FEDERAL REPUBLIC OF NIGERIA



Federal Ministry of Education

Environmental and Social Management Framework (ESMF)

For

State Education Program Investment Project (SEPIP)

Additional Financing

FINAL REPORT

April, 2016

TABL	E OF CONTENTS	
LIST C	OF TABLES	3
LIST C	OF ACRONYMS	4
EXECU	UTIVE SUMMARY	<i>6</i>
CHAP	TER ONE: INTRODUCTION	12
1.1:	Project Background	12
1.4	Objectives of the Environmental and Social Management Framework (ESMF)	13
1.5	Study Approach and Methodology	
1.6	Assessment of Education Sector	15
CHAP	TER TWO: PROJECT DESCRIPTION	18
2.1	Project Overview	18
2.2	Project Objective	18
2.3	Proposed Project Components	18
New C	omponent 3 – Support to Insurgency – affected LGAs	20
CHAP	TER THREE: POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK	21
3.1	Policy Framework	21
3.2	Regulatory Framework	21
3.2	2.1 Federal Legislation	21
3.3	Applicable International Agreements	23
3.4	Assessment of the Policy and Regulatory Framework	24
3.5	Institutional Framework	
3.6	World Bank Safeguard Policies	27
CHAP	TER FOUR: BASELINE DATA	29
4.1	Project Area and Location	
4.2	Physical Environment of the States/Locations	
4.3.	Socio-Economics	
CHAP	FER FIVE: POTENTIAL ENVIRONMENTAL AND SOCIAL	42
IMPAC	CTS	42
5.1:	Environmental Impacts	42
5.2	Social and Health Impacts	43
CHAP	ΓER SIX: ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)	48
6.1	Mitigation Measures	48
6.2	Implementation Arrangement	49
6.3	Monitoring Plan	51
M	onitoring Procedure	
6.4	ESMP Cost Estimate	
CHAP	TER SEVEN: PUBLIC CONSULTATION	
7.1	Objectives	53
7.2	Stakeholders	
7.3	Consultation Strategies	
	XES	
	ex 1: Summary of World Bank Environmental and Social Safeguard Policies	
	ex 2: Environmental and Social Screening (ESS) of sub-projects	
	ex 3: Terms of Reference	
Anne	ex 4: Standard Format for Environmental and Social Management Plan (ESMP)	67

Project P	Generic Guidance on Environmental and Social Management Plan (ESMI hases	70
LIST OF FI	GURES	
Figure 1.0	Map of Nigeria showing the project States	29
Figure 1.1	SEPIP Implementation Arrangements	50
LIST OF TA		200 (200 7
Table 1.1	Some core indicators information for primary education in the states Session	
Table 1.2	Education Projects Typology	20
Table 3.1 Table 4.1	Existing National Environmental Protection Regulations. Population Figure of the States.	
Table 5.1	Summary of the Potential Environmental and Social Impacts of the SEPIP	45
Table 6.1	Summary of Environmental Mitigation Measures	48

LIST OF ACRONYMS

ADP Agricultural Development Project

AF Additional Financing

AU African Union

CBF Community Based Facilitators

CEDAW Convention on the Elimination of all Forms of Discrimination against Women

CHC Comprehensive Health Centres CRC Convention on Rights of the Child

DFRRI Directorate for Food Road and Rural Infrastructure

DLI Disbursement Linked Indicators EA Environmental Assessment

ECOWAS Economic Community of West African States

EEP Eligible Expenditure Programs
EIA Environmental Impact Assessment

EMIS Environmental Management Information System

EMP Environmental Management Plan EMS Environmental Management Systems

ESIA Environmental and Social Impact Assessment
ESMF Environmental and Social Management Framework
ESMS Environmental and Social Management Specialist
ESMU Environmental and Social Management Unit

ESS Environmental and Social Screening

ETF Education Trust Fund

FEPA Federal Environmental Protection Agency

FGD Focus Group Discussion

FGN Federal Government of Nigeria
FME Federal Ministry of Education
FMEnv Federal Ministry of Environment
FMF Federal Ministry of Finance
FPSU Federal Project Support Unit

GLO Globacom Network

GSM Global System of Mobile Communications

HIV/AIDS Herpes Immune Virus/Acquired Immune Deficiency Syndrome

LGA Local Government Area
MCH Maternal and Child Health
MDG Millennium Development Goals

MTN Mobile Telecommunications Network
NBTE National Board for Technical Education
NECO National Examinations Commission

NE North East

NERDC Nigeria Education Research and Development Council

NESREA National Environmental Standards and Regulations Enforcement Agency

NGO Non-Governmental Organization
NIP National Implementation Plan

NIPOST Nigerian Postal Service

NPCC National Project Coordinating Committee

NPEC National Primary Education Commission

NUT National Union of Teachers

OP Operational Policy
PHC Primary Health Centres

PIC Project Implementation Committee

PTF Petroleum Trust Fund

RPBA Recovery and Peace Building Assessment SBCMS School Based Community Management System

SBMC School-Based Management Committee SDRD State Directorate for Rural Development SEPA State Environmental Protection Agency

SEPIP State Education Program and Investment Project

SIP School Improvement Plan
SMoE State Ministry of Education
SMoEnv State Ministry of Environment
SMoF State Ministry of Finance
SPEB State Primary Education Board
SPTSU State Project Technical Support Unit

STEP-B Science, Technology Education, Post Basic

TA Transformation Agenda

TBL Tubal Legation

TETFund Tertiary Education Trust Fund

TOR Terms of Reference

UBE Universal Basic Education

UBEC Universal Basic Education Commission

UNESCO United Nations Educational Scientific Cultural Organization

UNICPD United Nations' International Conference on Population and Development

UPE Universal Primary Education

VPF Virtual Poverty Fund

WAEC West African Examinations Council

WB World Bank

WCEFA World Conference on Education for All

EXECUTIVE SUMMARY

ES1: Project Background and Objectives

Education plays a pivotal role in national development as it is a vital instrument for social and economic mobility at the personal level and for transformation of the society at the national level. In pursuance of education for all, the Nigeria government developed the national policy on education (1977, revised 1999), introduced several policy measures among which are the Universal Primary Education (UPE), the transfer of primary education from residual to the concurrent legislative list, the re-establishment of the National Primary Education Commission,(NPEC), and State Primary Education Board (SPEB), the Universal Basic Education, among others. Also the Federal Ministry of Education developed a 4-year strategic plan (2011-2015) for the development of education sector. The strategic plan has six focal areas drawn from existing plans of FME- roadmap and one year strategy and the report of the presidential task team on education.

The overall aim of the project is to support the participating States in improving governance in the education sector through: (i) strengthening school autonomy and accountability through local and state level management; (ii) improving teacher performance and management; (iii) improving measurement of student learning; (iv) strengthening planning, monitoring and evaluation and accountability; and (iv) enhancing the fiscal sustainability and effectiveness of public expenditures in education.

The OP/BP 4.01 entails that the project develops an Environmental Assessment document such as the Environmental and Social Management Framework (ESMF),

In recognition of the fact that environmental and social concerns may arise as a result of the proposed AF project, the Federal Ministry of Education is developing an Updated Environmental and Social Management Framework (ESMF) in fulfillment of the Bank requirements for project appraisal.

Based on the categorization of projects, funded by the World Bank, the SEPIP is classified as a Category B project and therefore triggering the World Bank Safeguard policy OP/BP 4.01 – Environmental Assessment where the foreseeable environmental and social impacts are minimal, site specific and reversible. The updated ESMF presents a framework for screening, monitoring and mitigating potential impacts, with a process for triggering subsequent sub-project environment and social assessments, where necessary. This updated ESMF was developed in accordance with applicable World Bank policies and Nigerian environmental assessment guidelines.

Sub-project activities in the new Component 3- Support to Insurgency – affected LGAs of SEPIP will not involve construction or rehabilitation sub-project. Therefore, there will be no environmental and social concerns under this new component given that it focuses on quality education improvement and systems improvements.

The ESMF presents a framework for screening, monitoring and mitigating potential impacts, with a process for triggering subsequent sub-project environment and social assessments, where

necessary. This ESMF was developed in accordance with applicable World Bank policies and Nigerian environmental assessment guidelines.

ES2: Project Description

The overall aim of the project is to support the participating States (Anambra, Bauchi, and Ekiti States) in improving governance in the education sector. The proposed AF scope and coverage will include the following six North East states Borno, Yobe Adamawa, Taraba, Gombe as well as Bauchi already in the original project, and project implementation activities will be phased, depending on implementation readiness and the security situation. *Project Component*

The AF project consists of three components which includes a new component: (1) Supporting the participating states program for improving the quality of education to be disbursed against achievement of Disbursement-linked Indicators (DLIs) to Eligible Expenditure Programs (EEPs); and (2) Technical Assistance Component to support Component 1. (3) Support to Insurgency – affected LGAs

Component 1 – Results-Based Component

The aim of this component is to support participating State Governments' program priorities through selected disbursement-linked indicators focusing on the achievement of tangible and measurable results over the project period as follows: (a) improving teacher effectiveness through deployment and recruitment (b) Improving the regular measurement of learning; (c) Improving technical and vocational education; (d) Strengthening School-based management committee's participation and capacity for supporting school management and accountability. The interventions include Teacher Deployment to hard-to-staff schools, Teacher Deployment in Core Subject Areas, Recruitment of Female Teachers, Recruitment of Science and Technology Teachers, Improving the regular Measurement of Learning, and School Improvement Grants.

Component 2- Technical Assistance

The objective of this component is to provide technical assistance under two sub-components: (a) support States towards achievement of DLIs, and the associated institutional capacity strengthening; and (b) support the Federal Government in overall project coordination and in providing the enabling environment in line with national policies, and to ensure sustainability and scaling-up of successful activities in other potential states

New Component 3 – Support to Insurgency – affected LGAs

Activities will focus on improvement of access and quality education, and this component would adopt results- based financing disbursements conditional upon verified achievement of three or four key educational indicators. Independent verification, which will form part of Component 2 above will be undertaken a least semi-annually to verify and validate the achievement by each state of its targets, which will enable eligible reimbursements more frequently. A set of eligibility criteria for financing under this component will be developed and finalized. These may include

need-based criteria and priority ranking according to damage levels, and the security situation. This component complements the States' programs, as supported by Development Partners.

ES3: Policy, Legal and Institutional Framework

The following national, state, and international policies and regulations are applicable to the educational sector and environmental and social issues pertaining to the State Education Program Investment Project:

Policy Framework

- National Policy on Education 2004
- National Policy on Science and Technology 1986
- National Policy on the Environment 1988
- The National Urban Development Policy 1989
- World Conference on Education for All (WCEFA) 1990
- Dakar World Education Forum 2000
- United Nation Millennium Development Goals 2000
- International Convention on Economic, Social and Cultural Rights (IESCR)

Regulatory Framework

- Constitution of the Federal Republic of Nigeria 1999
- Federal Environmental Protection Agency Act 1988
- National Guidelines on Environmental Audit in Nigeria 1999
- National Environmental Standards and Regulations Enforcement Agency (NESREA) Act 2007
- Universal Basic Education (UBE) Act 2004
- Child Rights Act (2003)

ES 4: Project Environment

The States where the project is been implemented are Anambra, Bauchi, and Ekiti. As part of the Additional Financing, the six North East States of Borno, Yobe Adamawa, Taraba, Gombe as well as Bauchi which was part of the original project will be financed by the support of emergency response in the North East States of Nigeria, due to damages resulting from insurgency.

School Statistic Data in the Participating States (2006/2007 academic session)

State	Primary Education indicators					
	Number of	Percentage of schools	Pupil gender gap	Teacher gender gap	Pupil to teacher ration	Pupil to qualified teacher ratio
	schools	reported			11.01	
Anambra	1724	64.85	0.07	-79.57	41.06	58.9
Bauchi	2544	72.21	17.67	66.1	78.41	327.24
Ekiti	1374	64.77	-3	-40.89	58.52	84.09
Borno	1948	64.84	15.67	42.38	65.2	182.74
Yobe	1255	78.17	18.72	50.95	108.48	641.35
Adamawa	2180	78.53	9.17	42.14	31.22	85.61
Gombe	1772	64.62	15.95	35.69	35.51	120
Taraba	2370	70.55	13.7	59.76	59.79	253.52

Source: Nigeria Digest of Education Statistics (2006-2010)

ES 5: Potential Environmental and Social Impacts

The impact of each activity is assessed qualitatively through the relevant environmental and social media which are:

- Environmental media Air, Water, Soil and Vegetation
- Social media Community Structure, Livelihood, Community Infrastructure, Population/Demographics, Public Health, and Land Use

In analysing the impacts, three criteria were used:

- The Severity of the impact on the existing environment (High, Medium, or Low)
- The Likelihood of the impact occurring (High, Medium, or Low)
- The Effect of the impact, whether beneficial (+) or adverse (-)

Environmental Impacts

Generally, there will be no major environmental impacts given that project activities focus on education quality and systems improvements. The project does not involve any construction or rehabilitation thus there are no impacts on the environment.

During the operation phase and considering the nature of the project, it is not likely that any of the project components will impact on water resources. Also, considering the nature of the project, it is unlikely that any of the project components will lead to air pollution. However, lab reagents can be purchased by the schools using this funds and this can pollute the environment. The reagents may emit air pollutants which may increase respiratory disorders e.g. nasal discomfort as a result of inhaling air particles from extractor fan. In addition, considering that the project is on quality and systems improvement, limited waste materials may be generated as a result of management activities. Thus there could be illegal dumping of solid waste in drainage channels which may result in blocked drainages and cause flooding, while improper use and disposal of sanitary facilities in the schools can attract pests and disease vectors.

Social Impacts

Perceived socio-economic were identified from key socio-economic indicators (livelihood, community structure, public health, land use and population) and the projects components at all level of the project implementation. The impacts of the project on educational development are largely positive. The provision the recruitment and deployment of teachers in the States especially in the rural areas will help improve the quality of education and enhance the completion rate and students/pupils performance in both primary and secondary schools especially at junior secondary level.

ES 6: Environmental and Social Management Plan

Mitigation Measures

Giving that there will be no major environmental and social impacts given that project activities focus on education quality and systems improvements mitigation activities as regards environment and social well-being will be limited. Mitigation activities on environment will focus on waste management and control of pollution that may result from activities involving minor repairs and purchases using the school grants. In terms of waste management, there will be quick sorting, collection and disposal of waste removed from the sites in accordance with applicable regulations. There may be also employment of services of registered waste management company. To maintain air quality, the project will adopt proper waste management strategy, prohibit waste combustion on site and encourage workers in pollution prone areas or activities to wear nose masks.

Considering the risk of communicable and sexually transmitted diseases, it is recommended that the project conduct an awareness raising campaign for the community and school participants (pupils, students, teachers, etc.); develop, produce and circulate leaflets to educate people of dangers of sexually transmitted diseases and how to prevent them and print posters to educate people on HIV/AIDS.

Implementation Arrangement

The key stakeholders required to implement the SEPIP include the Federal Ministry of Education and the State Ministry of Education. The National Project Coordination Committee, which will be responsible for overall coordination and monitoring of project implementation, assisted by UBEC. The Federal Ministry of Finance will provide support to SEPIP. The unit in the FME that will be responsible will be the Federal Project Support Unit of FME. The SMoE will be responsible for coordination in the state. The SPTSU of the SME will be the main unit in the ministry responsible. The FMEnv/SMoEnv and State Environmental Protection Agencies will publicise the ESMF and review monitoring reports to ensure regulatory compliance.

Capacity Strengthening

Institutional strengthening will be required for the FPSU and SPTSU to effectively carry out the environmental and social management responsibilities for sub-project implementation. An assessment of training needs and the development of a training strategy plan need to be conducted as an initial implementation activity which will, *inter alia*, determine and confirm whether the training programme proposed will suffice or is required.

Proposed training for the ESMS are as follows:

- Environmental and Social Management Process.
- Use of Screening form and Checklist
- Preparation of terms of reference for carrying out EA
- Design of appropriate mitigation measures, among others.

