ESIA for the Completion and Refurbishment of Offices to be Used as Client Service Access Unit in Tema Under the Second Land Administration Project (LAP-2)-Additional Financing

Government of Ghana

Ministry of Lands and Natural Resources
Lands Commission

COMPLETION AND REFURBISHMENT OF OFFICES TO BE USED AS A CLIENT SERVICE ACCESS UNIT IN TEMA UNDER THE SECOND LAND ADMINISTRATION PROJECT (LAP 2)-ADDITIONAL FINANCING

ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT

FINAL REPORT

September, 2018
# Content

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List of Abbreviations

AF Additional Funding
ARAP Abbreviated Resettlement Action Plan
BP Bank Policy
CLS Customary Land Secretariats
CSAUs Client Service and Access Units
dB Decibels
EA Environmental Assessment
EHS Environmental, Health, and Safety
EHS-MP Environment Health and Safety Management Plan
EPA Environmental Protection Agency
ESIA Environmental Impact Assessment
ESMP Environmental and Social Management Plan
GELIS Ghana Enterprise Land Information System
GoG Government of Ghana
GRC Grievance Redress Committee
HSE Health, Safety, and Environment
IDA International Development Association
LAP Land Administration Project
LI Legislative Instrument
LRP Land Registration Division
LVD Land Valuation Division
mm millimetres
MMDAs Ministries Departments and Agencies
NEAP National Environmental Action Plan
NOx Nitrogen Oxide
OHS Occupational Health and Safety
OP Operational Policy
PIU Project Implementation Unit
PM$_{10}$ Particles less than 10 microns (Particulate Matter)
PER Preliminary Environmental Report
PPE Personal Protective Equipment
PVLMD Public and Vested Lands Management Division
RAP Resettlement Action Plan
SC Supervising Consultant
SMD Survey and Mapping Division
SO$_2$ Sulphur Oxide
TCPD Town and Country Planning Department
<table>
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<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>TSP</td>
<td>Total Suspended Particles</td>
</tr>
<tr>
<td>USD</td>
<td>United States Dollars</td>
</tr>
<tr>
<td>WHO</td>
<td>World Health Organisation</td>
</tr>
<tr>
<td>°C</td>
<td>Degrees Celsius</td>
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<tr>
<td>µg/m³</td>
<td>microgram per cubic meter</td>
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Executive Summary

Under the Second Land Administration Project (LAP-2) - Additional Financing, there is a proposal to expand Client Service Access Units (CSAUs) to five (5) regions in Ghana. This proposal include the completion of a section of the ground floor of a multi-purpose office block in Tema to serve as CSAU office. The civil works trigger World Bank safeguards operation policy on environmental assessment (OP/BP 4.01) as well as Ghana’s Environmental Impact Assessment Regulation, 1999 (LI. 1652) as Amended. Hence, the need to prepare an Environmental and Social Impact Assessment (ESIA) to identify, assess and manage the anticipated environmental and social impacts/risks associated with the works such as accidents and generation of construction, liquid and solid waste.

The prime objective of this Environmental and Social Impact Assessment (ESIA) is to bring the project into compliance with applicable national environmental and social legal requirements and the World Bank’s environmental and social policies.

Alternatives Considered

The alternatives considered as part of the conception of this project are:

i. No action scenario; and
ii. The project implementation scenario (refurbishment of the existing building)

The no action scenario assumes that the status quo will prevail into the foreseeable future implying that there will be no expansion to factor in the CSAU in Tema. Although this option is associated with no environmental and social impacts, the congestion at the current office and the situation where clients move from office to office to transact land business will get worse as the number of transactions increase with time. The inadequate office space will hamper the efficient delivery of services by the Lands Commission in the region.

The project implementation option involves the expansion of space of CSAU in Tema either through the construction of new office or the refurbishment/completion of existing ones. This option is associated with a number of adverse environmental and social impacts/risks such as generation of construction waste and potential accidents on site during the construction phase of the project but it will decongest the Lands Commission and improve service delivery. The adverse environmental and social impacts/risks can be mitigated through an ESIA.

Within the project implementation option, two variants were considered for evaluation. These are the provision of standalone newly built offices and the completion/refurbishment of existing offices in Tema. The former offers more space for the department but it is associated with additional significant impacts such as soil erosion and consumption of more environmental resources such as aggregates. The latter is more cost effective and can be delivered on time. The refurbishment/completion option was selected over the standalone/new construction option because it is more cost effective and associated with less environmental and social impacts/risks.

Project Scope of Work and Activities in Tema

Works in Tema will be geared towards completing sixteen (16) rooms on the ground floor of the Tema Metropolitan Assembly’s multi-purpose office complex along Padmore Street behind the Zenith Bank Building in Tema Community One. It is estimated that about 250 sq. metres of office space will be made available under the project, including space for a waiting area for clients and backroom offices. Apart from these, four (4) washrooms will be provided.

Activities to complete the section of the office complex to be used as a CSAU include putting in the needed fittings and fixtures as well as the provision of furnishing and networking. Other activities that
will be undertaken as part of project implementation are plumbing, tiling, demolishing of walls and fixing doors and windows as well as networking and installing air conditioners. The project duration is six (6) months.

**Baseline Conditions in Tema**
The Tema Municipality lies within the coastal savannah climatic region. The region experiences high temperatures, high relative humidity and records double maxima rainfall. Mean annual rainfall ranges from 730mm to 790mm. Over the past decade mean annual rainfall for Tema has been estimated at 732.54mm with wide variations between years as suggested by the standard deviation of 238.4. The major rainy season is between April and July peaking in June, whereas the minor season occurs between September to November with its peak in October. Temperature ranges between 20°C and 45°C.

Ambient and indoor air quality were satisfactory at the Tema premise. The only source of emission and noise are moving vehicles on the Padmore Street.

The proposed CSAUs in Tema will serve the Tema Metropolitan Area, Ashiaman Municipality, Kpone Katamanso and Ningo-Prampram districts with a catchment population estimated at 705,429. Tema is an industrial and port city.

**Consultations**
Officers of Tema Metropolitan Assembly and Environmental Protection Agency were consulted as part of the preparation of the ESIA. Issues discussed included, project components and alternative access to project buildings during the construction phase. Field inspections and face-to-face meetings were the main tools used during the consultation process.

**Environmental and Social Impacts/Risks**
The adverse environmental and social consequences during the projects construction phase are as follows:
- Air and noise pollution;
- Accidents;
- Disruption in utility supply;
- Potential illicit sexual affairs, rape, defilement, and crime by the contractors’ employees;
- Generation of construction, solid and liquid waste; and
- Potential conflicts among site workers and other persons who access the office buildings

Post construction impacts are generation of liquid and solid waste by visitors and staff of the Commission. It must be emphasized that these impacts will be short-lived and can be minimized or controlled when appropriate mitigation measures are undertaken. Again, the implementation of the project will come with short-term employment opportunities for construction workers and vendors during the construction phase of the project.

**Environmental and Social Management Plan (ESMP)**
The ESMP as presented in the tables below shows the:
- Identified impact/risk (issues);
- Actions for mitigation related to each impact;
- Responsible agencies for implementing the mitigation measures outlined in the ESMP;
- Implementation cost; and
- Responsibility for supervision.

A monitoring plan, budget estimate and sources of funding have also been included in this section. A grievance redress mechanism, emergency response procedures for potential hazards and proposals for decommissioning the works have also been prepared as part of the ESIA. Contractual clauses to be
inserted into the contract/bid documents as well as a sample guideline for preparing a code of conduct for workers have also been attached in the appendices.
### Table 1: Environmental & Social Management Plan

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<thead>
<tr>
<th>Issue</th>
<th>Phase</th>
<th>Mitigation Measures</th>
<th>Location</th>
<th>Responsibility of Implementing Mitigation Measures</th>
<th>Supervision</th>
<th>Cost USD</th>
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| Air and Noise Pollution      | Construction| - Service all equipment at least once a month  
- Ensure manufacturers servicing and routine maintenance regulations and protocols are adhered to for all construction equipment during servicing;  
- Ensure painters and workers engaged in the treatment of wood are in nose masks, gloves overall and boots;  
- Restrict noise generation activities and delivery of supplies to the weekends and before 8.00 am and after 5.00pm when Offices and others close to the project site are not at work or settled down to work;  
- Undertake noise generation activities over the weekends;  
- Limiting speeds on haulage roads to 20km/h  
- Haulage trucks carrying materials to site should be covered with tarpaulin or an approved material | Project Site (Tema)  
Along Haulage routes | Project Contractor  
Supervising Consultant | No Separate Cost (Cost included in the BOQ) |                         |
| Generation of Waste          | Construction| - Off cuts from pipes and electrical fittings as well as broken tiles will be reused for other civil works elsewhere;  
- Wood residue, cement blocks and other waste will be used as fill material;  
- Waste that cannot be reused will be transported to the Kpone Land fill site or Siyili Land fill site;  
- Empty paint and solvent containers will be collected and kept in a well ventilated storeroom with a paved floor and returned to suppliers to be re-used;  
- Provide two mobile toilets and three refuse bins on site;  
- Mobile toilets will be dislodged after close of work every day  
- Refuse will be collected by a private refuse collection company three times a week  
- Sewer to be connected to the Tema Central Sewerage System  
- Three (3) refuse bins will be provided on the premises,  
- Refuse bins will be emptied three times a week by the private waste collectors | Project Site (Tema)  
Project Site (Tema) | Project Contractor  
Supervising Consultant | No Separate Cost (Cost included in the BOQ) | USD 120.00 (Cost covers USD 120.00 the supply of 3 refuse bins @ USD 40.00 per bin) |
### Potential Generation of Hazardous Waste

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<th>Phase</th>
<th>Mitigation Measures</th>
<th>Location</th>
<th>Responsibility of Implementing Mitigation Measures</th>
<th>Supervision</th>
<th>Cost USD</th>
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| If hazardous materials such as asbestos or wall painted with lead paints are encountered during demolishing the following will be undertaken after notifying the supervising consultant:  
- The material will be dowsed with water and cut into appropriate sizes with snap cutters for easy transportation;  
- The material will be covered with (tarpaulin) and sealed with duct tape to make them air tight. They will be marked as “hazardous material” and transport to the at speeds less than 20 km/hr during off peak hours Kpone Landfill site for burial in lined (geo textiles) pits;  
- Specialised personnel clothed in rubber coverall with hoods and non-laced rubber boot wearing respiratory protective equipment with a HEPA filter will be used in the removal and disposal of the hazardous material  
- The pit will be covered with the geo-textile material and laterite will be spread to a thickness of 20cm. The area will be fenced and markers/warning signs will be placed in the vicinity. | Project Site/Kpone Landfill site | Project Contractor | Supervising Consultant | No Separate Cost |

