# Federal Democratic Republic of Ethiopia
# Ministry of Health

## Ethiopian Public Health Institute

ጤና ሚኒስቴር - ኢትዮጵያ
MINISTRY OF HEALTH - ETHIOPIA
የዜጎች ጤና ለሃገር ብልፅግና!
HEALTHIER CITIZENS FOR PROSPEROUS NATION!

# Terms of Reference for Preparation of

# Environmental and Social Impact Assessment
# For

# Construction Biosafety Level (BSL) 2 Laboratories

# 1. Introduction

## 1.1 Background

Africa CDC Regional investment financing project will be implemented by Africa CDC, the government of Ethiopia and Zambia. It aims to support Africa CDC to strengthen continental and regional infectious disease detection and response systems. The proposed project will support vital institutional capacities for measurable functions by the Africa CDC headquarters in Addis Ababa, the SA-RCC in Lusaka, and the Ethiopian and Zambian health authorities.

The actions supported by ACDCP are organized under five strategic components: (i) governance, advocacy and operational frameworks; (ii) public health assets; (iii) human resource development; (iv) project management support; and (v) a CERC for Ethiopia and Zambia. Under component of public health assets, Regional capacities/activities (goods, technical services, and civil works) to be financed by the project, such as the design, (a)construction, equipping and furnishing and maintenance of a Biosafety Level 3 (BSL-3) national reference laboratory (NRL), (b) establishment of a Proficiency Testing System and panel production center, biobank Centre for reference materials, central warehouse, (c) construction, equipping and furnishing of 15 laboratories along Ethiopia's borders; (d) equipping and furnishing 8 Biosecurity Level 2 (BSL-2) laboratories already constructed by the Global Fund.

One of the activities to be financed by the Project in Ethiopia is the construction of 15 Biosafety Level 2 (BSL2) Laboratories in Ethiopia (table 1) and during the project endorsement, an environmental and social management framework (ESMF) was prepared based on the World Bank's environmental and social safeguard policies for this project. However as part of the ESMF and WB requirement, Environmental and Social Impact Assessment (ESIA) for the construction of BSL 2 laboratories project should be conducted and prepared reports. As it is necessary to ascertain the socio-economic and environmental implications of the proposed project on the society. In order to obtain the environmental permits and funding approvals for the construction of 15 BSL 2 Laboratories, Ethiopian Public Health Institute (EPHI/ the Ministry of Health (MOH) plan to carry out an Environmental and Social Impact Assessment (ESIA) for 15 BSL 2 Laboratories, which will have to comply with the environmental procedures of the Ethiopian Environment, Forest and Climate Change Commission (EFCCC) and World Bank (WB).

Therefore, EPHI is seeking a qualified Consultancy Firm to prepare an environmental and social impact assessment report and an Environmental and Social Management Plan (ESMP) for the proposed Biosafety Level 2 (BSL2) laboratories construction by the project through the country (see table 1).

**Table 1: Locations of the BSL2 Reference Laboratories to be constructed by the project eligible for ESIA**

| S.n | Town | Region | Remark |
|---|---|---|---|
| 1. | Humera | Tigray | |
| 2. | Maychew | Tigray | |
| 3. | Elider | Afar | |
| 4. | Metema | Amhara | |
| 5. | Debrebirhan | Amhara | |
| 6. | Yabelo | Oromia | |
| 7. | Negele | Oromia | |
| 8. | Dembidollo | Oromia | |
| 9. | Ginnir | Oromia | |
| 10. | Dolo Odo | Somali | |
| 11. | Gode | Somali | |
| 12. | Assosa | Benishangule Gumiz | |
| 13. | Jinka | SNNPR | |
| 14. | Mizan Aman | SNNPR | |
| 15. | Gambella | Gambella | |

## 1.2 Objective of the Consultancy

The main objective of this consultancy is to conduct an Environmental and Social Impact Assessment (ESIA) and develop an Environmental and Social Management Plan (ESMP) for the investment proposal for construction of 15 BSL 2 Laboratories in the country that will provide the decision makers with sufficient information to justify acceptance, modification or rejection of the proposed project for financing and implementation.

