SFG3387

REPUBLIC OF GHANA

GHANA SECONDARY EDUCATION IMPROVEMENT PROJECT (GSEIP)

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF)

ADDITIONAL FINANCING

MAY 12, 2017

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ABBREVIATIONS AND ACRONYMS

ADEOP	Annual District Education Operational Plan
AESOP	Annual Education Sector Operational Plan
AF	Additional Funding
APW	Annual Programs of Work
BECE	Basic Education Certificate Examination
CAGD	Controller and Accountant General Department
CBO	Community Based Organization
CCT	Conditional Cash Transfer
CREATE	Consortium for Research on Educational Access, Transitions & Equity
CS	Circuit Supervisor
CSA	Civil Service Agency
DACF	District Assembly Common Fund
DEO	District Education Office
DEOC	District Education Oversight Committees
DFID	UK Department for International Development
DP	Development Partner
EDI	EFA Development Index
EFA	Education for All
EFA-FTI	Education for All Fast Track Initiative
EMIS	Education Management Information System
ERP	Economic Reform Program
ERRC	Education Reform Review Committee
ESP	Education Strategic Plan
ESPR	Education Sector Performance Report
FCUBE	Free Compulsory Universal Basic Education
FTI	Fast Track Initiative
GAR	Gross Admission Rate
GDHS	Ghana Demographic and Health Survey
GDP	Gross Domestic Product
GER	Gross Enrolment Ratio
GES	Ghana Education Service
GET-Fund	Ghana Education Trust Fund
GLSS	Ghana Living Standards Survey
GNAT	Ghana National Association of Teachers
GNI	Gross National Income
GoG	Government of Ghana
GPE	Global Partnership for Education
GPEF	Global Partnership for Education Fund
GPI	Gender Parity Index
GPRS	Growth and Poverty Reduction Strategy
GSFP	Ghana School Feeding Program
GSS	Ghana Statistical Service
HDI	Human Development Index
HE	Higher Education
HEI	Higher Education Institute
ICT	Information and Communication Technology
IMF	International Monetary Fund
INSET	In-Service Education and Training

JHS	Junior High School
JICA	Japan International Cooperation Agency
KVIP	Kumasi Ventilated Improved Pit
LEAP	Livelihood Empowerment Against Poverty
MDBS	Multi-Donor Budget Support
MDG	Millennium Development Goals
MLGRD	Ministry of Local Government and Rural Development
MMDAs	Metropolitan, Municipal and District Assemblies
MoE	Ministry of Education
MoFEP	Ministry of Finance and Economic Planning
MoLG	Ministry of Local Government
MTEF	Medium Term Expenditure Framework
NAB	National Accreditation Board
NAR	Net Admission Rate
NCTE	National Council for Tertiary Education
NDC	National Democratic Congress
NEA	National Education Assessment
NER	Net Enrolment Ratio
NERIC	National Education Reform Implementation Committee
NERP	National Education Reform Program
NESAR	National Education Sector Annual Report
NGO	Non-Governmental Organization
NIB	National Inspectorate Board
NVTIs	National Vocation Training Institutes
PBME	Planning, Budgeting, Monitoring and Evaluation Department
PCE	Per child recurrent expenditure
PE	Personnel Emoluments
PER	Public Expenditure Review
PPP	Purchasing Power Parity
PRSCs	Poverty Reduction Strategy Credits
PRSP	Poverty Reduction Strategy Paper
PTA	Parent Teacher Association
PTE	Per teacher recurrent expenditure
PTR	Pupil Teacher Ratio
PTTR	Pupil Trained Teacher Ratio
REO	Regional Education Office
SHS	Senior High School
SMC	School Management Committee
SPAM	School Performance Assessment Meeting
SPIP	School Performance Implementation Plan
SSA	Sub-Saharan Africa
SSSCE	Senior Secondary School Certificate Examination
TED	Teacher Education Department
TIMSS	Trends in International Mathematics and Science Study
TTIs	Technical Training Institutes
TVET	Technical and Vocational Education and Training
UBC	Universal Basic Completion
UBE	Universal Basic Education
UCC	University of Cape Coast
UNICEF	United Nations Children's Fund

UPC	Universal Primary Completion
USAID	United States Agency for International Development
VAT	Value Added Tax
WAEC	West African Examination Council
WASSCE	West African Senior Secondary Certificate Examination
WFP	World Food Program

EXECUTIVE SUMMARY

Introduction

The Secondary Education Improvement Project (SEIP) with funding from the World Bank supports the implementation of the government's Community Day Senior High School Project (CSHSP) through two components: (i) Increase Access with Equity and Quality in Senior High Schools; and (ii) Management, Research and Monitoring and Evaluation.

Component 1 uses a results-based financing (RBF) modality. Disbursements up to a capped absolute amount will be made against specific line items in the Education sector annual budget, referred to as eligible expenditure programs (EEPs). These disbursements will be conditioned on achievement of specified results, as measured by disbursement-linked indicators (DLIs).

Policies and interventions to be supported are grouped into two pillars: (i) increasing access with equity (geographic, gender, poverty, etc.); and (ii) improving quality of selected low performing SHS.

Pillar 1: Increase Access with Equity: The objective of this pillar is to improve access to senior secondary education and improve equity in underserved districts and provide scholarship to students from low income families, especially girls. The SEIP is financing results of the Government's priority program to expand space through the construction of new senior secondary schools in underserved areas, rehabilitation and expansion of existing low performing schools and through support for SHS attainment of disadvantaged students'

The districts selected for new construction will receive: (i) 23 No. 24-unit Classroom Blocks (E- Blocks); (ii) 2 No. Technical Blocks; (iii) 3 No. Vocational Blocks; (iv) 23 No. Staff Flats; (v) 23 No. Headmasters' Bungalow; (vi) 23 No. Canteen Blocks; (vii) 23 No. Security/Gate House; and (viii) Furniture and Equipment for the above structures. In addition to new schools, this pillar focuses on improving existing SHS, particularly those with capacity for expansion, demand for SHS places, poor learning outcomes, drawing on a needs assessment which will determine level of deficiency (bathrooms, science labs, computer facilities, etc.) and scope for upgrading. 125 existing schools are being supported.

Pillar 2: Improve the quality of education in selected low-performing Senior High Schools: The objective of this pillar is to improve the quality of SHS, with a focus on mathematics and science education in selected low performing schools. The SEIP is also strengthening school management, leadership and expansion of ICT in the 125 selected low-performing schools and introduce School Performance Partnerships (SPPs) based on School Performance Partnership Plans (SPPPs) to capture quality improvements. The SPPs would develop mutual accountability between school management and the District Education Offices (DEOs) to improve learning performance with the commitment from government agencies to provide the necessary resources and the responsibility of schools to implement quality improvement activities with verifiable outcomes. In addition to school-based quality inputs, training and financing, this pillar will support the systematic collection and publication of school data for stakeholders to make informed decisions about SHS selection, and for MOE/GES to make informed decisions about planning and financing SHS.

Component 2: Management, Research and Monitoring and Evaluation

This component is strengthening the implementation capacity of the MOE and GES and its related implementing agencies and assist them to achieve the objectives of the Government's SHS strategy. This component is supporting monitoring and evaluation (M&E), coordination, planning, communication,

financial management, procurement, and safeguards. In addition, it supports an active and evolving research agenda to continue to inform Government SHS policy, particularly with regard to financing, social targeting, quality initiatives, teacher rationalization, and curriculum relevance.

The original Credit was approved on May 20, 2014, signed on July 30, 2014 and declared effective on October 3, 2014.

The proposed Additional Financing (AF) would cover the costs associated with scaled-up activities to enhance the impact of a well-performing project. The AF would extend project coverage to additional low-performing secondary schools in the SEIP-targeted districts with the aim of further increasing equitable access to and improving the quality of teaching and learning at the secondary level. Funds would also be provided to cover the incremental management costs and technical assistance (TA) activities associated with the expansion of activities under the AF and the extension of the closing date of the parent project from November 30, 2019 to November 30, 2021. The AF would help to further achieve the overall Project Development Objective (PDO) *to increase access to senior secondary education in underserved districts and improve quality in low-performing senior high schools in Ghana*.

The proposed AF will provide support to implementation of activities under Components 1 and 2. Under Component 1, the AF would support results based financing for achievement of the following results:

i. Increased utilized seats in existing low-performing schools (through additional rehabilitation/expansion in selected schools and quality packages);
ii. increased enrollment in beneficiary Senior High Schools (SHS) in targeted districts/schools for students from low-income families, especially girls;
iii. annual publication of School Performance report/school mapping online and in print to improve data management, monitoring and information dissemination;
iv. 125 schools continue to receive school performance partnership (SPP) grants for an additional 2 years; about another 123 schools receive SPP grants for 3 years; and
v. improved learning outcomes in selected SHS measured through increased number of ICT packages implemented in beneficiary schools; increased numbers of teachers participating in math and science training; and increased percentage of WASSCE achievement of 6 credits.

Under Component 2, the AF will support activities related to management, research and monitoring and evaluation including:

i. incremental operating costs associated with scale up and extended closing date;
ii. increased capacity building for school leadership and management, procurement and financial management;
iii. independent verification of results; and research and diagnostic activities to support analysis on education policies

In implementing the SEIP, an Environmental and Social Management Framework (ESMF) was prepared in 2014 that was approved by the World Bank and Ghana's Environmental Protection Agency (EPA) and disclosed by both institutions on their respective websites. The AF has necessitated an update of the original ESMF to guide the implementation of the new scope. This updated SEIP AF Environmental and Social Management Framework (SEIP AF ESMF) has been updated from the previous ESMF to guide the environmental and social management and monitoring implementation for the subsequent phase of the Secondary Education Improvement Project (SEIP), being prepared for IDA support of US$40 million (Forty Million United States dollars). The SEIP AF- ESMF will provide guidance to project implementation operatives, districts, institutions, contractors, and other stakeholders including beneficiaries of the senior secondary school rehabilitation and construction under the project. . The AF provides an

additional two years' funding and scale up in the number of schools to receive facilities upgrading and quality interventions.

Activities the Government plans to undertake in the project that trigger the use of the ESMF are: (i) the upgrading, expansion and rehabilitation of infrastructure in selected existing low performing schools.
This updated AF- ESMF will be used to mainstream environment and social safeguards into the design and planning of the SEIP AF. The choice of ESMF (instead of EIA) was made for the project because of the following reasons:

- Wide geographical spread – up to 75 districts where senior secondary school facilities will be improved. These activities will be in all the ten (10) regions of Ghana;
- Implementation duration – will be over five years from 2017 - 2021;
- Cross sectoral involvement and scope –Ministries, Departments, Agencies and Schools at national, regional and district levels;
- Site specific activities – which may cover a range of different components e.g. classroom block, laboratories, workshop pavilions, etc., - the level of site specific projects will be determined based on the situation and determination of the location.

It is imperative under these considerations to have an ESMF which provides guiding principles and outlines procedures for mitigating identified environmental and social impacts and risks as a result of the project. This ESMF-AF provides:

- Screening checklist for site selection under the project;
- Legal framework for the implementation of the ESMF,
- The basis for identifying potential environmental and social impacts and risks of project activities and proposes appropriate mitigation measures,
- Institutional structure that assigns responsibility for various activities within the framework.

Legal and Administrative Frameworks
A number of policies as well as legal and administrative frameworks have been considered in the ESMF. Ghana's National Environmental Policy aims at ensuring a sound management of resources and the environment and to avoid any exploitation of these resources in a manner that might cause severe and/or irreparable damage to the environment. The policy endorses the preventive approach to environmental management and emphasizes the need to promote socio-economic development within the context of prescribed acceptable environmental standards and safeguards. In effect, it seeks reconciliation among economic considerations, social resilience and environmental resource development with the view to achieving sustainable national development. The Policy Statement seeks among other things:

- to ensure environmentally sound use of both renewable and non- renewable resources in the process of national development,
- to develop procedures for the utilization of land resources in a manner that would ensure the maximum degree of economy in the use of land and avoid or minimize conflicts, and
- to institute and implement the concept of sustainable development by requiring prior environmental impact assessments of new investments and developments that would be deemed to affect the quality of the environment.

The environmental policies and legal framework and procedures considered in preparation of the SEIP-AF ESMF include the following:

- Ghana's Environmental Policy;
- The Environmental Protection Agency Act of 1994 (Act 490);
- The Environmental Assessment Regulations (LI 1652), and EIA procedures;
- Public Health Act, 2012, Act 851,
- National Sanitation Policy;
- Town and Country Planning (Amendment) Act, 1960, Act 33;
- The Local Governance Act, 2016, Act 936; and
- The World Bank's Safeguard policies which include guidance on EA requirements - Environmental Assessment (OP4.01), and also the Involuntary Resettlement (OP/BP 4.12), etc.

Likely Environmental and Social Impacts and Mitigation Measures

This AF-ESMF considers potential environmental and social concerns likely to arise from the construction and rehabilitation of buildings under this phase of the project, and their proposed mitigation measures. Work at the District levels across other World Bank sponsored infrastructure projects shows that issues such as community involvement, community ownership and selection of appropriate sites for schools construction are some of the key concerns, which influence the success, and sustainability of such projects. That the project is a reimbursable process paying against results means that there is no traditional investment procedure (e.g., no objections) and a PIU and the Bank have to be provided verification that environmental and social provisions meeting Bank policy standards have been followed. This will require a due diligence checklist demonstrating that all World Bank Environmental and Social policy requirements are met.

Potential environmental and social concerns and impacts at the constructional stages include under site selection, for example, concerns about the siting of sub-projects on sections of school compounds where they could conflict with adjoining land use outside the school land, or on areas prone to or that have suffered soil erosion or damage. Mitigation measures include relocating the nuisance activity outside the compound, and boxing up remedial civil works with the proposed construction activity. Other mitigation measures will include site preparation and timing which does not leave the land susceptible to erosion. Construction phase impacts may include labor influx, air quality impact from dust generation of excavation, noise generation from construction activities, health and safety concerns on site, public health and safety from pits and excavations left unguarded at the construction site, and occupational health and safety effects on construction site workers who may be endangered. In all these cases, mitigation measures and procedures including relevant budget have been outlined for easy follow up on mitigation. The responsibilities for screening for potential project impacts as well as the institutional arrangements for environmental and social management frameworks are also outlined.

Institutional Arrangements and Responsibilities

In order to ensure proper management of the environmental and social concerns, responsibilities and roles of focal persons, monitoring mechanisms, training and capacity building are detailed in the ESMF-AF. Oversight of SEIP implementation will be in the Ministry of Education (MOE) with the Ghana Education Service providing their mandated implementation role for service delivery. The institutional arrangements will facilitate environmental and social soundness and sustainability. A Steering Committee and Project Management Team will be established to coordinate and oversee implementation. The Project Management Team will derive from the Project Implementation Committee at the national level and will assume project control and monitor civil works executed in the four (4) zones of the country. The PMT will include 3 environmental and social safeguards consultants; 1 Procurement Specialist (MOE); 1 technical advisor (MOE); 4 architects (FPMU + 3 others); 4 quantity

surveyors (FPMU, GETFund and 2 others); 4 civil engineers (FPMU + 3 others); 1 electrical engineer (on retainer basis) and a Project management consultancy firm (providing other needed capacity). The implementation and monitoring of the ESMF-AF, the identification of affected persons and compensation levels, the payment of compensation and dispute resolution roles include the Project Management Team, the District Education Oversight Committee (DEOC), the Environmental Protection Agency (EPA), and the Project Steering Committee.

1.0 INTRODUCTION

The Secondary Education Improvement Project (SEIP) with funding from the World Bank is supporting the implementation of the government's Community Day Senior High School Project (CSHSP) through two components: (i) Support to Increase Access with Equity and Quality in Senior High Schools; and (ii) Management, Research and Monitoring and Evaluation.

The SEIP is financing results which demonstrate increased access in targeted districts, increased enrollment of poorest students and improved learning outcomes for selected low performing senior high schools. The Government plans to achieve these results through the construction of new senior secondary schools in underserved areas, rehabilitation and expansion of existing low performing schools and support for SHS attainment for disadvantaged students. In addition, activities were planned to improve the quality of selected low performing schools with a focus on mathematics and science education. The Government is doing this by providing 23 new senior high schools in mostly underserved areas; expanding and upgrading support for 125 existing low performing SHSs; providing three-year scholarship support for at least 10,400 needy and qualified SHS students especially girls, and; providing school performance partnerships in selected 125 schools to improve quality and connectivity to the internet. In order to achieve and report on the results attained under the project, the SEIP will provide funding and technical assistance to the implementing agencies and the third party validation agencies. The development of a research program to better understand constraints and challenges in secondary education while formulating a national secondary strategy is also included in the project. The introduction of a web platform for school reporting and real time monitoring is expected to increase social accountability and information sharing on the performance of the sector.

Component 1: Support to Increase Access with Equity and Quality in Senior High Schools

Component 1 uses a results-based financing (RBF) modality. Disbursements up to a capped absolute amount are made against specific line items in the Education sector annual budget, referred to as eligible expenditure programs (EEPs). These disbursements are conditioned on achievement of specified results, as measured by disbursement-linked indicators (DLIs).

Policies and interventions to be supported are grouped into two pillars: (i) increasing access with equity (geographic, gender, poverty, etc.); and (ii) improving quality of selected low performing SHS.

Pillar 1: Increase Access with Equity: The objective of this pillar is to improve access to senior secondary education and improve equity in underserved districts and provide scholarship to students from low income families, especially girls.

The SEIP is expected to finance results of the Government's priority program to expand space through the construction of new senior secondary schools in underserved areas, rehabilitation and expansion of existing low performing schools and through support for SHS attainment of disadvantaged students.

