

**Environmental and Social Management Framework**  
**Africa Environmental Health and Pollution Management Program (P167788)**

## Acronyms

AIDS	Acquired immune Deficiency Syndrome
ASGM	Artisanal and Small-Scale Gold Mining
BAT	Best Available Technologies
BEP	Best Environmental Practices
COP	Conference of Parties
DDT	Dichlorodiphenyltrichloroethane
DEEC	Division de l'Environnement et des Etablissements Classés
ECOWAS	Economic Community of West African States
EHPMP	Environmental Health and Pollution Management Program
EPA	Environmental Protection Agency
ESCP	Environmental and Social Commitment Plan
ESF	Environmental and Social Framework
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plans
ESS	Environmental and Social Standard
GEF	Global Environmental Facility
ICT	Information and Communication Technologies
IDA	International Development Association
KUSP	Kenya Urban Support Program
MC	Minerals Commission
MEF	Ministry of Environment and Forests
MRO	Mines Resident Offices
MSW	Municipal Solid Waste
NAP	National Action Plan
NEMA	National Environmental Management Authority
NEMC	The National Environmental Management Council
NGO	Non-governmental organization
NIP	National Implementation Plan
OECD	Organization of Economic Cooperation and Development
PBDEs	Polybrominated diphenyl ethers
POPs	Persistent Organic Pollutants
PSC	Program Steering Committee
REC	Regional Economic Community
RPF	Resettlement Policy Framework
SA	Social Assessment
SADC	Southern African Development Community
SAICM	Strategic Approach to International Chemicals Management
SEDCO	Small Enterprise Development Corporation
SEF	Stakeholder Engagement Framework

SEP	Stakeholder Engagement Plan
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UPOPs	Unintentional Persistent Organic Pollutants
ZEMA	Zambia Environmental Management Agency
ZMERIP	Zambia Mining and Environmental Remediation and Improvement Project

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## 1. Introduction

Mercury use in the Artisanal and Small-scale Gold Mining (ASGM) sector and management of electronic waste (e-waste) have been identified as among the most critical pollution management issues in sub-Saharan Africa. Rising international gold prices are pushing more people into ASGM that is becoming an attractive employment alternative for struggling farmers, poor rural communities, and migrant laborers. The ASGM workforce in Ghana and Tanzania is estimated at more than 1 million people in each country<sup>1</sup>. In Tanzania, the ASGM sector contributes approximately 10% of its gold production. The informal, illegal, and unregulated nature of mercury use creates a legacy of severe adverse and irreversible environmental and health damage. Mercury contamination could have serious economic consequences to the lucrative local and regional fisheries due to the potential health risks associated with its bio-accumulation in the food chains<sup>2</sup>. It is therefore a priority to reduce, and where feasible, eliminate mercury use in artisanal and small-scale gold mining. Institutional capacity to monitor use of mercury as well as its health and environmental consequences is limited.

Over the past 20 years, the market for Information and Communication Technologies (ICT) has grown exponentially and estimated to be the fastest growing waste stream in the world at 20-50 million tons per year. The quantities of e-waste accumulating in sub-Saharan countries have been increasing exponentially in recent years. The improper recycling and disposal of heavy metals associated with the burning of e-waste is particularly acute in Africa where environmental monitoring and regulatory enforcement are relatively weak. Recognizing that the e-waste challenge is on the rise and current policies and practices are insufficient, there is a growing need for improved policies, knowledge management and adopting environmentally friendly processing and recycling techniques to address this challenge. The mismanagement of chemicals, releases of unintentionally produced POPs (UPOPS)<sup>3</sup> from open-burning and other sources present serious threats to human and environmental health in many parts of Africa.

### 1.1. Project Objective

The project aims to strengthen the institutional capacity to manage and regulate mercury use in ASGM and POPs/UPOPS in e-waste in selected countries in Africa.

### 1.2 Project Context and Description

This Environmental Health and Pollution Management Program (EHPMP) supported by the Global Environment Facility (GEF) focuses on reduction of the environmental health risks associated with mercury, e-waste and POPs, with several critical barriers needed to be addressed in a holistic and coordinated way. Experience has shown that multiple and fragmented approaches to deal with specific chemicals have not yielded the expected results. This program bringing under one common thread of environmental health, concerns related to urbanization, industrial growth, ASGM, and e-waste, is designed to focus on specific commitments under the Stockholm and Minamata conventions in line with country-driven priorities, and to build institutional and technical capacity into the country projects through offering a menu of options to allow countries to tailor their needs based on their identified priorities, capacity and country context.