### Accidents/ Occupational Health and Safety Risks

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<tr>
<th>Issue</th>
<th>Phase</th>
<th>Mitigation Measures</th>
<th>Location</th>
<th>Responsibility of Implementing Mitigation Measures</th>
<th>Supervision</th>
<th>Cost USD</th>
</tr>
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| Cordon off (hoard) the working area to prevent unauthorised persons from accessing the working area;  
- Hoarding of the site should be undertaken using wood or an approved material by the Supervising Consultant;  
- Provide two mobile toilets and three refuse bins for site workers;  
- Provide adequate prohibitive, warning and directional signs on site;  
- All workers must undergo medical screening before they are employed on site;  
- Only healthy workers are to be employed on site;  
- Supply and enforce the use of Personal Protective Equipment (PPE), namely, hard hats, reflector jackets, overalls and boots for all workers on site and others such as nose masks, hand gloves and ear plugs for workers whose tasks require these PPEs;  
- Provide potable water for site workers;  
- At least two (2) fire extinguishers, three (3) First Aid Kit must be provided on site and accessible to site workers;  
- All workers are to be given contracts specifying the type of work they are to undertake and their remuneration package | Project Site (Tema) | Project Contractor | Supervising Consultant | USD 1,500.00 (Cost covers the organisation of one occupational health and safety training programme each for the Contractors working in Tema)
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<tr>
<th>Issue</th>
<th>Phase</th>
<th>Mitigation Measures</th>
<th>Location</th>
<th>Responsibility of Implementing Mitigation Measures</th>
<th>Supervision</th>
<th>Cost USD</th>
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<tr>
<td>Public and Safety</td>
<td>Risks</td>
<td>Ensure that delivery trucks and construction vehicles drive below the 20km/hr speed limit; Schedule delivery of materials to before working hours (9.00am to 5.00pm) on weekdays or deliver over the weekend; Cordon off the section of the buildings to be refurbished to prevent unauthorised persons from accessing the working zone; Provide visitors on the sites with safety gear e.g. reflector vests, hard boots and helmets Provide warning, mandatory, prohibitive and directional signs to guide site workers, and visitors who will access the project building during the construction phase Provide alternative access to the premises that avoids work areas</td>
<td>No Separate Cost</td>
<td>Supervising Consultant</td>
<td>USD 1,620.00 (Cost includes USD120.00 for procuring 200 condoms for six months @ USD¢ 0.1 per condom, and USD</td>
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<tr>
<td>Issue</td>
<td>Phase</td>
<td>Mitigation Measures</td>
<td>Location</td>
<td>Responsibility of Implementing Mitigation Measures</td>
<td>Supervision</td>
<td>Cost USD</td>
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| Increase in Crime and Conflict | Construction | - Regional Lands Officers and Grievance Redress Committee to resolve localised conflicts (see details on grievance redress mechanisms in Chapter 9)  
- Crimes such as theft, rape and defilement will be reported to the nearest police station directly or through the grievance redress committee  
- Summary dismissal of employees who engage in criminal activities | Tema township  
Regional Lands Officers  
PIU | No Separate Cost  
(Project already has grievance redress mechanism) | | 1,500.00 for HIV/AIDS and STI awareness) |
Institutional Arrangements for Implementing the ESMP

The Lands Commission will be solely responsible for the implementation of ESMP during the construction phase. The Commission has a PIU which is implementing the Land Administration Project. Since the PIU is not staffed with environmental and social safeguards specialists, it intends to procure the services of a short-term individual environmental and social safeguards specialist to support the implementation and monitoring of the ESMP on its behalf.

In addition, there will be a supervising consultant (engineer or architect) on each site charged with the day-to-day supervision of the works, enforcing environmental and social contractual clauses and ensuring that recommendations from the environmental and social safeguards specialist are implemented within specified timelines.

During the post construction phase of the project, the Lands Commission will be responsible for the management of the office. The Regional Lands Officer will manage the new office.

Environmental and Social Monitoring Plan

Although the PIU will be solely responsible for the monitoring of the ESMP, other institutions namely EPA, Ministry of Lands and Natural Resources, the Lands Commission, the World Bank and the various assemblies may undertake ad hoc monitoring of the environmental and social performance of the project. The monitoring roles of the general public will also ensure smooth project implementation.

Since the PIU of the Lands Commission does not have an in-house environmental and social safeguards specialist, it intends to procure a short-term environmental and social safeguards specialist to undertake monthly monitoring of the civil works during the construction phase. The cost associated with employing an independent consultant to undertake monthly monitoring over the duration of the project is summarised as Error! Reference source not found., while the monitoring roles are presented in Table 3.

The monitoring roles are presented in Table 2.

<table>
<thead>
<tr>
<th>Item</th>
<th>Days per Trip</th>
<th>*Number of Monitoring Trips during the Construction Phase</th>
<th>Unit Cost USD</th>
<th>Total Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fees</td>
<td>2</td>
<td>6</td>
<td>300.00</td>
<td>3,600.00</td>
</tr>
<tr>
<td>Fuel</td>
<td>1</td>
<td>6</td>
<td>20.00</td>
<td>120.00</td>
</tr>
<tr>
<td>Per diem</td>
<td>1</td>
<td>6</td>
<td>50.00</td>
<td>300.00</td>
</tr>
<tr>
<td>Total</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4,020.00</td>
</tr>
</tbody>
</table>

*6 monitoring visits are anticipated over the 6-month project implementation duration*
### Table 3: Environmental & Social Monitoring Plan

<table>
<thead>
<tr>
<th>Item</th>
<th>Phase</th>
<th>Location</th>
<th>Monitoring Parameter/Indicator</th>
<th>Frequency</th>
<th>Responsibility for Monitoring</th>
<th>Monitoring Cost (GHC)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase in Illicit Sexual Affairs and STDs</td>
<td>Construction</td>
<td>On site</td>
<td>Number of sensitisation campaigns organised</td>
<td>Monthly</td>
<td>Short term Environmental and Social Safeguards Expert working on behalf of the PIU</td>
<td>No Separate Cost</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Number of condoms distributed to Contractors’ staff working on each site in a month</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Number of STD cases reported to local health facilities involving encounters with Contractors’ staff</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crime and Conflicts</td>
<td>Construction</td>
<td>On site</td>
<td>Number of conflicts/cases reported to the Grievance Redress Committee/Regional Lands Officers in Tema</td>
<td>Monthly</td>
<td>Short term Environmental and Social Safeguards Expert working on behalf of the PIU</td>
<td>No Separate Cost</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Number of conflicts/cases dealt with by the Grievance Redress Committee and/or the Regional Lands Officer in Tema</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Number of crimes such as theft, defilement and rape reported, investigated and concluded by the police involving the Contractors’ workers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase in Noise and Air Pollution</td>
<td>Construction</td>
<td>On site</td>
<td>Dust (PM$_{10}$)</td>
<td>Monthly</td>
<td>Short term Environmental and Social Safeguards Expert working on behalf of the PIU</td>
<td>No Separate Cost</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Emissions (NOx, SOx, TSP) using a High Precision Casella Cel Sound Level Meters Model 244X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Noise (dB) using a Mini-Volume Portable Air Sampler</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Complaints from workers and visitors to the Tema premises</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accidents and Occupational Health and Safety/Community Safety</td>
<td>Construction</td>
<td>On site</td>
<td>Number of accidents recorded in the Accident Record Book</td>
<td>Monthly</td>
<td>Short term Environmental and Social Safeguards Expert working on behalf of the PIU</td>
<td>No Separate Cost</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Number of OHS and hygiene training programmes provided for contractors’ staff.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Number of workers on site wearing the appropriate PPEs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Complaints from workers and visitors to the Tema premises</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item</td>
<td>Phase</td>
<td>Location</td>
<td>Monitoring Parameter/Indicator</td>
<td>Frequency</td>
<td>Responsibility for Monitoring</td>
<td>Monitoring Cost (GH¢)</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-------------------</td>
<td>----------</td>
<td>-----------------------------------------------------------------------------------------------</td>
<td>-------------------------</td>
<td>------------------------------------------------------------------------------------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td>Solid and Liquid</td>
<td>Construction/</td>
<td>On site</td>
<td>Number of mobile toilets and dustbins provided on site, Number of times waste is lifted in a week</td>
<td>Entire Construction</td>
<td>Short term Environmental and Social Safeguards Expert working on behalf of the PIU</td>
<td>No Separate Cost</td>
</tr>
<tr>
<td>Waste Management</td>
<td>Operational</td>
<td></td>
<td>Clean site, Odour, Presence of human waste on site, Complaints by workers within the project zone and visitors</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Construction Waste</td>
<td>Construction</td>
<td>On site</td>
<td>Clean site, Number of complaints from workers and visitors to the project site</td>
<td>Entire Construction</td>
<td>Short term Environmental and Social Safeguards Expert working on behalf of the PIU</td>
<td>No Separate Cost</td>
</tr>
</tbody>
</table>

* not more than two studies will be undertaken
Capacity Development for the Implementation of the ESMP
The environmental and social safeguards specialist of the PIU will build the capacity of staff of the PIU, regional directors of the Lands Commission, management level staff of the Commission (Head Office) and the Ministry of Lands and Natural Resources in environmental and social safeguards and grievance redress mechanisms. Two workshops will be organised to this effect. One for staff in northern Ghana and the other for those in Southern Ghana and head office management level staff. To avoid double counting, the cost of the capacity workshops will be presented in the ESIA report for Ho, Cape Coast and Sunyani works.

Environmental and Social Reporting and Disclosure
The LAP 2 PIU will disclose the ESIA on its website, once it is approved by the project and cleared by the World Bank. Hard copies of the ESIA shall also be placed in the Head and Regional offices of the Lands Commission, the PIU office as well as the Metropolitan, Municipal and Sub Metropolitan offices of the participating Assemblies for public viewing throughout the construction phase of the project. The World Bank will disclose the ESIA at the World Bank’s External Website.

Estimated Cost of the ESMP
The estimated cost for implementing this ESMP, outside the works contract price is Seven Thousand, Two Hundred and Sixty United States Dollars (USD7, 260.00). The Land Administration Project has the responsibility of providing this amount for the implementation of the ESMP. Table 3 presents the summary cost estimates.

Table 4: Budget for ESMP Implementation

<table>
<thead>
<tr>
<th>S/N #</th>
<th>Item</th>
<th>Amount (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Sensitisation Programme for STDs and Distribution of Condoms</td>
<td>1,620.00</td>
</tr>
<tr>
<td>2.</td>
<td>Occupational Health and Safety Training for Site Workers</td>
<td>1,500.00</td>
</tr>
<tr>
<td>3.</td>
<td>Waste bins for the Tema CSAU during the Operational Phase</td>
<td>120.00</td>
</tr>
<tr>
<td>4.</td>
<td>Monthly Environmental Monitoring Visits</td>
<td>4,020.00</td>
</tr>
<tr>
<td>6.</td>
<td>Total</td>
<td>7,260.00</td>
</tr>
</tbody>
</table>

*Cost includes professional fees and daily subsistence allowance for the environmental and social expert as well as transportation cost to undertake monthly monitoring for the six (6) months project duration.*
1. Introduction

The Government of Ghana has requested Additional Funding (AF) from the International Development Association (IDA) towards the cost of the second phase of the Land Administration Project (LAP 2). In 1999, the Ghana Government developed a National Land Policy to guide land administration and its transactions in the country. To implement the policy, a Land Administration Project (LAP 1) was developed with support from development partners including the IDA. LAP 1 was implemented from 2003-2011. After initial implementation challenges, the project advanced with some success stories. As a result of the improved performance and the fact that LAP 1 laid the basis for land administration in Ghana, the second phase was developed to consolidate the gains made under LAP 1.