The districts selected for new construction will receive: (i) 23 No. 24-unit Classroom Blocks (E- Blocks); (ii) 2 No. Technical Blocks; (iii) 3 No. Vocational Blocks; (iv) 23 No. Staff Flats; (v) 23 No. Headmasters' Bungalow; (vi) 23 No. Canteen Blocks; (vii) 23 No. Security/Gate House; and (viii) Furniture and Equipment for the above structures. The ultimate objective is to create new spaces for those demanding seats in SHS and to fill these spaces with new students coming from previously underserved communities. In addition to new schools, this pillar focuses on improving existing SHS, particularly those

with capacity for expansion, demand for SHS places, poor learning outcomes, drawing on a needs assessment which will determine level of deficiency (bathrooms, science labs, computer facilities, etc.) and scope for upgrading. 125 existing schools are being supported. This pillar will improve the Government's targeting of resources to support increased access by further supporting scholarships to students from low income families, especially girls.

Given the operation's focus on under-served areas and promoting access with equity, disbursement will be linked to indicators (DLIs) that measure increases in seat availability in targeted locations for new construction and increased utilization in existing low-performing schools where new seats are made available. Targeting resources for students from low income families, especially girls in underserved communities would further strengthen equity reforms.

Pillar 2: Improve the quality of education in selected low-performing Senior High Schools : The objective of this pillar is to improve the quality of SHS, with a focus on mathematics and science education in selected low performing schools. The SEIP is also strengthening school management, leadership and expansion of ICT in the 125 selected low-performing schools. In order to improve quality, the Project is supporting the Government's program to: (i) strengthen school management, leadership and accountability; (ii) target interventions to improve the quality of science and mathematics education; and (iii) introduce School Performance Partnerships (SPPs) based on School Performance Partnership Plans (SPPPs) to capture quality improvements. The SPPs are developing mutual accountability between school management and the District Education Offices (DEOs) to improve learning performance with the commitment from government agencies to provide the necessary resources and the responsibility of schools to implement quality improvement activities with verifiable outcomes. In addition to school-based quality inputs, training and financing, this pillar is supporting the systematic collection and publication of school data for stakeholders to make informed decisions about SHS selection, and for MOE/GES to make informed decisions about planning and financing SHS.

The focus on mathematics and science is aligned with the Government's strategy to encourage these program areas throughout all education levels. The expansion of ICT wireless connectivity would also strengthen science, mathematics and other subject education through digital content for teachers and students. Schools will have access to an education portal (i-campus) where teachers and students can utilize multiple online resources that are expected to support improved teaching and learning. ICT will be used for intensive in-service support to teachers to improve content knowledge as well as lesson plan preparation, teaching and learning aids, and videos on good teaching practices and classroom management. The portal could also serve as a platform for knowledge exchange with national and international networks and for participation in relevant discussion forums. The SEIP is expected to provide connectivity to 125 SHS.

Component 2: Management, Research and Monitoring and Evaluation

This component is strengthening the implementation capacity of the MOE and GES and its related implementing agencies and assisting them to achieve the objectives of the Government's SHS strategy. This component will support monitoring and evaluation (M&E), coordination, planning, communication, financial management, procurement, and safeguards. In addition, it is supporting an active and evolving research agenda to inform Government SHS policy, particularly with regard to financing, social targeting, quality initiatives, teacher rationalization, and curriculum relevance. This component would complement implementation of the program pillars with ongoing analyses, strengthening data collection for school mapping, and establish priorities for new construction, renovations and maintenance. The establishment of a web platform for school reporting and real time monitoring of all SHS

implementation activities is enhancing and strengthening the Education Management Information System (EMIS) and school mapping in order to help government report on achievement of results. In addition, funding is being provided to support the independent verification of disbursement linked indicators and results. Support is also being provided to help the MOE to design and realize policy reforms, including piloting and evaluating innovative approaches. This component is financing training, recruitment of short and long-term technical experts, procurement of goods needed for specific activities, and incremental operating costs.

The proposed Additional Funding (AF) would cover the costs associated with scaled-up activities to enhance the impact of a well-performing project. The AF would extend project coverage to additional low-performing secondary schools in the SEIP-targeted districts[1] with the aim of further increasing equitable access to and improving the quality of teaching and learning at the secondary level. Funds would also be provided to cover the incremental management costs and technical assistance (TA) activities associated with the expansion of activities under the AF and the extension of the closing date of the parent project from November 30, 2019 to November 30, 2021. The AF would help to further achieve the overall Project Development Objective (PDO) *to increase access to senior secondary education in underserved districts and improve quality in low-performing senior high schools in Ghana*. As with the original project, the AF design is well aligned with the National Education Strategic Plan (2016-2030) and the Bank's Country Partnership Strategy (CPS-2013-2018).

2.0 PROJECT DESCRIPTION

The SEIP-AF would cover the costs associated with scaled-up activities to enhance the impact of a well-performing project. Based on the implementation experience from the original project, this AF would extend project coverage to additional low-performing secondary schools in the SEIP targeted districts to strengthen outcomes for increased equitable access and improved quality of teaching and learning. Funds would also be provided to finance the incremental management and technical assistance activities associated with the expansion and extension of the closing date of the parent project. The AF would help achieve the overall Project Development Objective (PDO) to increase access to senior secondary education in underserved districts and improve quality in low-performing senior high schools in Ghana. As with the original project, the AF would continue to be aligned with the National Education Strategic Plan (2016-2030) and the Bank's Country Partnership Strategy (2013-2018).

Support under the AF focuses on the results based Component 1 and scaling up outcomes related to five out of the six disbursement linked indicators. The results to be supported by the AF include:

- An increase in the number of seats utilized in existing low-performing schools
- Increased enrollment in Senior High Schools (SHS) in targeted districts/schools for students from low-income families, especially girls
- Annual publication of School Performance report/school mapping
- Increased number of School Performance Partnerships
- Improved learning outcomes in selected SHS

In addition, the AF would support activities under Component 2 related to management, research and monitoring and evaluation including:

- Incremental operating costs associated with scale up and extended closing date
- Increased capacity building for school leadership, procurement and financial management
- Independent verification of results
- Research and diagnostic activities to support analysis on education policies

2.1 Component 1: Program Support to Increase Access with Equity and Quality in SHS

Component 1 uses a results-based financing (RBF) modality. Disbursements up to a capped absolute amount will be made against specific line items in the Education sector annual budgets, referred to as eligible expenditure programs (EEPs). These disbursements will be conditioned on achievement of specified results, as measured by disbursement-linked indicators (DLIs). A matrix of indicators has been developed to measure performance annually and monitor the results achieved as reflected in the results framework.

Policies and interventions to be supported under the first component of SEIP are grouped into two pillars: (i) increasing access with equity (geographic, gender, poverty, etc.); and (ii) enhancing quality of low performing SHS.

Pillar 1: Increase Access with Equity: The objective of this pillar is to improve access to senior secondary education and improve equity in underserved districts and subsidize students especially girls from low income households. This pillar will support and monitor key activities to accomplish these goals through the construction of new schools and the improvement and expansion of existing schools where demand is high and the schools have inadequate facilities to absorb and retain students.

The SEIP is financing results of the Government's ambitious program to expand space through the construction of new senior secondary schools in underserved areas, rehabilitation and expansion of existing low performing schools and through support for SHS attainment of disadvantaged students. In

addition to new schools, this component would focus on improving existing SHS, particularly those with capacity for expansion, meeting criteria of school age population not attending SHS, and low performance criteria in addition to a needs assessment which will determine level of deficiency (bathrooms, science labs, computer facilities, etc.) and scope for upgrading. This pillar will improve the government's targeting of resources to support increased access by further supporting scholarship and other demand side investments to encourage girls' attendance and poorer students.

Given the operation's focus on under-served areas and promoting access with equity, disbursement will be linked to indicators (disbursement linked indicators) that measure increases in seat availability in these targeted locations for new construction. In addition, a second indicator would be used to measure progress of utilization of existing schools where new seats are made available in selected schools. Targeting resources for girls and students from low income families in underserved communities would strengthen equity reforms. Therefore, the release of IDA credit funds will be linked to achievement of the following DLIs: (i) selection based on targeting of school expansion in underserved school districts (DLI1); (ii) increasing new seats for SHS students in underserved school districts (DLI 2); (iii) increasing utilized seats in existing low-performing schools (DLI 3); and (iv) increased enrolment in SHS in targeted districts (for girls and low-income students) (DLI 4).

Pillar 2: Enhancing quality in low-performing Senior High Schools: The objective of this pillar is to improve the quality of SHS, with a focus on math and science education in selected low performing schools. The SEIP would also strengthen school management, leadership and expansion of ICT in the selected low-performing schools. The low performing schools typically have inadequate: infrastructure, management, equipment, learning resources and sources of internally generated funding. In order to improve quality, the Project will support the government's program to (i) strengthen school management, leadership and accountability; (ii) target interventions to improve the quality of science and math education; and (iii) introduce School Performance Partnerships based on School Improvement Plans to capture quality improvements. The School Performance partnerships would develop mutual accountability between school management and the MOE to improve learning performance with the commitment from government agencies to provide the necessary resources and the responsibility of schools to implement quality improvement activities with verifiable outcomes. In addition to school-based quality inputs, training and financing, this pillar will support the systematic collection and publication of school data for stakeholders, (i.e., parents, guardians and wards to make better informed decisions about the choice of senior secondary school to attend.

The focus on math and science subjects is aligned with the government strategy to encourage these program areas throughout all education levels. The expansion of ICT wireless connectivity would also allow strengthened science, math and other subject education through digital content for teachers and students. Schools will have access to an education portal[2] where teachers and students can utilize multiple online resources that are expected to support improved teaching and learning. ICT will be used for intensive in-service support to teachers to improve content knowledge as well as lesson plan preparation, teaching and learning aids, and videos on good teaching practices and classroom management. The portal could also serve as a platform for knowledge exchange with national and international networks and for participation in relevant discussion forums. The SEIP will provide connectivity to 200 secondary schools.

[2] Education portal is being established with funding from USAID, GoG and future support from the Ghana e-Transform project approved by the Bank Board in 2012, and expected to be effective by 2014.

As an intermediate result, completion rates in the targeted schools would be expected to increase. A longer term impact would be an increase in student achievement in science and math (as measured by performance in the WASSCE) which is a year 4 DLI. For this pillar, release of IDA credit funds would be linked to the achievement of the following DLIs: (i) annual publication of School Performance Report (DLI 5); (ii) School Performance Partnerships in beneficiary schools (DLI 6); (iii) improved skills in math and science among teachers and students (DLI 7); and (iv) improved information, communication and technology capacity in selected secondary schools (DLI 8).

2.2 Component 2: Management, Research and Monitoring and Evaluation

This component aims to strengthen the implementation capacity of the Ministry of Education and Ghana Education Service and its related implementing agencies and assist them to achieve the objectives of the Government's SHS strategy. This component will support monitoring and evaluation, coordination, planning, communication, financial management, procurement, and safeguards. In addition, it will support an active and evolving research agenda to continue to inform Government SHS policy, particularly with regard to financing, social targeting, quality initiatives, teacher rationalization, and curriculum relevance. This component would complement implementation of the program pillars with ongoing analyses, strengthening data collection for school mapping, and establish priorities for new construction, renovations and maintenance. The establishment of a web platform for school reporting and real time monitoring of all SHS implementation activities would enhance and strengthen the Education Management Information System (EMIS) and ongoing school mapping in order to help government report on achievement of results. In addition, funding will be provided to support the independent verification of disbursement linked indicators and achievement of results. Support would also be provided to help the MOE to design and realize policy reforms, including piloting and evaluating innovative approaches. This component would finance training, recruitment of short and long-term technical experts, procurement of goods needed for specific activities, and incremental operating costs.

2.3 Description of Civil Works

The project under the AF will be implemented in selected administrative districts as identified by the Ministry of Education using specific selection criteria based on education indicators and poverty data. Most of the planned activities would be located at the district and school level. The Government has already identified the seventy five (75) SHS that are eligible to benefit from rehabilitation and upgrading. These schools fell within the districts that were selected based on meeting certain criteria. These civil works are primarily small rehabilitations of existing structures, and will not require the acquisition of land parcels as all sub-projects would be on existing school compounds. A needs assessment would be conducted to indicate sub-projects. The works are likely to include classroom expansion, rehabilitation, construction of toilets, modernization of science and computer labs and other small works within the school compound.

2.4 Implementation Arrangements

A Project Steering Committee comprising the Ministry of Education, the Ghana Education Service and the Ministry of Finance will provide oversight on the project's implementation activities. The PSC will meet to provide guidance and to help resolve key implementation bottlenecks.

The implementing agency will be the Ministry of Education in close collaboration with the Ghana Education Service. The MOE will be responsible for the project's coordination, procurement and contract management, financial management, and oversight of environmental and social due diligence. The M&E unit in Ministry of Education and the Ghana Education Service will be responsible for all sector level monitoring and evaluation under the SEIP. The Ministry of Education (MOE) is responsible for policy formulation, programming, coordination and monitoring and evaluation in the education sector. At the head of the MOE is the Chief Director who leads the technical team and reports to the Minister

for Education. The Ministry of Education will be responsible for Component 1 of the SEIP AF specifically programming, coordinating and supervising with the assistance of relevant units, the expansion of senior secondary schools in order to increase access with equity in upper secondary education in underserved districts. The responsibility of the MOE will include: (i) coordination and support of all implementing departments of the SEIP; (ii) reporting on progress against the indicators and DLIs, EEP and TA; (iii) ensuring timely and comprehensive reporting of results for disbursements; including Withdrawal Applications; (iv) ***ensuring that Bank fiduciary (financial reporting, procurement) and safeguard regulations and requirements are followed;*** (v) ensuring timely communication to all stakeholders on the SEIP progress; and (vi) managing and coordinating the Technical Assistance component with relevant departments.

The Regional and District Directorates for Education will be responsible for supervising all senior secondary school related interventions with respect to senior secondary institutional heads and will monitor the activities of senior secondary schools in their districts and regions. The Ghana Education Service will oversee all activities including, institutional leadership training, preparation of school partnership for quality plans, resourcing of schools for quality improvement, improvement of mathematics and science teaching, ICT interventions and monitoring and evaluation.

The Ministry of Education will have overall responsibility for achieving outcomes and agreed Disbursement Linked Indicators (DLI) under the project and be responsible for implementing the results-based Component 1 of the project. The Ghana Education Service will be responsible for implementing Component 2. The accounting and reporting of expenditures will use country financial management systems within the MOE. The MOE/PBME and GES will be responsible for coordinating and overseeing all M&E activities under the SEIP. The project's M&E framework will build upon established systems and will strengthen the Government's capacity to routinely collect, analyze and verify education data from schools, regional authorities, district education offices and budget offices. The MOE/PBME will be responsible for providing the following: (i) status reports on project implementation by activity, including summary description of outputs and outcomes achieved at the school- and district levels (annually) (ii) status reports on the progress made on all PDO and intermediate-level indicators specified in the RF; (iii) and level of achievement for the various milestones within each DLI; and (iv) consolidated annual progress reports.

3.0 RELEVANT LEGAL AND INSTITUTIONAL FRAMEWORK

This section provides an overview of relevant policies, laws and regulations specifically addressing this education sector project. It focuses first on the environmental legislation, the land administration and then the pertinent planning and other related PLRs.

3.1 Ghana's Environmental Policy

Ghana's National Environmental Policy aims at ensuring a sound management of resources and the environment and to avoid any exploitation of these resources in a manner that might cause irreparable damage to the environment. The policy endorses the preventive approach to environmental management and emphasizes the need to promote socio-economic development within the context of prescribed acceptable environmental standards and safeguards. In effect, it seeks reconciliation between economic planning and environmental resource development with the view to achieving sustainable national development.

The Policy Statement seeks among other things:

- to ensure environmentally sound use of both renewable and non- renewable resources in the process of national development,
- to develop procedures for the utilization of land resources in a manner that would ensure the maximum degree of economy in the use of land and avoid or minimize conflicts, and
- to institute and implement the concept of sustainable development by requiring prior environmental impact assessments of new investments and developments that would be deemed to affect the quality of the environment.

3.2 Environmental Protection Agency and Environmental Impact Assessment (EIA)

The Environment Protection Agency (EPA) was established under Section (1) of the EPA Act, 1994, Act 490. Consistent with Section 28 of Act 490, the Parliament of the Republic of Ghana, on 24 June1999, passed the Environmental Assessment Regulations, 1999, L.I. 1652 to regulate Environmental Impact Assessment (EIA) and Environmental Management Plan (EMP) procedures, LI 1652. The trust of the Agency's overall approach includes compliance promotion to facilitate good environmental practice and to seek co-operation and collaboration from those whose activities could potentially injure the environment.

The fundamental principle underlying Ghana's formal Environmental Impact Assessment (EIA) Procedures is the preventive approach to environmental management in which EIA is applied as a tool, especially at the project-specific level. EIA is recognized and applied in Ghana to development projects as well as other undertakings as an environmental permitting pre-requisite and a major environmental management tool. The existing procedures have evolved over time since EIA became a requirement in Ghana in 1989, to screen and evaluate all developments, undertakings, projects and programs, which have the potential to give rise to significant environmental impacts.

The procedures establish an EIA process of which one principal objective is the requirement to provide enough relevant information to enable the Environmental Protection Agency to set an appropriate level of assessment of any proposed undertaking, investment or program for the assessment for the necessary review and to facilitate the decision-making process for EIA approval. The information may be gathered through an environmental impact assessment study and published in an Environmental Impact Statement (EIS), Preliminary Environmental Report (PER), or by completing an

Environmental Assessment Preliminary Registration, Form EA1 or EA2, depending on the complexity, nature, and location of the proposed undertaking.

EPA is mandated by law to ensure compliance with laid down Environmental Impact Assessment (EIA) procedures in the planning and execution of development projects, including compliance in respect of existing projects. The basic objectives of the EIA system are to integrate environmental management and economic decisions at the earliest stages of planning an undertaking or investment and to provide avenues for the involvement of the public, proponents, private and government agencies in the assessment and review of proposed undertakings, among others.