ESMP Cost Estimates

To implement the environmental and social management measures as part of the ESMF, it is important to identify financial resource requirements even if indicative. This ensures upfront appreciation of the financial requirements and allows early planning and budgeting accordingly. All administrative costs for implementing shall be budgeted for as part of the SPCU's costing. An indicative budget for the project (result based component) should be allocated to manage environmental and social concerns. The indicative cost is USD\$25,000. This involves the cost for mitigation, management, capacity strengthening and monitoring.

Disclosures of safeguard instrument

The ESMF has been prepared in consultation with the FPSU and SPTSU and relevant state MDAs. The FPSU 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.

CHAPTER ONE: INTRODUCTION

1.1: Project Background

The Federal Government of Nigeria (FGN) has requested the World Bank for Additional Financing under the State Education Program Investment Project in support of emergency response in the North East States of Nigeria, due to the damages resulting from insurgency.

This Additional Financing project would include interventions relating to teacher development and management, increase in student enrollment and retention, school-level management, which would include grant funding to school for quality improvement and school rehabilitation, primarily in schools impacted during the Boko Haram crisis in the NE of Nigeria

Education plays a pivotal role in national development as it is a vital instrument for social and economic mobility at the personal level and for transformation of the society at the national level. It engenders the rate of socio-economic, technological and political advancement; influences and stabilizes positive changes in other sectors of the economy; prepares individuals for self reliance and transforms them. Through education, individuals are empowered to make choices that affect their wellbeing. The United Nations' International Conference on Population and Development (1994) encouraged governments' worldwide to ensure access to all to education beyond the primary level. To ensure access to education at all levels, UNESCO recommends that 26 percent of government's annual budget is deployed to the education sector.

In pursuance of education for all, the Nigeria government developed the national policy on education (1977, revised 1999), introduced several policy measures among which are the Universal Primary Education (UPE), the transfer of primary education from residual to the concurrent legislative list, the re-establishment of the National Primary Education Commission, (NPEC), and State Primary Education Board (SPEB), the Universal Basic Education, among others. In 2007, the Federal Ministry of Education released a 10-Year Education Sector Plan, emphasizing: (i) universal access to basic education; (ii) minimum quality standards; (iii) finance reform to underpin greater equity; and (iv) effective human capital development. Thus, investments in basic education have led to a significant increase in coverage. For instance, primary enrollment rose from 17.9 million students in 1999 to 22.9 million in 2006 (an increase of 28 percent). Apart from the UBE scheme, which provides for free primary education up to Grade 6 and junior secondary education, the Federal Government also provided direct funding through the Education Trust Fund (ETF), and the Virtual Poverty Fund (VPF) (from the debt relief initiative) towards achievement of the MDGs. In line with the commitment of the FME towards enhancing quality education in Nigeria, actions have been taken over the past months towards addressing some challenges facing the sector. There was development of a roadmap with four focal areas namely access and quality, standards and quality assurance, technical and vocational education and funding to serve as a guide to enhancing quality education. Also a one year strategy for the development of education sector (May 2010-April 2011) was developed from the roadmap and this introduced two new focal areas, namely, teacher education development and strengthening the institutional management of education.

1.2 AF Scope and Coverage

Examples for types of damage incurred are derived from the educational sector reports of the ongoing Recovery and Peace-building Assessment (RPBA), for the following six North East (NE) states Borno, Yobe Adamawa, Bauchi, Taraba and Gombe and project implementation activities will be phased, depending on implementation readiness and the security situation.

1.3 Rationale for the Updated ESMF

Given the areas of interventions will be in conflict-afflicted areas, the preparation of site specific safeguards instruments such as Environmental and Social Management Plans (ESMPs) have been deferred into the implementation period. But before any relevant project activities commence, an ESMF is prepared to cover the entire scope of potential investment sub-projects (i.e. school grants) which defines the suggested, specific instruments and processes. This would also be the instrument that will need to be disclosed and consulted, before any physical activities would start.

Since the potential project environmental and social impacts will be site-specific typical of category 'B' projects, at this instance, the appropriate instrument would be the Environmental and Social Management Framework (ESMF). While there is no construction involved in the project, an updated ESMF detailing the processes and procedures is prepared based on proposed interventions relating to teacher development and management, increase in student enrollment and retention, school-level management, which would include grant funding to school for quality improvement. Thus this Updated Environmental and Social Management Framework (ESMF) has been prepared in line with the requirements of the World Bank and the existing national regulation (EIA Act No. 86 of 1992).

The World Banks Operational Policy (OP) 4.01 requires that an ESMF be prepared which will establish a mechanism to determine and assess future potential environmental and social impacts of projects, and then to set out mitigation, monitoring and institutional measures to be taken during design, implementation and operation of the subprojects to minimize adverse environmental and social impacts to acceptable levels. The policy further requires that the ESMF report must be disclosed as a separate and standalone document as a condition for Bank appraisal. The disclosure should take place both in Nigeria where it can be accessed by the general public and local communities, and at the Infoshop of the World Bank.

In recognition of the fact that environmental and social concerns may arise as a result of the proposed AF project, the Federal Ministry of Education has prepared an ESMF in fulfillment of the Bank requirements for project appraisal. The updated ESMF presents a framework for screening, monitoring and mitigating potential environmental and social impacts, with a process for triggering subsequent sub-project environment and social assessments, where necessary.

1.4 Objectives of the Environmental and Social Management Framework (ESMF)

The ESMF shall clarify environmental and social mitigation principles, organizational arrangements and design criteria to be applied to the State Education Program Investment project. The goal of the ESMF is to improve decision making and to ensure that the social infrastructures (schools), if any, considered under the project are environmentally sound and sustainable.

Specifically, it focuses on:

- assessing the potential environmental and social impacts of sub-projects (rehabilitation, extension or upgrade of educational infrastructures), whether positive or negative, and propose mitigation measures which will effectively address these impacts;
- establishing clear directives and methodologies for the environmental and social screening of micro-projects to be financed by the project;
- identifying the environmental policy, regulatory and institutional framework pertaining to the State Education Program Investment Project;
- Informing the project preparation team, the federal government and participating state governments of potential environmental and social impacts of the anticipated sub-projects and relevant mitigation measures and strategies.

The expected output is a report that provides basic information about the scope of adverse environmental and social impacts to be induced by project operations; mitigation and monitoring actions; to be taken and cost implications.

1.5 Study Approach and Methodology

This updated ESMF was developed in accordance with applicable World Bank policies and Nigerian environmental assessment guidelines. The distinct phases of the study include:

- Literature Review

The approach was based on review of project literature and other strategic planning documents. Specifically, the following were reviewed:

- Project Appraisal Document (PAD)
- o Project Implementation Manual (PIM)
- o Aide-Memoir for the Additional Financing
- o Available relevant information on the damage incurred in the six NE states (Borno, Yobe, Adamawa, Bauchi, Gombe and Taraba),
- o Environmental generic baseline scenarios,
- o the Recovery and Peace Building Assessment (RPBA) currently conducted by the World Bank (WB), United Nations (UN) and European Union (EU);
- o ESMF for the original State Education Program Investment Project
- o National education policy,
- o State education plan, federal and
- o State environmental regulations, Decrees, Acts, policies and guidelines,
- World Bank safeguard policies and
- o other relevant documents
- Data Gathering

Data on the current state of the environment as well as information relevant to the sector program were sourced from different institutions, including federal and state ministries of education as well as the SPTSU. The information gathered was reviewed to obtain detailed descriptive, qualitative and quantitative data on the environmental, sociological, land tenure and resettlement laws, regulations, standards, and policies relating to the project. Subsequently, baseline data of the 3

participating states were reviewed as well as the six North East States for Additional Financing including Bauchi State which is among the original project.

In addition, environmental screening and scoping of the project's field of influence and activities were undertaken. Data analysis, environmental and social impact identification and the mitigation measures were also captured.

1.6 Assessment of Education Sector

The National Policy on Education stipulates a 6-3-3-4 structure offering six years of primary, three years of junior secondary, three years of senior secondary and four years of higher education. The hierarchical structure of the educational system has as its base, early childhood education in which government's role has been limited to setting standards, providing curriculum guidelines and training teachers with the private sector providing educational service. Primary and junior secondary education constitutes basic education that is free and compulsory. Table 1 shows the core indicators information for primary education in the three states (Anambra, Ekiti and Bauchi as well as the 6 North East States of Borno, Yobe, Adamawa, Taraba, Gombe and Bauchi which is part of the original project). A special nomadic education programme for the children of migrant herding and fishing communities is also encompassed in the basic education package.

Table 1.1: Some core indicators information for primary education in the states 2006/2007 Session

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State	Primary Education indicators						
	Num	Percentage of	Pupil gender	Teacher	Pupil to teacher ration	Pupil to qualified	
	of	schools	gap	gender gap		teacher ratio	
	school	reported					
	S						
Anambra	1724	64.85	0.07	-79.57	41.06	58.9	
Bauchi	2544	72.21	17.67	66.1	78.41	327.24	
Ekiti	1374	64.77	-3	-40.89	58.52	84.09	
Borno	1948	64.84	15.67	42.38	65.2	182.74	
Yobe	1255	78.17	18.72	50.95	108.48	641.35	
Adamawa	2180	78.53	9.17	42.14	31.22	85.61	
Gombe	1772	64.62	15.95	35.69	35.51	120	
Taraba	2370	70.55	13.7	59.76	59.79	253.52	

Source: Digest of Education Statistics, 2010

The senior secondary level includes both an academic curriculum provided in general secondary schools and other curricula provided in technical colleges and vocational centres. Adult and nonformal education caters for the needs of a good number of young people who do not reach the senior secondary level, while Islamic education forms an important traditional part of the formal and informal delivery of education in Nigeria with varying degrees of integration with formal education on a state- to- state basis.

One other stratum in the structure is technology and science education. Technology education is composed of pre-vocational education at the primary and junior secondary levels, vocational training in technical colleges and vocational training centres, technical education in polytechnics and monotechnics and some professional education in universities.

Basic education in Nigeria is provided predominantly by States and/or local government authorities (72 % of enrolment), followed by the private sector (20 %), Federal schools (5 %), and religious schools (4 %).

In terms of management, education is placed on the concurrent legislative list in the 1999 constitution that provides the legal framework for educational management in Nigeria. This implies that both Federal and State governments have legislative jurisdiction and corresponding functional responsibilities with respect to education. By this arrangement, although a few functions are exclusively assigned to the Federal or State government, most of the functions and responsibilities are in fact shared by the three tiers of government. According to the constitutional provisions, the main responsibilities of the Federal government in basic education are in the realm of policy formulation, coordination and monitoring. Direct control by the Federal government is preponderantly at the tertiary level. Only a handful of institutions at the secondary level (the Unity Schools and technical colleges) enjoy federal direct control. The bulk of secondary schools in the country are under the purview of state governments, which are also directly responsible for a considerable proportion of the nation's tertiary institutions. Local governments have statutory managerial responsibility for primary education, with the federal and state governments exercising appropriate oversight functions.

Although there has been some level of improvement in the management of education in Nigeria over the past years the system is yet to effectively support Nigeria's human capacity needs to meet developmental objectives. There is still a huge problem of access and equity. There is low enrolment in early childhood education. A total of 10.1 million school age children are out of school out of which 7.3 million is in the primary age and 2.8 million in the secondary age (Digest of Education, 2010). Although reliable measures of student achievement are limited, a few available assessments of student learning outcomes show prevailing low education quality, resulting in turn in low system efficiency. The situation is similar for most states, including Anambra, Bauchi, and Ekiti. In addition Nigeria's primary completion rate is relatively low, with only about three-quarters of students completing the primary education cycle (Grades 1-6), and only about 76 percent of these go on to junior secondary school. The average completion rate at the end of primary education as a percentage of enrolments in Grade 1 are on average reported to be 55 percent, with a transition rate of 50.3 percent to secondary school, of which the recorded average completion rates are 62 percent for girls and 59 percent for boys.

Another major challenge is poor standard and quality assurance. There is general belief that quality of education in Nigeria has fallen. There is substantial number of unproductive teachers in the public school system due to poor learning environment and inadequate motivation. Less than 30% of candidates pass WAEC/NECO examinations in five (5) subjects including English Language and mathematics. There is decline in the quality of input and output of Nigeria tertiary institutions particularly from public schools. The main contributing factors to low learning outcomes are the poor conditions of the learning environment (e.g. physical facilities, including water and sanitation, inadequate distribution of essential textbooks and instructional aids), lack of teachers or their poor deployment, poor teaching quality, inadequate teacher training, low motivation and limited opportunities for professional development.

In addition, there is weak governance and management capacity. The education system suffers from an absence of accountability/quality mechanisms, and limited capacity for policy-making,

planning, management, and monitoring and evaluation. In general, the following key issues are consistent across states: (i) ineffective policy implementation or fragmented decision-making due to poor division of responsibilities, unclear overlapping functions, a multitude of parastatal/agencies, and poor relationships across government and concerned agencies; (ii) inadequate strategic planning and management capacity; (iii) absence of a sound and reliable monitoring and evaluation system; and (iv) scarce reliable information on students' learning outcomes.

Efforts to improve the sector led to the initiation of actions meant to transform the education system and ultimately the Nigerian society. Some of these include the development of a roadmap to enhance the quality of education delivery, the presidential task team on education, the amendment of the ETF Act to become TETFund now only funding infrastructure development and maintenance in federal and state tertiary institutions, and the new four year strategic plan for education based on the road map, the one strategy and the report of the presidential task team on education.

In the North East, 42 % of children attend religious schools only while 34 % attend formal and religious schools. The majority of religious schools do not integrate core education subjects into the instructional schedule.

Despite having established teachers' minimum qualification criteria in basic education at the national level, a large proportion of recruited teachers were and still are unqualified, especially in the North West and North East. In 2010, on average, 32 % of teaching staff in pre-primary education were unqualified, 40 % in primary education, and 15 % in junior secondary education.

CHAPTER TWO: PROJECT DESCRIPTION

2.1 Project Overview

The on-going project is a US\$150 million Specific Investment Credit to the Federal Government of Nigeria, which in turn disburse funds to the participating Project states (Anambra, Bauchi, and Ekiti) through subsidiary financing agreements to support their education program. The credit will support the design and implementation of SEPIP, over the period from 2013 to 2016. The project consists of two components: (a) a results-based component – Component 1 – which would finance the participating states' program for improving the quality of education, amounting to US\$125.0 million (about 83 percent of the total Credit); and (b) Technical Assistance Component which would finance essential advisory, technical, and capacity-building support for the participating states' program, amounting to US\$25 million (about 17 percent of the total Credit

In line with the discussions between the Government and the World Bank regarding emergency assistance for the North East, it was proposed that immediate support to the North East could take the form of Additional Financing under SEPIP.

A new Component 3 which would support affected LGAs due to insurgency in the six North East States of Borno, Yobe, Adamawa, Bauchi, Gombe and Taraba builds on the existing 2 components of the parent project SEPIP.

The proposed project is expected to act as a catalyst to the adoption of results/performance-based approaches by the Government, and scaling-up over time through its own funding. It purports to complement government and other development partner funding to the Participating States focusing on providing quality education, and access to education with equity.

2.2 Project Objective

The proposed project development objective for the Additional Financing project will be the same as the original project, which is to support: (a) need-based teacher deployment; (b) school-level management and accountability; and (c) measurement of student learning in Participating States. This will contribute to, and complement, the programs and priorities of participating States in addressing education access, quality and efficiency issues, through their own funding, financing from UBEC and other government agencies, as well as other development partners.

2.3 Proposed Project Components

The Additional Financing builds on the existing 2 components of the parent project SEPIP and results in three components, as follows:

Component 1 – Results-based Support to Education Sector Reform Program

This component would remain unchanged under the Additional Financing (no new financing will be required, but in order to better evaluate this component, a one-year extension of the original SEPIP closing date may be needed).

The aim of this component is to support participating State Governments' program priorities through selected disbursement-linked indicators focusing on the achievement of tangible and measurable results over the project period as follows: (a) improving teacher effectiveness through deployment and recruitment: (i) to hard-to-staff schools; (ii) in core subject areas; (iii) female teacher recruitment; and (iv) science and technology teacher recruitment; (b) Improving the regular measurement of learning; (c) Improving technical and vocational education; (d) Strengthening School-based management committee's participation and capacity for supporting school management and accountability.

