP to cater for and manage HCW from the various PHCs.</p>

## ANNEX ONE: SUMMARY OF WORLD BANK ENVIRONMENTAL AND SOCIAL SAFEGUARD POLICIES.

- **Environmental Assessment (OP 4.01).** Outlines Bank policy and procedure for the environmental assessment of Bank lending operations. The Bank undertakes environmental screening of each proposed project to determine the appropriate extent and type of EA process. This environmental process will apply to all sub-projects to be funded by AF3.
- **Natural Habitats (OP 4.04).** The conservation of natural habitats, like other measures that protect and enhance the environment, is essential for long-term sustainable development. The Bank does not support projects involving the significant conversion of natural habitats unless there are no feasible alternatives for the project and its siting, and comprehensive analysis demonstrates that overall benefits from the project substantially outweigh the environmental costs. If the environmental assessment indicates that a project would significantly convert or degrade natural habitats, the project includes mitigation measures acceptable to the Bank. Such mitigation measures include, as appropriate, minimizing habitat loss (e.g. strategic habitat retention and post-development restoration) and establishing and maintaining an ecologically similar protected area. The Bank accepts other forms of mitigation measures only when they are technically justified. Should the sub-project-specific ESMPs indicate that natural habitats might be affected negatively by the proposed sub-project activities with suitable mitigation measures, such sub-projects will not be funded under the AF3.
- **Pest Management (OP 4.09).** The policy supports safe, effective, and environmentally sound pest management. It promotes the use of biological and environmental control methods. An assessment is made of the capacity of the country's regulatory framework and institutions to promote and support safe, effective, and environmentally sound pest management. This policy does not apply to the AF3.
- **Involuntary Resettlement (OP 4.12).** This policy covers direct economic and social impacts that both result from Bank-assisted investment projects, and are caused by (a) the involuntary taking of land resulting in (i) relocation or loss of shelter; (ii) loss of assets or access to assets, or (iii) loss of income sources or means of livelihood, whether or not the affected persons must move to another location; or (b) the involuntary restriction of access to legally designated parks and protected areas resulting in negative impacts on the livelihoods of the displaced persons. This policy does apply to the AF3 sub-projects.
- **Indigenous Peoples (OP 4.10).** This directive provides guidance to ensure that indigenous peoples benefit from development projects, and to avoid or mitigate negative effects of Bank-financed development projects on indigenous peoples. Measures to address issues pertaining to indigenous peoples must be based on the informed participation of the indigenous people

themselves. Sub-projects that would have negative impacts on indigenous people will not be funded under AF3.

- **Forests (OP 4.36).** This policy applies to the following types of Bank-financed investment projects: (a) projects that have or may have impacts on the health and quality of forests; (b) projects that affect the rights and welfare of people and their level of dependence upon or interaction with forests; and (c) projects that aim to bring about changes in the management, protection, or utilization of natural forests or plantations, whether they are publicly, privately, or communally owned. The Bank does not finance projects that, in its opinion, would involve significant conversion or degradation of critical forest areas or related critical habitats. If a project involves the significant conversion or degradation of natural forests or related natural habitats that the Bank determines are not critical, and the Bank determines that there are no feasible alternatives to the project and its siting, and comprehensive analysis demonstrates that overall benefits from the project substantially outweigh the environmental costs, the Bank may finance the project provided that it incorporates appropriate mitigation measures. Sub-projects that are likely to have negative impacts on forests will not be funded under AF3.
- **Physical Cultural Resources (OP 4.11).** The term “cultural property” includes sites having archaeological (prehistoric), paleontological, historical, religious, and unique natural values. The Bank’s general policy regarding cultural property is to assist in their preservation, and to seek to avoid their elimination. Specifically, the Bank (i) normally declines to finance projects that will significantly damage non-replicable cultural property, and will assist only those projects that are sited or designed so as to prevent such damage; and (ii) will assist in the protection and enhancement of cultural properties encountered in Bank-financed projects, rather than leaving that protection to chance. The management of cultural property of a country is the responsibility of the government. The government’s attention should be drawn specifically to what is known about the cultural property aspects of the proposed project site and appropriate agencies, NGOs, or university departments should be consulted; if there are any questions concerning cultural property in the area, a brief reconnaissance survey should be undertaken in the field by a specialist. The AF3 will fund sub-projects that will have negative impacts on cultural property.
- **Safety of Dams (OP 4.37).** For the life of any dam, the owner is responsible for ensuring that appropriate measures are taken and sufficient resources provided for the safety to the dam, irrespective of its funding sources or construction status. The Bank distinguishes between small and large dams. Small dams are normally less than 15 m in height; this category includes, for example, farm ponds, local silt retention dams, and low embankment tanks. For small dams, generic dam safety measures designed by qualified engineers are usually adequate. This policy does apply to AF3 since the policy is triggered under the project.
- **Projects on International Waterways (OP 7.50).** The Bank recognizes that the cooperation and good will of riparians is essential for the efficient utilization and protection of

international waterways and attaches great importance to riparian's making appropriate agreements or arrangement for the entire waterway or any part thereof. Projects that trigger this policy include hydroelectric, irrigation, flood control, navigation, drainage, water and sewerage, industrial, and similar projects that involve the use or potential pollution of international waterways. This policy will not apply to AF3.