3.3 Public Health Act, 2012, Act 851

The Public Health Act, 2012, Act 851 revises and consolidates all the laws and regulations pertaining to the prevention of disease, promote, safeguard and maintain and protect the health of human and animals, and to provide for related matters. The law has merged all provisions in the criminal code, ordinances, legislative and executive instruments, acts, bye-laws of the District Assemblies etc. The Act enjoins the provision of sanitary stations and facilities, destruction of vectors including mosquitoes, protection of water receptacles and the promotion of environmental sanitation.

3.4 National Sanitation Policy

The National Environmental Sanitation Policy aims at developing and maintaining a clean, safe and pleasant physical environment in all human settlements, to promote the social, economic and physical well-being of all sections of the population. The principal components of environmental sanitation identified in the policy include:

- Collection and sanitary disposal of wastes, including solid wastes, liquid wastes, excreta, industrial wastes, clinical and other hazardous wastes;
- Storm-water drainage;
- Cleansing of thoroughfares, markets and other public spaces;
- Control of pests and vectors of disease;
- Food hygiene;
- Environmental sanitation education;
- Inspection and enforcement of sanitary regulations;
- Disposal of the dead;
- Control of rearing and straying of animals;
- Monitoring the observance of environmental standards.

These services, the policy notes, must be provided reliably and continuously to mitigate the negative effects of social and economic activity in human settlements. The policy also recognizes the importance of the legislation, technical and human resource capacities, the roles of various institutions, the community and the private sector in the delivery of sanitation services. The Ministry of Local Government and Rural Development is in the process of consultation to start implementing the policy.

The formulation of clearly defined waste management and sanitation policy seeks to achieve the objective of protecting public health and improving the quality of life. The benefits of such policies are fully realized when all sectors of the economy are fully served with appropriate sanitation facilities. Once all sectors of the population are served with basic level of sanitation, incremental improvements can be made, as economic development provides funding and/or as public perceptions change.

3.5 Planning Policies

The Town and Country Planning Ordinance 1951 (Cap84) is the principal legislation in force regulating the general planning and development of human settlements. Its principal object was: "the orderly and progressive development of land, town and other areas whether urban or rural for conserving and developing resources and to preserve and improve amenities thereof". The Towns Ordinance, Cap 86 (1951) was also passed for the more efficient regulating of towns and promoting public health.

Ghana is operating a new decentralized development planning system. The system is part of a wider public administration reform, which was instituted to improve the effectiveness of national institutions, administration, environment and development. The four underlying laws that give effect to the reforms and establish the new decentralized planning system are:-

- The Civil Service Law, PNDCL 327 of 1993,
- The Local Governance Act, 2016, Act 936,
- The National Development Planning Commission Act 479 of 1994.
- The National Development Planning (Systems) Act 480 of 1994.

The new planning system establishes an institutional and administrative framework for providing and effecting national development, taking comprehensive account of socio- economic development in order to attain functional efficiency and environmental harmony.

The current management of physical growth of urban areas is carried out through a system of:

- Land use planning and management that provides a zoning framework to guide physical development;
- Detailed technical examination and guidance of individual physical developments to conform to the provisions of approved land use plans and building regulations;
- Delivery of basic settlement infrastructure and services by various agencies of central and local government.

4.0 DESCRIPTION OF THE ENVIRONMENTAL & SOCIAL IMPACTS AND MITIGATION MEASURES

4.1 Introduction

This section deals with the main potential environmental and social concerns likely to arise from the rehabilitation of buildings, water points and sanitation facilities under the Ghana SEIP, and their proposed mitigation measures. Work at the District levels across other World Bank sponsored infrastructure projects shows that issues such as community involvement and ownership, as well as the selection of appropriate sites are some of the key concerns, which influence the success, and sustainability of such projects.

That the project is a reimbursable process paying against results means that there is no traditional investment procedures (e.g., no objections) nor will a PIU and the Bank have to be provided verification that environmental and social provisions meeting Bank policy standards have been followed. This will require a due diligence checklist demonstrating that all World Bank Environmental and Social policy requirements are met.

4.2 Potential Environmental and Social Impacts

The school rehabilitation and expansion project will entail the construction of additional school structures and/or rehabilitation of existing school infrastructure. These would all be on existing, already acquired school lands. Therefore, no new land acquisitions will be involved.

4.2.1 Pre-Constructional Phase

Pre-Construction Phase impacts have been identified as comprising the following. Their respective mitigation measures are also presented below

Site Selection

Siting of sub-projects within school compounds does not present much difficulty. Some of the schools already have master layout plans that detail where all structures and facilities, including those yet to be constructed, are to be located. In other instances, however, some issues may crop up as a result of unplanned developments that may have arisen over the years. Some of these issues are:

- Community thoroughfares and footpaths that may have developed across parts of the school compound,
- Physical developments outside the school compound that may impact negatively on the new facility to be constructed,
- Selected or proposed sites having become prone to erosion over time

Mitigation

It will be the beneficiary school's responsibility to ensure security on its compound, including of the new or rehabilitated facility. This may call for the fencing off or reinforcement of the school's boundary walls, and adequate prior notification to the community that the access way is to be blocked. School heads will also be required to solicit the assistance of the local government authorities to ensure the relocation of such nuisance sources. If the selected location for the construction of a new facility on a school compound has been the subject of erosion or has become prone to erosion, the requisite remedial civil works will be added unto the scope of works for the selected contractor.

Site Clearing

Lands at the sub-project sites will be cleared of all vegetation to allow for the construction of the buildings. This would result in the loss of vegetative cover at the project area, and may expose the land to the elements of the weather.

Mitigation

As much as it is applicable, vegetation clearing will be timed; it will be done only when construction work is ready to begin. This will limit the exposure of the soil surface to erosion and other factors.

4.2.2 Construction Phase Impacts

Construction phase impacts will comprise the following:

- Air quality impacts (Dust and Exhaust emissions)
- Noise generation
- Traffic Impacts and Road Safety
- Occupational Health, Safety and Accommodation,
- Labour influx
- Public Health and Safety
- Gender-based violence and social concerns,
- Solid Waste management
- Liquid waste management

These are briefly described below, with their proposed mitigation measures:

Air Quality Impacts

Dust generation from excavation and construction activities could compromise air quality in the project area, especially during the dry season. Exhaust emissions from construction machinery could also affect air quality via their exhaust emissions.

Noise generation

Construction activity could generate noise from machinery and equipment, and could interfere with teaching and learning on the school compound.

Traffic Impacts and Road Safety

Haulage trucks delivering building materials to site could generate traffic impacts by adding to vehicular traffic on roads serving the project area. It is important that haulage trucks also pay attention to road safety and respect other road users. Haulage truck drivers on construction projects tend to arrogate to themselves some audacity to break traffic regulations and disregard other road users. This could create road safety issues.

Occupational Health, Safety and Accommodation

Construction site workers will be exposed to risks of accidental collisions with moving vehicles, strains from repeated movements or from lifting and heaving of heavy objects, slips and falls, including falls from heights. Accidental cuts from tools and machines are also safety risks. Wet cement as a building material is corrosive on contact to with human skin. From the previous phase of SEIP, accommodation for construction workers has been observed to be sub-standard. This will be monitored strictly under SEIP AF.

Labour Influx

Construction works attracts labour from outside the communities, both skilled and unskilled. This tends to create some tensions between local labour and migrant labour, especially with respect to shared community amenities. It also carries the risk of increased incidence of HIV/STDs incidence, sexual violence, underage sex and prostitution.

Public Health and Safety

Excavations, pits and heaps of unconsolidated material will be left overnight at the end of a working day at the construction site. These would make the construction site dangerous to stray animals and vagrants who might walk across the site at night. Especially as these sub-projects are located on school compounds, special attention will need to be paid to this aspect in order to protect students and staff.

The risk of HIV/STDs (Human Immuno-deficiency Virus/Sexually Transmitted Diseases) incidence or increase in local communities is also real.

Gender-based Violence and Social Concerns

Although it is expected that selected contractors for the construction phase would recruit local labour, it can be envisaged that some migrant workers would be brought in from other parts of Ghana. This would potentially introduce risks of sexual harassment, prostitution and underage sex on vulnerable sections of the local population, especially women and minors. Child labour is a concern, from the previous SEIP phase, and will need to be stemmed out in the SEIP AF, It could also bring additional stress on shared community facilities such as drinking water source, public toilet facilities, etc.,.

Solid Waste Generation

Construction activity will generate considerable amount of solid waste, include earth material, wood cut-offs, wood shavings, plastic cut-offs, empty cement sacks, paint cans etc. These would need to be appropriately disposed of.

Liquid Waste Generation

Liquid waste streams will include equipment wash-out after daily construction activity, and human wastes from construction workers. Table 4.1 below summarizes the identified environmental and social impacts and their proposed mitigation measures at the various phases of the project, assigns roles and responsibilities, and indicates the expected outcomes of the mitigation measures.

Table 4.1 Potential Impact - Mitigation Table

PROJECT ACTIVITY	POTENTIAL ENVIRONMENTAL IMPACTS/ACTIVITY	LOCATION	PROPOSED MITIGATION MEASURE (S)	MONITORING/ FOLLOW-UP	NET EFFECTS
PRE-CONSTRUCTION PHASE.	Vegetation clearing	Project site	Vegetation will be done only when construction is ready to begin.	Project Management Team	Avoidance of exposure of land surface to erosion
CONSTRUCTION PHASE	Air quality	Project site and vicinity	Areas to be excavated will be doused with water to minimize dust emissions	Project Contractor	Controlled dust generation; Reduced exhaust emissions
	Noise	Project site and vicinity	Regular maintenance of machinery and equipment. Restriction of construction activity to daylight hours	PMT/Project Contractor	Reduced noise impacts
	Traffic impacts and Road safety	Roads serving immediate	Restriction of delivery of materiel to site to		Reduced traffic impacts;

		project area	off-peak traffic hours. Use of traffic wardens to coordinate traffic flow, Drivers re-trained to respect traffic regulations and other road users	PMT/Project Contractor	Enhanced road safety
	Occupational Health, Safety and Accommodation issues	Project site and vicinity	Proper site sanitation and housekeeping. Provision and enforced use of PPE. Strict adherence to safety precautions as per Factories, Offices and Shops Act, 1970 (Act 328)	PMT/Project Contractor	Reduced incidence of accidents and injuries. Safe and decent accommodation facilities provided for construction workers
	Labour influx	Project community	Recruiting local labour as much as is available. Contractor to provide separate amenities for construction workers (see also **Social Protection** below).	Project Contractor	Reduced risk of social tensions;

	Public safety (Staff and students)	Project site	Cordoning off of pits and excavations with physical barriers and appropriate signage. Workers will be taken through HIV/STD awareness sessions and prophylactics provided on site.	Project Contractor	Reduced risk of accidents and injuries to staff and students,
	Social protection of vulnerable sections of community populations (Gender-based violence and social concerns)	Project community	Zero-tolerance policy towards child labor and child sexual exploitation. HIV/AIDS awareness sessions will be organized for construction workers.	Project Contractor	Reduced risk of gender-based violence and community unrest.
	Solid waste management	Project site	Excess earthen material will be used in		Safe disposal of generated solid

			landscaping. Waste skips will be provided to collect wastes for appropriate disposal at municipal disposal site.	Project Contractor	waste
	Liquid waste management		Equipment washout will be discharged away from water courses; mobile or temporary KVIP toilets will be provided for construction workers.	Project Contractor	Safe disposal of generated liquid waste
	Employment and Income	Project community and surrounding communities	Hired hands will earn some regular income to support themselves and their families.	Project Contractor	Income generation
OCCUPANCY AND MAINTENANCE	Increased demand on transport	Project site and	DA will ensure that transport	DA/Project Environmental	Adequate transport

PHASE	infrastructure	environs	facilities and infrastructure are improved.	Team	facilities and infrastructure.
	Solid waste generation	School site	Waste skips will be provided for waste collection, to be evacuated by DA waste management facilities periodically.	School authorities/DEMC	Proper sanitary conditions on school compound.
	Liquid waste generation	School site	Provision and maintenance of suitable toilet facilities on school compound	School authorities	Proper sanitary conditions on school compound.
	Security and Safety	School site	Engagement of security personnel to protect school facilities	DEOC/School administration	Enhanced security on school compound

Sources of Raw Materials

Raw materials such as laterite and sand are won from engineered borrow pits where these materials are naturally available. Permits are required from regulatory agencies for accessing these materials, which also require some remediation works to be done at the borrow pits in order to mitigate environmental damage after winning the material. It will be the contractor's responsibility to acquire the relevant permits for borrow sites, from where laterite and other earth materials for the construction activity will be won. This responsibility will be captured in *Annex E Contractor's Clauses*.

4.3.3 Occupancy and Maintenance Phase Impacts

Occupancy and Maintenance phase impacts would include:

- Solid Waste generation
- Liquid Waste generation
- Security and Safety issues
- Employment opportunities

These are briefly described below.

Solid Waste Generation Paper wastes, food packaging and residues will comprise the bulk of solid wastes to be generated from the school.

Liquid Waste Generation Liquid waste will comprise washroom wastes, as well as wastes from the science laboratories.

Security and Safety issues: At the operational phase, the new facilities could attract thieves and social miscreants like robbers. The risk of fire outbreaks and other related incidents on the facility could present challenges to the safety and security of the school facilities.

Employment Opportunities The project is expected to create employment for local artisans and manual laborers in the districts, where the facilities would be rehabilitated or built. The project will be expected to boost trade in construction materials such as cement, iron rods, lumber, etc.

5.0 ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

5.1 Introduction

Pilar 1 under component 1 of the Ghana SEIP will be implemented by various organizations including Government agencies, District Administrations, Architectural firms, and Construction Contractors. The environmental concerns raised earlier therefore require that some aspects of project design and implementation and tender and contractual document preparation should be environmentally sensitive.

The organization for the construction activities and implementation of the Ghana SEIP, under this section, are expected to screen for site selection; potential environmental and social impacts; mitigation of impacts; and to be able to outline steps for monitoring of potential impacts, with a process for triggering subsequent environmental and / or social assessments, where necessary.

5.2 Screening for Site Selection

Screening for site selection is perhaps the most important task, apart from the design works, in the pre-constructional phase. In doing this, it is imperative to take into consideration the adjoining land uses within and outside a school compound. It is to be noted that all expansion and rehabilitation works are on existing school lands, and no land acquisition will be undertaken. While some of the schools have existing layout plans into which new facilities are to be constructed, others will need to scan their school compounds for suitable locations. The screening process will ensure that new structures to be constructed have compatible utility and design with existing adjoining structures.

5.3 Screening for Potential Environmental and Social Impacts

Under this section those responsible for the construction and implementation of Component 1 of the Ghana Secondary Education Improvement Project AF are expected to screen for potential project impact as per the checklist. The potential project impacts as per the mentioned checklist include the following:

- **Current Land Use:** Is the proposed sub-project site being put to some other use, such as farming, or animal rearing? Will project result in anyone or people being forcible ejected?
- **Compatibility with Existing Infrastructure:** if the sub-project is constructed at the proposed location, will it conform to adjoining structures? Will its use disrupt the use of adjoining facilities?
- **Soil Erosion:** Will the sub-project help to prevent soil loss or erosion? Will sub-project directly cause or worsen soil loss or erosion? Could sub-project indirectly lead to practices that could cause soil loss or erosion?
- **Slope Erosion:** Does sub-project involve modification of slopes? Will sub-project affect stability of slopes directly or indirectly? Could sub-project cause people or property to be located where existing unstable slopes could be a hazard, and is it necessary to consult a geotechnical engineer?
- **Surface Water Quantity:** Do surface water resources exist in sub-project area? Is information available on present and future demands on water resources as a result of the sub-project? Will sub-project help to increase or preserve available surface water supplies? Will sub-project increase demand or cause loss of available surface water? Is it necessary to consult a hydrologist?
- **Surface Water Quality:** Is current data available on existing water quality? Will sub-project lead to additional natural or man-made discharges into surface water? Will sub-project help to improve or

protect surface water quality? Could sub-project cause deterioration of surface water quality and is it necessary to consult a water chemist?

- **Air Quality:** Is information available on existing or quality? Will sub-project produce any air emission directly? Will sub-project help to reduce existing air pollution sources? Could sub-project lead to practices that worsen air quality? Could sub-project lead to a change in engine or fuel use that could cause serious air problems? Is it necessary to consult an air quality specialist?
- **Noise:** Is noise now a problem in sub-project area? Will sub-project help in reducing undesirable noise conditions? Will sub-project cause increases in noise generating conditions? And could sub-project cause movements of people to high noise level locations
- **Aquatic Ecosystems:** Are there any aquatic ecosystems in the sub-project area such as rivers, streams, lakes or ponds which might be considered significant? Will project affect the use of these systems for human consumption?
- **Wetland Ecosystems:** Are there any wetlands ecosystems in the project area such as marsh, swamp, flood plains, or estuary which might be considered significant? Will project affect the use or condition of such wetlands?
- **Terrestrial Ecosystems:** Are there any terrestrial ecosystem in the project area such as forest, savannah, grassland or desert which might be considered significant, Will project affect the use or condition of such system
- **Endangered Species:** Is the existence of endangered species in the project area known? And Will project affect the habitat of any such species
- **Natural Habitat:** Is the project degrading, removing or converting any natural habitats which include forested areas, and other habitats for wildlife?
- **Migratory Species:** Do migratory fish, birds, or mammals use the project area? Will project affect the habitat of such species?
- **Beneficial Plants:** Do non-domesticated plants occur in the project area, which are used or sold by local people? And will project affect these species by reducing their habitat in any way?
- **Beneficial Animals:** Do non-domesticated animals occur in the project area, which are used or sold by local people and Will project affect these species by reducing their habitat in any way
- **Pest-Plants and Animals:** Are there currently any problems with pest (plants or animals) in the project area? Are there any plants or animals in the area, which might become pests because of ecological changes brought about by the project? Will project improve increase he habitat for such species?
- **Disease Vector:** Are there known diseases in the project area transmitted through vectors? Will project increase vector habitat? Will project decrease vector habitat or provide opportunity for control? Are there clinics or other disease control programs in operation or planned for the area? Is it necessary to consult a public health officer?
- **Resource / Land Use:** Is the land owned/leased by the project proponent?
- Are there any known disputes on the land? Will the land be acquired by the government? Are lands in the project area intensively developed? Will project increase pressure on land resources? Will project result in decreased holdings by small land owners? And should a land use planner be used?
- **Employment:** Will the project increase employment? And will project remove job opportunities from the area?
- **At-Risk Population:** Are the adverse impacts of the project unequally disturbed in the large population? And have the at-risk groups been identified?
- **Existing Population:** Are there currently any people living in or near the project area? Will project affect people in or near the project area? Has liaison been established with the community? Will community participation in projects design and implementation be necessary? Is it necessary to consult a sociologist?