Based on benchmarking of the Participating States' education systems on teachers, assessments, EMIS, and school-based management, under Systems Assessments and Benchmarking for Education Results (SABER), key critical findings are as follows. First, with regard to teachers, it is difficult to match teacher skills with student needs, in the absence of incentives to teachers to work at hard-to-staff schools or to teach subjects where there are critical shortages, which point to the need to better allocate teachers across the system. Second, it was found that no large-scale, system-level assessment of student learning outcomes exists at the state level, resulting from system non-alignment, poor enabling context, and quality of assessment. There is need for teachers to be more aware of the National large-scale assessment (NLSA), for results to be widely disseminated, and for UBEC and States to conduct research with learning outcome data. Third, in terms of school-level management, three key findings relate to centralized recruitment of teachers, centralized budgeting and weak participation of SBMCs in school finance, and weak school accountability, as well as the lack of dissemination of information of student achievement and learning to parents. Accordingly, the need arises for making SBMCs more effective through institutionalization of school-level funding via SBMCs, while at the same time strengthening their accountability to parents (e.g. dissemination of expenditures, student achievement and learning outcomes, etc.). The fourth area of benchmarking related to EMIS, where the major finding was the poor reliability of information, and the lack of accessibility of data to promote accountability and educational research.

Therefore, in formulating their Disbursement-Linked Indicators (DLIs), Participating States focused on teachers issues related to deployment/recruitment, learning assessments, school level management and accountability, as well as technical and vocational education. Participating States' DLIs center on: (a) teacher deployment in rural areas, and in core subject areas; (b) female teacher recruitment; (c) learning through assessment state testing; (d) improving relevance of technical and vocational education; and (e) strengthening SBMC participation for improving school effectiveness, and management and accountability.

Component 2 – Technical Assistance

Financing under this existing Component 2 will be enhanced to support activities under the *new* component 3 (see below).

The objective of this component is to provide technical assistance under two sub-components: (a) support States towards achievement of DLIs, and the associated institutional capacity strengthening; and (b) support the Federal Government in overall project coordination and in providing the enabling environment in line with national policies, and to ensure sustainability and scaling-up of successful activities in other potential states.

The composition of technical assistance would fall under four broad areas: (a) *educational development* – provision of technical knowledge on teacher management and development, learning assessments (including national large scale assessment), EMIS, quality assurance, capacity-building; school-based management strengthening, and beneficiary assessments; (b) *fiduciary* – strengthening financial management and procurement, and ensuring compliance with the Environmental and Social Management Framework (ESMF); (c) *monitoring and evaluation* – Monitoring, third party validation, tracer studies, public expenditure tracking survey, SABER benchmarking for LGAs, public/private partnership in technical and vocational education, social accountability/third party monitoring; (d) *other* – technical studies to support other states on results-based approaches, management and coordination, and annual program reviews.

Table 1.2: Education Projects Typology

Activity Type	Typical Features			
Infrastructure Rehabilitation/Expansion	 Not to be part of the project 			
Institutional Strengthening	 Design or improvement of strategies, plans and programs Upgrading educational management 			
Manpower Development	 Teacher recruitment and training/skill development Improved access Provision of learning and teaching resources 			

New Component 3 – Support to Insurgency – affected LGAs

Activities will focus on improvement of access and quality education, and this component would adopt results- based financing disbursements conditional upon verified achievement of three or four key educational indicators. Independent verification, which will form part of Component 2 above will be undertaken at least semi-annually to verify and validate the achievement by each state of its targets, which will enable eligible reimbursements more frequently. A set of eligibility criteria for financing under this component will be developed and finalized. These may include need-based criteria and priority ranking according to damage levels, and the security situation. This component complements the States' programs, as supported by Development Partners.

CHAPTER THREE: POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK

There are a number of national, state, and international policies and regulations applicable to the educational sector and environmental and social issues pertaining to the State Education Program Investment Project. This section presents an overview of applicable policies and regulations in addition to an assessment of the institutional framework for the implementation of the project.

3.1 Policy Framework

National Policy on Science and Technology 1986

This policy focuses on national development through the effective application of scientific and technologically skills for the production of goods and services and to ensure a better quality of life for the country. The policy addresses the need for a coherent, systematic and comprehensive approach to the determination of technological programs and their implementation.

National Policy on the Environment 1988

This Policy aims to achieve sustainable development in Nigeria, and in particular to:

- secure a quality of environment adequate for good health and well being;
- conserve and use the environment and natural resources for the benefit of present and future generations;
- 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;
- 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
- 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.

The National Urban Development Policy 1989

This policy focuses on developing a dynamic and sustainable system of urban settlements, fostering economic growth, promoting efficient regional development, and ensuring improved standards of living and well-being for all Nigerians.

National Policy on Education 2004

This policy addresses the imbalance in the provision of education in different parts of the country with regard to access, quality of resources and girls' education. It seeks to inculcate national consciousness, unity, training and appropriate skill acquisition as well as mental and physical competence for the survival of the individual and Nigerian society.

3.2 Regulatory Framework

3.2.1 Federal Legislation

Federal Environmental Protection Agency Act 1988

The Federal Ministry of Environment (FMEnv) has taken over the functions of FEPA in administering and enforcing environmental laws in Nigeria. Other responsibilities of the ministry include:

- Monitoring and enforcing environmental protection measures;
- Enforcing international laws, conventions, protocols and treaties on the environment
- Prescribing standards for and making regulations on air quality, water quality, pollution and effluent limitations, atmosphere and ozone protection, control of hazardous substances; and
- Promoting cooperation with similar bodies in other countries and international agencies connected with environmental protection.

To enhance the operations of the ministry the some statutory provisions have been put in place: Table 3.1 summarizes the existing regulations applicable to environmental protection

Table 3.1: Existing National Environmental Protection Regulations

S/N	Regulations	Year	Provisions	
1	National Environnemental	1991	The regulation makes it mandatory for industrial facilities to	
	Protection (Effluent Limitation)		install anti-pollution equipment, makes provision for effluent	
	Regulations		treatment and prescribes a maximum limit of effluent	
			parameters allowed.	
2	National Environmental Protection	1991	Imposes restrictions on the release of toxic substances and	
	(Pollution and Abatement in		stipulates requirements for monitoring of pollution. It also	
	Industries in Facilities Producing		makes it mandatory for existing industries and facilities to	
	Waste) Regulations		conduct periodic environmental audits.	
3	National Environmental Protection	1991	Regulates the collections, treatment and disposal of solid and	
	(Management of Solid and		hazardous wastes from municipal and industrial sources.	
	Hazardous Wastes) Regulations.			
4	Harmful Wastes (Special Criminal	1988	Provides the legal framework for the effective control of the	
	Provisions etc) Decree No. 42		disposal of toxic and hazardous waste into any environment	
			within the confines of Nigeria	
5	Environmental Impact Assessment	1992	The decree makes it mandatory for an EIA to be carried out	
	Act (Decree No. 86).		prior to any industrial project development	
6	National Guideline and Standard	1991	The regulations provide guidelines for management of	
	for Environmental Pollution		pollution control measures.	
	Control			
7	Workmen Compensation Act	1987	Occupational health and safety	
	_			
8	Urban and Regional Planning	1992	Planned development of urban areas (to include and manage	
	Decree No 88		waste sites)	
9	Environmental Sanitation edicts,		General environmental health and sanitation. Enforcing	
	laws and enforcement agencies		necessary laws	
10	State waste management laws	· · · · · · · · · · · · · · · · · · ·	Ensure proper disposal and clearing of wastes	
11	Public Health Law		Covering public health matters	

Other provisions are:

- Guidelines and Standards for Environmental Pollution Control in Nigeria 1991;
- Environmental Impact Assessment (Amendments) Act 1999;

- Environmental Impact Assessment Procedural Guidelines 1995;
- National Guidelines and Standards for Water Quality 1999
- National Guidelines on Environmental Management Systems (EMS) 1999
- National Guidelines on Environmental Audit in Nigeria 1999

Constitution of the Federal Republic of Nigeria 1999

The Constitution (Section 18) provides the basis for the national education policy, which through which the government shall eradicate illiteracy by ensuring that there are equal and adequate educational opportunities at all levels. To what extent practicable, the government shall ensure that:

- Free compulsory and universal primary education;
- Free secondary education;
- Free university education; and
- Free adult literacy program

Child Rights Act (2003)

The act gives full protection to privacy, honour, reputation, health and prevention from indecent and inhuman treatment through sexual exploitation, drug abuse, child labour, torture, maltreatment and neglect to a Nigerian Child. It also declares that every child has a right to life, to be allowed to survive and develop.

Universal Basic Education Act 2004

The Universal Basic Education Act provides the legal framework for the implementation of the UBE Programme, which makes basic education not only free but also compulsory. Subsequently, the UBE Commission was established as a way of ensuring the proper implementation of the UBE programme. The commission is responsible for the coordination of the activities of the programme.

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

To assist the FMEH&UD, now known as the FMEnv, the National Assembly established NESREA to ensure compliance with environmental standards, guidelines and regulations.

3.3 Applicable International Agreements

World Conference on Education for All (WCEFA) 1990

This declaration made in Thailand states that every person – child, youth and adult- shall be able to benefit from educational opportunities designed to meet their basic needs.

World Summit for Children 1990

This further reaffirms the WCEFA declaration by stating that children should have access to basic education by the year 2000. The summit also placed emphasis on the need to raise the level of female literacy worldwide.

Dakar World Education Forum 2000

This was also held as a follow up to the WCEFA, and it set six goals to be attained by 2015. The goals include:

- Expanding and improving comprehensive early childhood care and education, especially for the most vulnerable and disadvantaged children;
- Improving all aspects of the quality of education, and ensuring excellence for all, so that recognized and reasonable learning outcomes are achieved, especially in literacy, numeracy and essential life skills; and
- Ensuring that by 2015 all children, with special emphasis on girls, children in difficult circumstances and from ethnic minorities have access to and complete free and compulsory primary education of good quality.

United Nation Millennium Development Goals 2000

These declaration adopted in 2000 has two of the eight goals devoted to education. They are goal two (to achieve universal primary education) and goal 3 (to promote gender equality and empowerment of women).

Others

Nigeria is also a signatory to the following relevant international conventions:

- The African Convention on the Conservation of Nature and Natural Resources, The African Convention, 1968;
- The Convention Concerning the Protection of the World Cultural and Natural Heritage, The World Heritage Convention, 1972;
- The Basel Convention on the Control of Transboundary Movement of Hazardous Waste and Disposal, 1989;
- Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Waste within Africa 1991.
- The Convention on Biological Diversity, 1992;
- The Framework Convention on Climate Change, Kyoto Protocol, 1995;
- International Convention on Economic, Social and Cultural Rights (IESCR)
- The Dakar Framework for Action 2000
- Convention on Rights of the Child (CRC)
- Convention on the Elimination of all Forms of Discrimination against Women (CEDAW)

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

3.4 Assessment of the Policy and Regulatory Framework

Nigeria has adequate policy and legal provisions for environmental assessment; detailed laws, regulations and guidelines have been developed and serve as the framework for conducting EIAs in both the public and private sectors. However, due to lack of adequate enforcement, the implementation of these rules has been poor. Shortcomings of some policies and regulations are discussed below.

Environmental Impact Assessment (EIA) Act

An identified oversight of this Act lies in the issue of public participation. Under the Act, the public and interested third party stakeholders make an input in the assessment process only during public review, which takes place after preparation of the draft report (which is often not well publicized). Early public participation during scoping and preparation of the ToR will contribute greatly to the success of the project.

Federal Environmental Protection Agency (FEPA) Sectoral Guideline

FEPA's Guideline covering infrastructural projects deals with both the procedural and technical aspects of EIA for construction projects. The guideline stresses the need to carry out an EIA at the earliest stage possible. Infrastructure Project EIAs have been conducted in rather loose form, and often taken as a supplementary requirement to overall economic and engineering issues.

National Policy on Environment

The policy and its institutional arrangements have not yielded the desired results. This is principally due to weak enforcement; inadequate manpower in the area of integrated environment management; insufficient political will; inadequate and mismanaged funding; a low degree of public awareness of environmental issues; and a top-down approach to the planning and implementation of environmental programs..

National Policy on Education

The major problems hindering the actualization of the policy objectives are inadequate manpower; insufficient political will; mismanaged funding; a low public participation in policy formulation; and a top—down approach to the planning and implementation of environmental programs..

Universal Basic Education Act

The UBE program implementation has been hindered by poor project supervision, poor funding and lack of commitment from state governments. In addition, critical issues of poor facilities and unbalanced access to education have remained unaddressed.

3.5 Institutional Framework

To address the multi-sectoral nature of the components of the project, the following institutions and agencies are deemed relevant.

Federal Ministry of Education (FME)

The FME will be responsible for overall coordination of the project. The FME will provide policy guidance and chair the National Project Coordination Committee, which will be responsible for overall coordination and monitoring of project implementation, assisted by UBEC. It will also be responsible for coordinating technical assistance activities at federal level, and help resolve emerging implementation issues.

Federal Ministry of Finance (FMF)

The Federal Ministry of Finance will provide support to SEPIP through participation in project annual joint reviews, and be a member of the National Project Coordination Committee.

State Ministry of Education (for Anambra, Bauchi, and Ekiti, as well as the six NE states: Borno, Yobe, Adamawa, Gombe, Taraba as well as Bauchi which is in the original project)

The State Ministry of Education for each of the states will have primary responsibility for coordination and implementation of the project in their respective states in conjunction with other agencies and institutions. As the proponent of this project, the ministry has mandate for monitoring and evaluation, quality assessment and control, and coordination, and providing information on a range of procedural and project management issues including procurement, financial management, disbursement, performance benchmarking etc.

It is envisaged that there will be a SPTSU at the respective state Ministry of Education which will be responsible for project implementation and ensuring that all parties perform and carry out their responsibilities as detailed in the ESMP. In this regard, the SPTSUs will rely on the analysis of periodic reports of the respective stakeholders.

Federal Ministry of Environment (FMEnv)

The ministry in accordance with its mandatory functions will ensure that the project implementation conforms to the Environmental (Impact) Assessment Act 1992.

State Ministry of Environment (SMoEnv)

The respective *SMoEnv* is charged with establishing guidelines and standards for the management and monitoring of the environment in their states. Furthermore, the ministry is responsible for managing environmental problems caused by or arose within the project areas of influence including waste management and environmental guidance.

State Waste Management Authority

Each of the states waste management authority will ensure that wastes resulting from the project are promptly collected and adequately disposed.

Project Coordination Plan

The coordination of environmental and social management plan for the project spreads amongst several institutions, each carrying out their functions at the inter-agency level thereby creating the possibility of overlap and duplication of efforts. In order to have a well coordinated approach, it is suggested that the Federal Ministry of Education and State Ministry of Education create a department dedicated to this purpose. The department should have its members drawn from the various agencies mentioned above, and should be the platform for liaising with stakeholders as well as monitoring the execution of project components. To further enhance the environmental capabilities of this department, it is suggested that proficiency in environmental assessments be made a criteria for appointment of members.

At school level

At school level, responsibility for environmental management will lie primarily with Head Teachers/Principals, assisted by functional School Based Management environmental officer

3.6 World Bank Safeguard Policies

The State Education Program Investment Project has been categorized as B implying that the expected environmental impacts are largely site-specific and that mitigation measures can be designed relatively readily. The environmental assessment for a Category B project usually:

- examines the project's potential negative and positive environmental impacts,
- recommends measures to prevent, minimize, mitigate, or compensate for adverse impacts, and
- recommends measures to improve environmental performance

The World Bank has 10+2 Environmental and Social Safeguard Policies (see Annex 1) to reduce or eliminate the adverse effects of development projects, and improve decision making. These operational policies include:

- OP/BP 4.01: Environmental Assessment
- OP/BP 4.04: Natural Habitats
- OP 4.09: Pest Management
- OP/BP 4.12: Involuntary Resettlement
- OD 4.20: Indigenous Peoples
- OPN 11.03: Cultural Property
- OP 4.36: Forests
- OP/BP 4.37: Safety of Dams
- OP/BP 7.50: Projects on International Waters
- OP/BP 7.60: Projects in Disputed Areas

Plus 2

- OP/BP 4.00:Use of Country System
- OP/BP 17.50: Public Disclosure

The proposed project triggered OP 4.01 (Environmental Assessment) policy.