- **Disputed Areas (OP/BP/GP 7.60).** Project in disputed areas may occur the Bank and its member countries as well as between the borrower and one or more neighboring countries. Any dispute over an area in which a proposed project is located requires formal procedures at the earliest possible stage. The Bank attempts to acquire assurance that it may proceed with a project in a disputed area if the governments concerned agree that, pending the settlement of the dispute, the project proposed can go forward without prejudice to the claims of the country having a dispute. This policy is not triggered by sub-projects activities therefore will not be funded by the AF3.

## ANNEX TWO: SCREENING REPORT FOR STANDARD FORMAT AND SCREENING CHECKLIST

### 1. GENERAL DESCRIPTION

- 1.1. Overview of State /Local Governments
- 1.2. List of relevant existing MDAs

### 2. PROJECT-SPECIFIC SCREENING:

- 2.1. Existing alignment
- 2.2. Proposed Works
- 2.3. Estimated Cost
- 2.4. Summary of Environment and Social Issues
  - 2.4.1. Land Resources
  - 2.4.2. Hydrology and Water Resources
  - 2.4.3. Air and Noise
  - 2.4.4. Biological Resources
  - 2.4.5. Socio-Economic and Cultural
    - 2.4.5.1. Population
    - 2.4.5.2. Employment and Other Benefits
    - 2.4.5.3. Other site-specific issues
- 2.5. Environment Screening Category
- 2.6. Applicable Safeguard Policies

### 3. STATE/LOCAL GOVERNMENT ESMP

### 4. ATTACHMENTS

- 4.1. Construction Maps/ Drawings
- 4.2. Photos
- 4.3. Location and Administrative Maps
- 4.4 Environment and Social Checklist

## ANNEX THREE: ESMP FRAMEWORK

ENVIRONMENTAL ASPECTS IMPACTS AND MITIGATIONS									
	ENVIRONMENTAL PARAMETER	DESCRIPTIONS	MITIGATION MEASURES	RESPONSIBILITY	MITIGATION COST (USD)	PARAMETER TO MEASURE	METHOD OF MEASURING	LOCATION OF SAMPLING	MONITORING RESPONSIBILITY
ECOSYSTEM	LOSS OF FLORA	<p><b>Pre-Construction and Construction Phases</b>                      Rehabilitation works could possibly involve the removal of vegetation cover in a bid to create work areas. This loss of plant cover could lead to vegetation loss and exposure of the top soil. Depending on the topography of the area, the removal of the vegetation cover and the subsequent exposure of the top soil could start the process of erosion</p>	<ul style="list-style-type: none"> <li>▪The Contractor should minimize the work site to the minimum possible size in an attempt to minimize the destruction on flora were found and thus prevent of ecological damages.</li> <li>▪Removal of vegetation should be reduced to the barest minimum</li> <li>▪Ecological restoration through environmental engineering should be undertaken after any human intervention. This may include restoration of top soils and introduction of local plant species to restore the local ecology</li> </ul>	Contractor	200	Area of vegetation cover	Visual observation	Project site	FMEnv/ SMoE, NPHCDA, NERICC, SERICC LERICC and PIU
	LOSS OF FAUNA	<p><b>Pre-Construction and Construction Phases</b>                      The removal of top soil could reduce the habitat of a number of organisms. This will alter the food chain in that habitat and eventually create an imbalance in the immediate ecosystem depending on the scale of vegetation removed.</p>							
SOIL	SOIL CONTAMINATION	<p><b>Preconstruction, Construction and Operation &amp; Maintenance Phases</b>                      Soil can be contaminated from the spilling of petrol being used by generator sets and vehicles.</p>	<ul style="list-style-type: none"> <li>▪Civil works should be done during the dry seasons and NOT during the raining season. November to March in Lagos and October to April in Kano</li> <li>▪During civil works, all earth removed should be stored for use during foundation laying so as to reduce the amount of loose soil laying around</li> <li>▪Soils excavated, lumped and gathered on-site should be covered by impermeable materials</li> </ul>	Contractor (during the Preconstruction and Construction phases) and LERICC (during the Operation Phase)	200	In Situ testing of xenobiotic contaminants and visual observation	Visual observation	Project site	FMEnv/ SMoE, NPHCDA, NERICC, SERICC LERICC and PIU
	SOIL EROSION	<p><b>Preconstruction, Construction and Operation &amp; Maintenance Phases</b>                      The topography of the sites will play a significant role in the process of erosion. When vegetation is removed and the top soil is exposed, the sun tends to dry up the moisture in the soil and water and wind acting under the force of gravity will push soils downhill. The steeper the slope the faster the rate of erosion in most cases.</p>							