- **Migrant Populations:** Are there currently any mobile groups in the target population? And is it necessary to consult a sociologist?
- **Cultural and Religious Values:** Is it necessary to consult a sociologist? Are there special superstitions or taboos that will affect acceptance of the project?
- **Tourism and Recreation:** Is there at present a significant degree of tourism in the area? Is there unexploited tourism or recreation potential in the area? Will project adversely affect existing or potential tourist or recreation attractions?

Undertaking the identification of the potential project impacts as explained above would facilitate the filling of EPA's **Environmental Assessment Preliminary Registration Form EA1**. The Environmental and Social Safeguards Consultant would fill the forms and on Environmental Impact Assessment procedures.

It must be noted that based on the information gathered during the screening exercise and provided on the EPA's EA1 Form, the EPA officers would visit the proposed project sites to assess the adequacy of the information provided and also the appropriateness/suitability of the selected site, among others and they would decide whether to give approval at this stage or require further analysis in the form of Preliminary Environmental Assessment or a more thorough assessment in the form of a complete Environmental Impact Assessment.

In the case of the Preliminary Environmental Assessment, a less detailed form of EIA, which leads to a Preliminary Environmental Report (PER). The Terms of Reference (TOR) are determined by the EPA. For the Environmental Impact Assessment (EIA), detailed study based on an initial scoping report is to be carried out on TOR agreed with the EPA.

5.4 Mitigation of Impacts

The proposed measures to mitigate the potential impact of the implementation of the Ghana SEIP AF components have been prepared in the form of guidelines. The guidelines are provided to ensure that good environmental practices are adopted to avoid and/or limit adverse consequences from the proposed interventions. Some of the guidelines given below are of a general nature, applicable to all components, while others are component specific.

These guidelines are not exhaustive; project implementation should be guided by experience and knowledge gained from the previous phase of SEIP, as well as from other projects.

5.5 Guidelines for Community Involvement

Selection of Contact Persons

Efforts should be made to identify opinion leaders particularly those who appear to catch the vision and can assist in sensitizing the people in the project community. This however is the prerogative of the implementation committees through the project contractors. They should be on the lookout for opinion leaders, who could be employed to sensitize the rest of the community members.

Contact should be made, as much as practicable, with all groups that would be affected one way or the other by the project, i.e. school leavers, parents, women groups, Community Based Organization (CBOs), teachers, members of the District Assembly, traditional authorities, and school management committees. In doing this, gender balance has to be ensured in order to promote dialogue and capture the inputs of the women in the beneficiary communities. These groups would assist in the sensitization process.

Community Sensitization

Selected beneficiary communities should be educated on aspects of the intended intervention well ahead of time. This should include the benefits, problems and financial implications among others. Animation, film shows, drama and posters are some of the methods that could be used to educate the people.

Community participation/involvement is a vital issue that has been identified to ensuring sustainability of any project. Most of the communities targeted by the Ghana SEIP-AF are among the most deprived in the country. This makes it more meaningful that they identify themselves with the project and its success by ensuring that assistance is provided to siting and constructing of the project's components and to teachers, who would work in the establishment. Steps should thus be taken to sensitize and involve the beneficiary communities from the start of the project.

Conflict Resolution

All issues of conflict and misunderstanding identified prior to implementation should be exhaustively addressed. The tendency of using the Project itself as a means of overruling potential conflict and misunderstanding should be avoided.

5.6 Guidelines for Project Site Selection

As indicated earlier, the sites to be selected for the up to 75 sub-projects will be on existing school compounds, and no new land acquisition will be made. However, it remains imperative that suitable locations are selected. Some of the schools have existing master layout plans, and these should be considered where available. Consultations should be held with the School Heads, staff and the District Education Directorate. The guidelines for site selection of projects should consist of the following:

- Avoid locating sub-projects on low-lying areas, slopes and areas liable to flooding on school compounds,
- Avoid siting facilities close to school boundaries where adjoining facilities or land use will disturb or distract students, e.g., if there is a corn mill outside the school boundary but close to the proposed site, another location should be found. Alternatively, the Metropolitan/Municipal/District Assembly should be involved to get the owner to relocate.
- Avoid siting facilities near sanitary facilities, e.g. school KVIPs, rubbish dumps, etc., which could lead to bad odours and outbreak and spread of infectious diseases.
- Ensure that the sub-project site has sufficient land area for the construction of the sub-project's components, facility installation and for future expansion, if necessary.
- Do not use involuntary land acquisition that will negatively impact people's livelihoods and avoid sites that are subject to land ownership disputes.

5.7 Guidelines for the Timing of Constructional Activities

The construction works expected under the Ghana SEIP-AF would require community labor involvement, especially in the rural areas. In order to ensure availability of labor the following points should be considered.

- **Cultural and Religious Activities** – Some religious and cultural activities may engage the attention of the people over an extended period of time, such periods should be avoided as much as possible. In the rural areas, much of local labour will not be available during the rainy season, as they would be tending their own farms.

- **Seasonal Migration** – Periods and seasons when some of the people migrate out of their communities to seek employment elsewhere should be factored into the planning.
- **Favorable Climatic Conditions** – Activities requiring extensive excavation must be timed to coincide with periods of conducive climate. In some areas, especially northern Ghana, the rainy season renders parts of the regions inaccessible, thus construction work has to be planned in the dry season.

5.8 Guidelines for Construction Phase

The mitigation measures for the environmental concerns raised with regards to the construction of the building and general construction work of the other components have been addressed as follows:

- **Air Quality** – The impact of dust generation from construction work is a transient impact. However, during construction, efforts should be made to reduce dust impacts by frequent watering, providing of dust masks for workers and undertaking good work practices. Machinery and equipment should be serviced periodically to minimize excessive exhaust emissions

- **Noise** – On school compounds, noise generation should be minimized as much as possible. Machinery and equipment should be serviced periodically to minimize excessive noise. Ear protection gadgets are to be provided to workers on the construction site, who would be exposed to high noise intensities.

- **Traffic Impacts and Road Safety** – Drivers of contractors' vehicles and haulage trucks will need to be re-trained on the need to observe traffic regulations, and to respect other road users.

- **Occupational Health, Safety and Accommodation** – Contractor to provide Personal Protection Equipment (PPE) for all workers, and enforce their use. Where provided, construction workers' living quarters should be safe, well-ventilated, mosquito-proof and hygienic. Contractors should submit for approval, and install Health and Safety Management Plan for construction phase.

- **Labour influx** – Unless labour requirements cannot be met from local communities, workers should be recruited from project communities. Where migrant labour is employed, they should be provided separate facilities and amenities to forestall stress on local resources, which could create tensions.

- **Public Health and Safety** - Cordoning off of pits and excavations with physical barriers and appropriate signage. Construction workers will be taken through HIV/STD awareness sessions and prophylactics provided on site.

- **Gender-based Violence and Social concerns** - Migrant construction workers will be made aware of the need to avoid sexual contact with minors, any form of sexual harassment. Contractor will be required to avoid child labour, and to provide separate amenities for construction workers.

- **Solid Waste Management –** Contractors engaged in the construction activities should have on site waste skips and waste bins, and ensure that their workers use these facilities. Excess earthen material should be used in site landscaping.

- **Liquid Waste Management** - Contractors engaged in the construction activities should have on site mobile or temporary toilet facilities, and ensure that their workers use these facilities. Disposal of equipment wash-outs should be away from water ways, and liquid hydrocarbons (fuels) should be kept on concrete hard stands and paved areas.

- **Source of Raw Materials -** The PIU should ensure that the contractor procures building materials such as sand, stones, and laterite from licensed and approved sites. The contractors should be urged not to use chain-sawn lumber in the construction of any of the components of the project.

5.9 Guidelines for Operation and Maintenance Phase

The management and maintenance of the components of the project would be in the hands of the District Assembly through the District Directorate of Education. It should be the responsibility of the DA to see to the management and maintenance of the sanitation facility.

6.0 ENVIRONMENTAL AND SOCIAL ADMINISTRATIVECONSIDERATIONS

This section describes the environmental and social management framework and the environmental guidelines for avoiding and or preventing the adverse environmental and social impacts of the project activities. Institutional setup for implementing the ESMF, roles and responsibilities of the focal persons, monitoring mechanisms, and training and capacity building programs have also been detailed in this section.

6.1 Institutional Arrangement and Responsibilities

Oversight of the SEIP AF implementation will be in the Ministry of Education (MOE) with the Ghana Education Service providing their mandated implementation role for service delivery. This section deals with the relevant institutional arrangements–existing and proposed –which would facilitate environmental and social soundness and sustainability.

6.1.1 Project Oversight

A Steering Committee and Project Management Team of the MOE will be established to coordinate and oversee implementation.

The Project Steering Committee (PSC) will:

- Provide guidance on strategic, policy and implementation issues;
- Coordinate activities of the ministries, agencies and other stakeholders involved in the project implementation;
- Review and approve annual work plans, budget and annual reports;
- Review and discuss quarterly and annual project progress reports and make necessary recommendations;
- Assess the progress towards achieving the project's objectives and take corrective action if necessary; and
- Resolve cross-sectoral and issues above the Project Management Team.

The PSC will be chaired by the Minister of MOE or his designee. The PSC will include representatives at the Chief Director level for the ministries and at the Director levels for the agencies of relevant ministries and institutions and civil society organizations, including: (i) Ministries of Finance; and Ministry of Local Government and Rural Development; (ii) Ghana Statistical Service; (iii)Environmental Protection Agency; and (iv) the West African Examinations Council; The PSC will meet to assess the project implementation progress on the ground and undertake site visits as necessary.

6.1.2 Project Management Team

The Project Management Team will derive from the Project Implementation Committee at the national level (see Figure 6.1 below). The PMT's main functions (i) assume project control, (ii) monitor the actual construction of work executed in the four (4) zones of the country namely: Zone 1- Northern, Upper East and Upper West regions; Zone 2- Ashanti and Brong Ahafo regions; Zone 3- Central, Western and Greater Accra regions; and Zone 4- Volta and Eastern regions; (iii) review reports submitted by the supervising consultant on a zonal basis and bring up issues to the Project Implementation Committee for resolution; (iv) liaise with the District Assemblies to ensure their full participation in the supervision of the project; (v) prepare and update the schedule of activities/procurement plans to be executed under the project; (vi) vetting claims submitted by the consultants on behalf of the contractors; (vii) vetting consultancy claims submitted by the supervising consultants; (viii) agree on design modification to suit

topography of the land; (ix) prepare monthly briefs to the Ministerial leadership; (xi) follow up and ensure that contractors and consultants are paid for properly prepared claims; (xii) review any recommendations for the payment of fluctuations/variations and for advice to the PSC; (xiii) take over completed structures and commission them for usage by the schools; and (xiv) accompany Ministerial leadership on monitoring in the respective zones.

The PMT will include the following:

- 2 environmental and social safeguards consultants (1 for Environmental and 1 for Social)
- 1 procurement specialist (MOE)
- 1 technical advisor (MOE)
- 4 architects (FPMU + 3 others)
- 4 quantity surveyors (FPMU, GETFund and 2 others)
- 4 civil engineers (FPMU + 3 others)
- 1 electrical engineer (on retainer basis)

Table 6.1 below is a tabular arrangement of the institutional arrangements and responsibilities for environmental assessment and resettlement.

Table 6.1: Institutional Arrangements/Responsibilities for Environmental Assessment and Resettlement

Institutional Responsibilities Task	Institution(s) Responsible
Project coordination and management	- Project Steering Committee (PSC) - Project Management Team - District Education Oversight Committee - School Management
Implementation and monitoring of ESMF and RPF	- PMT (E&S Consultants) - DEOC (including Land Valuation Division) - Environmental Protection Agency (EPA)
Determination of affected persons and compensation levels	- PSC - PMT - DEOC
Payment of compensation	- PMT - DEOC
Dispute resolutions	- DEOC

District Level. District Assemblies (DAs) are empowered under Act 936 of 2016 to be responsible for development, improvement and management of human settlements and the environment in their districts. In order to facilitate the work of the DAs in this regard, the District Education Oversight Committee (DEOC) which includes the (i) MCE or DCE; (ii) District Director of Education; (iii) District Engineer; (iv) District Planner; (v) District Environmental/Social Officer; and (vi) representative from the Land Valuation Division of the Lands Commission will have responsibility for the project implementation in collaboration with the beneficiary communities. The District Environmental/Social Officer will be responsible for site screening and reporting to the DEOC. There will be the need for capacity building at the DEOC level. The District Engineer will lead in the monitoring and supervision of contractors and recommend the signing of work certificates against work done.

Role of DEOC

The key functions envisaged for the DEOCs with regard to environmental issues are:

- Responsible for liaising with EPA and other relevant agencies
- Work with project environmental consultants (PM Consultancy) when required
- Responsible for registering all project components within the zones with the EPA, including completing Form EA1, any other documentation, and/or the attached project environmental screening checklist.
- Ensure compliance with all recommendations by EPA and other regulatory agencies
- Play a lead role in site selection for relevant SEIP components within the district and initiating collation of baseline data
- Inspecting and Monitoring of environmental components of pre- constructional, constructional and operational stages and providing the PMT with reports on a regular basis.

Figure 6.1 below illustrates the organizational structure of the DEOC.

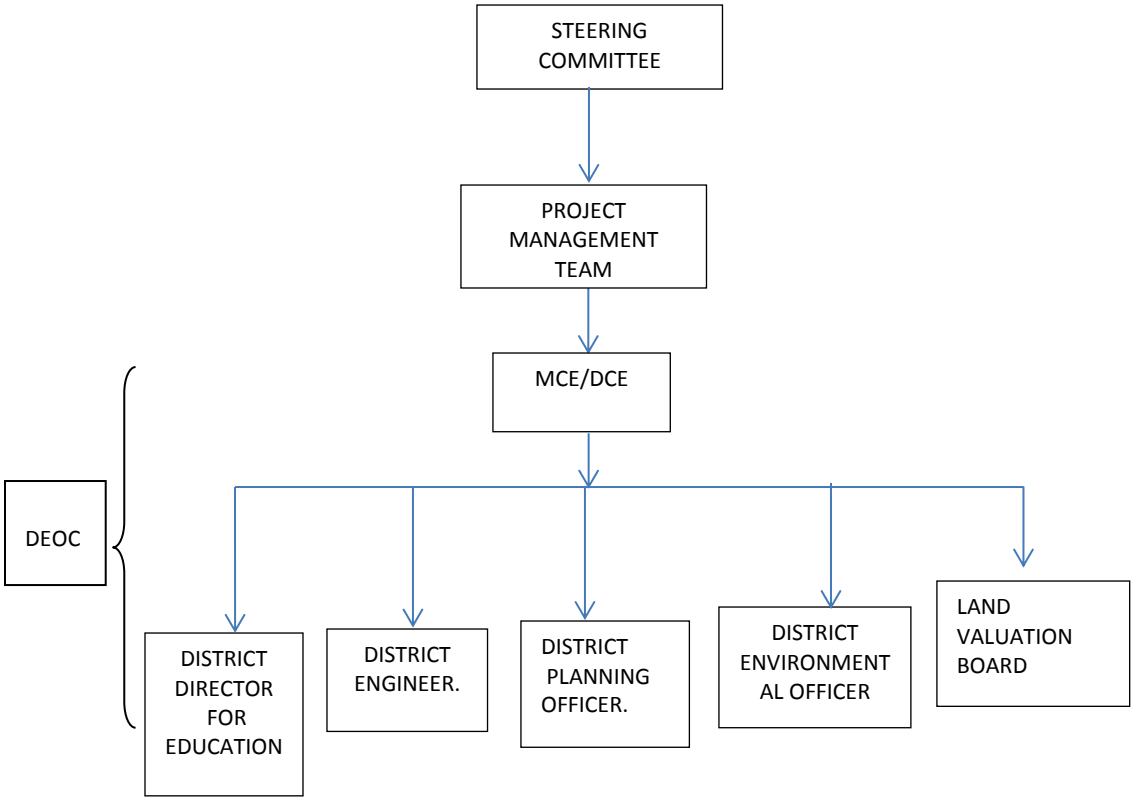

Table 6.2 below outlines the institutional setup for timely identification and reporting of the environmental issue relating to the SEIP and for taking necessary preventive or corrective measures at the national and district levels of responsibility under the ESMF:

Table 6.2 Organizations and Focal Persons for ESMF Implementation

Organization	Role	Focal Person	Jurisdiction
Project Management Team	Responsible for implementing various activities required for safeguard compliance under the ESMF and RPF.	Environmental and Social Safeguards Consultants (to be recruited)	Ministry of Education
District Education Oversight Committee	Responsible for project implementation in collaboration with the beneficiary communities as well as site screening and reporting to the DEOC.	District Environmental/Social Officer	Respective Districts

The environment consultant to be recruited as part of the PMT will be required as part of their TOR to strengthen the capacity of the DEOC in clearing the Screening forms.