## 1.3 Environmental and Social Aspects

The construction, and operation of any Laboratories procedure certain impacts on the environment and or community. Some of these impacts may be negative or adverse, while others may be positive or beneficial. The major aspects of the construction and operation of the BSL 2 Laboratories Project that are expected to impact the environment and community include the following:

- Temporary disturbance of the land surface during construction of the power plant and offsite facilities.
- Occupation of the land surface with permanent infrastructures and offsite facilities.
- Temporary disturbance of the healthcare services during construction
- Occupation hazardous
- Hazardous waste management
- Ambient air quality concentration levels due to flue gases.
- Employment (and attraction into the local site area) of substantial numbers of workers for construction and operation.

The nature and significance of the environmental and social impacts expected to result from these aspects of the project are to be discussed in the ESIA report. This TOR outlines the scope of the Environmental and Social Impact Assessment Study to be carried out and utilized in the process of obtaining Environmental Permits and Funding Approvals. The aim is to supply relevant data concerning the environmental and social impacts of the project, and to assess and compare the impacts in relation to relevant national and international requirements and guidelines. A typical summary for the Environmental and Social Impact Assessment Report and Environmental and Social Management Plan (see Annex1 & 2) are defined which should comply with standardized requirements and World Bank guidelines and EFCCC environmental and social assessment guidelines.

Thus, according to the World Bank's Operational Policy OP4.01/ESS1 on Environmental Assessment, the ESIA has to be prepared with all the requirements for WB's projects, in terms of rigor of analysis, analysis of alternatives, extent of consultation, details of environmental and social management plan, and public disclosure.

## 1.4 Environmental and Social Impact Assessment Requirements

These requirements will be identified including any regulations and guidelines which will govern the conduct of the assessment. The Environmental and social impact assessment is to be guided by:

- National laws and/or regulations on environmental reviews and impact assessments;
- World Bank Policy (Environmental and Social Framework/ Environmental and Social Standards), on Environmental and Social Assessment and other pertinent Guidelines;
- The consultant should review the WB's 10 Environmental and Social Standards (ESS) and determine which ones are triggered by this project.
- The consultant should identify the impacts and provide mitigating measures for each applicable safeguard policy. Details on the triggering of the safeguard policies are available in World Bank's Guidebooks

## 1.5 The Consultant Tasks and Responsibilities

Overall the Environmental and Social Impact Assessment (ESIA) and Environmental and Social Management Plan (ESMP) involves a detailed assessment of the institutional and managerial, regulatory and policy, environmental, socio-cultural and socio-economic implications of the proposed project/investment. This must necessarily encompass analysis of, and the presentation of findings/recommendations in respect of the subject areas listed in turn hereunder.

The Consultant will have to do the following but not necessarily be limited to- these

**Preliminary Tasks:**

- The Consultant should submit a detailed work-plan including a time schedule, budget, the names, professional status and biographic data of all professional staff to be deployed on this assignment, along with a description of the duties to be performed by each expert.

**Tasks and Responsibilities**

The Consultant should:

- Integrate a specialized team of experts required to undertake the ESIA study
- Conduct visits, with the team of experts, to the site for carrying out site inspection and data collection, in conjunction with the concerned authorities.
- Conduct, using the specialized team of experts, baseline studies, covering the all spectrum of analysis and modeling relevant to the construction, and operation of the BSL 2 Labs project
- Assess the environmental and social impacts of the construction and operation activities; and develop an environmental management and monitoring plan to manage these impacts.
- conduct of an Environmental and Social Screening of the proposed investment
- Identify and assess the potential significant environmental impacts of the project in its different alternatives for each site;
- Prepare Environmental Management Plan (EMP), for the implementation of proposed measures to mitigate negative impacts and optimize positive ones for each site;;
- Provide recommendations on how to adapt project design (if required) to optimize the exploitation of opportunities, manage risks and operate under the constraints imposed by the natural environment, including climate variability, climate change and the availability or scarcity of natural resources.
- Compile, edit and prepare for final print a Draft Final Environmental and Social Impact Assessment (ESIA) Report containing standardized parts of the study Report for each site.