WATER	AIR	<p><b>AIR POLLUTION AND QUALITY</b></p> <p><b>Preconstruction, Construction and Operation &amp; Maintenance Phases</b>                  Air pollution may arise from the indiscriminate open air burning of wastes such as woods, plastics and other wastes generated during the construction and operation phases. Air pollution could also occur from using diesel powered generator sets and vehicles with poor or high emission rates being used for transportation of vaccines. All these activities would negatively affect air quality. Also waste stored for too long on site could release offensive smells into the atmosphere</p>	<ul style="list-style-type: none"> <li>▪ Burning of wastes at site should be avoided to reduce air pollution during all phases of the project.</li> <li>▪ Vehicles and machinery used should be well serviced with low emission ratings.</li> <li>▪ All waste should be directed to an approved dumpsite.</li> </ul>	Contractor (during the Preconstruction and Construction phases) and LERICC (during the Operation Phase)	500	Suspended Particulates such as TSP, PM <sub>10</sub> , SO <sub>2</sub> , NO <sub>x</sub> , CO and THC	Visual observation, Public complaints and health related sicknesses	In and around 100 metres of project site	FMEnv/ SMOE, NPHCDA, NERICC, SERICC LERICC and PIU
	WATER	<p><b>SURFACE WATER CONTAMINATION</b></p> <p><b>Preconstruction, Construction and Operation &amp; Maintenance Phases</b>                  Accidental spillage of fuel, lubricants and other chemicals may run-off onto surface waters and eventually into streams. This can lead to surface water contamination and eutrophication in extreme cases. Also infiltration of wastes such as unfinished chemicals and paints can find their way into surface water drainages causing contamination.</p>	<ul style="list-style-type: none"> <li>▪ Proper containment of water being used for rehabilitation works</li> <li>▪ Tanks and storage facilities should be placed on impermeable surfaces</li> <li>▪ All storage facilities should have collecting trays in case of tank leakages</li> </ul>	Contractor (during the Preconstruction and Construction phases) and LERICC (during the Operation Phase)	500		Visual observation, Public complaints and health related sicknesses	In and around 100 metres of project site	FMEnv/ SMOE, NPHCDA, NERICC, SERICC LERICC and PIU
WATER	<p><b>GROUNDWATER CONTAMINATION</b></p> <p><b>Preconstruction, Construction and Operation &amp; Maintenance Phases</b>                  Fuel, diesel and other lubricants leakages from storage tanks, light machinery and vehicles can infiltrate/percolate into the soil and find their way into the ground water causing groundwater contamination. The human effect of this is more pronounced if the source of water is a borehole drilled in or around the site. Lastly, leachate produced at onsite dump sites could percolate into ground waters causing contamination</p>		Contractor (during the Preconstruction and Construction phases) and LERICC (during the Operation Phase)	FMEnv/ SMOE, NPHCDA, NERICC, SERICC LERICC and PIU					

SOCIAL ASPECTS IMPACTS AND MITIGATIONS									
	SOCIAL PARAMETER	DESCRIPTIONS	MITIGATION MEASURES	RESPONSIBILITY	MITIGATION COST (USD)	PARAMETER TO MEASURE	METHOD OF MEASURING	LOCATION OF SAMPLING	MONITORING RESPONSIBILITY
PUBLIC HEALTH AND SAFETY	PUBLIC HEALTH HAZARDS	<p><b>Preconstruction, Construction and Operation &amp; Maintenance Phases</b></p> <ul style="list-style-type: none"> <li>Waste generated on site if not managed properly could accumulate, produce foul smells, and attract insects and rodents which inevitably would have health implications on the general public.</li> <li>The release of carbon monoxide from machinery and vehicles into the atmosphere can cause illnesses such as asthma to those residing around the health facility.</li> <li>Water left to accumulate in areas without being drained, would result in breeding habitats for mosquitoes and this could increase the occurrence of malaria.</li> </ul>	<ul style="list-style-type: none"> <li>Stagnant water on the construction site should be avoided through proper maintenance of the site and through the removal of water from trenches especially after rainfall.</li> <li>Waste generated on-site should be evacuated at least once a week</li> <li>Waste should be stored inside impermeable containers</li> <li>Select an exhaust system with lowest emission rates</li> <li>Ensure well maintained machinery to reduce emission levels</li> <li>Select an exhaust system with lowest emission rates</li> </ul>	Contractor (during the Preconstruction and Construction phases) and LERICC (during the Operation Phase)	500	Frequency and number of construction related sicknesses	Visual observation, Public complaints and construction related injuries	In and around 50 metres of project site	FMEEnv/SMoE, NPHCDA, NERICC, SERICC LERICC and PIU
	PUBLIC SAFETY	<p><b>Preconstruction and Construction Phases</b></p> <ul style="list-style-type: none"> <li>Easy access to site areas could pose hazards to the public.</li> <li>Construction items such as nails, broken wood can be harmful to the public</li> <li>Items such as blocks, paint buckets, roofing items could fall down injuring passers-by</li> </ul>	<ul style="list-style-type: none"> <li>Prohibition of access to the work site by unauthorized persons</li> <li>Areas occupied by operational, mechanical and electrical machinery and equipment should be marked as 'restricted' and cordoned off from the public</li> <li>Proposed site should be completely marked and cordoned off to prevent access by the public</li> <li>Local Exhaust Ventilation (LEV) to extract the dust close to the source</li> </ul>	Contractor	500	Frequency and number of construction related injuries	Visual observation, Public complaints and construction related sicknesses	In and around 50 metres of project site	FMEEnv/SMoE, NPHCDA, NERICC, SERICC LERICC and PIU