6.2 Environmental Enhancement pertaining to Design

The environmental and social enhancements pertaining to project design include (i) wide windows to optimize natural lighting and ventilation and (ii) rain water harvesting facilities capturing rainwater for use and mitigating the effect of run-offs. ; and (iii) inclusion of solar photo-voltaic cells to generate power for use in the laboratories. The primary objective of the guidelines is to optimize the use of green technology to minimize project footprint.

6.3 Internal Compliance Monitoring

Compliance to environmental and social guidelines will be effected through an internal compliance monitoring mechanism comprising the channels, as described below:

1. The head of institution being the environmental moderator at the school site level will ensure observance of the ESMF guidelines at the construction and operational phase. He/she approaches the contractor to do the right thing as the first level of resolution. The next level is to bring the issue to the attention to the DEOC through the District Director of Education.

2. The DEOC of the respective districts will make routine as well as surprise visits to the schools during construction/rehabilitation as well as occupancy phases of the project. They will act on resolving issues and will submit their monitoring reports to the PSC.

3. The DEOC will process monitoring reports and forward the consolidated report of the district to the PMT for decision making. The PMT will analyze and summarize the report for the information and guidance of the PSC.

4. The PMT will engage the services of an independent auditor (technical audit) to provide final completion reports. Each completed school project will submit to MOE the E&S Due Diligence Checklist (see Annex 8), which will serve as the evidence of compliance with all national and equivalent World Bank safeguards.

6.4 Trainings and Capacity Building

The principle objective of the trainings is to ensure long-term sustenance of the ESMF and RPF principles for sound and sustainable project implementation. Social conflict can best be addressed by bringing all stakeholders on board through sustained and regular training. The training will also correlate with means of empowering the community, for social conflict resolution.

6.4.1 District Level Training

It is recommended to hold one-day training workshops at the District level for the DEOCs. These workshops will focus on identifying and discussing environmental and social issues that will arise during the implementation of the ESMF and RPF. These will also sensitize participants about environmental and social considerations of the SEIP, managing the site relevant problems, and strategizing implementation of the ESMF guidelines.

6.4.2 National Level Training

Similarly, a one-day workshop will be held at the national level every year during which key stakeholders involved in SEIP field implementation will focus primarily on policy issues and share ideas and experiences. The E&S consultants in the PMT will be responsible for organizing and reporting on these annual trainings. At the national level, it is also recommended that contractors working in the various districts are trained. The training of contractors will focus on their responsibilities as outlined in Annex 6: Example of Contractors' Clauses.

6.4.3 Development of Training Manual

In order to make the training efforts meaningful, the PMT, in consultation with the two environmental and safeguards consultants, will develop comprehensive "Training Manuals" for the participants. The training manuals will contain outline of the program, training methodology, glossary of terms, methodologies for avoiding and correcting environmental and social impacts, gender issues, tips on observing the guidelines, problem solutions with examples, excerpts of the relevant literature/legislations, and linkages to further sources of information and guidelines. The environmental and social consultants will be responsible for reviewing and updating the training manuals as necessary.

6.5 ESMF Costs

The ESMF implementation involves three broad categories of costs:

- Training and capacity building costs; and
- External monitoring costs;
- Information and Communication costs

The estimated cost of ESMF and RPF implementation for duration of three years is about GHC2,102,700 (approx. US$512,853). The detailed budget is explained in the Table 6.3:

Table 6.3 Indicative Budget for ESMF Implementation

		Unit Costs			Total Cost/Annum
		Hotel	**Per diem**	**Transport**	
1.	Hiring of one Environmental Safeguards Consultant for a year	GHC31,200/month			GHC374,400
2.	Zonal Training (156 participants for four (4) zones for two days)	GHC350	GHC100	GHC250	GHC156,000
3.	National Level Training for 75 contractors for one day	GHC0	GHC150	GHC250	GHC30,000
4	Monitoring Costs for quarterly monitoring visits at the district and annual monitoring visits at the national—15 monitors for 5 days	GHC150	GHC100	GHC250	GHC37,500
6.	Training Manuals (300) and other training materials	GHC10			GHC3,000
7.	Information and Communication Costs- radio announcements; print media adverts, announcements	GHC50,000			GHC50,000
8.	Developing Technical Planning Guidance				GHC 50,000
	TOTAL				**GHC700,900**

Table 6.3 Environmental and Social Focal Persons and their Areas of Responsibility

Focal Person/Organization	Areas of Environmental Responsibility
Environmental and Social Safeguards consultants	▪ Coordinate the pre-design, planning, and funding stages with the TPG ▪ Incorporate ESMF Guidelines into contractors' agreement ▪ Coordinate capacity building and training activities ▪ Act as an arbiter or dispute resolution in case of difference on issues beyond the district level ▪ Completes Screening forms and clears them against criteria checklist ▪ Call for due diligence and compliance reports from districts and update the national database. ▪ Facilitate the Implementation of ESMF. ▪ Organize and conduct national and district level trainings ▪ Design manuals and modules for capacity building and awareness creation. ▪ Facilitate monitoring and auditing process. ▪ Ensure that all subprojects are developed in line with the Environmental Laws of the Government of Ghana, World Bank Safeguard Policies, ESMF and RPF ▪ Coordinate environmental impact assessments as required and recommend actions for consideration and better integration into the project; ▪ Ensure that the project reports adequately on the implementation of the environmental policies ▪ Ensure implementation of GRM ▪ Liaises with EPA

District Environmental and Social Focal Person	▪ Ensure effective compliance of the ESMF at the district level ▪ Receive environmental compliance reports from schools and forward them to DEOC ▪ Work as the dispute resolution authority for the district ▪ Coordinate district level capacity building and training activities
DEOC	▪ Carry out periodic and surprise inspection schools in the district ▪ Complete the prescribed environmental compliance and monitoring forms/checklists and report non-compliance/ deviation ▪ Submit the completed forms to PMT ▪ Liaise between the contractor and the PMT
Institutional Head	▪ Ensure that construction stage guidelines are complied with by the contractor and report deviations to DEOC ▪ Liaise between the contractor and the local community ▪ Safe removal/reuse of demolition debris ▪ Forward completed monitoring forms/ check lists to DEOC ▪ Implement the ESMF guidelines relating to school operation e.g., ensure proper working of the septic tank, fill up and forward operation stage completed forms to DEOC ▪ Create awareness about the project activities at the school level
Construction Contractor	▪ Follow and observe the construction stage guidelines ▪ Comply with instructions and directions given by the PMT

6.6 Actors

6.6.1 Beneficiary Districts

The beneficiary districts include schools and communities which are the main focus and recipients of the projects. Beneficiaries include secondary school students, teachers, parents, communities and other stakeholders.

6.6.2 Political Authorities

The District Assembly is the highest political authority at the district level and together with the District Directorate of Education are of key importance to the project sustainability.

6.6.3 Chiefs, Opinion Leaders and CSOs

These groups are critical to the project, as they usually wield considerable influence on decisions relating to the siting, establishment and location of facilities.

6.6.4 Ministry of Education and Ghana Education Service

The MOE and the GES lead in the implementation of the project and see to the training and deployment of teachers, institutional leaders, equipment and materials to the schools to ensure the sustainable provision of quality education services.

6.6.5 Environmental Protection Agency (EPA)

The EPA will assist, monitor, and ensure that the DEOC complies with laid down Environmental Assessment (EA) procedures on the implementation of the SEIP, especially when it comes to site selection and the issue of compensation and involuntary resettlement.

6.7 Project Management Structure Guidelines

The major requirement of the project management arrangements is the formation of an autonomous unit responsive to beneficiaries and working to ensure:

- Strong co-ordination on policy matters
- Effective co-ordination on technical matters including environmental issues
- Capacity building for implementation officials of the Ghana SEIP and DEOC.

The management structure for the Ghana SEIP implementation with regards to environmental and social management is focused largely on the recruitment of two environmental and social specialists. The environmental and social specialists will be responsible for monitoring and ensuring that the checklists are completed accurately and that the contractor is applying the relevant mitigation measures. However, the implementing agency specifically the Chairman of the Project Implementation Committee is responsible overall for recruitment of the environmental and social specialist and the monitoring of the specialist's work.

6.8 Environmental Management Guidelines

As indicated, with regards to the Ghana's EPA requirements, the current phase of the Ghana SEIP falls within the Environmental and Social Management Framework (ESMF-AF). It is expected though that, individual site specific activities will be subjected to appropriate project level assessment. In this regard, it is proposed that the implementing agency has a permanent focal point (likely to be the Monitoring and Evaluation Specialist) that can, with the contracted environmental and social specialist, liaise with representatives of the construction contractors to be responsible for ensuring that project specific level assessment requirements are met. The contractors would receive initial training and orientation from the Environmental and Social Consultant in order to obtain the requisite skills.

6.9 Guidelines of the Role of the EPA in the Project

For individual projects, the EPA will implement monitoring programs on project-by-project basis once the site specific assessment is considered satisfactory. The level of assessment for any individual project would depend on the following factors.

1. Size or scale of project
2. nature/type and magnitude of impacts
3. location(land use consideration, compatibility and sensitivity)
4. resource base and resource at risk

In general, there are three environmental assessments available under the Ghana EIA procedures. These are:

Individual Projects for which only Registration Assessment may be required

Registration Assessment (RA) is based on information provided in completing **Form EA1**, which is the starting point in Ghana's EIA procedures. The appropriate EPA Regional office would receive a duly completed EA registration form **EA1** and Environmental Assessment Checklist, in duplicate, in respect of the particular project to be developed. The EPA officers would visit the proposed projects sites to assess the adequacy of the information provided and also the appropriateness/ suitability of the selected site, among others criteria.

Individual Projects for which Preliminary Environmental Assessment may be required

Preliminary Environmental Assessment– a less detailed form of EIA, this leads to a Preliminary Environmental Report (PER). The Terms of Reference (TOR) are determined by the EPA after the Registration Assessment (RA). If there is the need for further analysis, after the appropriate RA, the relevant EPA Regional office would advise on the scope of the Preliminary EA to cover the development. The officers would assist by assessing the adequacy of information provided and the suitability of proposed mitigation actions in the PER.

Individual Projects for which Environmental Impact Assessment may be required.

Environmental Impact Assessment (EIA) – detailed study based on an initial scoping report and carried out on the TOR agreed with the EPA. These are sub-projects, which may be located in environmentally sensitive or critical areas. It has been found from the site screening check list that the micro natures of the proposed Ghana SEIP components are such that full scale EIA may not be necessary. However, certain water projects (e.g. boreholes) have potential for environmental sensitivity, and it is important that greater attention is paid to siting them. Finally, the EPA would assist, monitor, and ensure that the DEOC complies with laid down EIA procedures in the implementation of the individual projects, especially when it comes to site selection and the issue of Compensation and Resettlement.

6.10 Guidelines for EPA's Registration of the Projects

The EPA Regional Offices will register all SEIP site specific activities located in their respective regions and monitor environmental compliance following implementation. EPA Head office would also maintain a register of all SEIP site specific activities in all the regions and prompt the regional officers to monitor the projects and provide updated information on their performance and status.

Monitoring of Potential Impacts

The monitoring of environmental effects is necessary to ensure that predicated impacts are addressed effectively and efficiently through the mitigating measures indicated. The three main objectives of the monitoring exercises are:

- To ensure that the proposed mitigating actions are appropriate for addressing the identified impact.
- To ensure that any additional impacts not identified in the analysis of the potential environmental and social impacts of the rehabilitation and/ or construction of school buildings, etc. and provision of water points and sanitation facilities are captured as early as possible.
- To ensure feedback information to the Ministry of Education and the EPA in order that appropriate modifications can be made to either the operational activities or to the environmental management plan in terms of mitigating measures to be applied.

7.0 ENVIRONMENTAL AND SOCIAL MITIGATION PLAN (ESMP)

7.1 Introduction

Considering the various environmental and social impacts of Ghana Secondary School Project, it is imperative for mitigation measures to be put in place so as to avoid any negative consequences.

7.2 The role of stakeholders in ESMF Implementation

Environmental and social planning, implementation and management are undertaken by Ministry of Education for its development projects to cover environmental and social impact assessment (ESIA) and the pre-project/project planning processes. Key stages of the ESIA include proposal screening, EIA and mitigation measures, while the pre-project/planning process involves project concept, identification, design and appraisal. The ESA process links up with the pre-project/planning process signifying the importance of the two processes (i.e. EA and feasibility) to influence one another in the development of the Ghana Secondary Education Improvement Project. In the context of the ESMF, environmental and social planning identifies and assesses the potential concerns and implications that may arise with the implementation of the Ghana Secondary Education Improvement Project, in order to influence the design and other engineering feasibility options and decisions, for informed and sustainable project development. The successful implementation of the ESMF depends on the commitment of Ministry of Education and related institutions, the capacity within the institutions and the appropriate and functional institutional arrangements among others.

The Ministry of Education, EPA were identified as directly associated with the preparation, review and the implementation of the ESMF. The contractor(s) to be employed to undertake construction works will also have a role to play in the implementation of the sub-projects. This section addresses the following key areas of the ESMF implementation:

- Roles of Key Stakeholders in the ESMF implementation;
- Capacity building;
- Environmental and social monitoring and reporting; and
- ESMF implementation budget.

Roles of Key Stakeholders in the ESMF Implementation

The ESMF provides the environmental and social safeguards for the Ghana Secondary Education Improvement Project and its successful implementation will depend largely on the key stakeholder institutions. This will ensure that the sub-projects are undertaken with due regard for the integrity of the resources to be affected by the project development activities. The roles of the major stakeholders are identified in an institutional role in which the various components of the Ghana Secondary Education Improvement Project were matched with the institutions which have jurisdiction in the areas of licensing, permitting, assessment, monitoring, etc. are stated below. These institutions and stakeholders were identified as having roles to play in the Ghana Secondary Education Improvement Project ESMF preparation as well as implementation of the sub-projects:

- Ministry of Education (MoE);
- Environmental Protection Agency (EPA);
- Ministry of Local Government and Rural Development;
- Ministry of Environment, Science and Technology (MEST); and
- NGOs/CSOs.

The recommendations for the Ghana Secondary Education Improvement Project have been prepared in the form of guidelines (ESMF) and monitoring procedures. The major recommendations have been summarized below:

Community Involvement and Ownership

Selection of Contact Persons:

Although their support and involvement is essential, community leaders like Chiefs and Assembly Members do not always make the best contact persons for project implementation. In some situations, efforts should be made to identify other opinion leaders particularly those who appear to catch the vision and can assist in sensitizing the people. Contacts should be made with children, women, groups, the poor, teachers, and parents, as they constitute the major beneficiary group of the project.

Education

Selected beneficiary communities should be educated on all aspects of the intended intervention well ahead of time. This should include the benefits, problems and financial implications among others. Animation, film shows, drama and posters are some of the methods that could be used to educate the people. This is the responsibility of the MMDAs.

Grievance Redress Mechanism -Conflict Resolution

All issues of conflict and misunderstanding identified prior to implementation should be exhaustively addressed and resolved by the MMDAs, using e.g. public forum to arrive at compromises. The tendency of using the project itself as a means of overruling potential conflict and misunderstanding should be avoided.

Community Ownership

Community participation/involvement is a vital issue that has been identified to ensuring sustainability of any project. Most of the communities targeted by the Ghana Secondary Education Improvement Project are among the most deprived in the country. This makes it more meaningful that they identify themselves with the project and its success by ensuring that assistance is provided to sitting and constructing of the project's components and to teachers, who would work in the establishment. Steps should thus be taken by the MMDAs to sensitize and involve the beneficiary communities from the start of the project.

Monitoring

A third party, consultant, should be engaged to determine the level of involvement, sensitization and understanding or otherwise of the project in the beneficiary communities prior to the start of the project. Report on findings should be sent to the Project Steering Committee (PSC).

Project Site Selection

The sites for all the 75 sub-projects will be on existing school compounds, and no new land acquisition will be made. However, it remains imperative that suitable locations are selected. Some of the schools have existing master layout plans, and these should be considered where available. Consultations should be held with the School Heads, staff and the District Education Directorate. The guidelines for site selection of projects should consist of the following:

- Avoid locating sub-projects on low-lying areas, slopes and areas liable to flooding on school compounds,
- Avoid siting facilities close to school boundaries where adjoining facilities or land use will disturb or distract students, e.g., if there is a corn mill outside the school boundary but close to the proposed site, another location should be found. Alternatively, the Metropolitan/Municipal/District Assembly should be involved to get the owner to relocate.
- Avoid siting facilities near sanitary facilities, e.g. school KVIPs, rubbish dumps, etc., which could lead to bad odours and outbreak and spread of infectious diseases.
- Ensure that the sub-project site has sufficient land area for the construction of the sub-project's components, facility installation and for future expansion, if necessary.
- Do not use involuntary land acquisition that will negatively impact people's livelihoods and avoid sites that are subject to land ownership disputes.

Timing of Constructional Activities

The construction work should be planned by the contractors taking cognizance of the following:

Cultural and Religious Activities

Some religious and cultural activities may engage the attention of the people over an extended period of time, such periods should be avoided as much as possible.

- **Seasonal Migration** – Periods and seasons when some of the people migrate out of their communities to seek employment elsewhere should be factored into the planning.
- **Favorable Climatic Conditions** – Activities requiring extensive excavation work like water projects must be timed to coincide with periods of conductive climate. In some areas, especially northern Ghana, the rainy season renders inaccessible parts of the regions, thus construction work has to be planned in the dry season.

Inspections should be carried out by the EPA and District Implementation Committees to determine whether there are destruction of farms, displacement of households, loss of land, and property or landed property, in order to determine whether the right procedures have been followed with regards to compensations and resettlements.