### 1.5.1 Deliverable

- The consultant/s will deliver a separate ESIA report including ESMP for each project site as per Annex 1 and 2 templates

# 2. Scope of Work

The performance of the scope of work described hereinafter will provide an Environmental and Social Impact Assessment for construction of the 15 BSL 2 Laboratories Project. This scope addresses the World Bank Environmental and Social standards/Guidelines as they will relate to this project. This scope is presented to clearly describe the relationship between the activities and the work products that comprise the ESIA reports.

## 2.1 Scoping and Consultation

### 2.1.1 ESIA scoping study

The ESIA scoping study will deliver the following results:

- An overview of the project, the applicable legislative and institutional framework;
- An indication of the project alternatives and their variants to be studied;
- A description of the key stakeholders and their concerns;
- A stakeholder engagement plan (to be implemented while the ESIA study as such is conducted);
- A description of the key environmental and social aspects and project-environment interactions that should be addressed in the ESIA;
- A description of the geographical area to be considered in the environmental baseline and in the identification of impacts;
- Recommendations on specific impact identification and evaluation methodologies to be used in the ESIA;
- An indication of the time frames, costs and resources needed to carry out the ESIA study.

## 2.2 ESIA STUDY

Overall the ESIA involves a detailed assessment of the institutional and managerial, regulatory and policy, environmental, socio-cultural and socio-economic implications of the proposed project. This must necessarily encompass analysis of, and the presentation of findings/recommendations in respect of the subject areas listed in turn hereunder.

The Consultant should conduct consultations with the people in the project area and others that may be affected by the project. It should be documented in the ESIA report. The Consultant also should conduct wide ranging consultations with key stakeholder and other interested parties, and review relevant background information in order to gain an insight/understanding of the requirements of the assignment. The Consultant is obliged to ensure that the assignment is conducted in a manner that conduces to the preparation of the FP in a seamless manner.

An indicative listing of the activities to be undertaken and issues to be studied and reported on, and recommended approaches to the conduct of this assignment shall include but is not limited to the issues listed hereunder.

**Description of the Proposed Project**

A project description is a detailed description of any proposed infrastructure to be financed under the Project. The project description should provide a brief description of the relevant parts of the project, using maps (at appropriate scale) where necessary, and including the following information: location; general layout; size, capacity, etc.; pre-construction activities; construction activities; schedule; staffing and support; facilities and services; and operation activities and life span. As part of the Project/, including, among other relevant aspects:

- Project activities including detailed scheduling and cost;
- Personnel to be hired temporarily and permanently during the stages of construction and operation of the Project; and,
- How and if "Sustainable Infrastructure" principles have been included in the Project with focus on: energy efficiency and use of renewable resources, conservation of resources such as water and energy, internal air quality, and community involvement.
- **Location.** Where appropriate describe and present schematically, the administrative, political and geographical location of all envisaged infrastructural works of the Project, Provide definition and description of the Project area including associated facilities and activities

The project justification should be described based on combined economic, environmental and social assessments.

**Policy, Legislative, Regulatory and Administrative Considerations**

- Description of legislative and institutional norms, systems and environmental licensing requirements, and other necessary requirement for the implementation of the Project
- Description of any specific and applicable local regulations and requirements relating to the project such as healthcare, water, solid waste, wastewater, air pollution, labor, and health and safety. In addition, the consultant will include a description of the requirements, which are applied for the activities of the Project, of other institutions such as, CDC World Health Organization, and other entities;
- Description of the 10 World Bank Safeguard Operational Policies/ESS identifying which of these should be triggered. The results should be presented in a tabular format, showing each of the ten policies, status of triggering, and rationale for triggering or not.
- Identify international and regional legislation, policies, norms, standards, guidelines, and current

- Examine the extent to which implementation of environmental safeguards and controls might be hindered (for example policy overlaps). This will provide an overview of the existing environmental management regimes and the extent to which these are applicable to this proposed undertaking;

**Description of the Project Environment and Social Context**

Environmental characterization of the area of influence where the Project will be carried out, describing the current environmental conditions, and detailing the characteristics of the area where the Project will be implemented.