The Project has four components:

- **Component 1**: Strengthening the Policy, Legal and Regulatory Framework for Land Administration
- **Component 2**: Decentralizing and Improving Business and Service Delivery Processes
- **Component 3**: Improved Maps and Spatial Data for Land Administration, and
- **Component 4**: Human Resource Development and Project Management

Under the Additional Financing, the following key activities, among others, will be undertaken to improve the overall outcome of LAP 2 in achieving its development objectives and to consolidate and strengthen land administration and management systems for efficient and transparent land services delivery:

- the expansion of Client Service Access Units (CSAUs) to the remaining five (5) regions;
- the up-scaling of the Ghana Enterprise Land Information System (GELIS) to include the functionalities that were de-scoped during the first phase;
- establishment of new and consolidation of the operation of existing Customary Land Secretariats (CLSs); and
- Production of digital orthophoto and topographic maps for the entire country

The expansion of Client Service Access Units (CSAUs) to the remaining five (5) regions under the LAP 2 additional financing will require the refurbishment of two buildings, two new purpose CSAU offices and extension of an existing office block. These activities have triggered two World Bank safeguard policies, the environmental assessment (OP 4.01) and the involuntary resettlement (OP 4.12). Therefore, there is the need to prepare an Environmental and Social Impact Assessment (ESIA) with an action plan and an Abbreviated Resettlement Action Plan (ARAP). This ESIA report is for the CSAU that will be refurbished/completed in Tema.

1.1 Purpose of the ESIA

The expansion of the Client Service Access Unit (CSAUs) includes among others completion of a section of the ground floor of an existing office complex in Tema. Activities to be undertaken as part of the refurbishment works include collapsing of internal walls, chiselling, tiling, painting, fixing of windows, painting and furnishing. These activities trigger safeguards issues of concerns including possibility of generating excessive noise, generation of construction waste, health and safety concerns for the contractors’ employees as well as workers and visitors to these properties.

These impacts /risks associated with the proposed works need to be identified, assessed and managed. The management of environmental and social issues of concern is guided by World Bank O.P. 4.01 Environmental Assessment as well as Ghana’s Environmental Impact Assessment Regulation, 1999 (LI. 1652) as Amended. The purpose of the ESIA is to prevent where possible, avoid and effectively
mitigate and manage environmental and social impacts/risks that may arise from implementation of sub projects under LAP 2 funding.

1.2 Objectives of the ESIA

The prime objective of this Environmental and Social Impact Assessment (ESIA) is to bring the project into compliance with applicable national environmental social and legal requirements as well as the World Bank’s applicable environmental and social policies as indicated in the Terms of Reference (see Appendix E).

1.3 Methodology

The approach to the preparation of the ESIA is in accordance with (1) World Bank requirements set out in operational policy OP/BP 4.01 Environmental Assessment and Ghanaian Environmental Protection Agency ESIA Procedures and Guidelines as laid out in LI 1652 as amended. The assignment was carried out in three different phases, which are stated as follows:

- Site visit and inspection (see Plate 1 in Appendix A for pictures of site visit);
- Literature review; and
- Public consultations (see Plate 2 to 6 in Appendix A for consultation pictures and Appendix C for details on stakeholder consultations and disclosure and consultation data sheets).
2. Policy, Legal and Administrative Framework

2.1 National Environmental Requirements

2.1.1 Ghana’s Environmental Policy

The environment protection policy of the Government of Ghana (GoG) seeks to:
- Maintain ecosystems and ecological processes essential for the functioning of the bio-sphere;
- Ensure sound management of natural resources and the environment;
- Adequately protect humans, animals and plants, their biological communities and habitats against harmful impacts and destructive practices, and preserve biological diversity;
- Guide development in accordance with quality requirements to prevent, reduce and as far as possible, eliminate pollution and nuisances;
- Integrate environmental considerations in sectional, structural and socio-economic planning at national, regional and district levels, and
- Seek common solutions to environmental problems in West Africa, Africa, and the world at large.

The environmental policy of Ghana formulated in the National Environmental Action Plan (NEAP) of 1993 hinges strongly on “prevention” as the most effective tool for environmental protection.

The policy aims at a sound management of resources and environment, and the reconciliation between economic planning and environmental resources utilization for sustainable national development. It also seeks, among others, to institute an environmental quality control and sustainable development program by requiring prior Environmental Assessment (EA) of all developments, and to act appropriately to protect critical eco-systems, including the flora and fauna they contain against harmful effects, nuisance, or destructive practices.

The adoption of the NEAP led to the enactment of the EPA Act, 1994 (Act490); and subsequently the passing of the Ghana EIA procedures into the EA Regulations, 1992 (LI 1652).

2.1.2 Environmental Sanitation Policy

The Environmental Sanitation Policy (Revised, 2010) responds to the various reviews carried out to assess how effectively the previous policy in 1999 has been implemented. The revised policy objectives and measures are presented in a way that enhances strategic planning and subsequent implementation.

2.2 Legal Framework

There are several laws and regulations concerned with development, health related matters and the environment in general. The major environmental laws related to this project include:

2.2.1 Environmental Protection Agency, Act 490, 1994

This Act establishes the Ghana Environmental Protection Agency making it responsible for advising government on all matters relating to the environment; undertake environmental monitoring to ensure sound ecological balance and coordinating environment activities, environmental education, and research. The Act also specifies the requirements to produce an EIA for various proposed works.
2.2.2 **Environmental Assessment Regulations 1999 (LI 1652) as Amendment (LI 1703, 2002 and LI 2228)**

This legal instrument provides guidance and ensures adequate consideration of biodiversity and related environmental and socially sensitive issues are considered during Environmental Impact Assessments in Ghana. LI 1652 outlines in broad terms, the procedures for the preparation of an environmental assessment report. It provides a graduated system for determining what will be demanded from a proponent based on the size and likely impacts of a particular project. On receipt of an application, including such information as may be required; the Agency carries out site inspection and initial assessment (screening) taking into consideration factors such as:

- Location, size and likely output of the undertaking;
- Technology intended to be used;
- Concerns of the general public, if any, and in particular concerns of immediate residents if any, and
- Land use and other factors of relevance to the particular undertaking to which the application relates.

Based on the initial assessment by the Agency, a project may merit either an environmental impact assessment or a preliminary environmental assessment. The Agency also has the power to grant an environmental permit straightaway upon screening an application or decline an application subject to a formal communication to the applicant. Applicants also have the right under this legislative instrument to appeal the Agency’s decision through the Minister of Environment, Science and Innovation.

Consultations with the EPA revealed that an environmental permit issued for the existing multi-purpose office block is due for renewal. Once the Tema Metropolitan Assembly renews the permit, it will cover the proposed works.

2.2.3 **Local Governance Act, 2016 (Act 936)**

The Local Governance Act 2016 (Act 936) seeks to give a fresh expression to government’s commitment to the concept of decentralization. It is a practical demonstration of a bold attempt to bring the process of governance to the doorstep of the populace at the regional and more importantly, the district level. The Act establishes metropolitan, municipal and district assemblies as the highest decision-making authority at the local level with powers to enforce zoning and building regulation as well as responsibility of waste management.

2.2.4 **Land Use and Spatial Planning Act 2016 (Act 925)**

The Act consolidates the laws on land use and spatial planning. It provides sustainable development of land and human settlements through a decentralized planning system and ensures judicious use of land to improve the quality of life, promote health and safety in respect of human settlements. This gives a clearer direction to ensure compliance and enforcement of development regulations by the Ghanaian society. It will also contribute to a more sustainable and well-functioning land administration system that is fair, efficient, cost effective and decentralized and will enhance land tenure security in the country.

2.2.5 **Factories, Offices and Shops Act**

The Factories, Offices and Shops Act of 1970 (Act 328) mandates the Factories Inspectorate Department of the Ministry of Employment to register factories and ensure that internationally accepted standards of providing safety, health and welfare of persons are adhered to. It defines a factory to include any premises (whether in or not in a building) in which one or more persons are engaged in manual labour, among others.
2.2.6 Ghana National Fire Service Act, 1997 (Act 537)
This act makes provision for the management of undesired fires and as per the functions of the service provides technical advice for building plans in respect of machinery and structural layouts to facilitate escape from fire, rescue operations and fire management. Other functions of the service are:
- Organize public fire education programmes;
- Inspect and offer technical advice on fire extinguishers; and
- Offer rescue and evacuation services to those trapped by fire or in other emergencies.

2.2.7 The Fire Precaution (Premises) Regulations, 2003 (LI 1724)
The Ghana National Fire Service Act, 1997 (Act 537) states that a fire certificate will be required for premises used as a public place or place of work. This requirement is reinforced by the Fire Precaution (premises) Regulations, 2003 (LI 1724). It is incumbent on any project developer to ensure that adequate measures are introduced to minimise or prevent fire out breaks.

2.2.8 The Labour Act 2003 (Act 651)
The purpose of the Labour Act, 2003 (Act 651) is to amend and consolidate existing laws relating to employers, trade unions and industrial relations. The Act provides for the rights and duties of employers and workers; legal or illegal strike; guarantees trade unions the freedom of associations and establishes Labour Commission to mediate and act in respect of all labour issues. Under Part XV (Occupational Health Safety and Environment), the Act explicitly indicates that it is the duty of an employer to ensure the worker works under satisfactory, safe and healthy conditions.

2.2.9 Workmen's Compensation Law 1987 (PNDC 187)
This Act seeks to address the necessary compensations needed to be awarded to workers for personal injuries arising out of and in the course of their employment.

2.3 The World Bank Safeguard Policies
The World Bank has ten environmental and social safeguards policies, these include, Natural Habitats (OP 4.04), Forests (OP 4.36), Pest Management (OP 4.09), Physical Cultural Resources (OP 4.11), and Safety of Dams (OP 4.37) and Involuntary Resettlement, OP 4.12 and Environmental Assessment, OP 4.01. None of the above operational policies with the exception of OP 4.01 and 4.12 are triggered by this project. This is because there are no waterbodies, natural habitats and cultural heritage sites within the immediate project zone. The use of forest resources under project will be insignificant.

OP 4.01 is considered to be the umbrella policy for the Bank's environmental safeguard policies. It is used to identify, avoid, and mitigate the potential negative environmental impacts associated with Bank lending operations as well as to improve decision making, to ensure that project options under consideration are sound and sustainable, and that potentially affected people have been properly consulted.

2.4 World Bank Environmental Screening Categories
Screening of sub-projects prior to their implementation is a key requirement of World Bank funded projects. Screening is carried out to decide whether a sub-project requires assessment or not, and the level of assessment that may be required. Upon screening, a determination is made for the next step and the level of assessment that will be required for each sub-project.

OP/BP. 4.01 classifies projects into four (4) categories, namely Category A, B, C and FI. Category ‘A’ projects are considered as highly risky, with potentially irreversible and unprecedented impacts, or complex. Such projects require full Environmental and Social Impact Assessment (ESIA). Projects are categorised as ‘B’, if the adverse environmental and social impacts on human populations or environmentally important/sensitive areas-including wetlands, forests, grasslands, and other natural habitats are less adverse than those of Category ‘A’. The impacts of projects under Category ‘B’ are
site specific, few of them are irreversible, and mitigation measures are easier to be defined as compared to Category ‘A’ projects. Such projects require action plans such as Abbreviated Resettlement Action Plans (ARAP), Resettlement Action Plans (RAP), Environmental and Social Impact Assessment (ESIA) or Environmental and Social Management Plans (ESMPs). A project is classified as Category ‘C’ if it is likely to have minimal or no adverse environmental impacts. Finally, by the World Bank classification, Category ‘FI’ projects involve investments of the Bank funds through a financial intermediary, in projects that may result in adverse environmental impacts.

The World Bank rates this sub project as Category B under Operational Policy, 4.01. This implies that the expected environmental impacts are largely site-specific. Few, if any, are irreversible. Mitigation measures can be designed relatively readily.