Source of Raw Materials

- The project consultant should ensure that the contractor procures building materials such as sand, stones, and laterite from licensed and approved sites.
- As long as chain-sawn lumber remains illegal, contractors should be urged not to employ them in the construction of any of the facilities of the project.
- Visual inspection of the Construction materials should be carried out by the Contractors and MMDAs, paying particular attention to lumber. They should not be chain-sawn lumber.

Quality of Work and Workmanship Specification

All building works contracted for the Government of Ghana are to be executed according to the General Specification for Building Works published by the Government of Ghana in November 1995. These specifications are Ghana Standard Board and British Standards specifications.

The District Tender Boards and MMDAs are to ensure that the contract documents are in accordance with the General Specification for Building Works published by the Government of Ghana in November 1995, which mainly are Ghana Standard Board and British Standards specifications.

They would also inspect the construction while it is in progress with the help of the Public Works Department Engineers of the Districts to assess whether the specifications are being adhered to correctly. The MMDAs are to ensure that the contractors apply, as applicable, the guidelines prepared herein for the mitigation of impacts, in order to achieve quality of work.

Quality of Materials

All the materials to be used in the construction of the project components are to be new, of best quality and manufacture and in accordance with the current British Standard and Ghana Standard Board specifications, where they exist. Where they do not exist, samples are to be provided for tests to be carried out on the materials. When samples have previously been submitted and approved, all subsequent deliveries should be in accordance with the sample.

The contract documents prepared for the execution of the project should insist on the use of materials of the highest quality, which are of the current Ghana Standard Board or British Standard specifications. The MMDAs and members of NIC would visit sites to inspect the materials and would ensure that subsequent deliveries would be in accordance with the samples previously inspected and approved.

Supervision of the Works

Supervision of the works would be done by the consultants and MOE in order to have proper control of the construction of the components of the project and reports prepared and sent to the PSC.

Selection and Design of Types of Project Components

The design of the project components are to be carried out in conjunction with or by the MMDAs and MOE/GES. This proposal is also to avoid the selection or design of impractical project components, which would be imposed on the beneficiaries.

Security

The new facilities would be on existing school compounds, with security in place already. However, the need for protecting the new facilities from burglaries cannot be overemphasized. The new structures should be lockable to ensure security. School heads will be responsible for these.

Liquid Waste Management in Secondary School

Measures to guide the operation of schools with regards to Liquid Waste Management in order to ensure the project's sustainability include:

- Provide enough toilet seats and urinal points to cater for the school
- Sanitation and hygiene could be incorporated into their school work.
- Incorporate waste water disposal in the design to ensure that waste water from wash basins flow into proper gutters, where they are available
- Put in place a program, including inspection of schools, to ensure Proper House Keeping of the facility

Liquid waste management should be monitored during operational stages of the project. This should be undertaken by the MMDAs, GES and crosschecked by the Ministry of Education.

Solid Waste Management in Secondary School

Measures to guide the operation of schools with regards to Solid Waste Management in order to ensure the project's sustainability include:

- Provide enough garbage cans of right sizes and with covers to cater for the school's rubbish collection needs
- Ensure that the pupils use these facilities and that they do not throw rubbish anywhere else
- Ensure that the pupils are sensitized to understand the reasons why they are to use these facilities. Sanitation and hygiene could be incorporated into their school curricula.
- Incorporate garbage cans and rubbish collection points in the design of the school to make garbage cans easily accessible to the pupils and teachers.
- Put in place a program, including inspection of schools, to ensure Proper House Keeping of the school.
- Put in place a program for the evacuation of the collected rubbish, either by private entities or the District Assembly, once every day or every other day.

Periodic monitoring and inspections should be undertaken by the MMDAS, GES and MOE during the constructional and operational phases of the project. The condition of solid waste management should be determined. The parameters to use are sitting of garbage cans, number, and proximity to one another.

Project Management Structure for Environmental and Social Sustainability

The management structure for the Ghana Secondary Education Improvement Project implementation with regards to environmental management is proposed to be coordinated by a Project Management Team (PMT), which falls under the Project Steering Committee (PSC). This PMT is expected to provide project implementation guidelines as per the ESMF and RPF at the Regional level. Working under the PMT at the District level will be a District Education Oversight Committee which would comprise the District Director of Education (DDE), the District Engineer, the District Planning Officer, the District Environmental and Social Office and a representative of the district office of the Lands Valuation Division, with the Municipal/District Chief Executive as the chair. The responsibility for the overall project management is proposed to be vested in the **PMT.**

Environmental Management

The Ghana Secondary Education Improvement Project under EPA requirement is categorized under Environmental and Social Management Framework (ESMF). It is expected however that, individual components would be subjected to appropriate project level assessment following approval of the SEA prior to the project implementation. In this regard, it is proposed that the District Education Oversight Committee liaising with representatives of the Construction Contractors be responsible for ensuring that project specific level assessment requirements are met. They should receive initial training and orientation from Environmental Consultants in order to have the requisite skills.

The Role of the EPA in the Project

The EPA plays a lead role in the administration of EIA in Ghana. The EPA Act (Act 490, 1994) and the Environmental Assessment Regulation (LI 1652) 1999 mandate the Agency to ensure compliance with

laid down EIA procedures provided comprehensively for site- specific project impact assessment. The Ghana Secondary Education Improvement Project in its preparatory assessment is to be considered under the Environmental and Social Management Framework (ESMF). A single Environmental Approval would be issued for the Ghana Secondary Education Improvement Project, on the basis of the ESMF, by the EPA. For individual projects, the EPA will implement monitoring programs on project-by-project basis once the site specific assessment is considered satisfactory. The level of assessment for any individual project would depend on size or scale of project, nature/type and magnitude of impacts, location (land use consideration, compatibility and sensitivity), and resource base and resource at risk. In general, there are three environmental assessments available under the Ghana EIA procedures:

(a) Individual Projects for which only Registration may be required using Form EA1

(b) Individual Projects for which Preliminary Environmental Assessment may be required

(c) Individual Projects for which Environmental Impact Assessment may be required

- The EPA would register all SEIP sites and monitor environmental compliance following implementation.
- EPA would also maintain a register of all SEIP components in all the regions and prompt its regional officers to monitor the projects and provide up- dated information on their environmental performance and status
- Finally, the EPA would assist, monitor, and ensure that the District Implementation Committees comply with laid down EA procedures in the implementation of the individual projects, especially when it comes to Site Selection and the issue of Compensation and Resettlement.

Capacity Building

The members of the (MOE/GES), MMDAs and the groups of potential contractors are to be provided with Environmental Awareness Training. For the last two groups the training would also be aimed at developing and improving on skills to screen for site selection and potential environmental and social impacts, fill the environmental forms, be able to comprehend and take mitigation measures and take steps to monitor the potential impacts of the Project.

Cost Estimates of the Implementation of the Mitigation Measures and Monitoring

Not all the mitigation measures and monitoring procedures require expenditure of funds. For any money to be spent, quotations or cost estimates should be collected from at least three entities, and evaluated for the appropriate one (with high points both financial and technical terms) to be selected before approving the works' execution, unless of course the work is to be carried out by employees of the District Assembly. Estimates however have been presented in the EMP.

8.0 CONSULTATIONS

8.1 Introduction

Consultations play a major role in identifying the potential impacts of any proposed transmission system project. Community consultations assist in the identification of socio-economic, religious and cultural impacts. Stakeholder consultation to support the ESMF and the resettlement process, if any, specifically aims to achieve the following objectives:

- To provide information about the project and its potential impacts to those interested in or affected by the project, and solicit their opinion in that regard
- To manage expectations and streamline misconceptions regarding the project
- To agree on resettlement preferences, if any, and discuss concerns
- To ensure participation and acceptance of the project by the communities

Ten representative consultations will be held as part of the site screening activities, one in each of the ten regions. Attending participants will cut across various focus groups in the selected communities, i.e. traditional leaders, women, youth, etc. Information obtained during consultations can be used to make an inventory of existing infrastructures and to collect information on land management, socio-economic activities, infrastructure, and expectations of the local residents.

8.2 Methodology

A team comprising the Environmental and Social Safeguards Consultants and the Safeguards Team of Ministry of Education will collect data for the consultations. Community opinion leaders such as assemblymen/women, faith based organization leaders, youth leaders, chiefs, or headmen will serve as key contacts to encourage meeting attendance.

The consultation meetings will be held at community centers, and will be interactive, with questions from the communities and answers and explanations from the consultant and Ministry of Education Staff. The main issues to be discussed would include compensations, jobs creation, and provision of schools.

Presented below are the list of people consulted, attendees, contact details of the opinion leaders and the socioeconomic and cultural issues forming the bases of the discussions.

Attendees List

Attendees at the meeting	Designation	Contact numbers

8.3 General Concerns

The general concerns expected to be raised across all the districts and communities would include:

- Prompt, fair and adequate compensation payment for affected properties, should there be any,
- Job creation for the youth. This is expected to feature in all meetings; employment particularly unskilled labor to be sourced from the various affected communities.
- Upholding and respect of community values (reverence towards the communities' cultural heritage-shrines, sacred groves, etc).
- Request for the provision of basic social amenities, not necessarily in the context of the proposed project.

ANNEXES

Annex 1: Methods and Techniques to be used in Assessing and Analyzing Impacts

General Approach to the Assignment

The Consultants have adopted a participatory approach towards the execution of the assignment. This approach entailed the involvement of all key stakeholders in the education sector in the process of data collection and analysis, and the development of interventions. The purpose was to build consensus on the formulation of the project and commitment to project implementation. The Consultants held preliminary meetings with the Chief Director of the Ministry of Education, to agree on the general approach, level of collaboration and essential inputs to be provided by the Ministry.

Methods of Data Collection

The consultants will employ a mixture of methods and techniques to collect data for the execution of the assignment. Both primary and secondary data were collected. The methods/techniques to be used are highlighted below:

Literature Review/Desk Study

The consultants will collect and review a number of documents relevant to the assignment. The main documents to be reviewed and which would provide valuable secondary data included:

- The Ghana Education Strategic Plan (ESP) – Volumes 1 and 2.
- Draft Project Appraisal Document of the Secondary Education Improvement Project.
- World Bank Environmental Health and Safety Guidelines (Ten-Point Safeguard Policies).
- Ghana Poverty Reduction Strategy (GRPS) Poverty Reduction Framework.
- Constitution of the Republic of Ghana (1992).
- Environmental Protection Agency (1996), Environmental Assessment Procedures in Ghana.
- Conventions and Protocols relating to Environmental Protection

Assessment to which Ghana is a signatory.

- Organizational Structure of the MOE.
- Education Sector Policies and Procedures of the MOE.
- Maps (administrative and geographical) and Profiles of the 216 Districts (Topographic sheets, vegetation, terrain, climatic conditions, population densities, cultural and traditional practices, social development, occupations, sacred grooves, reserves, streams etc.)
- World Bank's Involuntary Resettlement Policy
- World Bank's Operational and Safeguard Policies

Design and Administration of Data Collection Instruments

The Consultants will design interview guides and questionnaires to help in the data collection process. The first phase of data collection involved the administration of questionnaires and interviews with officials of the following institutions:

- Ministry of Education
- Ministry of Local Government
- Ministry of Environment and Science

- Ministry of Works and Housing
- Ghana Education Service (GES)
- Environmental Protection Agency
- Lands Commission
- Land Valuation Board
- World Bank
- Ministry of Local Government and Rural Development
- Survey Department
- Town and Country Planning

The second phase of data collection involved field visit to the selected Districts.

Field Work

The Consultants will carry out field visits to ten (10) project districts. The selected districts, based on quantum and geographical spread are as follows:

	Region	**District**
i.	Northern	West Gonja
ii.	Northern	Tolon-Kumbungu
iii.	Upper East	Bolgatanga
iv.	Western	Ahanta West
v.	Brong Ahafo	Kintampo
vi.	Upper West	Sisala
vii.	Eastern	Birim South
viii.	Ashanti	Offinso
ix.	Central	Gomoa
x.	Volta	Kete Krachi

The underlying reasons for this selection were:

1. This was not a specific Environmental Impact Assessment but rather Environmental and Social Management Framework.
2. Limited time (4 weeks) within which to undertake the study.

As part of the fieldwork, focus group discussions will be held with identified groups, which included teachers, school management boards and school children.

In each of the above districts, interviews were held with officials of various agencies and questionnaires were also administered to same. The following provided data inputs:

- District Chief Executives
- District Coordinating Directors
- District Planning Officers
- District Engineers
- District Director of Education
- Head teachers
- Teachers
- Members of School Management Committees
- School Children

The school children and parents talked to were both male and female. Almost all the parents interviewed were farmers and traders. About half of the teachers and head teachers interviewed were women. Lastly, one District Director of Education and one District Coordinating Directors were women.

In view of the limited time frame, two (2) teams of Safeguard personnel will undertake the fieldwork concurrently. The full list of Institutions contacted is given as Appendix 3.

Assessing and Analyzing of Environmental Social Impacts

The methodology adopted for assessing and analyzing the impacts was from consultations with stakeholders. The main objectives of the environmental and social analysis were to:

- Assess any potential environmental and social impacts that could emanate from investing in the pre-construction, construction and operational phases of the Project.
- Assist MOE in determining actions to mitigate the environmental and social adverse effects of Ghana SEIP activities.
- Enable MOE in playing the capacity building in the long-term to address Ghana SEIP environmental issues.

In order to determine potential impacts and develop the relevant mitigation measures the following factors were considered:

- Pre-constructional phase social impacts
- Constructional phase impacts
- Operational phase impacts
    - Environmental Impacts such as solid and liquid waste generation, collection, disposal and management
    - Social Impacts such as resettlement issues

Following the analysis, a draft report was prepared and submitted to the Client.

Annex 2. Consultations with key Stakeholders

The various institutions, organizations, Ministries, Departments and Agencies, individuals and stakeholders to be consulted were:

Ministry of Education

The Ministry of Education was contacted for the following information:

- The Ghana Education Strategic Plan (ESP)–Volumes1 and2.
- Draft Project Appraisal Document of the Ghana Secondary Education Improvement Project.
- Ghana Poverty Reduction Strategy (GRPS) Poverty Reduction Framework.
- Organizational Structure of the MOE.
- Education Sector Policies and Procedures of the MOE.
- Introductory letters were obtained from the Chief Director of the Ministry to all areas that were visited to facilitate the administration of questionnaires.
- Policy issues were also obtained from top personnel of the Ministry.

The MOE by itself has some capacity for environmental assessment and management as its Departments/Agencies like the GES.

Environmental Protection Agency

The EPA plays a lead role in the administration of EIA in Ghana. The EPA Act (Act490, 1994) mandates the Agency to ensure compliance with laid down EIA procedures provided comprehensively for site-specific project impact assessment. The Ghana Secondary Education Improvement Project in its preparatory assessment is to be considered under the Environmental and Social Management Framework (ESMF).

A single Environmental Approval would be issued for the Ghana SEIP, on the basis of this ESMF by the EPA. For individual projects, the EPA will implement monitoring programs on project-by-project basis once the site-specific assessment is considered satisfactory. The level of assessment for any individual project would depend on the following factors.

- Size or scale of project
- nature/type and magnitude of impacts
- location (land use consideration, compatibility and sensitivity)
- resource base and resource at risk

The EPA has environmental assessment and management capacity. The Agency has offices in all the 10 regions of the country, staffed with highly qualified personnel.

Town and Country Planning

The Town and Country Planning in districts would scrutinize and approve, or otherwise, the building plans and would provide a **Zoning Report**. The Building Plans and the Zoning Report are to be attached to the **Form EA1 a**nd submitted to EPA.

The Town and Country Planning Department has limited environmental assessment and management capacity.

Metropolitan Authorities & District Assemblies

Ghana has a system of local government and an administration, which is as far as practicable decentralized. The District Assemblies and Metropolitan Authorities are the highest political authorities in the districts and they have the deliberative, legislative and executive powers. The functions of these local authorities include the formulation and execution of plans, programs and strategies for the effective mobilization of resources necessary for the overall development of the districts.

More importantly, the management and final disposal of wastes at landfill sites or into sewerage systems is the responsibility of the district and the metropolitan assemblies. An effective management of school waste in Ghana cannot be possible without a deep involvement and participation of the assemblies. The concerns of some of the District and Metropolitan Assemblies have been sought and factored into this document.

District Directorate of Education (Including Head teachers and Teachers)

The District Directorate of Education comprises of the District Director and the Assistant District Directors. There are four Assistant District Directors in the Structure of the Ministry of Education and the Ghana Education Service at the District level. The Assistant Directors are in charge of the following:

- Planning, Monitoring and Data Collection
- Administration, Budget, and Financial Control
- Human Resource Management and

Supervision and Management of Teaching and Learning

The Assembly in consultation with the above Directorate plan, implement and monitor the development of any education facility in the District. However, this is not the case in some of the districts where the directorate of education are not involved in decision-making regarding the planning and implementation of school projects.

Traditional Authorities

Almost all the Districts visited had the Chiefs as the custodians of the land. They were therefore directly responsible for the acquisition of any piece of land. In some few places however the Tindanes (The Chief Priests) had much control over the land.

In that regard any acquisition of any piece of land in the any area had to pass through these Lords. Usually the District Assembly would have to be consulted first before one is lead to the Chief and Elders for a release of any portion of a land.

In all the Districts visited, the District Chief Executives and the District Directors of Education indicated that land for public school buildings were mainly released by the Chiefs.

Beneficiary Communities (PTA and Pupils) for the Ghana Secondary Education Improvement Project

Community participation/involvement is a key factor in the sustainability of projects of the nature of the Ghana SEIP. The Beneficiary Communities therefore have a role to play. They have to be involved right from the beginning in the decision-making processes at the pre- constructional stage. For instance they need to be consulted in the sitting of the facilities. Most districts that neglected these key stakeholders at the pre-constructional stages of projects in the district faced problems in the end. Projects had to with low patronage. The sense of ownership has to be built right from the start of the project.