Therefore, the updated ESMF is the appropriate instrument prepared to address OP 4.01 (Environmental Assessment) policy. In order to fulfill the OP 17.50, the report will be disclosed at two levels; in-country and at World Bank infoshop. In-country disclosure shall be carried out in accordance with the guideline of the FMEnv.

OP 4.01 Environmental Assessment

The objective of OP 4.01 is to ensure that projects financed by the Bank are environmentally and socially sustainable, and that the decision making process is improved through an appropriate analysis of the actions including their potential environmental impacts. Environmental assessment (EA) is a process whose breadth, depth, and type of analysis depend on the nature, scale, and potential environmental impact of the proposed project. EA takes into account the natural environment (air, water, and land); human health and safety; social aspects (involuntary resettlement, indigenous peoples, and cultural property); and trans-boundary and global environmental aspects.

OP 4.01 is triggered if a project is likely to present some risks and potential adverse environmental and social impacts in its area of influence. Thus, in the case of the State Education Program Investment Project, potential negative environmental and social impacts will be very minimal considering that there is no construction sub-project and the project is focused on quality education improvement.

CHAPTER FOUR: BASELINE DATA

4.1 Project Area and Location

The States where the project will be implemented are Anambra, Bauchi, and Ekiti as well as the six NE states: Borno, Yobe, Adamawa, Gombe, Taraba as well as Bauchi which is in the original project) (see figure 1 below).

Anambra state which came into being on August 27 1991 was created from the old Anambra state and is located in South-Eastern Nigeria, on the eastern plains of the River Niger. It is located between latitude 5° 45N to 6° 45N; and longitude 7° 15E to 7° 45E. The state lies in the Anambra basin. Its boundaries are formed by Delta State to the west, Imo State to the south, Enugu State to the east and Kogi State to the north. The State occupies a landmass of 4,416 square kilometers. The State capital is Awka, while the industrial centre is at Nnewi and the commercial centre at Onitsha.

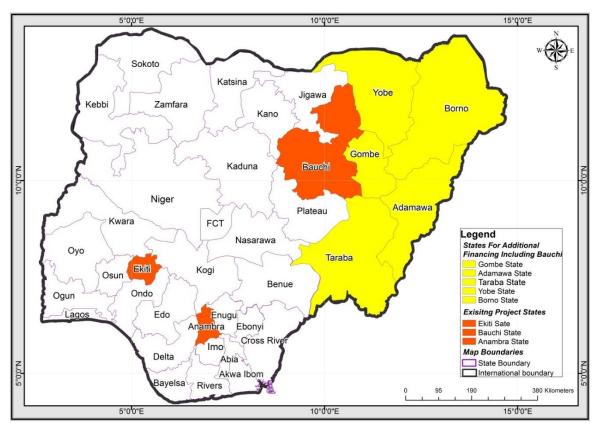


Figure 1.0: Map of Nigeria showing the project States

Bauchi State is the fourth largest state in the country and the third largest in the North-East region was created as a state in 1976 although Gombe State was carved out of the then Bauchi State in October 1996. Bauchi State's southern and northern limits are demarcated by latitudes 9°30' North and 12°30' North, respectively, its western and eastern limits are bounded by longitudes 8°45' East and 11°0' East, respectively. These mark the points of longest and widest stretches of the state. The state's total land area covers about 49,259 sq. km.

Ekiti State was created on 1st October 1996. It is located between latitudes 7°25' and 80°5'N and between longitudes 4°45' and 5°46 east. The state is bound to the south of Kwara and Kogi States while it is bound by Osun State to the west. To the east of Ekiti State is found Edo State, while it is bounded in the south by Ondo State. Ekiti State is a landlocked state, having no coastal boundary.

Adamawa State once part of Gongola State, in 1991, Adamawa was formally established as a state. While the seventh largest state in Nigeria and the fifth largest in the North-East by area. It lies between longitudes 11° in and 51/20 east of the Greenwich Meridian and latitude 10° and 143/4 north of the Equator, It shares boundaries with Taraba State in the south and west, Bauchi to its north-west, Yobe and Borno an States to the north. Adamawa State has an international boundary with the Cameroun Republic up along its eastern side.

Borno State created in 1976, is located in the northeastern corner of Nigeria, bordering Niger, Chad, and Northern Cameroon. Its location and proximity to Lake Chad puts Borno at an important crossroad for trade with neighbouring countries and other parts of Nigeria

Gombe State was created from the former Bauchi State on 1 October 1996. Covering a land area of 20,265 square kilometers, it is the smallest among the six North-East states. Gombe is predominantly rural with several towns and small urban areas. Gombe is the state capital, which serves as the state's trading and commercial center. Gombe is divided into 11 LGAs.

Taraba State, with Jalingo as its capital, lies largely within the middle of Nigeria on the Mabilla Plateau. With a landmass of 56,300 square km (21,737 square miles), which presents 6.2 percent of Nigeria's total land area, Taraba is the third largest state in Nigeria and the second largest in the North-East region.

Yobe State was carved out of Borno state on 27 August 1991. The state covers a land area of 45,502 square km. Yobe is primarily a rural state. The majority of the population live in rural settlements while the remainder live in five urban centres.

The main biological, physical and socio-economic characteristics of the 4 states are summarized below.

4.2 Physical Environment of the States/Locations

4.2.1 Climate

Anambra State lies within the humid tropical rainforest belt of Nigeria. Mean daily maximum temperatures range from 27.2° C in October and November to 35° C in March. The mean daily minimum ranges from about 24.7° C in May to about 21° C in September. Relative humidity varies with season with an average value of about 75-95%.

Bauchi State is dominated by high temperatures. Mean daily maximum temperatures range from 29.2°C in July and August to 37.6°C in March and April. The mean daily minimum ranges from about 11.7°C in December and January to about 24.7°C in April and May. The sunshine hours range from about 5.1 hours in July to about 8.9 hours in November. October to February usually

record the longest sunshine hours in the state. Humidity ranges from about twelve per cent in February to about 68 per cent in August.

Ekiti State has a tropical climate with two distinct seasons. These are the rainy season (April–October) and the dry season (November–March). Temperature ranges between 21° and 28°C with high humidity. The south westerly wind and the northeast trade winds blow in the rainy and dry (Harmattan) seasons respectively. Tropical forest exists in the south, while savannah occupies the northern peripheries

Adamawa State has a tropical climate characterized by dry and wet seasons. The dominant features of the rainfall in Adamawa State are its seasonal character, its variability from year to year and the intensity of the rainfall or the large energy content of the rainfall ends later October, while the dry season lasts from November to March.

In **Borno State**, three seasons have been identified: the cool dry (harmattan) season (October-March), hot dry season (April-June) and rainy season (July-September). Relative humidity is generally low throughout the state, ranging from as low as 13 per cent in the driest months of February and March to the highest values of seventy to eighty per cent in the rainy season months of July and August.

The climate of **Yobe State** is hot and dry for most periods, of the year. The mean temperature for most stations in the state is about $37\hat{A}^{\circ}C$. The highest temperature (about $42\hat{A}^{\circ}C$) is normally experienced in April, while minimum temperatures (about $30\hat{A}^{\circ}C$) are usually recorded in December.

4.2.2 Rainfall

Annual rainfall is high in **Anambra** State, ranging from 1,400mm in the north to 2,500mm in the south. The area is dominated by two major seasons – rainy season and dry season. Rainy season ranges from March to October with its peak in July and September, and a short break in August. The dry season ranges from November to February with the influence of harmattan felt between the months of December and January. In **Bauchi** State, The rainy season months are May to September, when humidity ranges from about 37 per cent to 68 per cent. Monthly rainfall ranges from 0.0mm in December and January, though only traces of less than 0.1mm in February and November, to about 343mm in July. Onset of the rains is often in March while they end virtually by October. In Ekiti, the mean annual total rainfall in the south is about 1800mm while that of the northern part is hardly over 1600mm.

Adamawa-The average rainfall for the state is 759mm in the northern parts and 1,051mm in the southern parts around Ganye and Jada Local Government Areas. The wettest months are August and September. The length of the rainy season averages eighty-five to ninety-two days per year. Evapotranspiration exceeds rainfall for most parts of the year. There is one primary rainfall peak each year. This occurs between June and September when the mean monthly rainfall is 198mm. *Temperature*

Average temperature in **Anambra** State range of about 25 - 27.50C, and mean annual sunshine hours of about 1750hours. In Bauchi State, temperatures are, as would be expected, generally high in the state. Mean daily maximum temperatures range from 29.2°C in July and August to 37.6°C

in March and April. The mean daily minimum ranges from about 11.7°C in December and January to about 24.7°C in April and May. The sunshine hours range from about 5.1 hours in July to about 8.9 hours in November. Indeed, October to February usually record the longest sunshine hours in the state.

In the south of **Ekiti**, the mean monthly temperature is about 28°C with a mean monthly range of 3°C while the mean relative humidity is over seventy five per cent. However, in the northern part of the state, the mean monthly temperature may be over 30°C while the mean monthly range may be as high as 8°C. The mean monthly relative humidity here is about 65 per cent. **In Adamawa** The surface air, at the beginning of the dry season in November, is very hot. The season starts with a marked and abrupt drop in the moisture content of the surface air followed by a change in the direction of the surface winds. The relative humidity drops abruptly from 82 to 92% between June and October (average at 10a.m.) to about 25 to 36% between December and March. Daily minimum temperatures normally drop more rapidly than the maximum.

In **Borno**, the rainy season lasts for less than eighty days in the extreme north, but is as high as 140days in the extreme south. The mean annual rainfall is over 800mm on the Biu Plateau but less than 500mm the extreme north around Lake Chad. Rainfall variability is over 100 per cent.

In Borno, a greater part of the state lies on the Chad Formation. This is an area that was subjected to prolonged continental and lake sedimentation as a result of the downwarp of the Chad Basin in the Pleistocene Period. The Chad Formation is separated by Cretaceous Bima and Kerri sandstones.

4.2.3 Geology

Anambra State lies in the Anambra Basin, the first region where intensive oil exploration was carried out in Nigeria. Anambra basin has about 6,000 m of sedimentary rocks. The sedimentary rocks comprise ancient Cretaceous deltas, somewhat similar to the Niger Delta, with the Nkporo Shale, the Mamu Formation, the Ajali sandstone and the Nsukka Formation as the main deposits. On the surface the dominant sedimentary rocks are the Imo Shale a sequence of grey shales, occasional clay iron stones and Sandstone beds. The Imo Shale underlies the eastern part of the state.

Bauchi is part of the crystalline rock area in central northern Nigeria with hill ranges that are developed on basement complex rocks, in an area which is also characterized by extensive plateau surfaces and volcanic extrusions. There is also a central high plain (of the Hausa land) area, belonging to the Kerri Kerri and Gombe sandstone and shale, of Tertiary Age. Bauchi town lies within the undifferentiated basement complex with older granites (out-crops) and younger granite out-crops.

Ekiti State is underlain by metamorphic rocks of the Pre-Cambrian basement complex, the great majority of which are very ancient in age. These basement complex rocks show great variations in grain size and in mineral composition. The rocks are quartz gneisses and schists consisting essentially of quartz with small amounts of white micaceous minerals. In grain size and structure, the rocks vary from very coarse grained pegmatite to medium grained gneisses. The rocks are strongly foliated and they occur as outcrops especially in Efon Alaaye and Ikere Ekiti areas

4.2.4 Topography

Anambra State falls into two main landform regions: a highland region of moderate elevation that covers much of the state south of the Anambra River, and low plains to the west, north, and east of the highlands. The highland region is a low asymmetrical ridge or cuesta in the northern portion of the Awka-Orlu Uplands, which trend roughly southeast to North West in line with the geological formations that underlie it. It is highest in the southeast, about 410m above mean sea level, and gradually decreases in height to only 33m in the northwest on the banks of the Anambra River and the Niger.

Bauchi State lies generally at an altitude of about 600m above sea level, being part of the central Nigeria highlands and Jos Plateau complex. Bauchi has a western high land area of hill ranges, including the northern edges of the Jos Plateau complex and central high plain (punctuated by isolated hills in several places, and reach heights of 798.5m on the Lamurde hill, and 816.4m on the Ligri hill

Ekiti State, a purely upland area is rugged with undulating areas and granitic outcrops in several places. The notable ones among the hills are Ikere Ekiti Hills in the southern part of the state; Efon Alaaye Hills to the western boundary of the state and the Ado Ekiti Hills in the central part of the state. Most of these hills are well over 250m above sea level.

Adamawa state is characterised by undulating hills and rolling landscapes in the south and west. There are several rocky highlands in the east. The rocky hills, for instance near Dernsa, Song and Numan, are normally strewn with broken rocks and rock outcrops which render them unsuitable for arable farming

Physiographically, **Borno** State could be divided into two broad relief regions, namely, the hilly/mountainous area of generally over 600m above sea-level; and the plains of less than 600 metres above sea-level. The highlands dominate the south and south-eastern parts of the state, covering about one-third of the total land area of Borno. The remaining two-thirds of the land area is dominated by plains of generally less than 600m above sea-level

Vegetation and Soils

The northern part of **Adamawa** State has the sub-sudan vegetation zone marked by short grasses interspersed with short trees, while in its southern part, the northern Guinea Savannah vegetation exists.

In **Borno** State, two vegetation zones are identified in the state: Sudan savannah and southern Sahel. The semiarid nature of the Sahel and northern Sudan savannah makes the vegetation consist mainly of open acacia tree savannah. The soils of Borno State vary in colour, texture, structure, physico-chemical and other essential characteristics from the hilly south to the northern dune landscape. These are 'heavy dark clay soils (Firki) which develop wide cracks during the dry season. On the dunes are regosols which are shallow with weakly developed profiles.

The soil in most of **Yobe** State is derived from drift materials which vary in textural characteristics, but are mainly silt clay or clayey. There are two vegetation zones in Yobe state. These are the Sahel in the north and the Sudan Savannah in the south. Vegetal cover is sparse as the grass grows in individual tufts leaving bare surfaces in between.

4.2.5 Drainage

Anambra is drained by the Northern flowing Anambra River, the east flowing Mamu River and the west-flowing rivers, the Idemili, the Nkisi, and the Oyis and Ulasi river. With the exception of Ulasi river, all the rivers in Anambra state empty into the River Niger. River Niger forms the western boundary of the state and constitutes the local base level for the rivers. The exception, Ulasi River rises near Dikenafai in Imo State, flows northward to Ozubulu in Anambra State and then turns round in a wide loop and heads for the Atlantic Ocean.

Bauchi state is drained by several river systems. The dominant one is River Gongola which originates in the Jos Plateau area, southwest of Bauchi State. It traverses, in a southwest-north east direction through the southern LGAs of the state. It has numerous headwaters and tributaries within the state. They include Rivers Surr, Lere, Maijuju, Rafin Bagel, Gangala and Gubi in the southwest part; Rivers Guji, Yuli, Ruhu, Dukut and Panana in the south and south-east parts. The western and northern parts of the state are drained by the Rivers Bunga and Jama'are systems.

Adamawa state is well drained by many rivers, most of which are seasonal. The main river is the Benue which rises from the highlands of the Cameroun and flows southwards to join the River Niger at Lokoja.

The **Borno** region is drained by two groups of rivers, one is bound towards the south draining to the Benue system, while the other is towards Lake Chad. The region is generally drained by seasonally flowing rivers, whose peak flows are recorded during the rainy season in the months of July and August.

4.3. Socio-Economics

4.3.1 Demography

The population estimates for the 3 project states as well as the 6 North East States based on 2006 population census are shown in Table 4.1.

Table 4.1: Population Figure of the States

State	Persons	Males	Females
Anambra	4,182,032	2,174,641	2,007,391
Bauchi	4,676,465	2,426,215	2,250,250
Ekiti	2,384,212	1,212,609	1,171,603
Borno	4,171,104	2,163,358	2,007,746
Adamawa	3,178,950	1,607,270	1,571,680
Yobe	2,321,339	1,205,034	1,116,305
Taraba	2,294,800	1,171,931	1,122,869
Gombe	2,365,040	1,244,228	1,120,812

Source: Federal Republic of Nigeria official gazette of 2nd February 2009 No. 2 Vol. 96.