The environmental characterization should evaluate and present baseline data on the relevant environmental characteristics of the study area. It will include information on any changes anticipated before the project commences.

- **Physical environment:** geology; topography; soils; climate and meteorology; ambient air quality; surface and groundwater hydrology; existing sources of air emissions; existing water pollution discharges; and receiving water quality.

- **Biological environment:** flora; fauna; rare or endangered species; sensitive habitats, including parks or preserves, significant natural sites, etc.; species of commercial importance; and species with potential to become nuisances, vectors or dangerous.

- **Socio-cultural environment** (include both present and projected where appropriate): population; land use; planned development activities; community structure; employment; distribution of income, goods and services; recreation; healthcare system; cultural prosperities; tribal peoples; and customs, aspirations and attitudes.

- The analysis should be relevant and commensurate with the project

**Assessment of the Environmental and Social Impacts of the Project**

The Assessment of the Environmental and Social Impacts should distinguish between significant positive and negative impacts, direct and indirect impacts, and immediate and long-term impacts during construction and operation phases indicating their importance level and their probability of occurrence. It will identify impacts which are unavoidable or irreversible. Wherever possible, it will describe impacts quantitatively. Cumulative effects shall also be addressed taking into account other projects or actions planned in the study area.

Identification and assessment of environmental and social impacts of the project, including those impacts related to occupational safety and health in the stages of construction, and operation should be done. Consideration should be given to all potential direct and indirect negative impacts. The ESIA should:

- Identify, describe and assess all potential environmental and social, direct and indirect, short and long-term, temporary and permanent impacts, indicating their importance

level and their probability of occurrence. The importance level may be assessed on the basis of the nature, extent, intensity and duration of the impact, as well as on the sensitivity of the concerned environmental and social components and perceptions of the public.

- Address any national regulatory issues related to the environmental and social assessment of the project,
- Highlight all impacts including irreversible or unavoidable impacts. Cumulative and scale effects shall also be addressed taking into account planned activities or actions in the project area.
- Identify, describe and assess impacts on the biodiversity of surrounding areas, including risk of genetic invasion and its impacts on the biodiversity and ecological services; and,
- Assess the air quality and emissions against national or international standards,
- Identify and evaluate the socio-environmental impacts based on the characterization of the area of influence. This characterization outlines the general conditions of the area without the effects of the Project and constitutes the basis for analyzing how the Project will impact the area.
- Assess the environmental and social impacts by identifying and describing impacts and overall impact by the proposed project on the environment as a result of the interplay between the different stages and activities as well as with other projects and facilities.
- Recommend methodologies for the assessment of the risks and impacts and the significance criteria and definition.

**Analysis of Alternatives to the Proposed Project**

- Identification of alternatives that were examined in the course of developing the proposed project and identify other alternatives which would achieve the same objectives, including the “without project option”. The concept of alternatives extends to siting, design, technology selection, construction techniques and phasing, and operating and maintenance procedures. It will compare alternatives in terms of potential environmental impacts and suitability under local conditions.
- For each of the alternatives, the environmental and social impacts shall be quantified as possible, including their economic values where feasible. The selected alternative shall be the most environmentally and socially sustainable, taking into account the technical and economic feasibility.

**Environmental and Social Management Plan**

The ESMP will provide details on the management initiatives and on the measures to be implemented during both the construction and operational phases of the project. Typical contents for the Environmental and social Management Plan are presented in Annex 2.

The Consultant(s) is required to prepare an environmental and social management plan for the Project that includes the following components but not limited to these

- Detailed description of all proposed environmental and social control and mitigation measures that are needed based on risks arising out of the Project as a whole, the type of activity undertaken or actions during construction (e.g., air quality management plan, and landscape management plans) and operation (e.g., hazardous materials and fuel management, transport and packing management, maintenance and site security plans, and emergency evacuation and contingency plans).
- Detailed description of a planned environmental and social monitoring program for both construction and operation and a discussion of how the information will support management practices.
- Description of planned worker health and safety plan, procedures and controls
- Description of planned environmental contingency plan and procedures.
- Description of a proposed environmental, health and safety management system (including personnel, training, documentation, auditing, etc.).
- Description of a plan/mechanism to receive and facilitate resolution of affected community concerns and grievances about the Project, activity, or action and its negative impacts.
- Develop a mechanism for project-level grievance redress including institutional level grievance redress mechanism.
- Description of a plan to protect, reduce, and manage the negative impacts on any sacred/archaeological and historic sites/monuments if applicable.
- Public awareness, communication and training programs for operational staff.
- Indicators of compliance with licensing and approval requirements.