District Environmental Management Committees (DEMC)

The above committees are directly responsible for environmental issues in the district. They have direct oversight responsibility concerning issues of water and sanitation. They play a key role in terms of organization for cleanliness within the district. They have representatives in almost all the schools in the districts. Their representatives are also teachers in the schools.

Their opinion in the Pre-constructional and especially the operational stage of the SEIP facility is very paramount, as it would go a long way to ensure project sustainability. Members of the DEMC have had some training in Environmental Management.

District Public Works Departments

The District Public Works Departments are responsible for the civil works of the districts. Construction of school buildings and their maintenance rests more with the DAs and the GES.

Contractors

Most contractors who had been awarded contracts had come from outside the district. Except for DA funded schools, the contractors are hired from outside.

Community Water and Sanitation Agency

The Community Water and Sanitation Agency is a semi-autonomous agency established by Act 564 of 1998 with its own Board of Directors.

As a main agency for local level development within the governmental machinery the DAs are to work through District Water and Sanitation teams to establish district water and sanitation programs and promote the project in eligible communities. The DAs will open separate accounts and contribute a certain percentage of funds to the cost of facilities demanded by the communities within their area of operation. The agency's roles among other thing are to:

- Preparation and review of annual district water and supply and sanitation plans
- Promotion and dissemination of information on Community and water
- Sanitation Projects and arouse the interest of the Communities
- Identification of interested communities and prioritization of communities and based upon established criteria
- Ensuring all members of the community, especially women actively participate in decision making

The CWSA has responsibility for facilitating the animation, construction and operation of water and sanitation facilities.

Annex 3. Socioeconomic and Environmental Characteristics in the Education Sector

The total population of the selected districts is computed, as per formula (1) to be 6,124,068 by the end of 2003, out of which 3,034,028 are males and 3,090,040 are females. It must be mentioned that 4,848,469 people in the area are found in the rural areas and 1,274,600 people are in the urban areas.

Distribution of Rural–Urban Population

The study area is predominantly rural. The rural-urban split of the study area is 20.8- 79.2%.

Rural-Urban Distribution

Source: Computed from 2010 Population & Housing Census: Ghana Statistical Service

Education

While literacy can be acquired through reading and private informal channels, the formal schooling system remains the best process for improving access to information and broadening the horizon of the people.

According to the 2000 Population and Housing Census, educational attainment in Ghana (3 years and more) was pre-school (3.2%), primary (18.6%), Middle/JSS (21.1%), Secondary SSS (6%), Vocational/Technical (2.2%), Post Secondary (1.5%), Tertiary (2.8%), and None (43.3%), and the school attendance (3 years and more) was pre-school (13.8%), primary (54.3%), Middle/JSS (16.5%), Secondary SSS (8.3%), Vocational/Technical (2.0%), Post Secondary (1.7%), and Tertiary (3.5%).

Availability of Schools in Rural Areas

About 86% of rural households live in communities that have access to a primary school; 62% of households live in areas, which have access to a junior secondary school, while 10% live in communities, which have access to a senior secondary school. Almost all rural schools are public schools. About 19.5% of the Secondary School in the districts visited during the fieldwork have sanitation facilities. A good number of these Secondary Schools are relatively new. The table below shows the rural households with access to schools.

Rural Households with access to schools

Ecological Zone	Primary	JSS	SSS/technical
Coastal	88%	64%	5%
Forest	91%	71%	15%
Savannah	80%	51%	11%
	86%	62%	10%

Distance rural households travel to get to the nearest primary school

The Secondary Schools are usually in the communities, where the rural households live. Other households however have to travel between 1 and 10 miles to get to the nearest primary school depending on the ecological zones, as per the table below:

Distance rural households travel to get to the nearest primary school

Ecological Zone	<1 mile	1 mile	2miles	3miles	4miles	>5 miles	
Coastal	88.0%	5.0%	2.5%	0.0%	2.5%	2.0%	100%

Forest	91.0%	3.0%	2.0%	2.0%	1.0%	1.0%	100%
Savannah	80.0%	4.0%	8.0%	3.0%	1.0%	4.0%	100%
	86.3%	4.0%	4.2%	1.7%	1.5%	2.3%	100%

Proportion of boys and girls of primary school age enrolled

Boys and girls in the Forest zone appear to be much more likely to be enrolled in primary schools than their counterparts from the Coastal and Savannah zones. In the Savannah zone, girls are less likely than boys to be enrolled in Secondary School. This is illustrated in Tables below:

Proportion of boys of primary school age enrolled

Ecological Zone	Almost all	At least half	Less than half
Coastal	27.0%	44.0%	29.0%
Forest	54.0%	41.0%	5.0%
Savannah	16.0%	46.0%	38.0%
	32.3%	43.7%	24.0%

Proportion of girls of primary school age enrolled

Ecological Zone	Almost all	At least half	Less than half
Coastal	23.0%	42.0%	35.0%
Forest	53.0%	41.0%	6.0%
Savannah	16.0%	28.0%	56.0%
	30.7%	37.0%	32.3%

Main reasons why some children in rural communities are not enrolled in Secondary School

The most common reasons why children some children in the rural communities are not enrolled in Secondary Schools, by ecological zones have been summarized in the table below. Lack of finance appears to be the main reason for non-enrolment of children in rural areas in Secondary Schools.

It must be mentioned that, due to the same reasons, a lot of the enrolled children in Secondary School miss classes continuously. It was observed in a primary school visited in Kintampo District (Savannah Zone) during the fieldwork that more than half the children skip school during market days.

Main reasons why some children in rural communities are not enrolled in Secondary School

Ecological Zone	A	B	C	D	E	F	G	H
Coastal	58.0%	10.0%	10.0%	6.0%	3.0%	2.0%	0.0%	11.0%
Forest	70.0%	7.0%	5.0%	2.0%	7.0%	2.0%	0.0%	7.0%
Savannah	64.0%	6.0%	7.0%	8.0%	0.0%	1.0%	11.0%	3.0%
	64.0%	7.7%	7.3%	5.3%	3.3%	1.7%	3.7%	7.0%

A: Inability of parents to fund child's education
B: Lack of Parental Interest
C: Lack of Interest in School going children
D: School too far away
E: Inadequate schools/classrooms
F: Dangers faced by children on their way to school e.g. getting drowned in rivers

G: Children are used for work e.g. work in the field, work during market days, and taking care of younger siblings or weak and aged parents
H: Other Reasons

Schooling Problems

The most serious schooling problems in the rural communities include lack of school building, insufficient furniture, lack of qualified teachers, high cost of schooling, lack of textbooks, and lack of accommodation for teachers, among others. It was noted in all the districts visited during the fieldwork that some primary school children carry their chairs to school.

The Parent and Teachers Associations contacted during the said fieldwork also indicated that they usually fund the purchase of furniture for their children in school. The table below summarizes the schooling problem.

The most serious schooling problems in the rural communities

Ecological Zone	A	B	C	D	E	F	G	H
Coastal	43.0%	25.0%	2.0%	5.0%	5.0%	10.0%	0.0%	10.0%
Forest	38.0%	19.0%	10.0%	10.0%	6.0%	2.0%	3.0%	12.0%
Savannah	59.0%	8.0%	9.0%	1.0%	4.0%	3.0%	1.0%	15.0%
	46.7%	17.3%	7.0%	5.3%	5.0%	5.0%	1.3%	12.3%

A: Lack of school building
B: Insufficient Furniture
C: Lack of Qualified Teachers
D: High Cost of Schooling
E: Lack of Textbooks
F: Inadequate supply of stationery and other school materials
G: Lack of accommodation for teachers
H: Other Reasons

Secondary Schools with Sanitation Facilities

About 19.5% of the Secondary Schools in the districts visited during the fieldwork have sanitation facilities. A good number of these Secondary Schools are relatively new. The practice with regards to schools without sanitation facilities is either free ranging or walking to the nearest public toilet in the community.

Secondary Schools with Water Points

With regards to water points, only about 3.47% of the Secondary School of the districts visited during the fieldwork have water points. The water points are pipe borne water taps and boreholes. In almost all the cases, the surrounding residents were noted to be patronizing the water points. In most of the schools without water points, the school authorities each day buy or fetch water, which is kept in each classroom in a bucket with cover and a cup for the pupils.

Secondary Schools with Electricity

It was observed during the fieldwork that about 4.6% of the Secondary School in the visited districts have electricity. They are new and are found in the urban sections of the districts. It has been recommended in the guidelines that electricity be incorporated into the designs of the project facilities,

even if the area, where the school is sited does not have electricity. This is to make it easy to access electricity without extra costs and inconvenience, when the facility reaches the area.

Secondary Schools with Telephone

All of the SHS in the districts visited has telephone.

Secondary Schools with Refuse Cans

With regards to refuse cans, only 0.83% of the schools in the districts, which were visited during the fieldwork, have refuse or garbage cans. The pupils in the bulk of the primary schools pick the rubbish around the schools and dump them onto a chosen site or burn them.

Secondary Schools with Landscape

10% of the Secondary School in the districts visited during the fieldwork have some sort of landscape, which is of utmost importance in checking erosion. It must be mentioned that in the forest zone, due to the abundance of rainfall, landscape is easily carried out and maintained.

The Need for Facilities as per Order of Importance

The need for sanitation facility, water points, electricity, telephone, refuse disposal system, and landscape was discussed during the fieldwork with District Authorities, District Directorate of Education, members of Parent-Teachers Associations, Head teachers, Teachers, and school pupils. It was observed that water points and sanitation facilities were chosen equally as the most important necessity of Secondary School. These were followed by electricity, refuse disposal system, landscape and telephone, in that order.

Adult Literacy

Adult literacy programs appears to have been most active in the savannah zone, with three quarters of the households living in communities, where there is or has been an adult literacy program. The table below shows households living in communities, where there is or has been an adult literacy program.

Households living in communities, where there is or has been an adult literacy program

Ecological Zone	Households living in communities, where there is or has been adult literacy program
Coastal	61.0%
Forest	56.0%
Savannah	76.0%

Major Health Problems Facing Households in Rural Communities

Rural community dwellers are exposed to a host of health problems related directly to inadequate water (quality) and quantity) and lack of proper sanitary provisions. These problems are compounded by absence of basic health infrastructure and health education. Some of the common diseases are malaria, guinea worm, kwashiorkor, cholera and diarrhea. The table below shows the major health problems facing household in rural communities by ecological zones.

Major Health Problems Facing Households in Rural

Communities

Ecological Zone	Malaria	Hernia	Guinea Worm	Bilharzias	Measles	Cholera	Others	Total
Coastal	59%	5%	19%	2%	3%	5%	7%	100%
Forest	63%	2%	2%	13%	4%	6%	10%	100%
Savannah	40%	25%	11%	1%	11%	0%	12%	100%
	54%	11%	11%	5%	6%	4%	10%	100%

Industry of economically active Population

The economically active population as per ecological zone are employed or engaged in different sectors i.e. agriculture, mining and quarry, manufacturing, construction, public administration, and education among others. The details have been presented in the table below:

Industry of Economically Active Population

Industry	**Savannah**	**Forest**	**Coastal**
Agriculture, Hunting, Forestry	71.81%	54.34%	50.04%
Fishing	3.04%	3.86%	6.12%
Mining and Quarry	1.18%	1.87%	1.71%
Manufacturing	7.27%	9.49%	11.89%
Electricity. Gas, Water	0.53%	0.50%	0.42%
Construction	0.72%	1.65%	2.24%
Wholesale and Retail Trade	6.60%	13.19%	11.70%
Hotels and Restaurants	1.42%	2.68%	2.89%
Transport, Storage and Communication	1.15%	2.87%	2.94%
Financial Intermediation	0.17%	0.29%	0.34%
Real Estate & Business Activity	0.78%	0.66%	1.14%
Public Administration	0.54%	0.86%	0.91%
Education	1.49%	2.91%	3.09%
Health and Social Work	0.36%	0.79%	0.74%
Other Community Service	1.47%	3.49%	3.30%
Private Households	1.43%	0.51%	0.50%
Extra-territorial organization	0.04%	0.03%	0.03%

Source: Computed from 2000 Population and Housing Census

Household Expenditure

The mean annual household expenditure and the mean annual per capita expenditure according to ecological zones have been presented in the Table below:

Household Expenditure

	Mean annual household expenditure, ¢	Mean annual per capita expenditure,¢
Savannah	8,689,724	1,393,150
Forest	15,056,307	3,704,038
Coastal	16,937,427	4,255,723

Source: Ghana Living Standard Survey, 2000

Solid Waste Management Practices

Solid Waste Management forms an essential part of the primary school construction and operation. It involves technical, managerial, administrative, logistical and financial support at the local level. It is aimed at:

- Ensuring and protecting public health within communities and the schools and
- Promoting environmental hygiene and cleanliness in the schools and the communities.

Solid Waste Composition

Knowledge on the source and types of solid wastes, along with the data on its composition and generation rates, is basic to the design and operation of all elements of the Solid Waste Management System. The term solid waste is all- inclusive and encompasses all source, classifications, compositions and properties. The following major solid waste categories related to this project can be distinguished:

i. Domestic Solid Waste

ii. Commercial Solid Waste

iii. Constructional/Demolition waste.

Visits to the schools showed little variations in composition as well as in quantities generated per capita. The similarities are mainly linked to the similarities in socio- economic conditions, climate, school size, personal consumption habits etc. The solid waste generation is estimated to be between 0.2 – 0.5kg per capita per day.

Solid Waste Collection, Transportation, and Disposal

Mostly, solid waste bins are placed at vantage points in the schools for waste collection. The waste after having been collected is mostly not segregated. The means of transportation have been either wheelbarrows or carried by pupils to the various disposal sites.

These disposals sites are some pits 10-30m away from the schools where they are dumped and at times burnt. Because of the nature of the waste, not all are burnt and thus rendering the pits full within a very short time. The waste usually contains large quantities of sand which also contribute to making the pits full very fast. Pits are therefore dug very often all around the school premise with its associated environmental impact.

Generally, solid waste from within the communities are collected and transported to selected solid waste dumpsites by the District or Metropolitan Assemblies. In most urban areas, private companies have been involved in the collection, transportation and disposal of solid waste.

Estimating Quantity of Solid Waste Generation

An average weight of 0.2 – 0.5-kg/capital/day of solid waste is generated in the schools visited. A class should have an average of 25-35 pupils. Normally a primary school would have six classes, and a head teachers office. The average population of the schools visited including the teachers is 220. The teachers' accommodation, which is part of the project, is likely to provide an additional population of 20 making the total population to be 240. This population multiplied by the average capita waste generation per day is 84 –120 kg/day per school.

Annex 4. School Planning and Construction Checklist

ENVIRONMENTAL AND SOCIAL MANAGEMENT AND MONITORING GUIDELINES

A) Design and Planning Stage

Environmental Guidelines	Responsibility
Design Aspects: (1) Building's Design and Layout should: (a) not infringe easement rights of the neighbors (b) have architectural features in conformity to general landscape of the area (c) cater for required capacity of approximately 5-6 m^3 space per child (d) be in consonance with local climatic, environmental, and meteorological conditions (e) prefer local construction materials (f) incorporate proper ventilation and provision of sunshine, air movement, and maximum usage of the daylight (g) cater for requirements of special children (children with disabilities), e.g., provision of wheelchair-ramp, side rails along stairs, and studded floors for blinds, where needed (h) incorporate toilet facilities separate for boys and girls (j) make provision for drainage of the spilled water away from hand pump borehole by providing a concrete platform (k) provide for floor platform of the hand pump with a slope so that water does not stay (l) provide safe access by having culverts on watercourses or ditches on school route (m) provide for internal footpaths and or pavements to ensure all weather access (n) provide hand washing arrangement outside lavatories and display instructions for washing hands after attending toilet (o) provide for toilet wastewater's outlet connection to the nearest sewer / wastewater-draining channel. It should not open to the ground outside *(see Fig. 13 and 14)*. If public sewer system not available, a septic	• Design Engineer / Architect • PIC • Dy. DEO / Head Teacher Concerned

	tank of adequate capacity be included in the design (p) be in accordance with the applicable building code (q) provide for availability of safe drinking water at convenient locations in the premises (2) The Architectural Layout should not: (a) place toilets close to the classroom block (b) place the toilets at such a location wherein the general wind direction is from toilets towards classrooms (c) place toilets near to drinking water source (d) allow hanging electricity wiring (prefer concealed wiring) (e) place electricity switches and panels within reach of toddlers (3) Do not install electricity poles in the middle of playground or school compound (4) No high voltage electric lines be passing over the school premises *(see Fig. 1)*	

B) Construction Stage

Environmental Guidelines	Responsibility
Air Quality Concerns	Construction Contractor
(1) Carryout dust and emission producing activities (Operating machinery, loading/offloading materials) preferably after school hours to minimize exposure to schoolchildren	
(2) Keep machinery and vehicles adequately tuned up and well serviced	School Incharge
(3) Use only new and unadulterated fuels and lubricants. Do not use spent oil	
(4) Avoid operating machinery and equipment in windy conditions	
(5) Cover loose materials (e.g., sand, soil) with canvas/plastic sheets while stacked onsite or transporting on a vehicle. If sheeting is not possible, then lightly sprinkle the surface with water	
(6) Instruct the vehicle drivers to lower down the speed on earthen and narrow rural roads and road bends to reduce blowing of drag dust	
(7) Obscure and isolate the active construction zone by vertical shields / blinds	
Water and Wastewater	Construction contractor
(1) Do not draw water from a shared community water source without consent of the community	
(2) Dispose of the wastewater by draining into the nearby drain or through a soaking pit	
(3) Avoid throwing liquids/chemicals/paints into nearby water bodies or on land	
(4) Avoid washing machinery, vehicles, construction implements in nearby surface waters	
(5) Wastewater pipeline from toilets and lavatories be buried and well secured into the ground to avoid its damage by vehicles, animals, and miscreants	
(6) Provide containment structures or water diverting barriers in front of low lying rooms	