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<sup>1</sup> UNDP, 2013; World Bank Indicators, 2014.

<sup>2</sup> UNEP's Global Mercury Assessment of 2013.

<sup>3</sup> UPOPS are persistent organic pollutants that are formed and released unintentionally from anthropogenic sources and include the following chemicals: Polychlorinated dibenzo-p-dioxins and dibenzofurans (PCDD/PCDF), Hexachlorobenzene (HCB), and Polychlorinated biphenyls (PCB), and Pentachlorobenzene (PeCB). See Stockholm Convention Annex Parts I-III for details.

The GEF funding for the Program is divided into two:

- Knowledge exchange and institutional partnerships program to reduce environmental health risks from exposure to harmful chemicals and waste (P166233) for US\$ 5 mln.
- 5 country specific programs for US\$ 41.3 mln (P167788).

The Knowledge exchange and partnerships program will raise the conversation, allowing country leadership to mobilize at the regional and national level for an engaged policy and regulation development for improved environmental pollution management. It will establish a virtual platform for regional partnerships and policy dialogue, knowledge management and communication, will leverage lessons learned and disseminate information, tools, and techniques to scale up best practices. This will be a Bank Executed Trust Fund (GEF BETF grant).

**The country specific program has five participating countries namely Ghana, Kenya, Tanzania, Senegal and Zambia.** They were selected based on their commitment and request for technical and financial support from the World Bank as well as on on-going engagement and dialogue, including with a regional assessment on levels of environmental health risks associated with Mercury in ASGM and POPs in unregulated waste in sub-Saharan Africa. They all developed their respective National Implementation Plan (NIP) for POPs and National Initial Assessment/Action Plans for mercury. A combination of Technical Assistance and Investments in each country targeting specific priorities for pollution management based on the National Implementation Plan and strategy and aligned with regional-level activities are planned.

Several projects and initiatives support the environmental-health agenda in Africa and the EHPMP will coordinate with these for greater synergy of development outcomes. Principal among these projects are: (i) The Global Center of Excellence in Artisanal and Small-Scale Mining led by the Energy and Extractives GP in close collaboration with the Environment and Natural Resources GP and the Organization of Economic Cooperation and Development (OECD); (ii) the Ghana Forest Investment Program – Enhancing Forest Landscapes; (iii) the Zambia Mining and Environmental Remediation and Improvement Project and (iv) the Senegal Municipal Solid Waste Management Project: improving solid waste management services in selected cities in Senegal. The Environment, Natural Resources and Blue Economy GP has ongoing operations in all the countries considered under EHPMP.

### 1.3 Project Components

The Program's focus will be on policy and strategy formulation and implementation; knowledge and experience sharing; institutional and human capacity building; chemical and hazardous waste management; and coordination and collaboration. Program activities are grouped under four main components which will be implemented at national level adapted to the national conditions.

The Program has four components:

Component 1: Institutional strengthening, knowledge and capacity building

Component 2: Policy Dialogue and Regulatory Enhancements

Component 3 – Demonstrating application of technological tools and economic approaches - for reduced environmental health risks due to mercury, POPs and e-waste.

Component 4: Program and Project Coordination and Management

The EHPMP during implementation will be supported by the regional coordination project (BETF - P166233). At the regional level, the Program will focus on developing communication tools to raise awareness about the health costs and benefits of pollution, including community outreach to increase public understanding and visibility of the scale and environmental health impacts.

**This ESMF is specifically designed for component 3.** The component will finance specific community-focused cleaner technology demonstration activities in contaminated areas, selected and designed based on environmental health risks and cost effectiveness of interventions.

Tanzania and Ghana will pilot adoption of mercury abatement technologies for ASGM. Ghana, Kenya, Zambia and Senegal will pilot the use of technologies for waste management to minimize e-waste and POPs burning and promote waste segregation and recycling.

The pilots will be directly connected to ongoing and proposed Bank operations in each participating country: Tanzania- Resilient Natural Resources Management for Tourism and Growth Project (REGROW – P150523); Ghana - Artisanal and Small-scale Mining Formalization (P168002) and Forestry Investment Program (FIP) (additional financing) Enhancing Natural Forest and Agroforest Landscapes Project (P163745); Zambia – Mining and Environmental Remediation and Improvement Project (P154683); Senegal –Municipal Solid Waste Management Project (P161477).