			<ul style="list-style-type: none"> <li>Vertical &amp; perimeter debris netting should be used around building particularly in Lagos where expansion works will take place</li> </ul>						
OCCUPATIONAL HEALTH AND SAFETY	OCCUPATIONAL HEALTH	<p><b>Preconstruction and Construction Phases</b></p> <ul style="list-style-type: none"> <li>Handling and use of dangerous substances and wastes and inhaling fumes will expose the workers to occupational health risks.</li> <li>Loud noise and vibrations will result from the use of equipment such as generators, vehicles, drilling machines (in the case of burrowing) etc. Such noise can easily exceed 90dBA.</li> </ul>	<ul style="list-style-type: none"> <li>Civil work should be avoided at night.</li> <li>Dampen areas with water before dust collection</li> <li>Select an exhaust system with lowest emission rates</li> <li>Limit the time of exposure of workers in dusty areas</li> <li>Rotate workers to other areas so that individual operatives do not get a high exposure</li> </ul>	Contractor	1,000	Frequency and number of occupational related sicknesses	Visual observation, worker complaints and construction related sicknesses	Project site	FMEEnv/SMoE, NPHCDA, NERICC, SERICC LERICC and PIU
	OCCUPATIONAL SAFETY	<p><b>Preconstruction and Construction</b></p> <ul style="list-style-type: none"> <li>Construction works such as excavations, working with heavy equipment working in confined spaces, working under noisy conditions, heavy lifting will expose the workers to occupational safety risks</li> </ul>	<ul style="list-style-type: none"> <li>Workers should be equipped with appropriate Protective Personal Equipment (PPE) and use of PPEs should be enforced at all times</li> <li>There should be a first aid kit at all times on each site</li> <li>Clear markings and signage should be used in all areas of the site</li> </ul>	Contractor	1,000	Frequency and number of occupational related injuries	Visual observation, worker complaints and construction related injuries	Project site	FMEEnv/SMoE, NPHCDA, NERICC, SERICC LERICC and PIU
SOCIAL AND COMMERCIAL	COMMERCIAL ACTIVITIES	<p><b>Preconstruction and Construction</b></p> <ul style="list-style-type: none"> <li>The noise associated with construction equipment and possible blockages of roads would serve to deter commercial activities on a temporary bases.</li> <li>If the rehabilitation activities during the AF3 spread over a significant period of time. This without adequate planning, communication of activities and construction activities may cause traffic disruptions and congestion, resulting in temporary disturbance and interruption of commercial and social activities.</li> </ul>	<ul style="list-style-type: none"> <li>PMU should ensure civil works progress on schedule by supervising contractors</li> <li>Well serviced equipment should be used at all times during construction</li> <li>Contractor to put in place a Traffic Management Plan in to be cleared and supervised by Resident Engineer( RE)</li> </ul>	Contractor	200			In and around 50 metres of project site	FMEEnv/SMoE, NPHCDA, NERICC, SERICC LERICC and PIU

	<p><b>SOCIAL ACTIVITIES</b></p>	<p><b>Preconstruction, Construction and Operation &amp; Maintenance Phases</b></p> <ul style="list-style-type: none"> <li>There would be increase in the demand for basic services due to temporary influx of workers.</li> <li>There could be occurrences of child labour particularly in Kano State (where 55.1%<sup>2</sup> of children are engaged in child labour).and to a lesser degree in Lagos State.</li> <li>There is a potential for petty crime to increase in proposed sub project areas as influx of people particularly workers increases</li> </ul>	<ul style="list-style-type: none"> <li>To avoid impacts associated with influx of workers, labor will be sourced locally as anticipated civil works will be in two of Nigeria’s biggest cities ( Kano and Lagos)</li> <li>A code of conduct would be for contractor employees and contract workers, acknowledging a zero-tolerance policy towards child labor and child sexual exploitation (with contractor/RE/implementing agency held accountable for enforcement). In addition, there would be sanctions in the contracts for non-compliance (e.g. , termination)</li> <li>Training of workforce about refraining from unacceptable conduct as well as informing workers about national laws</li> <li>There should be designated and approved areas for basic services such as canteens, restaurants and temporary car transport parks</li> <li>Adequate security measure will be put in place</li> </ul>	<p>Contractor (during the Preconstruction and Construction phases) and LERICC (during the Operation Phase)</p>	<p>500</p>			<p>In and around 50 metres of project site</p>	<p>FMEEnv/ SMoE, NPHCDA, NERICC, SERICC LERICC and PIU</p>
<p>WASTE</p>	<p><b>WASTE GENERATION</b></p>	<p><b>Preconstruction, Construction and Operation &amp; Maintenance Phases</b></p> <ul style="list-style-type: none"> <li>There is an expected increase in waste generated if not managed properly, could be harmful to the public and in extreme cases hazardous waste could lead to disease outbreak</li> </ul>	<ul style="list-style-type: none"> <li>Ensure proper handling, and disposal of wastes</li> <li>Waste must be stored temporarily in designated areas daily</li> <li>Waste should be evacuated weekly</li> <li>On site waste collection and storage points should be located</li> </ul>	<p>Contractor</p>	<p>300</p>		<p>Visual observation, worker complaints and construction related injuries</p>	<p>Project site</p>	<p>FMEEnv/ SMoE, NPHCDA, NERICC, SERICC LERICC and PIU</p>