2.5 World Bank Group EHS Guidelines, 2007
The Environmental, Health, and Safety (EHS) Guidelines are technical reference documents with general and industry-specific examples of Good International Industry Practice (GIIP), as defined in IFC’s Performance Standard 3: Resource Efficiency and Pollution Prevention. The EHS Guidelines contain the performance levels and measures that are normally acceptable to the World Bank Group and are generally considered achievable in new facilities at reasonable costs by existing technology. For World Bank funded projects, application of the EHS Guidelines to existing facilities may involve the establishment of site-specific targets with an appropriate timetable for achieving them. The environmental assessment process may recommend alternative (higher or lower) levels or measures, which, if acceptable to IFC/World Bank, becomes project- or site-specific requirements.

2.6 Institutional Framework
The Land Administration Project (LAP-2) under the Ministry of Land and Natural Resources is the implementing agency for these sub projects. Nonetheless, once the projects are completed they will be handed over to the Lands Commission. The Lands Commission was established by Article 258 of the 1992 Constitution and the Lands Commission Act, 2008 (Act 767). The functions of the Lands Commission include;

- Provides land services consisting of managing public and vested lands; surveying, mapping and maintaining national territorial boundaries; developing and maintaining national and geodetic reference network nationwide; registering title to land and other interests in land, registering deeds and other instruments affecting land, assessing compensation upon compulsory acquisition, assessing stamp duty & determining values of properties for letting, sale, purchase and rating;
- Supervisors and regulators in the land market through controlling the survey and demarcation of land for land use and registration as well as supervising, regulating and certifying the production of maps.
- Provides advice to government, MMDAs and traditional authorities on policy frameworks on land administration in coordination with Town and Country Planning Department; preparation and maintenance of valuation lists or rolls for rating purposes, acquisition of land for government and comprehensive programme for registration of title to land.
- Custodians of land related records through surveying of data on parcels of land and maps for the country, land registering that contain records of land and other interest in land, keeping records on historical land transactions, real estate valuing and claimants for compensation.

The Lands Commission has four divisions namely; Survey and Mapping Division, Land Registration Division, Land Valuation Division, Public and Vested Lands Management Division that performs different but interlinked functions. In terms of hierarchy, there is a National Lands Commission as well as ten Regional Lands Commissions run by Regional Chairmen and Regional Lands officers. The Management of the Head Office of the Lands Commission is made up of:
- An Executive Secretary;
- Two Deputy Executive Secretaries;
Four Divisional Directors;  
Solicitor Secretary and Head Legal of Department;  
Head of Internal Audit Department;  
Head of Finance Department;  
Head of Human Resource Department; and  
Head of Research, Policy Planning and Special Projects;

Other institutions responsible for the co-ordination, planning, administration, management and control of development and environmental issues that relate to this sub project are the Environmental Protection Agency and the Tema Metropolitan Assemblies.
3. Project Alternatives

The alternatives considered as part of the conception of this project are:

iii. No action scenario; and
iv. The project implementation scenario (refurbishment of the existing building)

3.1 No Action Scenario

The “No Action Scenario” assumes that the proposed project will not be implemented in Tema. This implies that the Client Service Access Unit of the Lands Commission in Tema will have to make do with the old office allocated to them within the office complex of Tema Development Corporation. Obviously, this will create congestion as the number of land transactions in the region is increasing. This phenomenon is likely to continue in the foreseeable future. This will also introduce discrimination and inconsistencies in service delivery approaches.

If the status quo prevails, there will be no adverse environmental and social impacts such as noise and waste generation as well as accidents and occupational health and safety risks associated with the construction phase. In addition, the problem of congestion will reduce efficiency in responding to client needs amidst rising land transaction over time.

3.2 Project Implementation Scenario

Under the project implementation scenario, sections of offices in Tema will be remodelled into CSAU. This expansion will increase the available space for the Client Service and Access Unit of the Commission in Tema but it is associated with some negative environmental and social impacts/risks during the construction phase of the project. These include noise pollution and accidents as well as inconveniencing workers and visitors who visit the Tema office. These impacts/risks will be mostly short term and reversible. In addition, an environmental and social impact assessment can be prepared prior to the commencement of works and the accompanying ESMP implemented to mitigate and possibly compensate for the identified adverse environmental and social impacts/risks.

From the foregone, the project implementation scenario is a viable option but within that option, two variants are evaluated. These are the building of new client service and access units for Tema versus the option to refurbish/complete existing office for the same purpose.

3.2.1 Construction of New Standalone Purpose Built Offices

Constructing new standalone office blocks in Tema will involve land acquisition in Tema. There will be site clearing and construction of the CSAU as well as furnishing the completed block.

This option is associated with additional adverse significant environmental and social impacts/risks such as soil erosion and consumption of more environmental resources such as sand and aggregates, which do not arise under the refurbishment option. Apart from these, land acquisition will impose additional cost and delay the implementation of the project in Tema. This option does not also optimise the use of space within the existing offices. These notwithstanding, the provision of standalone facilities will provide more space for staff of the CSAU in Tema.

3.2.2 Refurbishment of Existing Office Buildings

This option seeks to complete a section of the ground floor of the multi-purpose office block in Tema for occupancy by the Client Service and Access Unit of the Lands Commission in Tema. In comparison with the option to construct new standalone office blocks, this option is more cost effective as it does not involve land acquisition and construction cost but it provides office space fit for purpose. Apart from
these, the refurbishment option is also associated with lower utilisation of environmental resources and less environmental and social impacts/risks as against the option to build new standalone offices.

The refurbishment/completion option is selected over the new construction option because of its cost effectiveness. It is also associated with less environmental and social impacts and risks compared to building standalone offices.
4. Project Description

The proposed refurbishments is located in Tema in the Greater Accra region.

4.1 Project Components and Activities in Tema

4.1.1 Project Location in Tema
The project building in Tema is a three storey uncompleted open ‘V’ multi-purpose office complex (see Plate 3 in Appendix B). It is located (N: 5°38’53.52″; W: 0°0`11.36″) in Tema Community One within the Tema Municipal Area. The site is along the Padmore Street. The Metropolitan Works Department is east of the building, while Zenith Bank is to the west. Padmore Street defines the northern boundary of the site while the existing Municipal Assembly Offices spans the south of the uncompleted office block (see Fig. 1 in Appendix A for Locational Map). The structure is located within the central business district of the Tema Municipal Assembly Enclave within the City Centre.

4.1.2 Project Components (Tema)
Sixteen (16) rooms on the ground floor of the uncompleted office complex (north wing) has been allocated to the Lands Commission. The Commission is to complete, remodel and use the allocated space as a CSAU office. It is estimated that an additional 250 square metres of office space will be made available after the completion of the works. The space will be partitioned into an open hall with cubicles and a waiting area for clients as well as back rooms offices. In addition, four washrooms will be provided for staff and clients and ramps for persons with disability will be provided as well as parking for 50 cars and landscaping. Twenty staff of the Commission will use the facility.

4.1.3 Project Activities and Duration in Tema
Construction phase activities to be undertaken include tiling, electrical works, plumbing, networking, painting, fixing of glazed windows and doors, fans and air conditioners. The proposed project will not involve any excavation.

4.2 Project Workforce, Equipment and Duration
It is estimated that a maximum of fifteen (15) workers will be on site. These include masons, carpenters and building technicians. No work camps will be constructed as part of the project. Workers will commute to work daily. Some of the equipment that will be used on site are wheel barrows, power drills and jack hammers. The project is expected to be completed in six (6) months.
5. Baseline Conditions

The baseline information covers the project areas of influence (Tema in the Greater Accra Region). Baseline information were acquired through site visits and inspections, literature reviews and consultations with stakeholders.

5.1 Land Use

The proposed building for the Tema CSAU office is located within the Tema Metropolitan Assembly enclave, adjoining properties are Metropolitan Works Department offices and Zenith Bank-Tema Community One Branch. The project building is located in a civic zone within the Central Business District.

5.2 Natural Environment

5.2.1 Topography

The Tema premises is flat with an average elevation of 76 feet above mean sea level.

5.2.2 Climatic Conditions

Tema lies within the coastal savannah climatic region of Ghana. The climate of the area is determined mainly by the movement of the Inter-Tropical Convergence Front, which oscillates about the equator and around the lower latitudes. The region experiences high temperatures; high relative humidity and records double maxima rainfall. Mean annual rainfall ranges from 730mm to 790mm. Over the past decade, mean annual rainfall for Tema has been estimated at 732.54mm with wide variations between years as suggested by the standard deviation of 238.4. The major rainy season is between April and July, peaking in June. The minor season occurs from September to November with its peak in October. The rainfall duration is usually 2 to 3 hours and rarely exceeds 6 hours. Temperatures range from a minimum of 25°C to a maximum of about 36°C between May and July.

5.2.3 Geology

The Dahomeyan Series underlie the project site and its immediate environs in Tema. The Dahomeyan Series are metamorphosed rocks with beds of quartz, mica schist, gneiss and marble.

5.2.4 Air and Noise Quality

There are no activities within the premise that generate excessive dust, emissions and noise as work on the multi-purpose office block has stalled. These may change once work on the other sections of the multi-purpose block resumes. The only source of noise and emission is moving vehicles on Padmore Street which is about 10 metres away. During the hamattan/dry season dust levels may be elevated in Tema due to the influence of the northeast trade winds.

5.2.5 Presence of Waterbodies

There are no water bodies within the project zone (2 kilometres radius).

5.3 Socio-economic

5.3.1 Population of the Project Catchment Area

The Tema region consists of Kpone Katamanso and Ningo Prampram districts as well as Ashiaman Municipality and the Tema Metropolitan Area. The total population of the catchment is 705,429. An estimated 48.8% (344,509) of the catchment population are males while the remaining 51.2% (360,920) are females.
5.3.2 Local Economy

Tema is an industrial and port city. Ghana Statistical Service (2014) estimates that 90.4% of the active population are employed while 9.6% are unemployed. Among the employed, 31.5% are engaged in the sales/service sector. An additional 20.4% are artisans, 10.4% are in elementary occupation such as fishing and farming, while 22.5% are managers, professionals and technicians.
6. Potential Environmental and Social Impacts/Risks

6.1 Introduction
The project activities including demolition of walls, partitioning, fixing windows and doors will lead to a number of anticipated impacts/risks. This chapter presents the anticipated social and environmental impacts/risks of the sub projects. Prior to this, Table 2 presents how the impacts/risks were assessed.

Table 2: Definition for Level of Impacts

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neutral</td>
<td>No overall environmental impact.</td>
</tr>
<tr>
<td>Adverse</td>
<td>Negative environmental impact.</td>
</tr>
<tr>
<td>Beneficial</td>
<td>Positive environmental impact.</td>
</tr>
</tbody>
</table>

Significance of Predicted Impacts

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insignificant</td>
<td>Impact either too small to be measured or, even if quantifiable, not causing any material change in the environment.</td>
</tr>
<tr>
<td>Minor</td>
<td>Impact capable of causing change in the environment but not fundamentally affecting the status, potential productivity, or usage of the environment.</td>
</tr>
<tr>
<td>Significant</td>
<td>Impact capable of causing sufficient change in the environment to affect the status, potential productivity, or usage of the environment.</td>
</tr>
</tbody>
</table>

Duration of Predicted Impacts

<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short-term</td>
<td>Impact persisting for six months or less (i.e., during construction period).</td>
</tr>
<tr>
<td>Medium-term</td>
<td>Impact persisting for between six months and two years (i.e., during initial operations)</td>
</tr>
<tr>
<td>Long-term</td>
<td>Impact persisting for longer than two years</td>
</tr>
</tbody>
</table>

1The classification of an impact as temporary, short-term, or long-term is purely descriptive and does not, of itself imply a degree of significance or acceptability (thus, a temporary impact may also be a significant impact, whilst a long-term impact may be insignificant).
Source: Adapted from AES SONEL (2009).