## 2.3 Data Collection

Coincident with the scoping for the environmental and social impact assessment, a data gathering task will be undertaken. One activity is a site visit to confirm site conditions and the level of development of the surrounding area. The second is to gather input data to analyze the environmental and social issues as determined from the scoping process.

## 2.4 Analysis

Subsequent to gathering of data, the environmental and social issues will be addressed in terms of the environmental and social risks associated with the construction of the power plant and the routine and non-routine operation of the facilities.

The ESIA will address the issue of alternatives by summarizing and referencing the alternatives in a manner consistent with national and international guidance.

## 2.5 Environmental and Social Impact Assessment Report

An environmental and social impact assessment report for construction of the 15 BSL 2 Laboratories Project will be developed in a manner complying with the requirements of the World Bank, and the Ethiopian Environmental Regulation.

The environmental and social assessment report will be concise and limited to significant environmental issues. The main text will focus on findings, conclusions and recommended actions, supported by summaries of the data collected and citations for any references used in interpreting those data. Detailed data will be presented in appendices. Typical contents for the ESIA report including Environmental and social Management Plan (ESMP) are presented in Annex 1 and 2.

The ESIA Reports shall describe the scientific approach adopted to carry out the studies. In particular, the methods and criteria used in the studies shall be presented and explained. The Report shall also include maps and drawings at the appropriate scale and refer to all consulted documents. The detailed ESIA Report shall be prepared in English. The ESIA Executive Summary shall, however, be written in English and Amharic. To be useful for consultations, the ESIA Executive Summary shall be concise and written in a non-technical language. A draft report will be issued for review and comment by EPHI/MOH and the World Bank after which a final report will be issued.

## 2.6 Environmental and Social Management Plan

The ESMP should identify the actions needed to implement the ESIA recommendations, including environmental monitoring required during the implementation phase of a project. The ESMP should clearly translate the recommendations from the ESIA into an operational plan. Typical contents for the Environmental and social Management Plan are presented in Annex 2.

# 3. Deliverables and Reporting Requirements

- An Inception Report to be submitted within one (1) week of contract signing that includes a Workplan with timelines for completing the assignment
- A Draft Environmental and Social Impact Assessment (ESIA) for the Proposed Project

- A Draft Environmental and Social Management Plan (ESMP) for the Proposed Project
- A Final Environmental and Social Impact Assessment (ESIA) Report and Environmental and Social Management Plan (ESMP), incorporating suggestions and feedback from the project team during the review of the draft, and a draft copy of the Final report and plan must be prepared by the consultant and submitted to the World Bank for approval and agreement prior to finalization.

# 4. Activities and Time Schedule

The ESIA Study Report and ESMP shall be finalized and the Draft Final Report shall be prepared within 3 months from study start date. The following chart in the Table depicts the required time and activities for carrying out the ESIA Study and the output deliverables that will result accordingly.

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***Table 3:*** ESIA Preparation Schedule

| No | Activities | Months | | | |
|---|---|---|---|---|---|
| | | 1 | 2 | 3 | 4 |
| **1.** | Inception Report | | | | |
| **2.** | Site Reconnaissance | | | | |
| **3.** | Baseline Data | | | | |
| **4.** | Scoping Session | | | | |
| **5.** | Description of the Project | | | | |
| **6.** | Impact Identification | | | | |
| **7.** | Mitigation/Environmental Management | | | | |
| **8.** | Environmental Monitoring | | | | |
| **9.** | Draft ESIA Report | | | | |
| **10.** | Public Consultation Process (ESIA) | | | | |
| **11.** | Final Report | | | | |
| **12.** | World Bank Disclosure | | | | |