<sup>2</sup> SOURCE: National Bureau of Statistics (NBS) 2017 Multiple Indicator Cluster Survey (MICS)

		<ul style="list-style-type: none"> <li>Waste generated on site if not managed properly could accumulate and become unpleasant sights to the area.</li> </ul>	<p>in areas that can easily be accessed by waste collection trucks without hindrance to traffic on the main road.</p> <p>For HCW</p> <ul style="list-style-type: none"> <li>A well detailed HCWMP should be put in place and should be prepared in accordance with the                             <ul style="list-style-type: none"> <li>National Healthcare Waste Management Policy</li> <li>National Healthcare Waste Management Guidelines (NHCWVG)</li> <li>National Healthcare Waste Management Plan (NHCWMP)</li> </ul> </li> </ul>						
	<b>WASTE MANAGEMENT</b>	<ul style="list-style-type: none"> <li>Waste dumped besides roads may intrude onto the roads causing vehicular hold ups and accidents.</li> <li>When waste is stored for a long time, leachates may form and this could in turn percolate into the soil beneath thereby contaminating it.</li> </ul>		Contractor (during the Preconstruction and Construction phases) and LERICC (during the Operation Phase)	1,000		Visual observation, worker complaints and construction related injuries	Project site	FMEEnv/ SMoE, NPHCDA, NERICC, SERICC LERICC and PIU
				<b>TOTAL</b>	<b>6,100</b>				

## ANNEX FOUR: ENVIRONMENTAL AND SOCIAL MANAGEMENT RATINGS

Table A2: Potential Environmental Impacts and their Level of Significance for Kano State (Pre Construction and Construction Phases)

ENVIRONMENTAL ASPECT	SUB ENVIRONMENTAL ASPECT	SIGNIFICANCE OF ENVIRONMENTAL ASPECT	MAGNITUDE OF IMPACT	SPATIAL EXTENT OF IMPACT	DURATION OF IMPACT	SIGNIFICANCE OF IMPACT	RATING PER ASPECT	OVERALL RATING
VEGETATION	Fauna	5	1	1	1	2	2	2.0
	Flora	5	2	1	1	1	2	
SOIL	Contamination	1	1	1	1	1	1	1.0
	Erosion	1	1	1	1	1	1	
AIR	Pollution/ Air Quality	3	1	1	1	1	1.4	1.4
WATER	Groundwater Pollution	1	1	1	1	1	1	1.1
	Surface water Pollution	2	1	1	1	1	1.2	
	Flooding	1	1	1	1	1	1	
WASTE	Generation	4	3	1	2	4	2.8	2.9
	Management	4	4	1	2	4	3	

Table A3: Potential Environmental Impacts and their Level of Significance for Lagos State (Pre Construction and Construction Phases)

ENVIRONMENTAL ASPECT	SUB ENVIRONMENTAL ASPECT	SIGNIFICANCE OF ENVIRONMENTAL ASPECT	MAGNITUDE OF IMPACT	SPATIAL EXTENT OF IMPACT	DURATION OF IMPACT	SIGNIFICANCE OF IMPACT	RATING PER ASPECT	OVERALL RATING
VEGETATION	Fauna	2	1	1	1	1	1.2	1.2
	Flora	2	1	1	1	1	1.2	
SOIL	Contamination	1	1	1	1	1	1	1.2
	Erosion	3	1	1	1	1	1.4	
AIR	Pollution/ Air Quality	5	1	1	1	3	2.2	2.2
WATER	Groundwater Pollution	1	1	1	1	1	1	1.1
	Surface water Pollution	2	1	1	1	1	1.2	
	Flooding	2	1	1	1	1	1	
WASTE	Generation	4	3	1	2	4	2.8	2.9
	Management	4	4	1	2	4	3	

Table A4: Potential Environmental Impacts and their Level of Significance for Kano and Lagos States (Operation and Maintenance Phase)

ENVIRONMENTAL ASPECT	SUB ENVIRONMENTAL ASPECT	SIGNIFICANCE OF ENVIRONMENTAL ASPECT	MAGNITUDE OF IMPACT	SPATIAL EXTENT OF IMPACT	DURATION OF IMPACT	SIGNIFICANCE OF IMPACT	RATING PER ASPECT	OVERALL RATING
VEGETATION	Fauna	4	1	1	1	1	1.6	1.6
	Flora	4	1	1	1	1	1.6	
SOIL	Contamination	1	1	1	1	1	1.0	0.48
	Erosion	2	1	2	1	1	1.4	
AIR	Pollution/ Air Quality	4	2	1	1	1	1.8	1.8
ATER	Groundwater Pollution	1	1	1	1	1	1.0	0.68
	Surface water Pollution	2	1	1	1	1	1.2	
	Flooding	2	1	1	1	1	1.2	
WASTE	Generation	4	4	1	4	4	3.4	3.4
	Management	4	4	1	4	4	3.4	