6.2 Positive Impacts
The following are some of the positive social and environmental impacts associated with the proposed refurbishment works.

6.2.1 Employment and Income Opportunities
- **Construction Phase**
Short-term employment opportunities will be generated for unskilled, semi-skilled and skilled labour in the construction sector, ranging from masons, carpenters to building technicians to architects during the construction phase of the project. This will lead to improved income profile for workers on the sub-project. In addition, local food and other vendors and itinerant traders will provide food and other services for the site workers. It is estimated that 15 persons will be directly employed during the
construction phase of the project. Although both direct and indirect employment opportunities created by the project will generate income for beneficiaries, employment generated during the construction phase will be insignificant, short term but regional.

6.2.2 Improved Working Efficiency
The provision of additional working space will enhance the efficiency delivery of services at CSAU. Bigger office space implies less congestion and improve storage and retrieval of files leading to better turnaround time for clients who will be accessing the CSAUs.

6.3 Negative Impacts

6.3.1 Air Pollution
- **Construction Phase**
  Exposure to cement dust, emission from paints, thinners and pesticides for treating wood and other solvents as well as delivery vehicles can reduce ambient and in-door quality and put site workers at the risk of respiratory tract diseases. This risk is rated minimal, short and localised as the volume of painting, wood work is minimal.

6.3.2 Noise Generation
- **Construction Phase**
  Intermittent noise would be generated during the implementation of construction activities such as collapsing walls and partitioning of space to accommodate the new units as well as fixing windows and doors, which are part of the refurbishment activities in Tema. Background noise level at the site and its immediate environs may also slightly increase intermittently because of the movement of delivery vehicles and haulage trucks entering or exiting the sites during the construction phase.

Noise pollution will not be a major issue in the case of the Tema refurbishment works because currently, the uncompleted office block of which a section of the ground floor to be completed and utilised by the CSAU will not be occupied during the construction phase of the project. In addition, the nearest structure to the proposed building for refurbishment in Tema, Zenith Bank building is about 60 metres away from the working area. From the foregone, anticipated intermittent increase noise levels is rated minor. However, elevated noise levels is short term and localised.

6.3.3 Generation of Waste
- **Construction Phase**
  Activities on site, including, the demolishing of walls and fixing of doors and windows will produce waste materials such as concrete residue, broken cement blocks, cement paper, nails, scraped paint, debris and pieces of wood. Construction waste, if not collected and well stored and disposed of could obstruct the movement of the workers, vehicles and equipment on site, construction equipment and lead to accidents. The waste will therefore have to be managed during the construction period.

Workers on site will also generate human waste and refuse. The waste, if not promptly collected and disposed of can clog drainage channels as well as facilitate the outbreak and spread of sanitary related diseases like cholera. Human waste and refuse also give of foul odour.

- **Operational Phase**
  Waste streams that will be generated by workers and clients who visit both offices during the post construction phase of the project includes paper, plastics and food residue. The generation of waste will have significant impacts on workers at the office in terms of public health as well as reducing the amenity value of the facility, if not well managed.
Generation of solid and liquid waste during the construction and operational phase of the project is a significant impact because of its association with sanitary related diseases like malaria and cholera. It is long term and regional.

6.3.4 Potential Generation and Exposure to Hazardous Waste

During the demolishing of existing walls, there is a remote possibility that asbestos and other hazardous materials may be encountered. If such a situation arises, the removal, transportation and disposal of these hazardous materials will pose a health threat to site workers and those in the immediate project environs. For example, the World Health Organisation has indicated that exposure to asbestos through inhalation of the fibres (asbestos dust) is a cause of asbestosis and lung cancer.

Exposure to hazardous materials is therefore rated as significant, localised but long term. This is because it has the potential to cause death and permanent injury to affected parties.

6.3.5 Accidents/ Occupational Health and Safety Risks

- **Construction Phase**

Exposure to dust and noise within the work environment could also have negative implications on the health of the site workers. Work related accidents such as burns, falls and cuts might also occur due to human errors, workers not wearing appropriate PPEs required for their assignments and mechanical faults on equipment. Accidents may also result from poor storage of equipment, construction materials and management of construction waste. Another source of accidents during the construction phase of the project is human-vehicular conflicts as equipment, supplies are transported to the site, and waste is hauled from the construction site to designated disposal sites. Accidents of this nature can result in spills, destruction of property, injuries and fatalities on site.

Accidents and work related morbidity and mortality risks are rated significant because of their capacity to be life threatening but localised and short term.

6.3.6 The Incidence of Crime and Conflicts

- **Construction Phase**

Civils works can be associated with theft and pilfering of construction materials normally from the general public and site workers. Other crimes include sexual harassment, illicit sexual affairs and rape as well as defilement, which are criminal under the laws of Ghana.

Conflicts may erupt between the contractor executing the main building works and the project contractor executing the refurbishment works on a section of the ground floor under the LAP2 project.

- **Operational Phase**

There is realistic possibility that workers of the Commission will occupy the CSAU while work is ongoing to complete the other sections of the multi-purpose office block. Conflicts can arise between the site workers and visitors/workers at the CSAU.

Issues relating to crime and conflicts are rated minimal, short term and localised.

Based on the results of the environmental and social evaluation, a management and monitoring programme defining monitoring and follow-up activities, has been prepared and presented in the next chapter.
7. Environment and Social Management Plan

7.1 Introduction
This chapter provides a description of the measures that will be implemented to minimize the social and environmental impacts/risks of the proposed sub project as well as an indication of the responsibilities of organizations and individuals who will be involved in the implementation of the ESMP of the sub project. The environmental and social monitoring plan and estimated cost of the environmental and social management plan are also presented in this chapter.

7.2 Environmental and Social Management Plan (ESMP)
Positive and negative environmental and social impacts will occur through implementation of the proposed project. The ESMP presented in Table 6 below shows the:
- Identified impacts/risks (issues);
- Actions for mitigation related to each impact;
- Responsible agencies for implementing the mitigation measures;
- Responsibility for supervision; and
- Cost of implementing the mitigation measures

In addition, a monitoring plan has been prepared indicating the parameters to be monitored, phase, frequency, location, responsibility and cost of monitoring as well as monitoring indicators.

Also attached in the Appendices (Appendix D) are environmental and social clauses. These contractual clauses are to be inserted in the bid/contract documents and enforced during the construction phase of the project.
<table>
<thead>
<tr>
<th>Issue</th>
<th>Phase</th>
<th>Mitigation Measures</th>
<th>Location</th>
<th>Responsibility of Implementing Mitigation Measures</th>
<th>Supervision</th>
<th>Cost USD</th>
</tr>
</thead>
</table>
| Air and Noise Pollution      | Construction |  - All equipment will be serviced at least once a month  
  - Ensure manufacturers servicing and routine maintenance regulations and protocols will be adhered to for all construction equipment during servicing;  
  - Painters and workers engaged in the treatment of wood will be in nose masks, gloves overall and boots;  
  - Noise generation activities and delivery of supplies to the will be undertaken over the weekends and before 8.00 am and after 5.00pm when offices and others close to the project site are not at work or settled down to work;  
  - Haulage truck will be limited to 20km/h on haulage roads;  
  - Haulage trucks carrying materials to site will be covered with tarpaulin or an approved material | Project Site (Tema) Site Along Haulage routes | Project Contractor | Supervising Consultant | **No Separate Cost (Cost included in the BOQ)** |
| Generation of Waste          | Construction |  - Off cuts from pipes and electrical fittings as well as broken tiles will be reused for other civil works elsewhere;  
  - Wood residue, cement blocks and other waste will be used as fill material;  
  - Waste that cannot be reused will be transported to the Kpone Land fill site;  
  - Empty paint and solvent containers will be collected and kept in a well ventilated storeroom with a paved floor and returned to suppliers to be re-used;  
  - Two mobile toilets and three refuse bins will be provided on site;  
  - Mobile toilets will be dislodged after close of work every day  
  - Refuse will be collected by a private refuse collection company three times a week | Project Site (Tema) | Project Contractor | Supervising Consultant | **No Separate Cost (Cost included in the BOQ)** |
| Operational                  |           |  - Sewer will be connected to the Tema Central Sewerage System  
  - Three (3) refuse bins will be provided on the premises,  
  - Refuse bins will be emptied three times a week by the private waste collectors | Project Site (Tema) | Project Contractor | Supervising Consultant | USD **120.00** *(Cost covers USD 120.00 the supply of 3 refuse bins @ USD 40.00 per bin)* |
### Potential Generation of Hazardous Waste

<table>
<thead>
<tr>
<th>Issue</th>
<th>Phase</th>
<th>Mitigation Measures</th>
<th>Location</th>
<th>Responsibility of Implementing Mitigation Measures</th>
<th>Supervision</th>
<th>Cost USD</th>
</tr>
</thead>
</table>
|       | Construction | If hazardous materials such as asbestos or wall painted with lead paints are encountered during demolishing the following will be undertaken after notifying the supervising consultant:  
- The material will be dowsed with water and cut into appropriate sizes with snap cutters for easy transportation;  
- The material will be covered with (tarpaulin) and sealed with duct tape to make them air tight. They will be marked as “hazardous material” and transport to the at speeds less than 20 km/hr during off peak hours Kpone Landfill site for burial in lined (geo textiles) pits;  
- Specialised personnel clothed in rubber coverall with hoods and non-laced rubber boot wearing respiratory protective equipment with a HEPA filter will be used in the removal and disposal of the hazardous material  
- The pit will be covered with the geo-textile material and laterite will be spread to a thickness of 20cm. The area will be fenced and markers/warning signs will be placed in the vicinity. | Project Site/Kpone Landfill site | Project Contractor | Supervising Consultant | No Separate Cost |

### Accidents/ Occupational Health and Safety Risks

<table>
<thead>
<tr>
<th>Issue</th>
<th>Phase</th>
<th>Mitigation Measures</th>
<th>Location</th>
<th>Responsibility of Implementing Mitigation Measures</th>
<th>Supervision</th>
<th>Cost USD</th>
</tr>
</thead>
</table>
|       | Construction | the working area to prevent unauthorised persons from accessing the working area;  
- Hoarding of the site will be undertaken using wood or an approved material by the Supervising Consultant;  
- Two mobile toilets and three refuse bins will be provided for site workers;  
- Adequate prohibitive, warning and directional signs will be provided on site;  
- All workers will undergo medical screening before they are employed on site;  
- Only healthy workers will be employed on site;  
- Personal Protective Equipment (PPE), namely, hard hats, reflector jackets, overalls and boots for all workers on site and others such as nose masks, hand gloves and ear plugs for workers whose tasks require these PPEs will be supplied and its use will be enforced;  
- Provide potable water for site workers;  
- At least two (2) fire extinguishers, three (3) First Aid Kit will be provided on site and made accessible to site workers; | Project Site | Project Contractor | Supervising Consultant | No Separate Cost |
<table>
<thead>
<tr>
<th>Issue</th>
<th>Phase</th>
<th>Mitigation Measures</th>
<th>Location</th>
<th>Responsibility of Implementing Mitigation Measures</th>
<th>Supervision</th>
<th>Cost USD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Health and Safety Risks</td>
<td>Construction</td>
<td>Delivery trucks and construction vehicles will drive below the 20km/hr speed limit;</td>
<td>Project Site</td>
<td>Project Contractor</td>
<td>PIU</td>
<td>USD 1,620.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Delivery of materials will be undertaken before working hours (9.00am to 5.00pm) on weekdays or over the weekend;</td>
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<tr>
<td></td>
<td></td>
<td>Sections of the building to be refurbished will be cordoned off to prevent unauthorised persons from accessing the working zone;</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Visitors to the sites will be provided with safety gear e.g. reflector vests, hard boots and helmets</td>
<td></td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Provide alternative access to the premises that avoids work areas</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>HIV/AIDS, STI and Illicit Sexual Affairs</td>
<td>Construction</td>
<td>Contractors’ employees will be sensitised on the dangers associated with illicit sexual affairs e.g. risk of catching STDs and criminality</td>
<td>Tema township/Project site</td>
<td>Regional Lands Officers</td>
<td>PIU</td>
<td>No Separate Cost</td>
</tr>
<tr>
<td></td>
<td></td>
<td>One HIV/AIDS/STI Awareness Training for employees of the contractor will be undertaken prior to the commencement of work</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>200 condoms will be distrusted to contractor’s employees per site every month</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- All workers are to be given contracts specifying the type of work they are to undertake and their remuneration package as well as the conditions of service in line with the Labour Act, 2003;
- Clear sanctions and rewards for non-compliance and compliance respectively will be inserted in the Code of Conduct to be signed by the contractors and their employees;
- A Health and Safety Officer will be employed to oversee the health and safety aspects of the works, hold daily briefing sessions (tool box meetings) with site workers prior to commencement of work and enforce a No PPE-No site entry policy;
- Contact numbers of the nearest health facility, fire station and police station will be pasted at visible points on site; One training programme in occupational health and safety for the employees of the contractors will be conducted.