# 5. Desired competency of the Consultancy Firm and Experts

## 5.1 Consultancy Firm

The consultancy firm should have the expertise and practical experience in ESIA and Environmental and Social Audit. Preference will be given to a consultancy firm that have a practical experience in laboratory facility construction and equipping ESIA reparation. Preference will also be given to consultancy firm that have at least 5 years of experience and those may which have previous experience with the World Bank financed projects. Proven track record of supporting, advising and collaborating with government institutions / project offices

## 5.2 Required Qualifications and Work Experience of Experts

The consultancy firm should have multi-discipline experts on and it should be conducted by a team of experts, who should have the following profiles:

- Expert level I with at least Master's degree on Sanitation Engineering, civil Engineering or Environmental Engineering, environmental science, or related fields with, or in a closely related fields with at least 10 years of relevant practical experience in Environmental and Social Impact Assessment.
- Expert level II with at least Master's degree on Environmental Health, Environmental Science, Laboratory Science, Public Health or in a closely related fields with and at least 8 years of relevant experience with Bachelor's degree and at least 10 years of relevant experience.
- Expert level III with at least Master's degree on Clinical/Medical Laboratory Science, or in a closely related fields with and at least 8 years of relevant experience with Bachelor's degree and at least 10 years of relevant experience.
- Expert level IV with at least Master's degree on Social Science, sociology or in a closely related fields with and at least 8 years of relevant experience with Bachelor's degree and at least 10 years of relevant experience.
- Ability to work independently and as part of a team; organize and prioritize work to meet deadlines
- Strong interpersonal skills and ability to work effectively with internal/external partners in a multicultural environment.
- Fluency in English and Amharic.

## I. Annex 1: Indicative Outline of Environmental and Social Impact Assessment (ESIA)

Where an environmental and social impact assessment is prepared as part of the environmental and social assessment, it will include the following:

1. **Executive summary**
    - Concisely discusses significant findings and recommended actions.

2. **Background**
    - The Introduction shall indicate the purpose of the ESIA, present an overview of the proposed project to be assessed, as well as the project's purpose and needs.

3. **Legal and institutional framework**
    - Analyzes the legal and institutional framework for the project, within which the environmental and social assessment is carried out, including the issues set out in ESS document. Compares the national's existing environmental and social framework and the ESSs and identifies the gaps between them.
    - Identifies and assesses the environmental and social requirements of any co-financiers.

4. **Project description**
    - Concisely describes the proposed project and its geographic, environmental, social, and temporal context, including any offsite investments that may be required as well as the project's primary suppliers.
    - Through consideration of the details of the project, indicates the need for any plan to meet the requirements of ESS1 through 10. Includes a map of sufficient detail, showing the project site and the area that may be affected by the project's direct, indirect, and cumulative impacts.

5. **Baseline data**

- Sets out in detail the baseline data that is relevant to decisions about project location, design, operation, or mitigation measures. This should include a discussion of the accuracy, reliability, and sources of the data, as well as information about dates surrounding project identification, planning, and implementation. Identifies and estimates the extent and quality of available data, key data gaps, and uncertainties associated with predictions. Based on current information, assesses the scope of the area to be studied and describes relevant physical, biological, and socioeconomic conditions, including any changes anticipated before the project commences. Takes into account current and proposed development activities within the project area but not directly connected to the project.

6. **Environmental and social risks and impacts**

   Takes into account all relevant environmental and social risks and impacts of the project. This will include the environmental and social risks and impacts specifically identified in ESSs2–8, and any other environmental and social risks and impacts arising as a consequence of the specific nature and context of the project, including the risks and impacts identified in ESS1, paragraph 28.

7. **Mitigation measures**

   - Identifies mitigation measures and significant residual negative impacts that cannot be mitigated and, to the extent possible, assess the acceptability of those residual negative impacts.
   - Identifies differentiated measures so that adverse impacts do not fall disproportionately on the disadvantaged or vulnerable.
   - Assesses the feasibility of mitigating the environmental and social impacts; the capital and recurrent costs of proposed mitigation measures, and their suitability under local conditions; the institutional, training, and monitoring requirements for the proposed mitigation measures.
   - Specifies issues that do not require further attention, providing the basis for this determination.