Rating Code

RATING	CLASSIFICATION
1.0 to 2.0	Low
2.1 to 4.0	Medium
4.1 to 5.0	High

## Rationale Used in Rating Potential Impacts

CONSIDERATION	DESCRIPTION
<b>Significance of Environmental / Social Aspect</b>	<p>This takes into consideration the importance of the environmental and social aspects that would be effected. Also taken into consideration is the location of which the aspect will be impacted. For example, in Kano state where top soil loss is an environmental problem, the soil and vegetation aspect of the environment will be given more importance than in Lagos where vegetation loss is less of a major environmental issue.</p> <p>The baseline study is key in evaluating the significance of an environmental aspect in relation to the specific geographical location the proposed sub-project would take place.</p>
<b>Magnitude of Impact</b>	<p>This is the severity of each potential impact. The magnitude of an impact cannot be rated as high if it can be mitigated. The magnitude will also indicate whether the impact is reversible or irreversible.</p> <p><i>As with this project all impacts are envisaged to be reversible impacts.</i></p>
<b>Spatial Extent of Impact</b>	<p>The spatial geographical space over which an impact can be felt is also taken into consideration</p> <ul style="list-style-type: none"> <li>▪ <b>Site specific:</b> Impact is felt or limited to the geographical space of the project area</li> <li>▪ <b>Non-site specific:</b> Impact extends wider than just the project area.</li> </ul> <p><i>As with this project all impacts are envisaged to be site specific impacts.</i></p>
<b>Duration of Impact</b>	<p>Environmental impacts have a temporal dimension</p> <p>An impact can also be</p> <ul style="list-style-type: none"> <li>▪ <b>Short Term:</b> Impact that lasts shorter than nine years after project completion;</li> <li>▪ <b>Medium Term:</b> Impact that last beyond 9 years but less than 20 years after project completion; and</li> <li>▪ <b>Long Term:</b> Impacts that last beyond 20 years after project completion.</li> </ul> <p><i>As with this project all impacts are envisaged to be short term impacts</i></p>
<b>Significance of Impact</b>	<p>This refers to the importance of the impact. Impacts must be evaluated using the same and appropriate choice of criteria. The most important forms of criteria often used include:</p> <ul style="list-style-type: none"> <li>▪ Specific legal requirements e.g. state, national laws, standards, international agreements and conventions, relevant policies etc;</li> <li>▪ Public views and complaints;</li> <li>▪ Threat to sensitive ecosystems and resources e.g. can the impact lead to extinction of species and depletion of resources, which can result, into conflicts;</li> <li>▪ Cost of mitigation;</li> <li>▪ Likelihood or probability of occurrence (very likely, unlikely, etc.);</li> <li>▪ Reversibility of impact (natural recovery or aided by human intervention);</li> <li>▪ Number (and characteristics) of people likely to be affected and their locations;</li> <li>▪ Cumulative impacts e.g. adding more impacts to existing ones; and</li> <li>▪ Uncertainty in prediction due to lack of accurate data or complex systems. Precautionary principle is advocated in this scenario.</li> </ul>



## ANNEX FIVE A: HEALTHCARE WASTE MANAGEMENT PLAN

This waste management plan is to address waste that could be generated during the civil works and the healthcare waste that will be generated during the operation and maintenance phase of this project. Annex 5B below addresses the potential environmental concerns around the handling of Health care waste resulting from project related activities such as Vaccination and Routine Immunization that generate healthcare waste such as expired vaccines and sharps.

It entails appropriate, cost effective and environment-friendly options for reduction, collection, handling, treatment and safe disposal of the waste streams in line with best practices.

### Objective of Waste Management Plan

The objectives of this WMP are:

- To assess the current waste management situation;
- To assess local handling, treatment and disposal options;
- Capacity- building Requirements for Staff;
- Waste Categorization Stream (types of waste);
- Waste Collection and Treatment; and
- Implementation Timetable.

The Table below shows the summary of a generic Waste Plan

PROJECT PHASE	DESCRIPTION	WASTE TREATMENT	RESPONSIBILITY	COST (\$)
CONSTRUCTION	Waste generated here will typically be cement blocks, nails, wood residues and chippings and saw dust, metals, glass, electrical & plumbing fixtures, debris, gravel, sand, cardboard	<ul style="list-style-type: none"> <li>▪ Ensure proper handling, and disposal of wastes</li> <li>Rehabilitation/Construction waste should be disposed weekly</li> <li>▪ Waste must be stored temporarily in designated areas daily</li> <li>▪ Waste should be evacuated weekly</li> <li>▪ On site waste collection and storage points should be located in areas that can easily be accessed by waste collection trucks without hindrance to traffic on the main road.</li> </ul>	Contractor	200
OPERATION AND MAINTENANCE	Waste generated in this phase will typically be health waste such as hazardous waste, materials potentially infected blood, Internal body organs, drugs, and vaccines, syringes, surgical blades, expired vaccines and drugs	<ul style="list-style-type: none"> <li>▪ A well detailed HCWMP should be put in place and should be prepared in accordance with the                             <ul style="list-style-type: none"> <li>○ National Healthcare Waste Management Policy</li> <li>○ National Healthcare Waste Management Guidelines (NHCWMP)</li> <li>○ National Healthcare Waste Management Plan (NHCWMP)</li> </ul> </li> </ul>	PHC	800
			<b>TOTAL</b>	<b>1,000</b>