Noise Pollution (1) Operate noise producing construction machinery preferably after school hours (2) Avoid operating construction machinery at night time (3) Carryout fabrication and loading /unloading activities preferably after school hours	Construction Contractor School Incharge
Public Utilities (1) Carryout excavations / diggings after referring the local utilities layout map (2) Devise a standard operating procedure for dealing with accidental damage to utilities along with an immediate restoration plan (3) Relocation of any public utility or facility be carried out well ahead of start of construction	Construction Contractor
Cultural and Archaeological Heritage (1) Avoid wastewater drainage to a nearby cultural and heritage site, if any (2) Avoid dumping of waste materials near to such sites or even at places which are objected to by the community (3) discovery of a site of historical, cultural, or archaeological importance be reported to concerned authority / archaeology department	Design Engineer Construction Contractor

Social Environment / Worksite Safety (1) Make working staff aware of risks of personal injuries and the ways of avoiding (e.g., wearing helmets, dust masks, earmuffs, safety goggles, gloves, etc.) (2) Keep a first-aid box handy at the construction site (3) The Site supervisor should know the standard operating procedures (4) Keep schoolchildren off the active construction spots (5) Use indicative signage and warning boards (6) Stockpile the waste materials at a single spot preferably on one side the premises (7) Reuse the demolition waste, debris, and excess soil for filling depressions and for making pavements etc. (8) Do not leave the excavated foundations unfilled for long periods (9) Pay wages according to Government's notified minimum wage rates (10) Pay same wages to women as to men for equal hours of work (11) Avoid child labour (12) Keep fire fighting arrangements ready at the site (13) Do not allow cigarette smoking and lighting of fire near work places and near inflammable materials (14) Store the ignitable and inflammable materials separately and at a safe place away from any source fire	Construction contractor
Ecological Environment and Habitat (1) Avoid undertaking construction activities in notified ecologically sensitive and protected areas (2) Avoid disturbance or damage to protected wildlife	

C) Operation Stage

Environmental Guidelines	Responsibility
Water and Wastewater (1) Install water storage tank of at least 4 hours supply, based on consumption pattern/needs (2) Carryout periodic cleaning and disinfection of storage tank, at least after every 6 months (3) Use Health Department's recommended disinfectants only (4) Carryout regular and periodic laboratory testing of groundwater/drinking water quality (5) Install water filters, if required on the basis laboratory testing (6) Prefer source disinfection, wherever feasible (7) ensure proper working of the septic tank (8) Ensure regular cleaning and removal of grit from the drainage line (9) Display instructions at prominent places, particularly near the lavatories and water points, requesting the schoolchildren not to throw any solid article and paper into the wastewater drains or closets (10) Prevent flow of wastewater towards drinking water source (hand pump) in case of damage or leakage of the effluent pipeline (11) Keep an emergency plan handy for dealing with an emergency	School In charge

Air Quality, Aesthetics, and Landscape (1) Sweep the floors after light sprinkling with water (2) Carryout soaked cloth mopping of the furniture and other articles (3) Liaise with the Forest Department for obtaining and planting trees and vegetative cover during each plantation season. Protect saplings by observing the recommended watering schedule and trimming (4) Keep the fire fighting arrangements handy (5) Periodically check for adequacy of the fire fighting arrangements (6) Educate and make schoolchildren aware of dealing with emergency (7) Keep the stove, heater, and or other similar articles out of reach of children (8) Avoid open burning of solid waste in the school (9) Do not store any ignitable or inflammable material in the school (10) Display telephone numbers of the local rescue agency at prominent places	School Incharge

Annex 5. Terms of reference for ICU Environmental Consultant

This TOR describes the essential tasks required to support the environmental and social screening, review, appraisal and monitoring requirements for all MOE school construction and rehabilitation.

The Advisor/Consultant will support the overall ESMF and RPF environmental and social due diligence with:

- Development of all MOE/ICU/PBME background information related to E&S application requirements for submission to EPA
- ensuring that the applications are screened and reviewed using the E&S Checklist and Screening Form
- the preparation of each School Screening Form, EPA Form 1, EPA Permit requirements and any Land Allocation./Donation documents
- discussions with District Assembly officials all E&S requirements and integration with authorized construction engineers, contractors and supervisory contractors
- technical advice, on an as needed basis to School planning and construction authorities and their representatives on E&S provisions and the requirements for final due diligence reports
- monitoring school construction as it relates to adherence with the E&S requirements and associated guidelines,
- resolving implementation bottlenecks, and ensuring overall that E&S requirements proceeds smoothly;
- conducting the annual E&S audit for all completed school construction projects
- collecting and managing E&S information relevant to the implementing authorities all the national and district levels (i.e. environmental monitoring and audit reports); and
- developing the annual E&S school construction status report

The Advisor/Consultant will be retained on a full or part time basis pending determination by the ICU and PBME management.

In addition, provide technical advice on environmental management and mitigation practices for the MOE and District Assemblies to enhance E&S provisions by developing:

- A series of Technical Planning Guidelines specific to the ICU based on the types of school construction projects coming into the program cycle built upon the checklists and other Guidelines provided with this ESMF.
- Liaise with the appropriate District Officers to share knowledge and explain the objectives and E&S requirements in their Districts, and
- Lead the delivery of capacity-building programmes for interested stakeholders.

Annex 6. Example of Environmental contract clauses

Proper environmental management of construction projects can be achieved only with adequate site selection and project design. As such, the EA for projects involving any new construction, or any rehabilitation or reconstruction for existing projects, should provide information as to screening criteria for site selection and design including the following:

Site selection

Sites should be chosen based on community needs for additional projects, with specific lots chosen based on geographic and topographic characteristics. The site selection process involves site visits and studies to analyze: (i) the site's urban, suburban, or rural characteristics; (ii) national, state, or municipal regulations affecting the proposed lot; (iii) accessibility and distance from inhabited areas; (iv) land ownership, including verification of absence of squatters and/or other potential legal problems with land acquisition; (v) determination of site vulnerability to natural hazards, (i.e. intensity and frequency of floods, earthquakes, landslides, hurricanes, volcanic eruptions); (vi) suitability of soils and subsoils for construction; (vii) site contamination by lead or other pollutants; (viii) flora and fauna characteristics; (ix) presence or absence of natural habitats (as defined by OP 4.04) and/or ecologically important habitats on site or in vicinity (e.g. forests, wetlands, coral reefs, rare or endangered species); and (ix) historic and community characteristics.

Project design

Project design criteria include, but are not limited to, the consideration of aspects such as heating, ventilation, natural and artificial light energy efficiency, floor space (ft^2) per bed/ward, requirements for x-ray rooms, adequacy of corridors for wheel chair/bed access, adequate water supply and sanitation systems , historical and cultural considerations, security and handicapped access.

Construction activities and environmental rules for contractors

The following information is intended solely as broad guidance to be used in conjunction with local and national regulations. Based on this information, environmental rules for contractors should be developed for each project, taking into account the project size, site characteristics, and location (rural vs. urban).

After choosing an appropriate site and design, construction activities can proceed. As these construction activities could cause significant impacts on and nuisances to surrounding areas, careful planning of construction activities is critical. Therefore the following rules (including specific prohibitions and construction management measures) should be incorporated into all relevant bidding documents, contracts, and work orders.

Prohibitions

The following activities are prohibited on or near the project site:

- Cutting of trees for any reason outside the approved construction area;
- Hunting, fishing, wildlife capture, or plant collection;

- Use of unapproved toxic materials, including lead-based paints, asbestos, etc.
- Disturbance to anything with architectural or historical value;
- Building of fires;
- Use of firearms (except authorized security guards);
- Use of alcohol by workers.

Construction Management Measures

Waste Management and Erosion:

Solid, sanitation, and, hazardous wastes must be properly controlled, through the implementation of the following measures:

Waste Management:

- Minimize the production of waste that must be treated or eliminated.
- Identify and classify the type of waste generated. If hazardous wastes (including health care wastes) are generated, proper procedures must be taken regarding their storage, collection, transportation and disposal.
- Identify and demarcate disposal areas clearly indicating the specific materials that can be deposited in each.
- Control placement of all construction waste (including earth cuts) to approved disposal sites (>300 m from rivers, streams, lakes, or wetlands).Dispose in authorized areas all of garbage, metals, used oils, and excess material generated during construction, incorporating recycling systems and the separation of materials.

Maintenance:

- Identify and demarcate equipment maintenance areas (>15m from rivers, streams, lakes or wetlands).
- Ensure that all equipment maintenance activities, including oil changes, are conducted within demarcated maintenance areas; never dispose spent oils on the ground, in water courses, drainage canals or in sewer systems.
- Identify, demarcate and enforce the use of within-site access routes to limit impact to site vegetation.
- Install and maintain an adequate drainage system to prevent erosion on the site during and after construction.

Erosion Control

- Erect erosion control barriers around perimeter of cuts, disposal pits, and roadways.
- Spray water on dirt roads, cuts, fill material and stockpiled soil to reduce wind-induced erosion, as needed.
- Maintain vehicle speeds at or below 10mph within work area at all times.

Stockpiles and Borrow Pits

- Identify and demarcate locations for stockpiles and borrow pits, ensuring that they are 15 meters away from critical areas such as steep slopes, erosion-prone soils, and areas that drain directly into sensitive waterbodies.
- Limit extraction of material to approved and demarcated borrow pits.

Site Cleanup

- Establish and enforce daily site clean-up procedures, including maintenance of adequate disposal facilities for construction debris.

Safety during Construction

The Contractor's responsibilities include the protection of every person and nearby property from construction accidents. The Contractor shall be responsible for complying with all national and local safety requirements and any other measures necessary to avoid accidents, including the following:

- Carefully and clearly mark pedestrian-safe access routes.
- If school children are in the vicinity, include traffic safety personnel to direct traffic during school hours.
- Maintain supply of supplies for traffic signs (including paint, easel, sign material, etc.), road marking, and guard rails to maintain pedestrian safety during construction.
- Conduct safety training for construction workers prior to beginning work.
- Provide personal protective equipment and clothing (goggles, gloves, respirators, dust masks, hard hats, steel-toed and –shanked boots, etc.,) for construction workers and enforce their use.
- Post Material Safety Data Sheets for each chemical present on the worksite.
- Require that all workers read, or are read, all Material Safety Data Sheets. Clearly explain the risks to them and their partners, especially when pregnant or planning to start a family. Encourage workers to share the information with their physicians, when relevant.
- Ensure that the removal of asbestos-containing materials or other toxic substances be performed and disposed of by specially trained workers.
- During heavy rains or emergencies of any kind, suspend all work.
- Brace electrical and mechanical equipment to withstand seismic events during the construction.

Nuisance and dust control

To control nuisance and dust the Contractor should:

- Maintain all construction-related traffic at or below 15 mph on streets within 200 m of the site.
- Maintain all on-site vehicle speeds at or below 10 mph.
- To the extent possible, maintain noise levels associated with all machinery and equipment at or below 90 db.

- In sensitive areas (including residential neighborhoods, hospitals, rest homes, etc.) more strict measures may need to be implemented to prevent undesirable noise levels.
- Minimize production of dust and particulate materials at all times, to avoid impacts on surrounding families and businesses, and especially to vulnerable people (children, elders).
- Phase removal of vegetation to prevent large areas from becoming exposed to wind.
- Place dust screens around construction areas, paying particular attention to areas close to housing, commercial areas, and recreational areas.
- Spray water as needed on dirt roads, cut areas and soil stockpiles or fill material.
- Apply proper measures to minimize disruptions from vibration or noise coming from construction activities.

Community Relations

To enhance adequate community relations the Contractor should:

- Following the country and EA requirements, inform the population about construction and work schedules, interruption of services, traffic detour routes and provisional bus routes, as appropriate.
- Limit construction activities at night. When necessary ensure that night work is carefully scheduled and the community is properly informed so they can take necessary measures.
- At least five days in advance of any service interruption (including water, electricity, telephone, bus routes) the community must be advised through postings at the project site, at bus stops, and in affected homes/businesses.

Chance Find Procedures for Culturally Significant Artifacts

The Contractor is responsible for familiarizing themselves with the following "Chance Finds Procedures", in case culturally valuable materials are uncovered during excavation, including:

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

Environmental Supervision during Construction

The bidding documents should indicate how compliance with environmental rules and design specifications would be supervised, along with the penalties for non-compliance by contractors or workers. Construction supervision requires oversight of compliance with the manual and environmental specifications by the contractor or his designated environmental supervisor. Contractors are also required to comply with national and municipal regulations governing the environment, public health and safety.

Annex 7. SEIP Environmental and social screening form

Sub-project name:	
Subproject Location (include map/sketch):	(e.g. district, etc).
Type of activity :	(e.g. new construction, rehabilitation, periodic maintenance)
Estimated Cost:	
Proposed Date of Commencement of Work:	
Technical Drawing/Specifications Reviewed	(circle answer): Yes No

This report is to be kept short and concise.

1. Site Selection:

When considering the location of a school project, check if the proposed site has the following potential impacts. They do indicate a real risk of causing undesirable adverse environmental and social effects, and that more substantial environmental and/or social assessment may be required to adequately avoid, mitigate or manage potential effects.

Issues		
	Impact or Risk	**Check if of Concern**
Natural habitats	Critical natural habitats present	
Water quality and water resource availability and use	Intensive water use; multiple water users; potential for conflicts is high; water quality issues are important	
Natural hazards vulnerability, floods, soil stability/ erosion	Mountainous terrain; steep slopes; unstable soils; high erosion potential; volcanic, seismic or flood risks	
Cultural property	Known heritage sites in project area	
Involuntary resettlement	High population density; major towns and villages; low-income families and/or illegal ownership of land; communal properties; unclear land ownership rights	

2. Checklist questions:

Physical data:	Yes/No answers and bullet lists preferred except where descriptive detail is essential.
Site area in acres	
Extension of or changes to existing alignment	
Any existing property to transfer to sub-project	
Any plans for new construction	
Refer to project application for this information.	

Preliminary Environmental Information:	Yes/No answers and bullet lists preferred except where descriptive detail is essential.
State the source of information available at this stage (proponents report, EIA or other environmental study).	
Has there been litigation or complaints of any environmental nature directed against the proponent or sub-project	
Refer to application and/or relevant environmental authority for this information.	
Identify type of activities and likely environmental impacts:	Yes/No answers and bullet lists preferred except where descriptive detail is essential.
What are the likely environmental impacts, opportunities, risks and liabilities associated with the sub-project?	
Refer to Technical Planning Guidelines – Impact, Mitigation and Monitoring Guidelines	
Determine environmental screening category:	Yes/No answers and bullet lists preferred except where descriptive detail is essential.
After compiling the above, determine which category the subproject falls under based on the EPA environmental categories A, B and C.	
Refer to Technical Planning Guidelines – Screening and Review Process	
Environmental Assessment Report or environmental studies required:	Yes/No answers and bullet lists preferred except where descriptive detail is essential.
If Screening identifies environmental issues that require an EIA or a study, does the proposal include the EIA or study?	
Indicate the scope and time frame of any outstanding environmental study.	
Required Environmental Monitoring Plan:	
If the screening identifies environmental issues that require long term or intermittent monitoring (effluent, gaseous discharges, water quality, soil quality, air quality, noise etc), does the proposal detail adequate monitoring requirements?	
Refer to Technical Planning Guidelines – Impact, Mitigation and Monitoring Guidelines	
Public participation/information requirements:	Yes/No answers and bullet

	lists preferred except where descriptive detail is essential.
Has consultation been completed?	
Indicate the time frame of any outstanding consultation process.	
Refer to Chapter 2 – Relevant legislative acts	
Land and resettlement:	Yes/No answers and bullet lists preferred except where descriptive detail is essential.
What is the likelihood of land purchase for the project?	
How will land be acquired/purchased?	
What level or type of compensation is planned?	
Who will monitor actual payments?	
Refer to the Resettlement Policy Framework.	
Actions:	
List outstanding actions to be cleared before construction begins.	
Approval/rejection	Yes/No answers and bullet lists preferred except where descriptive detail is essential.
If proposal is rejected by EPA for environmental reasons, should the site be reconsidered, and what additional data would be required for approval?	

Recommendations:

☐ Requires an EIA and/or RAP, to be submitted on date:
☐ Requires EMP, to be submitted on date:.
☐ Does not require further environmental studies

Reviewer :
Name: _____
Signature: _____
Date: _____

Annex 8. E&S Due Diligence Checklist

School Construction Environmental & Social Due Diligence Checklist
School Name: _____ **Location:** _____ **Construction Completion date:** _____
Construction Plan—*check all that apply:*
☐ Followed standard construction design ☐ ICU review and approval ☐ Construction completed and school in operation with all required facilities
E&S Considerations—*check all that apply:*
☐ Proper site selection ☐ Land acquisition or donation properly documented ☐ Documented process to assess Environmental and Social impacts and risks of its projects ☐ Project site visits conducted as part of E&S screening and review ☐ District and MOE authorities reviewed E&S process ☐ Grievance process established and working
EPA Approval and Permit—*check all that apply:*
☐ EPA Form 1 Screening submitted ☐ EPA Review documented ☐ EIA required yes ____ no____ ☐ If EIA required, approved and permitted
Third Party Audit E&S Specifications—*check all that apply:*
☐ Conducted by _____ ☐ Confirms all E&S requirements completed
E&S Authorized Certification*:*
☐ Independent E&S performance reviewed and cleared ☐ MOE Sustainability Advisor _____ ☐ MOE PBME Director _____ ☐ MOF SEIP Representative _____
If any E&S Outstanding Issues Is There an Agreed Remedial Action Plan—list and explain*:*
☐ Required additional actions ☐ Any outstanding or unresolved grievances? ☐ Target Dates ☐ Management authority
Attachments
☐ Approved Engineering design ☐ Photos