(USD includes USD120.00 for procuring 200 condoms for six months @ USDc 0.1 per condom, and USD 1,500.00 for HIV/AIDS and STI awareness)

(Project already has grievance redress mechanism)
<table>
<thead>
<tr>
<th>Issue</th>
<th>Phase</th>
<th>Mitigation Measures</th>
<th>Location</th>
<th>Responsibility of Implementing Mitigation Measures</th>
<th>Supervision</th>
<th>Cost USD</th>
</tr>
</thead>
</table>
| Increase in Crime and Conflict | Construction | - Code of Conduct will be prepared and signed by contractor’s employees to prevent rape, defilement and other illicit sexual affairs during the construction phase (see Appendix E for guidelines for preparing a Code of Conduct)  
- Insert contractual clauses against rape, defilement and other illicit affairs as well as child and forced labour and discrimination by sex, ethnicity, etc. | Tema township | Regional Lands Officers | PIU | No Separate Cost  
(Project already has grievance redress mechanism) |
7.3 Institutional Arrangements for Implementing the ESMP

The PIU of the Lands Commission will be solely responsible for the implementation of ESMP during the construction phase. The PIU will be responsible for the following:

i. the insertion of relevant mitigation measures (to cost) in the bidding documents prior to its advertisement;

ii. the insertion of the environmental and social clauses in the construction and supervision contracts;

iii. reviewing environmental reports submitted by the project contractors and supervising consultants during the construction phase on agreed template/frequency/mechanism;

iv. monthly monitoring for the environmental, social, health and safety performance (compliance and non-compliance) of works contractors during the project implementation; and

v. enforcing the requirements in the ESMP including environmental and social clauses.

Since the PIU is not staffed with environmental and social safeguards specialists, it intends to procure the services of a short-term individual environmental and social safeguards specialist to perform the functions enumerated above on its behalf. He/She will submit monthly reports on the environmental and social performance of the contractor, including non-compliance issues, to the PIU.

The specialist shall have at least a master’s degree in environmental science, environment and development, environmental management or development studies with a minimum ten years post qualification experience and membership of a relevant professional body. He/she shall be familiar with the World Bank environmental and social safeguards policies, Ghana’s environmental laws and building regulations that relate to the proposed sub projects. He/She will show evidence of undertaking at least two environmental and social monitoring assignments in the past two years.

In addition, there will be a supervising consultant (engineer or architect) on each site charged with the day-to-day supervision of the works. The supervising consultant also will be responsible for enforcing environment, social, health and safety provisions in the ESMP and the works contract. The responsibilities of the supervising consultant will also include ensuring that recommendations proffered by the environmental and social safeguards specialist during monthly monitoring visits are carried out within the specified timelines.

During the post construction phase of the project, the Lands Commission will be responsible for the management of the office. The Regional Lands Officers will be managers of the new office.

7.4 Environmental Monitoring

Although the Lands Commission will be solely responsible for the monitoring of the ESMP, other institutions namely EPA, Ministry of Lands and Natural Resources and the various assemblies may undertake ad hoc monitoring of the environmental and social performance of the project. Relevant legislative instruments such as Act 936 and Act 490 back the oversight and monitoring roles assigned to these agencies. The World Bank will also undertake implementation support missions and recommend capacity strengthening and other measures in support of good environmental governance and industrial practices. The monitoring roles of other non-state actors such as the public will also be complementary in ensuring smooth project implementation and sound environmental performance by the Contractor.

The Lands Commission has a PIU in charge of implementing the Land Administration Project. Since the PIU of the Lands Commission does not have an in-house environmental and social safeguards specialist, it intends to procure a short-term environmental and social safeguards specialist to undertake monthly monitoring of the civil works during the construction phase.

The monitoring roles during the construction phase of the project are presented in Table 4.
### Table 4: Environmental & Social Monitoring Plan

<table>
<thead>
<tr>
<th>Item</th>
<th>Phase</th>
<th>Location</th>
<th>Monitoring Parameter/Indicator</th>
<th>Frequency</th>
<th>Responsibility for Monitoring</th>
<th>Monitoring Cost (GH¢)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase in Illicit Sexual Affairs and STDs</td>
<td>Construction</td>
<td>On site</td>
<td>Number of sensitisation campaigns organised</td>
<td>Monthly</td>
<td>Short term Environmental and Social Safeguards Expert working on behalf of the PIU</td>
<td>No Separate Cost (Cost to be captured in the ESMP budget)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Number of condoms distributed to Contractors’ staff working on each site in a month</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Number of STD cases reported to local health facilities involving encounters with Contractors’ staff</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crime and Conflicts</td>
<td>Construction</td>
<td>On site</td>
<td>Number of conflicts/cases reported to the Grievance Redress Committee/Regional Lands Officers in Tema</td>
<td>Monthly</td>
<td>Short term Environmental and Social Safeguards Expert working on behalf of the PIU</td>
<td>No Separate Cost</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Number of conflicts/cases dealt with by the Grievance Redress Committee and/or the Regional Lands Officer in Tema</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Number of crimes such as theft, defilement and rape reported, investigated and concluded by the police involving the Contractors’ workers</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increase in Noise and Air Pollution</td>
<td>Construction</td>
<td>On site</td>
<td>Complaints from workers and visitors to the Tema premises</td>
<td>Monthly</td>
<td>Short term Environmental and Social Safeguards Expert working on behalf of the PIU</td>
<td>No Separate Cost</td>
</tr>
<tr>
<td>Accidents and Occupational Health and Safety/Community Safety</td>
<td>Construction</td>
<td>On site</td>
<td>Number of accidents recorded in the Accident Record Book</td>
<td>Monthly</td>
<td>Short term Environmental and Social Safeguards Expert working on behalf of the PIU</td>
<td>No Separate Cost</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Number of OHS and hygiene training programmes provided for contractors’ staff.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Number of workers on site wearing the appropriate PPEs</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Item</td>
<td>Phase</td>
<td>Location</td>
<td>Monitoring Parameter/Indicator</td>
<td>Frequency</td>
<td>Responsibility for Monitoring</td>
<td>Monitoring Cost (GHC)</td>
</tr>
<tr>
<td>-----------------------------</td>
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<td>----------</td>
<td>-------------------------------------------------------------------------------------------------</td>
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<td>-----------------------</td>
</tr>
</tbody>
</table>
| **Solid and Liquid Waste Management** | Construction/Operational | On site  | Number of mobile toilets and dustbins provided on site  
|                             |                     |          | Number of times waste is lifted in a week  
|                             |                     |          | Clean site  
|                             |                     |          | Odour  
|                             |                     |          | Presence of human waste on site  
|                             |                     |          | Complaints by workers within the project zone and visitors                                    | Entire Construction period | Short term Environmental and Social Safeguards Expert working on behalf of the PIU | No Separate Cost      |
| **Construction Waste**      | Construction        | On site  | Clean site  
|                             |                     |          | Number of complaints from workers and visitors to the project site                             | Entire Construction period | Short term Environmental and Social Safeguards Expert working on behalf of the PIU | No Separate Cost      |

* not more than two studies will be undertaken
7.5 Environmental Reporting and Disclosure
The LAP 2 PIU will disclose the ESIA on its website once it is approved by the project and cleared by the World Bank. Hard copies of the ESIA shall also be placed in the head and regional offices of the Lands Commission as well as the metropolitan and municipal offices of the participating Assemblies for public viewing. The World Bank will disclose the ESIA at the World Bank’s External Website.

As part of monitoring the ESMP, it is expected that the Supervising Consultants will dedicate a chapter in their monthly progress reports to present the state of the environmental and social safeguards on the project. This will be validated by the Independent Environmental and Social Safeguards Expert procured by the PIU. The report should include but not limited to:

i. Contractors’ performance on implementing environmental and social safeguards;
ii. Progress on implementing mitigation measures in relation to the identified impacts;
iii. Emerging impacts and proposed mitigation measures (if encountered);
iv. A presentation on parameters monitored in the reporting month; and
v. Activities to be taken in the next month

7.6 Estimated Cost of the ESMP
The estimated cost for implementing this ESMP, outside the works contract price is Seven Thousand, Two Hundred and Sixty United States Dollars (USD7, 260.00). The Land Administration Project has the responsibility of providing this amount for the implementation of the ESMP. Table 8 presents the summary cost estimates.

<table>
<thead>
<tr>
<th>S/N #</th>
<th>Item</th>
<th>Amount (USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Sensitisation Programme for STDs and Distribution of Condoms</td>
<td>1,620.00</td>
</tr>
<tr>
<td>2.</td>
<td>Occupational Health and Safety Training for Site Workers</td>
<td>1,500.00</td>
</tr>
<tr>
<td>3.</td>
<td>Two Waste bins for the Tema CSAU during the Operational Phase</td>
<td>120.00</td>
</tr>
<tr>
<td>4.</td>
<td>Monthly Environmental Monitoring Visits</td>
<td>4,020.00</td>
</tr>
<tr>
<td>6.</td>
<td><strong>Total</strong></td>
<td><strong>7,260.00</strong></td>
</tr>
</tbody>
</table>

*Cost includes professional fees and daily subsistence allowance for the environmental and social expert as well as transportation cost to undertake monthly monitoring for the six (6) months project duration.
8. Emergency Response Procedures on Site

Response measures have been proposed for the following emergencies which may arise during project implementation:

- Fire;
- Medical or Accident; and
- Oil Spills.

8.1 Fire Emergency

8.1.1 Small Fires

Small fires are put out quite safely. A simple fire-fighting procedure to put out a small fire is provided below:

- The first person to sight the fire must sound the fire alarm if at the workshop/work zone/office premises or shout, ‘FIRE!! FIRE!! FIRE!!’, if at the construction zone;
- Workers trained to use fire extinguishers are permitted to fight fire on site;
- All others must evacuate the area;
- Tackle fire in its very early stages at the source;
- Always put your own and other people’s safety first;
- Make sure you can escape if you need to and never let a fire block your exit;
- Never tackle a fire if it is from a position against the prevailing wind direction and if the source cannot be determined. If in an enclosed area such as workshop/office premises, never tackle a fire if it is starting to spread or has spread to other items in the room or if the room is filling with smoke;
- If the situation is solved, the Environment, Social Health and Safety Officer of the Contractor will investigate the reason for the fire and clean the place; and
- Report to the Supervising Engineer for the necessary precautionary measures to be undertaken.