8. **Analysis of alternatives**

   - Systematically compares feasible alternatives to the proposed project site, technology, design, and operation—including the "without project" situation—in terms of their potential environmental and social impacts;

- Assesses the alternatives' feasibility of mitigating the environmental and social impacts; the capital and recurrent costs of alternative mitigation measures, and their suitability under local conditions; the institutional, training, and monitoring requirements for the alternative mitigation measures.
- For each of the alternatives, quantifies the environmental and social impacts to the extent possible, and attaches economic values where feasible.

9. **Design measures**

- Sets out the basis for selecting the particular project design proposed and specifies the applicable Environmental Health and Safety Guidelines (EHSGs), or if the ESHGs are determined to be inapplicable, justifies recommended emission levels and approaches to pollution prevention and abatement that are consistent with GIIP.

10. **Key measures and actions for the Environmental and Social Commitment Plan (ESCP)**

- Summarizes key measures and actions and the time frame required for the project to meet the requirements of the ESSs. This will be used in developing the Environmental and Social Commitment Plan (ESCP).

11. **Appendices**

- List of the individuals or organizations that prepared or contributed to the environmental and social assessment. References—set out the written materials, both published and unpublished, that have been used.
- Record of meetings, consultations, and surveys with stakeholders, including those with affected people and other interested parties. The record specifies the means of such stakeholder engagement that were used to obtain the views of affected people and other interested parties.
- Tables presenting the relevant data referred to or summarized in the main text.
- List of associated reports or plans.

## II. Annex 2: Indicative Outline of Environmental and Social Management Plan (ESMP)

An ESMP consists of the set of mitigation, monitoring, and institutional measures to be taken during implementation and operation of a project to eliminate adverse environmental and social risks and impacts, offset them, or reduce them to acceptable levels. The ESMP also includes the measures and actions needed to implement these measures. The project will (a) identify the set of responses to potentially adverse impacts; (b) determine requirements for ensuring that those responses are made effectively and in a timely manner; and (c) describe the means for meeting those requirements.

Depending on the project, an ESMP may be prepared as a stand-alone document47 or the content may be incorporated directly into the ESCP. The content of the ESMP will include the following:

### A. Mitigation

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

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

### B. Monitoring

- The ESMP identifies monitoring objectives and specifies the type of monitoring, with linkages to the impacts assessed in the environmental and social assessment and the mitigation measures described in the ESMP. Specifically, the monitoring section of the ESMP provides
- (a) a specific description, and technical details, of monitoring measures, including the parameters to be measured, methods to be used, sampling locations, frequency of measurements, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions; and (b) monitoring and reporting procedures to (i) ensure early detection of conditions that necessitate particular mitigation measures, and (ii) furnish information on the progress and results of mitigation.

**C. Capacity development and training**

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

**D. Implementation schedule and cost estimates**

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

## E. Integration of ESMP with project

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

It is expected that the consultant will present the environmental and social management plan in a tabular format similar to the following:

### I. Mitigation

| **Project Activity** | **Potential Environmental Impacts** | **Proposed Mitigation Measures** | **Institutional Responsibilities** (Implementation & Supervision) | **Cost Estimates** | **Comments** (e.g. secondary impacts**)** |
|---|---|---|---|---|---|
| Pre-Construction Phase | | | | | |
| Construction Phase | | | | | |
| Operation and Maintenance Phase | | | | | |

### II. Monitoring

| **Proposed Mitigation Measure** | **Parameters to be monitored** | **Location** | **Measurements** (Incl. methods & equipment) | **Frequency of Measurement** | **Responsibilities** (Incl. review and reporting) |
|---|---|---|---|---|---|
| Pre-Construction Phase | | | | | |
| Construction Phase | | | | | |
| Operation and Maintenance Phase | | | | | |

**Annexes**

- List of the professionals and organizations having contributed to the preparation of the ESIA Report
- List of consulted documents, including project-related reports
- Baseline data referred to in the Report
- Record of consultation meetings with stakeholders.