## ANNEX FIVE B: HEALTHCARE WASTE CLASSIFICATION AND TREATMENT ACCORDING TO THE NHCWM

Table A. Waste Classification and Examples According to the NHCWM Guidelines 2013

S/N	CATEGORY OF WASTE	SUB CATEGORY OF WASTE TYPE	DESCRIPTION AND EXMAPLES	EXAMPLES OF WASTE	CLASS
A	<b>Non-hazardous and general wastes</b>		Waste that has not been contaminated with infectious materials or other hazardous materials.	Paper, cardboard, plastic, kitchen waste, ash, sawdust, pieces of wood segregated from hazardous waste	1
B	<b>Hazardous Healthcare Waste</b>	<b>Infectious waste</b>	Generated by both inpatients/out-patients or animals. It's likely to contain pathogenic micro-organisms and can be dangerous or infectious to both patients, health care workers and the public.	Laboratory waste, materials potentially infected blood, swabs, materials that have been in used in surgery or been in contact with patients	2
		<b>Chemical waste</b>	Wastes, including expired products, generated from the pharmacy, and from chemotherapy	Vials, connecting tubing, drugs, vaccines, pharmaceutical products, disinfection solutions, medicines, expired drugs, drugs, and vaccines	5
		<b>Pharmaceutical</b>			
		<b>Genotoxic</b>			
C	<b>Highly Hazardous Healthcare Waste</b>	<b>Sharps</b>	These are sharp-edged wastes that can cause cuts or puncture wounds. They are highly hazardous whether or not they are contaminated with blood	Needles, syringes, surgical blades, scalpels, test tubes, ampoules, glass instruments, pipettes,	3
		<b>Highly Infectious Waste</b>	These highly infectious wastes required immediate treatment by chemical disinfectants or autoclaving before joining the hazardous HCW stream.	Sputum cultures of TB laboratories, contaminated blood clots and glassware, highly concentrated microbiological cultures carried out in medical analysis laboratories	6

### Colour Coding For Primary Healthcare Facilities According to the NHCWM

COLOUR	WASTE CLASSIFICATION - WASTE CLASS		EXAMPLES
YELLOW	Hazardous Wastes	Infectious waste -Class 2	Laboratory waste, materials potentially infected blood, swabs
		Sharps - Class 3	Syringes with needles, blades
RED	Hazardous Wastes	Highly infectious wastes - Class 6	Cultures of TB laboratories, contaminated blood clots and glassware
BROWN	Hazardous Wastes	Chemical, Pharmaceutical Waste - Class 5	Vials, connecting tubing, drugs, vaccines, pharmaceutical products, disinfection solutions

## ANNEX SIX: STAKEHOLDERS CONSULTATION ATTENDANCE SHEET

NIGERIA POLIO ERADICATION SUPPORT PROJECT ADDITIONAL FINANCING							DATE: 05/02/2018
STAKEHOLDERS CONSULTATION ATTENDANCE SHEET							
S/N	NAME	MALE/FEMALE	DESIGNATION/ORGANIZATION	PHONE NUMBER	EMAIL	SIGN	
1	D. Akinlade O	F	IPO / LSPHCB	08023070979	drakinlade@outlook.com		
2	Bola Orefajo	F	LSPHCB / SIU	08023708701	Bolaitan31@gmail.com		
3	MUHAMMAD KASSOQUE	M	Immunization Manager UNICEF	08034025874	mkassoque@unicef.org		
4	MICHAEL ZAHARDI	M	Supply manager	07064184021	MZAHARDI@UNICEF.ORG		
5	BERNERY CHAWACHIYA	F	Procurement Services Specialist	0813464400	tchawachiya@unicef.org		
6	Mayowa Akade	F	sec/World Bank	07034276503	malade@worldbank.org		
7	OVEDE OTITE	M	ENVIRONMENTAL SAFETY SPECIALIST (WBS)	08111170519	OVEDE OTITE @GMAIL.COM		
8	Osakwe Eucharia	F	World Bank	08036781524	eosakwe@worldbank.org		
9	Ohwale Odutolu	M	World Bank	08056336614	aodutolu@worldbank.org		