8.1.2 Large Fires

These are fires that cannot be put out by the trained fire volunteers and the GNFS will have to be called to fight it. The evacuation procedures to follow include:

- The first person to sight the fire must sound the fire alarm if at the warehouse/workshop/office premises or shout, ‘FIRE!! FIRE!! FIRE!!’, if at the construction zone/workshop;
- Evacuate the building or area and report at the ASSEMBLY POINT;
- Immediately notify the Environment, Social Health and Safety Officer of the Contractor and call the Ghana National Fire Service;
- Contact numbers of the nearest fire station will be conspicuously displayed at offices, storerooms, workshop and security posts;
- The Environment, Social Health and Safety Officer of the Contractor has to check on remaining workers and carry out a fast, calm and secured evacuation;
- A head count will be conducted to ensure all workers are safe and present;
- If there have been any casualties, they will be conveyed to the nearest health facility; and
- Keep records of any injuries and the fire event and report to the Supervising Consultant.

8.2 Medical or Accidents

In the event of any accident or injury the procedures to follow include:
• If it is a minor accident/injury and the victim can move, he/she should report to the Environment, Social, Health and Safety Officer of the Contractor;
• The Environment, Social, Health and Safety Officer of the Contractor, who is trained in administering first aid, will treat the injury;
• He/She will decide if the victim needs further treatment at the Medical Centre and if so will arrange for the victim(s) to be sent to the nearest health facility immediately;
• The Environment, Social Health and Safety Officer of the Contractor will investigate and take records of the accident/injury including the source and cause of the accident/injury;
• If the accident/injury is such that the victim cannot move by himself/herself but can be moved, the workers present should assist the victim to the Environment, Social Health and Safety Officer of the Contractor to administer first aid and arrange for the person to be sent to the nearest health facility immediately. If the accident/injury is such that the victim cannot be moved, the workers present should put him in a stable condition and immediately call the Environment, Social Health and Safety Officer of the Contractor to immediately arrange for medical staff from the nearest health facility to be brought to the site to attend to the victim(s). All accidents and injuries will be recorded by the Environment, Social Health and Safety Officer of the Contractor and reported to Supervising Consultant;
• All injuries will have to be reported as part of the periodic safeguards reports.
• For major injuries the reports will need to be made within 3 days of its occurrence.

8.3 Oil/Solvent Spills

Oil spills may involve spillages of fuel and lubricants which may occur whiles in storage or in use on hard surfaces (concreted/tiled/paved floor) such as at storage sheds/rooms, workshop or on the ground.

8.3.1 Spillage on Hard Surface

Immediately contain the spillage using saw dust provided at the site to prevent it from spreading. Collect the used saw dust, wash the surface with a lot of water and disinfectant and report to the Environment, Social Health and Safety Officer of the Contractor who will decide the appropriate disposal of the used saw dust. If the spilled product gets into contact with any part of the body, quickly wash the body part with a lot of clean running water and immediately report to the Supervising Consultant.

8.3.2 Spillage on the Ground

• Immediately use a shovel to scoop the contaminated soil into a container.
• Ensure to scoop beyond the contaminated area to ensure no contaminated soil is left uncollected.
• Immediately report to the Environment, Social Health and Safety Officer of the Contractor and dispose of the contaminated soil at the approved land fill site;
• If the spilled product gets into contact with any part of the body, quickly wash the body part with a lot of clean running water and immediately report to the Environment and Safety Manager; and
• Report the incident to the Supervising Consultant.
9. Grievance Redress Mechanisms

9.1 Basis for Grievance Redress Mechanism
The consultation processes showed that the execution of the project will generate environmental and social concerns notably possible accidents involving the general public. These will create some grievances that must be addressed.

9.2 Grievance Redress Process
There is no ideal model or one-size-fits-all approach to grievance resolution. The best solutions to conflicts are generally achieved through localized mechanisms that take account of the specific issues, cultural context, local customs, and project conditions and scale. In its simplest form, grievance mechanisms can be broken down into the following primary components:

- Receiving and registering a complaint;
- Screening and assessing the complaint;
- Formulating a response;
- Selecting a resolution approach;
- Implementing the approach;
- Announcing the result;
- Tracking and evaluating the results;
- Learning from the experience and communicate back to all parties involved; and
- Preparing timely reports to management on the nature and resolution of grievances.

9.3 Expectation When Grievances Arise
When local people present a grievance, they expect to be heard and taken seriously. Therefore, the PIU of Land Administration Project, Lands Commission and others such as the Supervising Consultant are involved in one aspect of the project or other must convince people that they can voice grievances and work to resolve them without retaliation. All or any of the following is or are expected from the project management/channel of grievance resolution by aggrieved party or parties:

- acknowledgement of their problem;
- an honest response to questions/issues brought forward;
- an apology, adequate compensation or mitigation; and
- modification of the conduct that caused the grievance and some other fair remedies.

9.4 Management of Reported Grievances
The procedure for managing grievances should be as follows:

- The affected person files his/her/their grievance(s), relating to any issue, verbally, in writing or via telephone to the Regional Lands Officer. Where such are written, the grievance note should be signed and dated by the aggrieved person. Where complaints are received via phone, the call recipient should document all details;
- A selected member of the Grievance Redress Committee will act as the Project Liaison Officer who will be the direct liaison with aggrieved parties in collaboration with an independent agency person ensure to objectivity in the grievance process;
- Where the affected person is unable to write, the local Project Liaison Officer will write the note on the aggrieved person’s behalf;
- Any informal grievances will also be documented

9.5 Monitoring Complaints
The Project Liaison Officer will be responsible for:

- Providing the Grievance Redress Committee with a weekly report detailing the number and status of complaints;
- Any outstanding issues to be addressed;
- Monthly reports, including analysis of the type of complaints, levels of complaints, actions to reduce complaints and initiator of such action.

9.6 Grievance Redress Institutions

A three-tier grievance redress mechanism has been designed in the event of dissatisfaction of any aspects of project implementation. These are:

9.6.1 Regional Lands Officer

The Regional Lands Officer will be the first point of call in the event of any grievance arising out of the implementation of the works. He/She will receive, document, investigate and provide feedback on the lodged grievance within 3 working days upon receipt of a grievance. The Regional Lands Officer, as the Project/GRC Liaison Officer, will also provide project information to stakeholders.

9.6.2 Grievance Redress Committee (GRC)

A Grievance Redress Committee will be set up in Tema. The committee will receive, investigate and provide feedback on grievances that are beyond the Regional Lands Officer or when aggrieved persons are not satisfied with the feedback they receive from the Regional Lands Officer upon lodging a grievance with him/her. The committee will be made up of:

- A representative of the PIU;
- The Project/Supervising Consultant;
- A representative of beneficiary Assembly;
- A representative of the Lands Commission;
- A representative of the contractor;
- A representative of the Aggrieved Party; and
- A representative of Civil Society Coalition on Land in the Region

The functions of the grievance redress committee will be to receive, investigate and resolve issues with the Contractor. The aggrieved party or parties is/are required to channel their grievances to the GRC through any means including verbal narration, telephone calls, text messages and letters. The Committee will sit as-and when complaints are lodged. The grievance redress process, at this level, shall follow the chain below in resolving grievances, including introducing any other initiatives that could compliment the effectiveness of the process:

(i) Receive grievances (logging);
(ii) Acknowledgement of grievances;
(iii) Verification, investigation, negotiations, and actions;
(iv) Monitoring and evaluation;
(v) Provide Feedback to parties;
(vi) Agreement secured, and
(vii) Signing off.

Grievance will be received and transmitted on to an official form and the applicant will be duly notified within 3 days of lodging a complaint. If the grievance can be resolved by the Grievance Committee, corrective actions will be determined. After the case is evaluated and corrective action determined, the proposed solutions or corrective/preventive actions shall be discussed with the complainant together with the timeframe for the implementation of the corrective/compensation measures. If the resolution of the grievance requires commitment beyond the Grievance Redress Committee, the members shall coordinate and consult with relevant authorities. The party responsible for implementing the corrective measures shall be recorded in the Grievance Closeout Form. Once an agreement has been reached between the applicant and the party responsible for the corrective actions, the applicant will be asked to sign off the grievance closeout form. If the applicant remains dissatisfied with the outcome, additional corrective action will be agreed on and carried
out by the responsible party. The Grievance Redress Committee will have to address grievance it receives with 10 working days.

**9.6.3 Court of Law**

The third tier of grievance redress is the Court of Law. By the laws of Ghana, when all the forms of alternative dispute resolution fail, the law courts represent the last resort for an aggrieved person. Under this project, the courts will also represent the last resort when the first and second tiers fail to bring a satisfactory outcome to the aggrieved party/parties.

It is anticipated that the number of cases, which may need to be referred for redress, will be relatively small and that only the first and second tiers of the redress mechanism may need to be activated. The mediation process shall be confidential, transparent, and objective, as well as accountable, easy, fast, accurate and participatory. The Land Administration Project shall offer training in communication and other relevant areas for the Grievance Redress Committee.

**9.7 Grievance Redress Mechanisms for Workers on Site**

The proposal is to establish a hot line that aggrieved workers can call to register their grievances directly to the management level personal of the Construction Firm that will be implementing the works. This contact number must be advertised so that workers are aware of it and encourage to use it without being intimated or targeted for negative feedback. Workers may also lodge their grievance through writing or verbally. If the aggrieved worker is not satisfied with the feedback of management, he can proceed to court. Similar timelines for the community level grievance redress process applies here.
10. Decommissioning

When all the refurbishment works are completed, a decommissioning exercise would be carried out in such a way as to minimize negative impacts. It is envisaged that before any decommissioning starts, utility supplies to all temporary structures, e.g. workshops and sheds used by the contractor would be disconnected. This would be followed with dismantling of these structures. The dismantled parts including wood pieces and sandcrete blocks will be arranged according to type and prepared for transportation to the Contractor’s yard or sold to dealers for other civil works. The unwanted ones will be hauled to waste disposal sites approved by the Tema Metropolitan Assembly. All equipment and machinery that are usable will be moved to a new project site or sent to the Contractor’s packing yard. Non-useable equipment and metals will be sold as scrap to the scrap dealers.
11. References


Appendix A. Locational Maps

Fig. 1: Project Site Location Map (Uncompleted Multi-Purpose Office Block for Tema Metropolitan Assembly)
Figure 3: Typical Plan of a Client Service and Access Unit (CSAU)
Appendix B. Pictures

Plate 1: Site Visit with MCE of Tema
Plate 2: Consultation with EPA
Plate 3: Project Building (Uncompleted Block) - Tema
Plate 4: One of the Rooms Allocated for the CSAU in Tema
Plate 5: Two of the Washrooms to be Refurbished
Plate 6: Alternative Access to the Site - Tema
Plate 7: Exterior of an Existing Standalone CSAU (Accra)

Plate 8: Interior of an Existing CSAU (Accra)
Appendix C. Public Consultations and Disclosure

Stakeholder Identification
Stakeholder identification and consultation is an integral part of an Environmental and Social Assessment. Primary stakeholders are directly affected by the project impacts and outcomes, while secondary stakeholders are affected only indirectly. The Lands Commission and the Land Administration Project (PIU) are the primary stakeholders of this project, while the World Bank, Environmental Protection Agency and the Ministry of Lands and Natural Resources are the secondary stakeholders identified under this project. These stakeholders were identified based on review of safeguards reports for similar office refurbishment assignments.