4.3.2 Economy

Anambra State: The economic climate in Anambra State is highly favourable. A conducive combination of large markets, abundant skilled labour force, considerable entrepreneurial ability, and easy access to capital and natural resources prevail in the state. Almost all the urban centres possess very busy and virile markets. Anambra State has vibrant entrepreneurial activities in commerce and industry. The Nnewi Industrial axis, popularly referred to as "the Japan of Africa" (comprising Nnewi, Onitsha and Ozubulu) is renowned in this subsector. This is due to its large-scale fabrication of machines, machine tools, motor parts and accessories etc. Onitsha, which has the largest market in West Africa, also houses an electronic Stock Exchange.

Bauchi State; The economy of Bauchi state is predominantly rural and agricultural. About eighty percent of the people in most of the LGAs are still dependent on farming. Maize, rice, cassava, groundnut and cotton cultivation is widespread, largely in small peasant farms, but also in some large farms owned by a few big farmers. In recent years, the Agricultural Development Project (ADP), established in the state through World Bank assistance, as well as the Hadejia-Jama'are RiverValley project, has helped to increase agricultural production and rural development generally. In 2010, the World Bank rated Bauchi State as the 10th best place to do business and the 21st best place to start a business, among all 36 states of Nigeria.

Adamawa State: Adamawa State the seventh largest state in Nigeria and the fifth largest in the North-East by area, Adamawa comprised just 0.43 percent of GDP in 2009. Adamawa's economy remains diversified across livestock (37.1 percent of GDP), real estate (23.0 percent), crop production (16.6 percent), road transportation (6.8 percent), and wholesale and retail trade (6.6 percent).

Borno State: The economy is largely agrarian, with livestock husbandry, irrigated agriculture, and fishing on Lake Chad dominating the economic activities of the population. Industry is still developing in Borno, which accounts for less than one percent of Nigeria's national industrial output.

Gombe State: Agriculture is the major sector of the economy with crop production and livestock contributing to 65 percent of the total GSP in 2008. About 80 percent of the total population are peasant farmers involved in the cultivation of food and cash crops, such as millet, sorghum, maize, vegetable, cotton, and groundnut, with or without irrigation.

Taraba State: Income-generating activities in are mainly associated with agriculture and with some mining

Yobe's economy is agricultural-based, mostly livestock, crop, horticultural production and fisheries, gum arabic and palm trees.

4.3.3 Agriculture

Anambra State has stretches of fertile land on the plains in Ogbaru, Ayamelum, Oyi, if Awka and Orumba LGAs. These areas support n healthy crops of yam, maize, cassava, rice, and vegetables. The lfite Ogwari Dam on the Anambra River provides water for 3,500hectare irrigated land at Omor for the cultivation of rice, maize, and out-of-season vegetables. The Omor rice farms, together with the OgbojiEzira rice lands of Orumba, and Odoekpe rice fields in Ogbaru, earn for Anambra State the third richest rice potentials area in Nigeria. Large private farms, such as the Ekenedilichukwu Farms, Arnak Farms, and Pokobros are located in the rich hydromorphic soil regions of Anambra and Ayamelum LGAs.

Agriculture is the mainstay of Bauchi's economy. About 80 percent of the inhabitants in the region engage in the production of food and cash crops, but on small scale basis. The major crops produced in the states are cotton, maize, groundnuts, millet, guinea corn, rice, beans, sesame seeds, and gum-Arabic

In **Ekiti** State, agriculture is the dominant occupation of the people providing employment and income for over 80 percent of the population. It is also responsible for over 90 percent of the state's Gross Domestic Product (GDP). The main revenue yielding tree crops are cocoa, oil palm and timber, the latter including both the native and exotic species.

Gombe State: Agriculture is the major sector of the economy with crop production and livestock

In Borno State, the majority of the people are farmers, herdsmen and fishermen. Agriculture is, therefore, the mainstay of the economy. The crops grown include guinea corn, millet, maize, rice, wheat, groundnut, cassava, beans and cowpeas. Others are vegetables, onions, okra and tomatoes. About 1,794,400 ha. of land is under crop cultivation. The Chad Basin and Rural Development Authority, Lake Chad Research Institute, Borno State Agricultural Development Programme and Borno State

In **Yobe** State, agriculture is the mainstay of the state's economy. Yobe State is endowed with vast agricultural and livestock development potentials. The state also possesses one of the richest fishing grounds in the north-eastern region of the country.

Regarding the pre-crises situation in the agriculture and irrigation sector in each of the six states is about 80 percent of the population in **Borno state** is engaged in either crop farming or animal rearing. The State had an inventory of over 560,097 infrastructures and a robust and functional service delivery system prior to the crisis. With 14 out of the 27 local governments ravaged by insurgency, the impact of the conflict on agriculture and food security is expected to be very high in the State. In **Adamawa state**, the major income generating activity of the population is farming. Seven out of the 19 local government areas were affected by the conflict in this sector. **Yobe** is also a mainly agricultural state, and 8 of the 17 LGAs were reported to be affected by the insurgency.

Infrastructural Facilities

4.3.4 Education:

The people of **Anambra** the state place premium on education. Town unions, private individuals, and associations, being part of voluntary agencies, have played active roles in the development of educational infrastructure in the state. Although state control of education has been the policy, private participation has also been encouraged. Besides, there is a gradual return of some secondary schools to their previous voluntary agencies (missions). Private nursery, vocational and commercial education has been on the increase. There are now 1367 public and 507 private primary schools in the state in 2007/2008 session, with a total enrolment of about 513,421 pupils in public school and 57,189 private schools. There is a total of 429 public junior secondary schools with an enrolment of about 172,702 in the 2007/08 session and a total of 259 private junior secondary schools with an enrolment of 22605. The state now has three universities: a Federal university Nnamdi Azikiwe University, Awka, with its teaching hospital at Nnewi; a state university with two campuses, one at the former state polytechnic, Uli; and a private university, Madona University, Onitsha, temporarily located at Okija, and owned by the Roman Catholic Church.

In **Bauchi State**, educational facilities at the different levels abound. Among the major institutions of higher learning are the Abubakar Tafawa Balewa University (Federal) in Bauchi, College of Education in Azare; Bauchi State Polytechnic and Federal Polytechnic in Bauchi; and the Teacher's College, Toro, which is a private (Mission) institution established in 1928 as the first higher educational institution in the state and the second in the entire northern states of Nigeria. There is also the Bauchi State School of Agriculture and Animal Husbandry in Bauchi town. There are a total of 2601 public primary schools with an enrollment of 682,836 in 2007/08 session while there are a total of 293 private primary schools with an enrollment of 56,334 pupils. There are a total of 245 public junior secondary schools with an enrollment of 69,847 and 124 private junior secondary schools with an enrollment of 50,968 in the 2007/2008 academic session.

Education is the most visible industry of the people of **Ekiti State**, hence the people are in the forefront of educational development. There are 1153 public primary schools with an enrollment of 167,095 pupils in 2007/08 session and 321 private primary schools with an enrollment of 10,848 pupils in the same session. There is a total of 229 public junior secondary schools with an enrolment of 42,423 in 2007/2008 while there is a total of 100 private junior secondary schools with an enrolment of 6,514 students. Four State Unity Secondary Schools are situated at Ado, Ikere, Oye and Usi; two Federal Unity Schools have also been established while there are four Technical Colleges in Ado, Ijero, Ikole and Otun. There are some schools established to cater for specific purposes such as the Special School for the Disabled Children at Ido Ekiti, five Nomadic Schools dotted across the state and four Women Education Centres which are under the control of the local governments.

In **Adamawa State**, there are several secondary and primary schools, technical Colleges and private institutions in the state. The tertiary institution in the states include: Federal University of Technology, Yola (Futy); Adamawa State University, Mubi, Abti; American University Nigeria, Yola (AAUN); Federal Polytechnic, Mubi; Adamawa State Polytechnic, Yola; Federal College of Education, Yola; College of Education, Hong; School of Nursing and Midwifery, Yola; School of Health Technology, Michika; College of Legal Studies, Yola; College of Agriculture, Ganye.

Summary of the damage to the Education sector in the North East

The crisis has targeted schools, restricting access to basic services, frightening away teachers from the areas where they are most needed. Maiduguri, the capital of **Borno** State, has received more than 1 million IDPs, overwhelming the delivery of basic services, and leading to further overcrowding in schools. Increased population density in many urban areas due to displacement has led to greater competition for access to basic services. Short-term solutions, like using at least 50 schools to host IDPs in **Borno**, have meant that IDPs found themselves in inadequate quarters for longer than expected, and have negatively affected the host communities by leaving children without access to learning due to the closure of all schools in the state for one year.

4.3.5 Roads and transportation

Anambra state is served by four major road networks. The Onitsha Enugu dual carriageway is a gateway to the west and north of the country. The Onitsha Owerri road, a very busy highway, is the main artery to the eastern states. There are plans to dualise this route. The Onitsha Nnewi Okigwe road and the Onitsha Adani road render the rest of the state accessible to the river port and nodal town of Onitsha. Most of the road transport services have their headquarters at Onitsha. The main waterway is the River Niger. Onitsha is the largest river port in the country. Vessels can travel from Onitsha eastward up to Yola on the River Benue, westward to Yelwa on the Niger, and southward to the Delta ports of Brass, Warri and Burutu. The state is not served by rail.

Bauchi, State is very well served with road links, both within the various parts of the state and with other parts of the country. In particular, it is connected with and traversed by three main national trunk roads. The Kuru to Maiduguri eastern rail line extension in Nigeria passes through Bauchi State, connecting several settlements, including Lere, Bauchi, and on to Gombe and Bajoga in Gombe State. The state capital is served by an airstrip for light aircraft.

Ekiti state has a good network of roads that link the major urban centres with AdoEkiti, the state capital. There are also road networks linking the headquarters of the local government areas. DFRRI contributed in the opening up of rural areas through road construction, however, most of the DFRRI roads are not tarred but most of them are motorable all the year round. Also, PTF assisted substantially in the development of roads in Ekiti State. The World Bank has also been involved in constructing inter-settlement roads in the state.

Borno State is connected to other states in the federation by air, road and rail. The state has a total of 2,449km of tarred all season roads and 755km of untarred seasonal roads linking various LGA headquarters. Road transportation in the state is, however, inadequate and most of the existing roads, particularly the Federal roads, are in a deplorable state. Road density is low and many parts of the state are remote and inaccessible.

4.3.6 Communication

In **Anambra state**, postal and telephone services are available in almost every community. At least one GSM provider especially MTN and GLO is available in most of the communities. The mass media and major information organs are the State Broadcasting Services at Awka; Minaj

Broadcasting and Television Service at Obosi (privately owned); the Newspaper and Printing Corporation; and the publishers of the National Light and the Spokesman newspapers.

The **Bauchi State** capital and several of the other settlements in the state are served by both postal and st telecommunication facilities, while the state's radio and television networks cater for the needs of people of the state

Telecommunication infrastructures are available at **Ekiti State**. The Nigerian Postal Service (NIPOST) has its state headquarters at AdoEkiti while there are zonal offices in Ikere, Ikole, Ode and Ijero. Also, with the spread of GSM services in Nigeria, the majority of the communities in the State are connected with telecom services.

Telecommunication is well advanced. Telephone link is only with Maiduguri, Bama and Biu. Reception of broadcasts by the Nigerian Television Authority (NTA) and Borno Radio and Television (BRTV) stations is limited to the vicinity of Maiduguri, where their domsat stations are located and the neighbouring LGAs such as, Konduga, Bama and Gwoza.

4.3.7 Healthcare Facilities

In **Anambra State,** there are over thirty two government owned hospitals, with some LGAs having more than one, in addition to many private hospitals and clinics. A School of Nursing and Midwifery is located at Nkpor, near Onitsha. Four Comprehensive Health Centres for secondary healthcare have been established in the state. The University of Nigeria Teaching Hospital is located at Abagana; with three branches of the Nnamdi Azikiwe University Teaching Hospital sited at Neni, Ukpo, and Isuochi.

Bauchi state has several government general hospitals in each of the LGA headquarters; Primary Health Centres (PHCs); Dispensaries; Urban Maternity Centres and Maternal and Child Health (MCH) Clinics; Comprehensive Health Centres (CHC) and Tubal Legation (TBL) Clinics. There are also several private hospitals, clinics, maternities, pharmaceutical shops and dispensing clinics; especially in Bauchi and Azare, which provide health care to the people in the state. There are also a Specialist Hospital, an in Eye Clinic, a Nutrition Unit and a Dental Centre, all in Bauchi, and Mobile Clinics which serve the rural areas of the state. In addition, there are over 120 dispensaries; 225 leprosy clinics; over fifty-five MCH clinics built and owned by the LGA councils.

In **Ekiti State**, various categories of health and medical facilities are available to the people of the state. These health facilities belong to the Federal, State and Local Governments, religious organisation, and private individuals. The state Government hospitals are classified into three viz: State Specialist Hospital, General Hospitals and District Hospitals. There are about one specialist Hospital, nine General and four District Hospitals in the State. There are about three comprehensive Health Centres in addition to about 250 primary healthcare (PHC) establishments such as Basic Health Centres, Maternity Centres and Dispensaries found all over the state.

Adamawa state has a specialist and General Hospitals in the State Capital and some Local Government Areas, equipped with modern facilities. Some of the medical institutions in the State include: Federal Medical Centre, Yola; Specialist Hospital, Yola; Leprosarium Centre, Garkida; General Hospital in (Jada,numan, Michika); Cottage Hospital in (Hong, Guyuk, Mayo-belwa, Maiha, Song, Fufore, Gulak, Borrong, Shelleng).

4.3.8 Water sources

In **Anambra** State, the statistics on water shows that about half the population of the state does not have access to public water supply, while there is a strong dependence by a large number of householders on boreholes and rain water. Water supply is very inadequate especially in urban centres such as Onitsha, Nnewi, Awka and Ekwulobia. The worst hit areas are found in Awka South, Ihiala, Ogbaru, Orumba South, Nnewi North and Onitsha North. Consequently, much private effort goes into the provision of water using boreholes and water storage tanks. Water vending is a lucrative business in Anambra State.

In **Ekiti**, the State Water Corporation has connected all major urban centres, and even villages, to different water schemes in the state. The main water scheme is the Ero River Water Project which serves over sixty two towns and villages. The Ose River Water Supply Project also supplies potable water to Ekiti East and Ikere LGAs. There is also the EfonAlaaye water scheme which caters for the western side of the state.

In **Borno** State, a total of 692 boreholes have been sunk by the local, state and federal governments and by bilateral agencies and various communities. Borehole water supply to Maiduguri, the state capital, is supplemented by the Alau dam scheme. In addition, there are a number of earth dams in various parts of the state.

4.3.9 Electricity Supply

The provision of electricity in the rural areas is being vigorously pursued through the Anambra State Directorate for Rural Development (SDRD). Electricity projects completed have been commissioned at Umuoji, Abatete and Nsugbe, while fifty other communities have their projects at various stages of completion. Households with serious needs for electricity are found in Anambra West, Anambra East and Ogbaru.

Over time, there has been marked improvement in the provision of electricity in Ekiti State.

4.3.10 Tourism and Cultural Resources

Anambra State is endowed with several natural features of scenic beauty, as well as historical and cultural attractions, upon which a viable tourist industry can be based. These include the Agulu, lyiocha/Amaokpala, Ezu Nawfia, and Obutu Lakes, the Ogbunike and Ajali caves, the Otuocha sand beach, and NankaAgulu gullies. The cultural resources in Anambra State are the Nri Odinani a Museum established by the Nri Community, the Enugwu Ukwu and Igboukwu Museums, and the Asele Arts gallery at Nimo. Bauchi State is very rich in tourism and recreational facilities. They include numerous historical monuments; scenic resorts, water sports and recreational attractions: wildlife and game reserves and traditional festivals. The Yankari National Park, and the Lame-Burra Forest and Game Reserve are found in the state

The main tourist centre in **Ekiti** State is the Ikogosi Warm Springs where the state government has constructed guest houses for visitors' comfort. The warm spring has a swimming pool of warm water. A zoological garden is also attached to this tourist centre. Other tourist attractions are the Fajuyi Memorial Park at Ado Ekiti, Olosunta Hills at Ikere Ekiti and the lpole/lloro Water Falls.