NIGERIA POLIO ERADICATION SUPPORT PROJECT ADDITIONAL FINANCING							DATE: 01/02/2018
STAKEHOLDERS CONSULTATION ATTENDANCE SHEET							
S/N	NAME	MALE/FEMALE	DESIGNATION/ORGANIZATION	PHONE NUMBER	EMAIL	SIGN	
1	Matto Nfisiu	Male	NWZ-ZCCO NPHEDA	08064387333	mattonfisiu@npheda.com		
2	Pham Lam A. Nesechuan	F	National CDC-NPHEDA	0803544638	toniamianus@gmail.com		
3	Kubura Daradara	F	Ag Dir L. RHC.	08026253838	kubura@npheda.gov.ng		
4	Felicia B. Umoh	F	L.A, NPHEDA	08023036128	felicia.umoh@npheda.gov.ng		
5	Lawal (smail)	M	CAO / FMF	08062526276	ycmm@del@gmail.com		
6	AKINBOBOLA, Kehinde	F	SWZ -logistics officer	08035654421	kehinderand@yahoo.com		
7	Dr Bassey Okposen	M	pm - NERICE	08022373794	bassey.okposen@npheda.gov.ng		
8	Michael Ilesanmi	M	World Bank	08026713353	michael.ilesanmi@worldbank.org		
9	Samuel Kayang	M	WBS	08033323226	skayang@worldbank.org		
10	Dr M.N. Mahmoud	M	ES-Kano SPTCM	08037022026	mnmahmoud@yahoo.com		

## ANNEX SEVEN: TERMS OF REFERENCE

### NIGERIA POLIO ERADICATION SUPPORT PROJECT ADDITIONAL FINANCING 3

#### BACKGROUND

The Government of Nigeria in collaboration with the World Bank is currently implementing the Nigeria Polio Eradication Support Project Additional Financing 3. Under this new Additional Financing (AF3), the Bank will support the strengthening of the cold chain and supply logistics for immunization by addressing the insufficient cold and dry storage capacity in Lagos State and cold chain storage capacity in Kano State. By supporting the cold chain and logistics system, we are well assured that every Nigerian child will have access to vaccines of assured quality, delivered at the right time through efficient logistics, proper vaccine management and a functioning cold chain. This will also help address wastage of vaccines resulting from poor cold chain supply and logistics.

AF3 is designed similarly to AF1 and AF2 except for the addition of component 3. Thus AF3 has 3 components. The Components for AF3 are

- **Component 1: Polio Eradication Support (US\$65 million)**
  - Subcomponent 1a. Within this subcomponent, UNICEF will procure OPV (US\$50 million).
  - Subcomponent 1b: Polio Eradication Operations Support (US\$15 million)
- **Component 2: Routine Immunization Support (US\$69 million)**
- **Component 3: Health Systems Strengthening (newly introduced and proposed financing is US\$16 million)**
  - Component 3a. Expansion of two national Cold Chain hubs (in Lagos and Kano) the proposed AF will finance the expansion of the cold store in Lagos and renovate the Kano cold store (US\$8 million);
  - Component 3b. Supply Chain and Logistics Systems Strengthening – the proposed AF will finance the logistics strengthening (US\$3.5 million) including supply chain systems strengthening; and
  - Component 3c. Strengthening Management at national and sub-national levels (US\$4.5 million): To address the widely-perceived weaknesses in management of RI programs at national and sub-national levels, the AF will pilot a management strengthening approach and support the following activities in 12 poorly-performing states [Sokoto, Jigawa, Kebbi, Gombe, Adamawa, Zamfara, Kogi, Taraba, Nasarawa, Yobe, Bayelsa and Plateau].

#### A. OBJECTIVES OF THE ASSIGNMENT

The Consultant will support the health team to develop the Environmental and Social Management Framework (ESMF).

### **C. SCOPE OF WORK**

The selected consultant is expected to prepare Environmental and Social Management Framework (ESMF) for the Polio Eradication Support Project Additional Financing 3.

The Consultant is expected to liaise with the health team in order to understand the project coverage in Kano and Lagos States. S/he will need to work closely with the health team and other relevant stakeholders in the States.

### **D.CORE TASKS FOR THE CONSULTANT**

The consultant will be tasked with reviewing all available documentation from the sector to develop an Environmental and Social Management Framework (ESMF).

### **E. QUALIFICATION AND EXPERIENCE**

The consultant is expected to have previous experience in the preparation of Technical instruments/documents recognized by the World Bank. Strong country knowledge, knowledge of World Bank safeguard policies, Participation in World Bank Orientation on Safeguards Supervision for Consultants and Experience in Hazardous and/or Healthcare Waste Management will be an asset.

#### **Consultant's qualification**

- a) Degree in Medical Sciences or Environmental Sciences or any other science course
- b) M.Sc in any of the following disciplines
  - Public Health
  - Environmental Management
  - Or any other relevant discipline
- c) Experience in developing training manuals or other training documents for programs/projects funded by multilateral agencies specifically on Health Care Waste Management.
- d) At least 10 years working experience in Nigeria or in a developing country under similar condition
- e) Ability to cooperate and interact with stakeholders including facilitating meetings and workshops.
- f) Ability to assess complex situations, identifies critical issues, and derives appropriate conclusions and recommendations.

### **F. DELIVERABLES AND TIMING**

<b>Activities</b>	<b>Week 1</b>	<b>Week2</b>	<b>Week3</b>	<b>Week4</b>
Contract Signing	X			
Submission of Inception Reports	X			
Submission of Draft Reports		X		
Submission of Draft Final Reports			X	
Submission of Final Reports				X

#### **G. DURATION OF CONSULTANCY**

The study will be completed in 4 weeks.

#### **H. REPORTING**

The Consultant will report to the TTL of Nigerian Polio Eradication Support Project.