Stakeholders Consulted
The stakeholders consulted were officials of the Environmental Protection Agency and Tema Municipal Assembly (see Appendix A: Plate 1 and 2 for consultation pictures and consultation sheets in Error! Reference source not found.).

Consultation Process and Channels Used
The consultation process involved arranged meetings with stakeholders and building inspections.

Consultation Matrix
The matrix of decisions taken at the stakeholder consultation as well as issues discussed, meeting attendance and date of consultation are captured in Table 9. During the stakeholder consultations, the major issues included safety of clients and workers during the operation of the project when other sections of the uncompleted multi-purpose office block are under construction.
### Table 5: Consultation Matrix

<table>
<thead>
<tr>
<th>Stakeholder</th>
<th>Date of Consultation</th>
<th>*Attendance/ No. Of Officials Consulted</th>
<th>Channel of Consultation</th>
<th>Issues Consulted On</th>
<th>Conclusions Arrived at</th>
</tr>
</thead>
</table>
| Environmental Protection Agency (Tema)            | 17<sup>th</sup> August 2018 | 1                                      | Properly arranged meeting | Liquid and solid waste management  
Parking space for client during the operational phase  
Environmental Permit has expired | Environmental permit not Valid  
TMA must renew permit |
| Tema Metropolitan Assembly                        | 17<sup>th</sup> August 2018 | 5                                      | Site Visit              | Specific section of the multi-purpose office allocated to the Lands Commission       | The Assembly has agreed to allocate sixteen rooms on the ground floor for the project |
Consultation and Disclosure of the ESIA Report
The LAP 2 PIU will disclose the ESIA on its website, once it is approved by the project and cleared by the World Bank. Hard copies of the ESIA shall also be placed in the Head and Regional offices of the Lands Commission, the PIU office as well as the Metropolitan for public viewing throughout the construction phase of the project. The World Bank will disclose the ESIA at the World Bank’s External Website.
MINISTRY OF LANDS AND NATURAL RESOURCES

LAND ADMINISTRATION PROJECT II ADDITIONAL FINANCING (LAP 2-AF) CONSULTANCY FOR ENVIRONMENTAL AND SOCIAL IMPACT ASSESSMENT (ESIA) AND ABBREVIATED RESETTLEMENT ACTION PLAN (ARAP)

Name of Organization: Emnion

Date of Consultation:..................................................  Time:.......................... Interviewer(s):.................................

<table>
<thead>
<tr>
<th>NAME OF CONSULTEE(S)</th>
<th>POSITION</th>
<th>CONTACT NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irene Opoku</td>
<td>Director - Tema Region</td>
<td>0501301623</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ISSUES DISCUSSED</th>
<th>CONCERNS</th>
<th>RECOMMENDATIONS/ CONCLUSIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Brief</td>
<td></td>
<td>Permit is not valid</td>
</tr>
<tr>
<td>Lands Commission has gone into an agreement with TMA to use 3 offices for their new office complex as an office for the Lands Commision. The consultant was advised to seek for the EPA's Permit to be assessed.</td>
<td>Parking</td>
<td>TMA must renew the Environmental Permit.</td>
</tr>
<tr>
<td></td>
<td>Environmental Permit</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Waste Management Plan</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NAME: Irene Opoku  SIGNATURE: Environmental Protection Agency

DATE: 17-08-2018
Appendix D. Environmental and Social Clauses

In order to ensure the proposed mitigation measures are implemented by the Contractor as well as other responsible parties, the following Contractual Clauses are to be inserted into the Works Contract for the Contractors executing the works:

General
1. In addition to these general conditions, the Contractor shall comply with any specific Environmental and Social Management Plan (ESMP) for the works for which he/she is responsible. The Contractor shall inform himself about such an ESMP, and prepare his work strategy and plan to fully incorporate relevant provisions of that ESMP. If the Contractor fails to implement the approved ESMP after written instruction by the Supervising Consultant (SC) of the Project Consultant to fulfill his obligation within the requested time, the client reserves the right to arrange through the SE for execution of the missing action by a third party on account of the Contractor.

2. Notwithstanding the Contractor’s obligation under the above clause, the Contractor shall implement all measures necessary to avoid undesirable adverse environmental and social impacts wherever possible, restore work sites/areas to acceptable standards, and abide by any environmental performance requirements specified in the project ESMP. In general, these measures shall include but not be limited to:
   - Ensure that noise levels emanating from machinery, vehicles, and noisy construction activities (e.g. excavation) are kept at a minimum for the safety, health, and protection of workers within the vicinity of high noise levels and nearby communities.
   - Ensure that garbage, sanitation and drinking water facilities are provided for construction workers.
   - Ensure that, in as much as possible, local materials are used to avoid importation of foreign material and long-distance transportation.
   - Ensure public safety for the operation of work to avoid accidents.
   - Ensure contractor workers do not involve themselves in illicit sexual activities with the girls or women in the project communities.

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

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

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

Water Resources Management
6. No construction material containing spoils or site effluent, especially cement and oil, shall be allowed to flow into natural water drainage courses.
7. Wash water from washing equipment shall not be discharged into road drains
8. Site spoils and temporary stockpiles shall be located away from the drainage system and surface run off shall be directed away from stockpiles to prevent erosion.

**Disposal of Unusable Elements**
9. Unusable materials and construction elements such as electro-mechanical equipment, pipes, accessories and demolished structures will be disposed of in a manner approved by the EPA and supervised by the SC of the project consultant. The Contractor has to agree with the SE which elements are to be surrendered to the Client’s premises, which will be recycled or reused, and which will be disposed of at approved landfill sites.
10. Unsuitable and demolished elements shall be dismantled to a size fitting on ordinary trucks for transport.
11. Left over materials will be collected and used for other purposes.

**Health and Safety**
12. In advance of the construction work, the Contractor shall mount an awareness and hygiene campaign. Workers and local residents shall be sensitized on health risks particularly of AIDS.
13. Adequate directional, prohibitory signs to workers and visitors of construction activities, alternative exits etc shall be provided at appropriate points.
14. Construction vehicles shall not exceed maximum speed limit of 20km per hour.
15. Site workers must undergo medical screening before they are employed
16. Enforce a policy of No-PPEs No Site Entering

**Illicit Sexual Affairs, HIV/AIDs and STI Awareness**
17. The Contractor shall undertake HIV/AIDs awareness in the communities targeting young women/girls as well as his own employees and present accompanying reports to the SC.
18. Contractors shall clearly state in their contracts with employees and third-party suppliers that they do not condone rape, defilement, and illicit sexual behaviour - together with sanctions for breaching these provisions.
19. Works Foreman shall report any incidence of rape, defilement or other illicit sexual affairs to the SE and the nearest police station.

**HSE Reporting**
20. The Contractor shall prepare an ESMP based on the Project ESMP for review and approval of the LAP 2-PIU before the commencement of works
21. The Contractor shall prepare a Code of Conduct for all his employees and third party suppliers on the project for review and approval by LAP 2 PIU before the commencement of works
22. The Contractor shall explain the content of the approved Code of Conduct to the employees and third party suppliers and then sign it off with them individually before the commencement of works
23. The Contractor shall prepare monthly progress reports to the SE on compliance with these general conditions, the project EMP if any, and his own EHS-MP. An example format for a Contractor HSE report is given below. It is expected that the Contractor’s reports will include information on:
   - HSE management actions/measures taken, including approvals sought from local or national authorities;
   - Problems encountered in relation to HSE aspects (incidents, including delays, cost consequences, etc. as a result thereof)
   - Changes of assumptions, conditions, measures, designs, and actual works in relation to HSE aspects; and
   - Observations, concerns raised and/or decisions taken with regard to HSE management during site meetings
24. It is advisable that reporting of significant HSE incidents be done “as soon as practicable”. Such incident reporting shall therefore be done individually. Also, it is advisable that the Contractor keeps his own records on health, safety and welfare of persons, and damage to property. It is advisable to include such records, as well as copies of incident reports, as appendixes to the bi-weekly reports. An Example
formats for an incident notification and detailed report are given below. Details of HSE performance will be reported to the Client through the SE’s reports to the Client.

Labour Relations
25. The contractor shall not employ minors (below 18 years) as part of his casual of permanent employees
26. The contractor shall not engage in forced labour of kind including forcing employees to work on statutory holidays
27. The contractor shall not procure goods or services from third party suppliers that engage child or forced labour
28. The contractor in his recruitment shall not discriminate by gender, religion and ethnicity.
29. The contractor shall set up a fair and transparent work-based grievance redress system headed by a management member and protect aggrieved employees against discrimination and persecution.

Training of Contractor’s Personnel
30. The Contractor shall provide sufficient training to his own personnel to ensure that they are all aware of the relevant aspects of these general conditions, any project ESMP and are able to fulfil their expected roles and functions. Specific training should be provided to those employees that have particular responsibilities associated with the implementation of the EHS-MP. General-topics should be:
   – HSE in general (working procedures);
   – Emergency procedures; and
   – Social and cultural aspects (awareness creation on social issues).

Cost of Compliance
31. It is expected that compliance with these conditions is already part of standard good workmanship and state of art as generally required under this Contract. The item “Compliance with Environmental Management Conditions” in the Bill of Quantities covers these costs. No other payments will be made to the Contractor for compliance with any request to avoid and/or mitigate an avoidable HSE impact.

Sanction
29. In application of the contractual agreements, the lack of respect of the environmental and social clauses, duly observed by the consultant, could be a justification for termination of the contract.
Appendix E. Sample Guideline for Preparing a Code of Conduct

A satisfactory bidder’s code of conduct shall contain obligations on all project staff (including sub-contractors and day workers) that are suitable to address the following issues, as a minimum. Additional obligations may be added to respond to particular concerns of the region, the community and the project. The issues to be addressed include:

1. Compliance with applicable laws, rules, and regulations of Ghana and applicable World Bank Policies;
2. Compliance with applicable health and safety requirements (including wearing prescribed personal protective equipment, preventing avoidable accidents and a duty to report conditions or practices that pose a safety hazard or threaten the environment);
3. The use of illegal substances;
4. Non-Discrimination (for example on the basis of family status, ethnicity, race, gender, religion, language, marital status, birth, age, disability, or political conviction);
5. Interactions with community members (for example to convey an attitude of respect and non-discrimination);
6. Sexual harassment (for example to prohibit use of language or behaviour, in particular towards women or children, that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate);
7. Violence or exploitation (for example the prohibition of the exchange of money, employment, goods, or services for sex, including sexual favours or other forms of humiliating, degrading or exploitative behaviour);
8. Protection of children (including prohibitions against abuse, defilement, or otherwise unacceptable behavior with children, limiting interactions with children, and ensuring their safety in project areas);
9. Sanitation requirements (for example, to ensure workers use specified sanitary facilities provided by their employer and not open areas)
10. Avoidance of conflicts of interest (such that benefits, contracts, or employment, or any sort of preferential treatment or favours, are not provided to any person with whom there is a financial, family, or personal connection);
11. Respecting reasonable work instructions (including regarding environmental and social norms);
12. Protection and proper use of property (for example, to prohibit theft, carelessness or waste);
13. Duty to report violations of this Code;
14. Non-retaliation against workers who report violations of the Code, if that report is made in good faith.

The Code of Conduct should be written in plain language and signed by each worker (both permanent and temporary) to indicate that they have:
1. Received a copy of the code;
2. Had the code explained to them;
3. Acknowledged that adherence to this Code of Conduct is a condition of employment, and
4. Understood that violations of the Code can result in serious consequences, up to and including dismissal, or referral to legal authorities.