4.3.11 Waste Management

Waste collection is a major challenge in many of the cities in **Anambra** State. The Anambra State Environmental Protection Agency is the main authority responsible for waste management in the State. There is a high cost associated with the operations and maintenance of the waste management services especially as over 70% of households in the State attest to not paying any fees for waste management services.

In the **North East States,** waste collection vehicles in areas of fighting have been damaged, destroyed and sometimes stolen, which has impacted on states' abilities to provide basic service of waste collection. More notably, the impact of population movement is intense, especially where individuals have moved from rural to urban areas. IDPs bring with them their waste generation patterns, which puts a substantial stress on the local collection, recovery and disposal systems. The city of Maiduguri for example is now expected to manage up to 45% more waste than before the crisis. This issue directly impacts all six states, correlated directly with the presence of IDPs.

CHAPTER FIVE: POTENTIAL ENVIRONMENTAL AND SOCIAL IMPACTS

The project will enhance the economic, social and political development of the participating States through the facilitation of improved access to primary and junior secondary education, teacher recruitment and deployment especially female teachers and in science and technology areas, and provision of teacher training and local skills development and education management.

Since all sub-activities and beneficiary schools are yet to be identified, the impact assessment is based on potential impacts from anticipated project activities. Site specific project impact would be detailed for each site before the commencement of activities as part of the Environmental and Social Management Plan implementation.

A summary of the main project activities and their potential environmental and social impacts on the environment is shown in Table 5.1. The impact of each activity is assessed qualitatively through the relevant environmental and social media which are:

- Environmental media Air, Water, Soil and Vegetation
- Social media Community Structure, Livelihood, Community Infrastructure, Population/Demographics, Public Health, and Land Use

In analyzing the impacts, three criteria were used:

- The Severity of the impact on the existing environment (High, Medium, or Low)
- The Likelihood of the impact occurring (High, Medium, or Low)
- The Effect of the impact, whether beneficial (+) or adverse (-)

5.1: Environmental Impacts

Generally, there will be no major environmental implications given that project activities focus on education quality and systems improvements.

Construction and Rehabilitation Phase

The project activities will not involve any construction or rehabilitation civil works thus; there will be no negative impacts on the environment.

Operation Phase

Water Resources

Considering the nature of the project, it is not likely that any of the project components will impact on water resources.

Air Pollution

Also, considering the nature of the project, it is unlikely that any of the project components will lead to air pollution. However, if the school administrators deploy funds from school grants to

purchase of laboratory and workshop equipment, the equipment may emit air pollutants which may increase respiratory disorders e.g. nasal discomfort as a result of inhaling air particles from extractor fan.

Solid Waste

Considering that the project is on quality and systems improvement, limited solid waste materials may be generated as a result of management activities. Thus there could be illegal dumping of solid waste in drainage channels which may result in blocked drainages and cause flooding, while improper use and disposal of sanitary facilities in the schools can attract pests and disease vectors.

Visual intrusion

It is unlikely that any of the project components will cause any visual intrusion.

5.2 Social and Health Impacts

Perceived socio-economic were identified from key socio-economic indicators (livelihood, community structure, public health, land use and population) and the projects components at all level of the project implementation.

Construction and Rehabilitation Phase

The project does not involve any construction or rehabilitation there is no implication for the environment.

Operation Phase

Teacher Deployment-Improving teacher Availability in Rural Areas

The impacts of the project on educational development are largely positive. The provision the recruitment and deployment of teachers in the States especially in the rural areas will help improve the quality of education and enhance the completion rate and students/pupils performance in both primary and secondary schools especially at junior secondary level.

Teacher Recruitment and Training

The project implementation will involve recruitment of teachers especially in core subject areas and will provide training opportunities and learning materials for teachers. This will improve the quality of education at both the basic and secondary level. There is also the likelihood that the training opportunities will lead to improve teaching quality, job satisfaction, improved livelihood as well as standard of living among teachers. The general public health of targeted areas would also be positively impacted.

Learning Assessment

The project will lead to improvement in the measurement of student learning outcomes. This will help enhance assessment in numeracy and literacy for Grades 3 and 5; and in English, Mathematics for Grade 11. This will enhance the performance of pupils/students especially in and increase quality of education

Improved Governance

The project will strengthen the governance and management of schools especially through the School Based Community Management System. It will also enhance government systems for the planning, delivery, monitoring and resourcing of education in participating States. This could cause a significant improvement in the educational sector of the states.

Improved Technical and Vocational Education

The project will improve the skill level and technical competence of graduates of technical colleges through partnerships. A plan will be developed in this regard. With this the skill level of Voc Ed graduates and subsequently household incomes and livelihoods will be improved.

Table 5.1: Summary of the Potential Environmental and Social Impacts of the SEPIP

Activities	Environmental Media	Environmental Impacts/Issues	Severity	Likelihood	Effec t	Social Media	Social Impacts/Issues	Severity	Likelihood	Effec t
Teacher Deployment	Air	None	NA	NA	NA	Community Structure	None	NA	NA	NA
	Groundwater	None	NA	NA	NA	Livelihood	Increase in income	М	M	+
	Soil	None	NA	NA	NA	Community Infrastructure	Improved teacher availability in rural areas especially female teachers, Improved educational quality, improved completion rate	Н	Н	+
	Vegetation	None	NA	NA	NA	Public Health	Increased awareness on health issues	М	M	+
						Land Use	None			
						Population/ Demographics	Increased population and attendant crimes due to movement of more people into the communities	L	L	-
Teacher Recruitment and	Air	None	NA	NA	NA	Community Structure	None			
Training	Groundwater	None	NA	NA	NA	Livelihood	Training opportunities, increased income	M	M	+
	Soil	None	NA	NA	NA	Community Infrastructure	Improved teacher availability in core subjects especially female teachers, Improved educational performance especially increased completion rate and students competency	Н	Н	+
	Vegetation	None	NA	NA	NA	Public Health	Increased awareness on health issues	M	M	+
				<u> </u>		Land Use	None			
						Population/ Demographics	Possible increase in population	L	L	-
	Air	None	NA	NA	NA	Community Structure	None			

Improved Learning Assessment	Groundwater	None	NA	NA	NA	Livelihood	Improved measurement of student outcome will lead to quality improvement which will in turn lead to livelihood improvement	М	M	+
	Soil	None	NA	NA	NA	Community Infrastructure	Improved educational sector	M	M	+
	Vegetation	None	NA	NA	NA	Public Health	None	NA	NA	NA
						Land Use	None	NA	NA	NA
						Population/ Demographics	None	NA	NA	NA
Improved Technical and	Air	None	NA	NA	NA	Community Structure	None	NA	NA	NA
Vocational Education	Groundwater	None	NA	NA	NA	Livelihood	Improved technical and vocational education will enhance the skill level and competency of graduates and thus enhance income and livelihoods	Н	Н	+
	Soil	None	NA	NA	NA	Community Infrastructure	Improved educational sector	M	M	+
	Vegetation	None	NA	NA	NA	Public Health	None	NA	NA	NA
		•	1		1	Land Use	None	NA	NA	NA
						Population/ Demographics	None	NA	NA	NA
Improved Governance	Air	None	NA	NA	NA	Community Structure	May affect the running and leadership of communities as some leaders may be in SBMCs	M	M	-
	Groundwater	None	NA	NA	NA	Livelihood	Training opportunities for the members of SBMCs will enhance livelihoods	M	M	+
	Soil	None	NA	NA	NA	Community Infrastructure	Improved educational outcomes based on the management plans	Н	Н	+
	Vegetation	None	NA	NA	NA	Public Health	None	NA	NA	NA
		•	•		•	Land Use	None	NA	NA	NA
						Population/ Demographics	None	NA	NA	NA
School Improvement	Air	Minor school repairs and	L	L	-	Community Structure	None	NA	NA	NA

	especially laboratory maintenance may emit pollutants								
Groundwater	None	NA	NA	NA	Livelihood	None	NA	NA	NA
Soil	None	NA	NA	NA	Community Infrastructure	Improved educational quality	Н	Н	+
Vegetation	None				Public Health	None	NA	NA	NA
	1	1	1	•	Land Use	None	NA	NA	NA
					Population/ Demographics	None	NA	NA	NA

Note: NA is for "Not Applicable"

CHAPTER SIX: ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

An Environmental and Social Management Plan (ESMP) defines project-specific environmental and social mitigation measures, monitoring programmes, and responsibilities based on the analysis of potential environmental and social impacts of the project. This ESMP is intended to ensure efficient environmental management of these activities. It includes the following sections:

- the potential environmental and social impacts,
- the proposed mitigation measures,
- implementation arrangement,
- responsibilities for implementing mitigation and monitoring measures;
- capacity building needs; and
- implementation cost estimate

6.1 Mitigation Measures

This includes measures that can reduce the negative impacts associated with sub-project activities. Potential impacts and the appropriate mitigation measures are identified in Table 6.1. The table indicates the areas to which the potential impact applies. In addition, mitigation measures are identified as either social or physical measures. The measures serve as the basis for the cost estimates. During implementation, the mitigation costs will be included in the bid for sub-project activities.

Table 6.1: Summary of Environmental Mitigation Measures

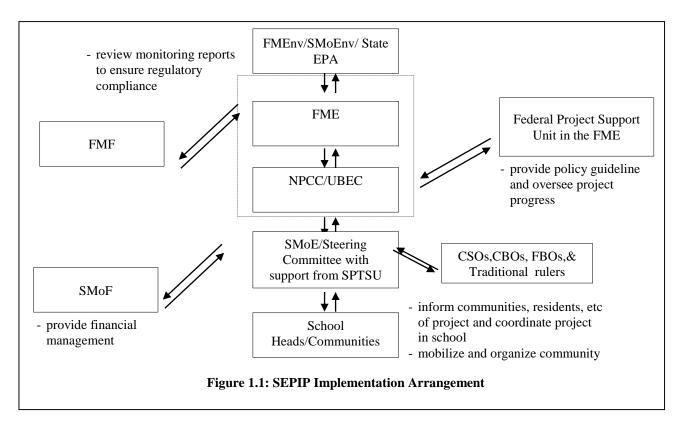
Potential Impacts	Recommended Mitigation Measures
Physical	
Noise	
Noise not expected considering that the project focuses on education quality and systems improvement	Not Applicable
Air Quality	
Air quality will not be impacted considering that the project focuses on education quality and systems improvement and construction or rehabilitation is not involved. However, minor repairs and maintenance operation may led to minimal pollution.	 Adopt proper waste management strategy Prohibit waste combustion on site Workers should use PPEs (nose masks)
Soil	
Soil will not be impacted considering that the project focuses on education quality and systems improvement and construction or rehabilitation is not involved.	Not Applicable
Water Quality	
Water quality will not be affected considering that the project focuses on education quality and systems improvement	Not Applicable
Biological Resources	
Vegetation	
 Vegetation will not be affected considering that the project focuses on education quality and systems improvement and construction or rehabilitation is not involved 	Not applicable
Wildlife	

Potential Impacts	Recommended Mitigation Measures
Wildlife will not be impacted.	Not Applicable
Wetlands	
Not to be impacted	Not Applicable
Farmlands and Grazing Areas	
 Since there is no new school construction, loss of farmland and grazing areas is not expected. 	Not Applicable
Solid/Hazardous Waste Management	
 Since there is no construction activity, solid waste solid waste and waste containing potentially hazardous materials (e.g. asbestos) will not be generated. Waste generation may only occur during operation phase through use of papers and materials purchase with school grants. 	 Quick sorting, collection and disposal of waste removed from the sites in accordance with applicable regulations. Employ services of registered waste management company
Social	
Health and Safety	
Risks of communicable and sexually transmitted diseases	 Conduct an awareness raising campaign for the community and school participants (pupils, students, teachers, etc.) Develop, produce and circulate leaflets to educate people of dangers of sexually transmitted diseases and how to prevent them. Print posters to educate people on HIV/AIDS.

6.2 Implementation Arrangement

The implementation arrangements would largely remain the same as the original project. Roles and responsibilities will be fine-tuned to reflect lessons of implementation experience. In the North East States, given the challenging context, implementation capacity may need to be strengthened through the development of education service providers and implementing partners such as civil society organizations, faith-based organizations and community based organizations and traditional rulers.

The key stakeholders required to implement the SEPIP-AF are identified in Figure 6.1 including their relationships and reporting responsibilities.



An Environmental and Social Management Specialist (ESMS), seconded from either SMoEnv or SEPA to the SPTSU will be responsible for the implementation and monitoring of the ESMF.

The FPSU and SPTSU will achieve the following objectives:

- propose management rules and specific measures that are compatible with sustainable development while implementing the project,
- promote awareness of environmental protection, and
- propose concrete means of applying the ESMP.

The ESMS will develop a monitoring plan to ensure ESMP implementation occurs in a structured manner. On behalf of the SPTSU, the ESMS will implement the monitoring plan and submit periodic environmental monitoring reports to SMoEnv and SEPA. Each report will indicate that members of the SPTSU should be contacted for clarification of issues.

The World Bank (WB)

The World Bank has the overall responsibility to ensure that its safeguards policies are complied with. In addition, the WB is responsible for the final review and clearance of the ESMF.

Capacity Strengthening for ESMP Implementation

Institutional strengthening will be required for the FPSU and SPTSU to effectively carry out the environmental and social management responsibilities for sub-project implementation. Capacity building will encompass FPSU and SPTSU and other state agencies involved in sub-project implementation.

An assessment of training needs and the development of a training strategy plan need to be conducted as an initial implementation activity which will, *inter alia*, determine and confirm whether the training programme proposed will suffice or is required.

Proposed training for the ESMS are as follows:

- Environmental and Social Management Process.
- Use of Screening form and Checklist
- Preparation of terms of reference for carrying out EA
- Design of appropriate mitigation measures.
- Review and approve EA reports
- Public consultations in the ESMF process.
- Monitoring mitigation measures implementation.
- Integrating ESMP into sub-projects implementation.

6.3 Monitoring Plan

Considering that the project does not have major environmental implications given that project activities focus on education quality and systems improvements monitoring requirements for the implementation of the ESMP will have limited focus on environmental issues but will be mainly focused on the social and health impacts of the project. The monitoring plan establishes appropriate criteria to validate the predicted impacts and ensure that any unforeseen impacts are detected and the mitigation adjusted where needed at an early stage. The plan will ensure that mitigating measures are implemented during renovation, upgrading and maintenance. Specific objectives of the monitoring plan are to:

- check the effectiveness of recommended mitigation measures;
- demonstrate that sub-project activities are carried out in accordance with the prescribed mitigation measures and existing regulatory procedures; and
- provide early warning signals whenever an impact indicator approaches a critical level.

Monitoring Procedure

The ESMS will prepare a long-term monitoring plan that will encompass clear and definitive parameters to be monitored for each sub-project. The plan will take into consideration the scope of development, the environmental and social sensitivity and the financial and technical means available for monitoring. It will also identify and describe the indicators to be used, the frequency of monitoring and the standard (baseline) against which the indicators will be measured for compliance with the ESMP.

A number of indicators would be used to determine the status of the affected environment:

- Has the pre-project human and natural environmental state been maintained or improved?
- Has the effectiveness of the ESMF technical assistance, review, approval and monitoring process been adequate to pre-empt and correct negative impacts inherent in sub- projects?
- Environmental Indicators: vegetation loss; land degradation; regulatory compliance.
- Social indicators: population incomes; traffic, changes in school attendance and performance.

6.4 ESMP Cost Estimate

To implement the environmental and social management measures as part of the ESMF, it is important to identify financial resource requirements even if indicative. This ensures upfront appreciation of the financial requirements and allows early planning and budgeting accordingly. All administrative costs for

implementing shall be budgeted for as part of the SPCU's costing. An indicative budget for the project (result based component) should be allocated to manage environmental and social concerns. The indicative cost is USD\$25,000. This involves the cost for mitigation, management, capacity strengthening and monitoring.

CHAPTER SEVEN: PUBLIC CONSULTATION

The FPSU and SPTSU have the responsibility to effectively engage stakeholders to successfully implement the project and achieve the stated objectives for the benefit of all. The public consultation will aim to assist the government in learning about the interests of, establishing a systematic dialogue with, and earning the trust of the surrounding residents and other stakeholders.

7.1 Objectives

This plan provides a framework for achieving effective stakeholder participation and promoting greater awareness and understanding of issues so that the project is carried out effectively within budget and on-time to the satisfaction of all concerned. To ensure effective implementation of this plan, the FPSU and SPTSU shall be committed to the following principles:

- promoting openness and communication;
- ensuring effective stakeholder participation in the development of the project;
- increasing public knowledge and understanding of the project implementation process;
- using all strategies and techniques which provide appropriate, timely and adequate opportunities for all stakeholders to participate; and
- evaluating the effectiveness of the engagement plan in accordance with the expected outcomes.

7.2 Stakeholders

Government Agencies

- Federal Ministry of Education
- Federal Ministry of Finance
- Federal Ministry of Environment
- Universal Basic Education Commission
- Anambra, Bauchi, Ekiti as well as the 6 North East State (including Bauchi State) of Borno, Adamawa, Yobe, Taraba and Gombe States Ministry of Education
- Anambra, Bauchi, Ekiti as well as the 6 North East State (including Bauchi State) of Borno, Adamawa, Yobe, Taraba and Gombe States Ministry of Education
- Anambra, Bauchi, Ekiti as well as the 6 North East State (including Bauchi State) of Borno, Adamawa, Yobe, Taraba and Gombe State Secondary Educational Board
- Anambra, Bauchi, Ekiti as well as the 6 North East State (including Bauchi State) of Borno, Adamawa, Yobe, Taraba and Gombe State Primary Educational Board
- State Ministry of Environment (Anambra, Bauchi, Ekiti as well as the 6 North East State (including Bauchi State) of Borno, Adamawa, Yobe, Taraba and Gombe)
- National Union of Teachers(NUT)
- Nigeria Education Research and Development Council (NERDC)
- National Board for Technical Education (NBTE)
- State level CSOs/CBOs

Educational Institutions

- Primary, Secondary and Technical Schools (Public and Private)
- School based management committees

Others

- National NGOs/ State level NGOs/Intergovernmental Organizations
- Scientific Experts/Researchers
- Parents Teachers Associations (PTAs)
- Students/Parents

- Private Sector

7.3 Consultation Strategies

A comprehensive public awareness program could include but not limited to the following:

- Meetings and Focus Group Discussions (FGD) with teachers, students, parents etc
- Develop and distribute a project newsletter
- Organize seminars and workshops
- Develop and maintain a project web site
- Develop radio and television adverts
- Prepare project press releases and posters

Concerns/comments were discussed with project staff of the FPSU and following concerns were discussed which included the proposed Additional Financing under SEPIP. Other concerns discussed include:

•Environmental concerns include:

- Hygiene education should be revived in schools, and provision of safe drinking water and appropriate sanitation facilities;
- Better adherence to environmental guidelines, particularly those related to environmental wastes management (materials and laboratory and chemical waste disposal); and
- Provision of adequate physical learning environment such as beatification of classroom areas with trees and flowers;

Social concerns include:

- •School level management: The composition of School-Based management Committees should include, representativeness of community members, and should autonomy from the school authorities in decision making;
- Third party monitoring: There should be some form of third party monitoring which should include education Civil Society Organizations (CSOs); and NGOs both at state and Local government level.
- Information dissemination: There should be a feedback mechanism particularly from the school authorities to the parents and community (e.g. annual parents' assemblies, possible use of school report cards, social audits, etc.).

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ANNEXES

Annex 1: 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 SESP.
- 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 sitting, 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 SESP.
- **Pest Management (OP 4.09).** The policy supports safe, affective, 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 will most likely not apply to SESP.
- Involuntary Resettlement (OP 4.12). This policy covers direct economic and social impacts that both result from Bank-assisted investment projects, and are caused by (a) the involuntary taking of land resulting in (i) relocation or loss of shelter; (ii) loss of assets or access to assets, or (iii) loss of income sources or means of livelihood, whether or not the affected persons must move to another location; or (b) the involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons. This policy will most likely not apply to SESP as this project will not entail taking of land or restriction of access to sources of livelihood.
- *Indigenous Peoples (OD 4.20)*. This directive provides guidance to ensure that indigenous peoples benefit from development projects, and to avoid or mitigate adverse effects of Bankfinanced 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 SESP.
- 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 SESP.

- Cultural Property (OP 11.03). 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. SESP will not 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 not apply to SESP since the policy is not 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 riparians 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 SESP.
- **Disputed Areas** (**OP** 7.60). Project in disputed areas may occur between the Bank and its member countries as well as between the borrower and one or more neighbouring 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 expected to be triggered by sub-projects. This policy is unlikely to be triggered by sub-projects to be funded by SESP.

- The Country Systems Policy (OP 4.00) is intended to allow countries to apply their own social and environmental safeguard systems if they are judged to be equivalent to the Bank's own standards.
- **Disclosure Policy (OP 17.50).** This policy requires that all safeguards policy documents prepared for projects funded by the Bank be disclosed to the public at two levels: 1) In-Country disclosure at domains accessible to stakeholders, 2) At World Bank infoshop.

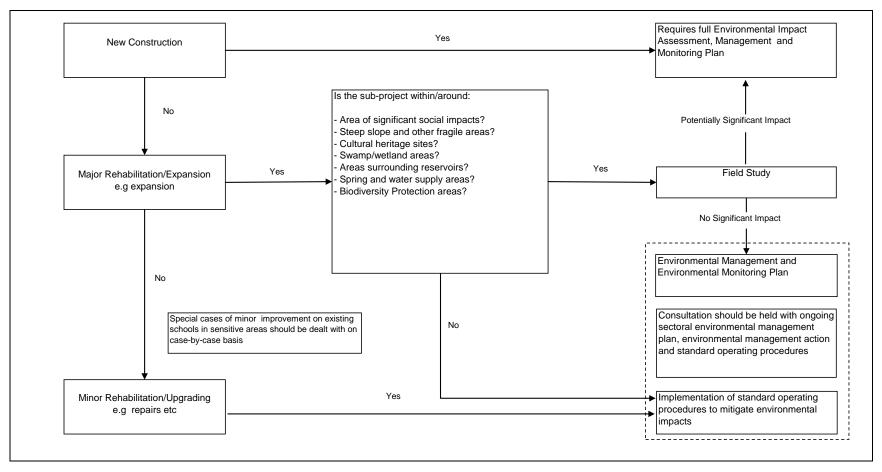
Annex 2: Environmental and Social Screening (ESS) of sub-projects

This stage marks the beginning of the ESIA or ESMP process, which should be initiated as early as possible along with the sub-project planning process after the sub-project is conceived. During this stage, the important functions that need to be performed are:

- i. Establish the likely study area by identifying broad boundaries for the sub-project;
- ii. Make a preliminary assessment of the significance of potential environmental impacts, and likely mitigating measures;
- iii. Identify possible alternatives and the major potential environmental impacts associated with each, as well as the likely corresponding mitigation measures;
- iv. Estimate the extent and scope of ESIA to be performed, and offer an initial recommendation as to whether a full ESIA is required;
- v. Estimate the time frame of the ESIA study;
- vi. Identify the expertise and human resources needed for the ESIA study; and
- vii. Prepare the terms of reference for the conduct of an initial environmental examination.

The value of conducting environmental and social screening at the early conception and planning phase of a development project is to provide useful technical input to the project team for their planning and budgeting, thereby eliminating the possibility of costly remedial environmental work and delays caused by problems with adverse environmental damage. Such early input on environmental considerations also provides useful information that helps the project team to gain government approval and win public acceptance.

The environmental and social screening process considers the following aspects in the recommendation: project type, environmental and social setting, and magnitude and significance of potential environmental and social impacts. Some of the typical questions asked in the environmental and social screening process are outlined in the figure in the next page



Annex Figure 1: Typical Environmental Screening Procedure

Standard Format for Screening Report

- 1. GENERAL DESCRIPTION
 - 1.1. Overview of the study area
 - 1.2. List of Selected Schools
- 2. PROJECT-SPECIFIC SCREENING (FOR EACH SUB-PROJECT):
 - 2.1. Existing infrastructure
 - 2.2. Proposed Works
 - 2.3. Estimated Cost
 - 2.4. Summary of Environmental 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. Resettlement
 - 2.4.5.4. Other site-specific issues
 - 2.5. Environmental Screening Category
 - 2.6. Applicable Safeguard Policies
- 3. ESMP ACTION PLAN
- 4. ATTACHMENTS
 - 4.1. Maps
 - 4.2. Photos
 - 4.3. Location and Administrative Maps
 - 4.4. Environmental and Social Checklist

Annex Table 1: Environmental and Social Checklist for Screening Report

Local Government:	Ward:	Date:
School Name:	Address:	

Issue	Degree*	Comment
Land Resources		
Worksite/Campsite Areas		
Excavation Areas		
Disposal Areas		
Others		
Water Resources & Hydrology		
Sources of Water for Construction		
Drainage Issues		
Others		
Biological Resources		
Special Trees/Vegetation around		
Protected Areas directly affected		
Others		
Air Ovolity & Noice		
Air Quality & Noise		
Special issues (e.g. quiet zone for hospital)		
Residential Areas		
Socio-Economic & Cultural		
Involuntary Resettlement**		
Graveyards and Sacred Areas affected		
Cultural Resources		
Population affected/provided access		
Others		

*Degree: N = Negligible or Not Applicable

L = Low M = Moderate H = High

**If yes, indicate # of persons likely to be affected and nature of the effect

Annex 3: Terms of Reference

Introduction

- 1.1 The Federal Government of Nigeria (FGN) has requested the World Bank for Additional Financing under the State Education Program Investment Project in support of emergency response in the North East States of Nigeria, due to damages resulting from insurgency. As described below, this Additional Financing project would include interventions relating to teacher development and management, increase in student enrollment and retention, school-level management, which would include grant funding to school for quality improvement and school rehabilitation, primarily in schools impacted during the Boko Haram crisis in the NE of Nigeria.
- 1.2 **Project design** would follow a similar approach as the original project, featuring results-based financing. Given the fragility of North East States and current context, the parameters are being framed to address basic educational issues in conflict-afflicted areas. While it is proposed to scale up the results-based approach of the original project, the design will need to be flexible in order to take account of the need for strong community mobilization and participation, and for psychosocial orientation and training mainly to teachers and students. It will also have to incorporate security measures at the community level to ensure a safe learning environment. Project financing would mostly be conditional upon the Participating States meeting the eligibility criteria, based on needs, and security in targeted areas. It is thus proposed that these results-based indicators would focus on teacher deployment and management, and school grants through school-based management committees (SBMCs). Probable indicators will relate to teacher deployment, enrollment, and school grants. These will be developed fully prior to appraisal.
- 1.3 **Project Objective:** The proposed project development objective for the Additional Financing project will be the same as the original project, which is to support: (a) need-based teacher deployment; (b) school-level management and accountability; and (c) measurement of student learning in Participating States. This will contribute to, and complement, the programs and priorities of participating States in addressing education access, quality and efficiency issues, through their own funding, financing from UBEC and other government agencies, as well as other development partners.
- 1.4 **AF Scope and Coverage:** Examples for types of damage incurred are derived from the educational sector reports of the ongoing Recovery and Peace-building Assessment (RPBA), for the following six NE states Borno, Yobe Adamawa, Bauchi, Taraba and Gombe and project implementation activities will be phased, depending on implementation readiness and the security situation. The results for the detailed RPBA, which is jointly being carried out by the World Bank, UN and EU will be made available to the consultant for the assignment on a running basis.

- 1.5 Rationale for the Assignment: Given the areas of interventions will be in conflict-afflicted areas, the preparation of site specific safeguards instruments such as Environmental and Social Management Plans (ESMPs) have been deferred into the implementation period. But before any relevant project activities commence, the client will prepare an ESMF that will cover the entire scope of potential investment sub-projects (i.e. school grants) which defines the suggested, specific instruments and processes. This would also be the instrument that will need to be disclosed and consulted, before any physical activities would start. The ESMF will also include a positive list of likely activities and investments to be financed, and a negative list of activities, equipment, and goods that will not be financed by the project due to their potential, negative environmental impacts.
- 1.6 The ESMF will define the scope of Sub-project specific Environmental &Social (E&S) instruments during the implementation phase, after completion of ESMF, E&S management instruments, mainly ESMPs. These would become part of the works contracts, set the E&S standards and compliance mechanisms, and serve as contractual basis for supervision and enforcement of good E&S practice during the works. Furthermore, the ESMPs would be more specific on measures to protect environment. For the expected scope of subprojects freestanding, comprehensive ESIAs will be not be required, as the structures and installations will have existed before, and the project would only finance their repair, reconstruction or reinstatement.

The ESMF has the following main objectives:

- 1 Establish good E&S management practices by: (a) developing an environmental and social management framework (ESMF), including the collection of required information and materials; and (b) providing clear, comprehensive and practical guidance to Client on the scope of environmental and social management instruments to be developed and applied to expected project typologies during implementation of the physical civil works rehabilitation planned under the AF.
- 2 Create the basic awareness, understanding and capacities among all relevant stakeholders to enable an environmental management approach within the project that compares to international good practice and fulfills World Banks standards and requirements.
- 3 Develop tools, such as templates, guidance and sample documents for the client to facilitate and accelerate ownership and diligent management of E&S processes and instruments by the client.
- 1.7 Overall, after the completion of the assignment the client shall be knowledgeable on key due diligence issues to be expected within the sub-project portfolio identified for the AF, and have

the capabilities and capacity to manage them in line with international good practice and the World Banks E&S standards.

Scope of Work

The ESMF will: (i) identify all relevant potential environmental and social risks and concerns that may arise as a result of the proposed program and its sub-projects; (ii) specify appropriate roles and responsibilities of involved actors and parties; (iii) develop a screening and assessment methodology for potential subprojects, that will allow the identification and allocation of appropriate E&S instruments; (iv) outline the required instruments for managing, mitigating and monitoring environmental risks and social concerns related to the subprojects (such as EMPs, RPFs, ARAPs) as appropriate and required; (v) determine the training, capacity building and technical assistance needed, and develop capacity building and training programs for the project owner, implementing agencies and Contractors, to successfully and effectively deploy and implement the required safeguards instruments for all physical investments planned under EISRP; (vi) estimate the amount of funding required to implement the ESMF requirements; and (viii) provide practical information resources for implementing the ESMF, such as templates, codes of practice, positive / negative lists and any other guidance deemed necessary.

The following specific tasks/actions are foreseen to accomplish the objectives of the assignment:

- 1 Review available relevant information on the damage incurred in the 6 NE states (Borno, Yobe, Adamawa, Bauchi, Gombe and Taraba), as well as the environmental generic baseline scenarios. Such information may include aerial photos; press reports; the RPBA currently conducted by the World Bank, and any other accessible, reasonably reliable and practical information source. Field visits to the liberated areas are unlikely, but may be organized should the security situation permit access;
- 2 Review the Client's plans and programs for reconstruction activities in the Education sector:
- 3 Review the ESMF for the original State Education Program Investment Project;
- 4 From conceptual/preliminary/ tender designs of typical projects, estimate the expected potential adverse E&S impacts that could result from construction activities.
- 5 Define a "menu" of E&S management instruments tailored to the scope of specific subprojects, characterized by a baseline scenario, planned physical interventions and resulting potential impacts;
- 6 Develop a simple and effective methodology to match the scope of specific subprojects with the appropriate E&S management instrument from the defined "menu.

2 Detailed Assignment:

(i) Develop templates and at least one concrete example (referring to an actually planned subproject, considering the actual location, planned works, baseline conditions, and anticipated risks and impacts) for each of the proposed E&S management instruments.

- (ii) Compile a summary of key domestic legislative, regulatory and administrative regimes, within which the Project will operate, with a focus on requirements that will apply to the planning, approval and implementation of subprojects;
- (iii) Establish a clear understanding of the institutional requirements, roles and responsibilities for formally adopting and implementing the ESMF and resulting E&S instruments. Importantly, this should include a review of the authority and capability of institutions at different levels (e.g. local, district, provincial, national and regional) and their capacity to manage and monitor ESMP implementation.
- (iv) Define requirements for potential technical assistance, training and capacity building to the Client, Contractors, civil society organizations (CSO), service providers and public sector institutions to implement, manage, supervise, observe or support the implementation of the ESMF and resulting ESMPs; prepare and deliver 4-6 training sessions to various implementing agencies of the Client.
- (v) Estimate a realistic budget to be allocated for timely implementation of the E&S management instruments defined by the ESMF to be implemented during the planned repair and reconstruction activities.

It is expected that the consultancy will involve consultations at various level. The draft ESMF prepared by the Consultant will be disclosed to a broader stakeholder spectrum through appropriate channels, and discussed during a public hearing in Abuja.

Deliverables

The key deliverable will be the ESMF report, which will have the following suggested sections:

- a) Executive Summary;
- b) Introduction describing the ESMF purpose, objectives, principles and methodology;
- c) Description of safeguards-relevant aspects of the planned project, summary of approximate nature and scale of the portfolio, indicative project types / typologies and dimensions;
- d) Generic description of environmental and social baseline scenarios for the anticipated project areas, including physical, chemical and biological conditions, as well as socioeconomic information:
- e) Summary of the regulatory framework, including key national policies, laws and regulations, as well as regional agreements and treaties.
- f) Summary of risks and impacts typologies that may result from the anticipated project activities interacting with environmental and social baseline scenarios, and which probability, magnitude, duration and geographic scope these risk and impacts could assume;
- g) List of realistic, effective, practical mitigation measures to address and manage the spectrum of potential environmental and social risks and impacts;

- h) Development of environmental assessment and management instruments for subprojects with similar impacts and baseline combinations; the scope would range from very simple, checklist type documents.
- i) Criteria and methodology for screening, categorization and typology of identified investment projects, and their matching with appropriate safeguards instruments.
- j) Proposal for procedures, roles / responsibilities and decision process for project screening and the determination of the appropriate safeguards instruments.
- k) Capacity analysis and proposals for improving and consolidating capacity and skills by targeted training.

Annexes should complement the main ESMF Report with detailed, additional information and resources. As a minimum the following Annexes are suggested:

- a) List of persons and organizations involved with the preparation of the ESMF;
- b) References: documents, whether published or not, that were used to prepare the studies and outputs; list of related reports;
- c) Minutes of meetings among the relevant institutions and of consultations, including those undertaken to obtain the authorized views of the affected populations and local non-governmental organizations (NGOs). The annex should also include specific formats used (such as surveys) to obtain these views;
- d) Tables, figures or detailed descriptions of data that appear in summary form in the body of the text.

Other deliverables will include at least one template or concrete example for (i) a "checklist type" ESMP, (ii) a more specific, tailored ESMP, and (iii) an ESMP for a more complex subproject with more sensitive baseline conditions, that will have an ESMP with a significant ESIA section.

Schedule of Deliverables

This assignment is expected to be completed within 2 weeks. Within 2 weeks after contract signature, a draft ESMF shall be submitted within 4 weeks of contract signature. After the Client's and Bank's review (1 week) the advanced draft will be disclosed, and consultations organized immediately afterwards. The final ESMF report that has been updated based on the comments received during consultations, will be delivered after 6 weeks after contract signature.

The sample ESMPs shall be submitted 2 weeks after the start of the assignment for Bank / Client review, and completed 10 weeks after contract signature.

Required Qualifications and Experience

This Consultancy will be executed by an individual with a proven track record in environmental assessment and management projects, as well as multi-sectoral experience in reconstruction and cleanup projects. The Consultant must be able to deploy to the NE states on short notice. She / He

shall have experience in the following professional areas: Design of E&S assessment and management instruments for construction works on various scales; good environmental housekeeping for construction works, incl. workplace and community health and safety management; rubble removal and disposal, legacy pollution management (especially spills cleanup and decontamination); social impacts assessment, and dealing with physical cultural resources.

Experience with situations where ERW (explosive remnants of war, often also termed UXO - unexploded ordnance) need to be considered, would be an advantage, as would be a working command of English language and Hausa language will be an advantage.

Detailed knowledge of the World Bank's E&S operational policies ("safeguards policies"), as well as E&S assessment and management work on WB financed projects is essential.

The Consultant should have an academic degree in a relevant field (environmental sciences, biology, geology, environmental engineering etc.) and at least seven (7) years of relevant professional experience in conducting environmental assessments and preparing management instruments in the "brown" environmental sector.

Services, Facilities and Materials to be provided by the Client

The Client will provide the following services to the Consultant(s):

- All relevant project documents, especially the results from the ongoing RPBA, implementation plans, sub-project lists, and exemplary studies and designs;
- All available and relevant background documentation and E&S studies (e.g. regional, sectoral, cumulative);
- Unrestricted access to project areas and sites, should field visits be possible / required;
- Transport and if required security detail for all travel related to the assignment;
- Making all necessary arrangements for supporting the work of the Consultant(s), by e.g. facilitating access to government authorities and other Project stakeholders.
- Disclosure of the draft ESMF, sending out of invitations, organization of venues for public hearings, and being present as discussant at all public hearings.

Annex 4: Standard Format for Environmental and Social Management Plan (ESMP)

EXECUTIVE SUMMARY

1 PROJECT DESCRIPTION

- 1.1. Overview of the Local Government where the school are located
- 1.2. List of Selected Schools
- 1.3. Environmental Screening Category

2 POLICY AND ADMINISTRATIVE AND LEGAL FRAMEWORK

3 SCHOOL -SPECIFIC ESMPs (FOR EACH SCHOOL):

- 3.1. Location
- 3.2. Proposed Works
- 3.3. Estimated Cost
- 3.4. Baseline Data
 - 3.4.1. Land Resources
 - 3.4.2. Hydrology and Water Resources
 - 3.4.3. Air and Noise
 - 3.4.4. Biological Resources
 - 3.4.5. Socio-Economic and Cultural
- 3.5. Potential Impacts
 - 3.5.1. Land Resources
 - 3.5.1.1. Construction Phase
 - 3.5.1.2. Post Construction Phase
 - 3.5.2. Hydrology and Water Resources
 - 3.5.2.1. Construction Phase
 - 3.5.2.2. Post Construction Phase
 - 3.5.3. Air Quality and Noise
 - 3.5.3.1. Construction Phase
 - 3.5.3.2. Post Construction Phase
 - 3.5.4. Biological Resources
 - 3.5.4.1. Construction Phase
 - 3.5.4.2. Post Construction Phase
 - 3.5.5. Socio-Economic and Cultural
 - 3.5.5.1. Construction Phase
 - 3.5.5.2. Post Construction Phase
- 3.6. Analysis of Alternatives
- 3.7. Mitigation Measures
 - 3.7.1. Construction Phase
 - 3.7.2. Post Construction Phase
- 3.8. Monitoring and Supervision Arrangements
- 3.9. Summary ESMP Table

4 ATTACHMENTS

- 4.1. Photos
- 4.2. Summary of Consultations and Disclosure
- 4.3. Other

Annex 5: Checklist ESMP Template Project, Country: Client:

Environmental and Social Management Plan (ESMP) Checklist for Civil Works

General Guidelines for use of ESMP checklist:

For construction projects that have low and clearly defined environmental and social risks, such as the cleanup and demolition of the remains of the Marche Central, a streamlined approach is applied to mainstream the World Bank's environmental safeguards requirements, as well as general good international practice into projects.

The ESMP checklist-type format covers typical key mitigation measures to civil works contracts with small, localized impacts or of a simple, low risk nature. This format provides the key elements of an Environmental Management Plan (EMP) to meet the minimum World Bank Environmental Assessment requirements for Category B projects under OP 4.01. The intention of this checklist is that it offers practical, concrete and implementable guidance to Contractors and supervising Engineers for simple civil works contracts. It should be completed during the final design phase and, either freestanding or in combination with any environmental documentation produced under national law (e.g. EIA reports), constitute an integral part of the bidding documents and eventually the works contracts.

The checklist ESMP has the following sections:

- <u>Part A</u> includes a descriptive part that characterizes the project, specifies institutional and regulatory aspects, describes technical project content, outlines any potential need for capacity building and briefly characterizes the public consultation process. This section should indicatively be up to two pages long. Attachments for additional information may be supplemented as needed.
- <u>Part B</u> includes a screening checklist of potential environmental and social impacts, where activities and potential environmental issues can be checked in a simple Yes/No format. If any given activity/issue is triggered by checking "yes", a reference to the appropriate section in the table in the subsequent Part C can be followed, which contains clearly formulated environmental and social management and mitigation measures.
- <u>Part C</u> represents the environmental monitoring plan to follow up proper implementation of the measures triggered under Part B. It has the same format as required for MPs produced under standard safeguards requirements for Category B projects.
- <u>Part D</u> contains a simple monitoring plan to enable both the Contractor as well as authorities and the World Bank specialists to monitoring due implementation of environmental management and protection measures and detect deviations and shortcomings in a timely manner.

Part B and C have been structured in a way to provide concrete and enforceable environmental and social measures, which are understandable to non-specialists (such as Contractor's site managers) and are easy to check and enforce. The ESMP should be included in the BOQ (bill of quantities) and the implementation priced by the bidders. Part D has also been designed intentionally simple to enable monitoring of key parameters with simple means and non-specialist staff.

Annex 5: Generic Guidance on Environmental and Social Management Plan (ESMP) by Project Phases

Phases	Issue/Potential Impact	Mitigation Measure(s)	Implementing Responsibility	Monitoring Responsibility	Cost
Design Phase	Impacts on physical environment: air quality, hydrology, waste, soils, noise	Consider the impact of the construction activities on the physical environment for the design of civil works	Design Consultant	SPTSU/FPSU	To be determined
	Impact on Air Quality: Emission of dust and other pollutants	Bid document will include requirement to ensure: - Adequate watering for dust control - Prohibition of open burning - Ensure stockpile of materials are properly secured - Proper unloading/storage of construction materials - On-site mixing of materials in shielded area - Equipment and materials to be properly covered during transportation.	Design Consultant	SPTSU/FPSU	To be determined
	Noise impact	Bid document to include requirement to ensure: Noise silencers be installed on all exhaust system Use of ear plugs for construction workers Equipment placed as far as possible from sensitive land users.	Design Consultant	ESMU/ SPTSU/FPSU	To be determined
	Impact on hydrology: Degradation of surface water quality	The contract document should specify: - use of good engineering practice during construction, including adequate supervision - Minimal water usage in construction area - Minimal soil exposure time during construction - Minimal chemical usage (lubricants, solvents, petroleum products.	Design Consultant	ESMU/ SPTSU/FPSU	To be determined
	Alteration of surface drainage	Contract document to include requirement to ensure: - installation of adequately sized drainage channels - stabilization of slopes to avoid erosion	Design Consultant	ESMU/ SPTSU/FPSU	To be determined
	Waste generation and disposal (solid/ oily/hazardous)	Contract document to include requirement to ensure: Provision of waste management plan. Proper handling and disposal /recycling of oily waste	Design Consultant	ESMU/ SPTSU/FPSU	To be determined
	Impact on Soil: Increased soil erosion	Contract document to include requirement to ensure: - Use of less erodible materials, - Lined down-drains to prevent erosion	Design Consultant	ESMU/ SPTSU/FPSU	To be determined

Phases	Issue/Potential Impact	Mitigation Measure(s)	Implementing Responsibility	Monitoring Responsibility	Cost
	Socioeconomic Impact: Disruption during work- demand for local infrastructure increase	- Avoid the creation of congested and unsafe road conditions at intersections and in villages or cities.	Design Consultant	ESMU/ SPTSU/FPSU	To be determined
	Disruption to traditional lifestyles and other services	- Ensures access to homes, businesses, other key services	Design Consultant	ESMU/ SPTSU/FPSU	To be determined
Constructio n	Impact on Air Quality: Emission of dust and other pollutants	 Periodically use water to spray areas under construction Construction workers to wear face masks and gloves Ensure that all equipment and materials loaded on trucks are covered during transportation 	Contractor, Supervising consultant	ESMU/ SPTSU/FPSU	To be determined
	Noise Impact	 Noise standards to be enforced to protect construction workers Ensure that silencers are installed on all exhaust systems. Ear plugs to be worn by construction workers Turn off construction equipment when not in use 	Contractor, Supervising consultant	ESMU/ SPTSU/FPSU	To be determined
	Impact on hydrology: Degradation of surface water quality	 Use good engineering practice during construction Ensure wastewater from cleaning of equipment is not disposed of in water course. Wastewater should be collected and treated suitably before being disposed of in water courses. Ensure minimal use of water in construction area Minimal soil exposure time during construction 	Contractor, Supervising consultant	ESMU/ SPTSU/FPSU	To be determined
	Alteration of surface drainage	 Install adequately sized drainage channels Ensure stabilization of slopes to avoid erosion 	Contractor, Supervising consultant	ESMU/ SPTSU/FPSU	To be determined
	Solid waste generation and disposal	 Ensure all waste earth and materials associated with construction activities are disposed land without prior consent of PPT. Daily life rubbish and waste materials associated with construction activities should be daily collected and disposed of in suitable approved dumpsites. 	Contractor, Supervising consultant	ESMU/ SPTSU/FPSU	To be determined

Phases	Issue/Potential Impact	Mitigation Measure(s)	Implementing Responsibility	Monitoring Responsibility	Cost
		Ensure that solid wastes are not disposed of in water courses.			
	Poor sanitation at sites	- Provide adequately located and maintained latrines	Contractor	ESMU/ SPTSU/FPSU	
	Accidental spill of toxic material/oil	 Design and implement safety measures Provide an emergency plan to contain accidental spill 	Contractor	ESMU/ SPTSU/FPSU	
	Impact on Soil: Increased soil erosion	 Avoid erosion of cuts and fills by providing proper drainage, Lined down-drains to prevent erosion 	Contractor, Supervising Consultant	ESMU/ SPTSU/FPSU	
	Impact on vegetation	- Replanting of land within project area.	Contractor, Supervising Consultant	ESMU/ SPTSU/FPSU	
	Health and Safety Impact	 Ensure adequate health facility systems are in place on-site to deal with influx of temporary workers. Ensure use of nets, insect repellent and other malaria preventive measure for workers on site. Health education about STDs should be introduced. Training of construction crew and supervisors on health and safety guidelines Personal protective equipment to be worn by all workers 	Contractor, Supervising Consultant	ESMU/ SPTSU/FPSU	
	Socioeconomic Impact: Loss of property	 Avoid or reduce loss of property Avoid land where farmers will be displaced. 	Contractor	Supervising Consultant/ESM U	To be determined

Annex 6: Procedures for determining sub-projects requiring an ESIA

Step 1: Screening

To determine the depth of ESIA required, potential impacts in the following areas need to be considered:

- ♦ Social issues
- ♦ Health issues
- ♦ Protected areas
- ♦ Cultural heritage
- Existing natural resources such as forests, soils, wetlands, water resources
- Wildlife or endangered species habitats

Step 2: Scoping

To identify the relevant environmental and social issues, this step determines:

- ♦ Level of detail required for the ESIA
- Extent of the area to be covered in light of the potential impact zones
- ◆ Timeframe for the ESIA based on the potential impact zones
- Sequencing and scheduling of the various ESIA tasks
- Preliminary budgets

Step 3: Preparation of Terms of Reference for Sub-project ESIAs

Based on the screening and scoping results. ESIA terms of reference will be prepared. A local consultant will conduct the ESIA and the report should have the following format:

- ♦ Description of the study area
- ♦ Description of the sub-project
- ♦ Legislative and regulatory considerations
- Determination of the potential impacts of the proposed sub-projects
- ♦ Environmental Management Plan
- ♦ Public consultations process
- Development of mitigation measures and a monitoring plan, including cost estimate