Recognizing that the risks of exposure, scope of regulations, institutional approaches and enforcement may vary among countries, the investments in specific technologies will be at the national level to meet the specific needs of the participating countries as follows:

#### **Tanzania**

Component 3 will support formalizing the ASGM sector which will create incentives for artisanal miners to access relevant knowledge, financing and institutional support. Technical assistance under the program will help improve working conditions for local mining community by leveraging planned investment activities under the existing Sustainable Management of Mineral Resources Project (SMMRP-II) to promote mercury abatement. The objective of this component is to collaborate with Small Enterprise Development Corporation (SEDCO/SIDO) or local manufacturers to manufacture/replicate low cost centralized gold extraction equipment to enable moving away from using mercury instead to adopt alternative technologies such as Vat leaching. This initiative will greatly reduce the amount of mercury to be procured and used, and consequently reduce the amount of mercury emissions in the environment and wastage. This effort will complement the Minamata Initial Assessment initiative for Tanzania by providing policy makers with tools and guidance needed to design and implement strategies for risk reduction.

#### **Ghana**

##### **AGSM**

*Support ASGM pilot projects to ensure safer mining practices and reduce hazardous exposures in small-scale mining:* The component is designed to leverage the proposed bank funded Ghana Artisanal and Small-scale Mining Formalization Project (P168002) and the Forestry Investment Program (FIP) (additional financing) Enhancing Natural Forest and Agroforest Landscapes Project (P163745). The Artisanal and Small-scale Mining Formalization Project will support activities aimed at promoting sustainable AGSM practice and providing viable alternatives to illegal mining. The Enhancing Natural Forest and Agroforest Landscapes Project will demonstrate rehabilitation of mined-out sites in selected landscapes in Ghana's High Forest Zone of Ghana.

*Establishment of mining demonstration Center:* The project will support the Environmental Protection Agency (EPA) to work closely with the Small-scale Mining Formalization Project, with focus on demonstrating best practice AGSM processes through the establishment of demonstration centers for

training and promotion of alternative technologies for free-mercury mining in the ASM sector. This will not only reduce the amount of mercury to be procured and used but also reduce the amount of mercury emissions and wastage.

*Remediation of mercury contaminated Sites:* The project will support the EPA to work closely with the Small-scale Mining Formalization Project and the Enhancing Natural Forest and Agroforest Landscapes Project; support reclamation and environmental improvement of abandoned mine sites. The project will support the EPA on identification, management and remediation of mercury contaminated sites. Article 12 of the Minamata Convention on Mercury states that 'each Party will endeavor to identify and assess sites contaminated by mercury and mercury compounds and that actions to reduce the risks posed by these sites will be performed in an environmentally sound manner.' Abandoned mine sites will undergo detailed sampling and testing for contaminant presence before design of interventions at each site. The project will support EPA to use hazard-scoring and risk-ranking methodology coupled with hazard maps to provide a robust scientific basis for the decision and prioritize actions that need to be taken to minimize or manage risks associated with for the remediation of abandoned mine sites. Subsequently remediated sites will act as demonstration pilots for the small miners who will be required to rehabilitate their mines after completion of mining activities.

**Commenté [AM1]:** This Project or the other Bank Projects?

**Commenté [AM2]:** Will this be done under the EHPMP or the associated Bank Projects? If under this project, then does the ESMF have to include anything on this?

#### **Development of pilot project and approaches for sustainable E-waste recycling**

*Development of pilot project and approaches for sustainable e-waste recycling:* This component will support the EPA to design pilot projects related to Agbobloshie and other e-waste contaminated sites such as Kumasi, Ashaiman, and Tamale on the implementation of integrated and environmentally sound management approach to improve the collection, transportation, and safe disposal/recycling of e-waste, following Article 6 of the Stockholm Convention on wastes, and relevant guidance. The component is designed to coordinate and collaborate with ongoing e-waste management initiatives with focus on setting up a network for e-waste collection; supporting the development of standards and regulations for e-waste management; and developing recycling technologies as well as designing a producer Take-back system for all electrical and electronic waste streams. The construction and operation of the e-waste recycling facility; where scrap dealers can sell unprocessed e-waste types; is being supported by the German Federal Ministry for Economic Cooperation and Development (BMZ) and KfW. The project will offer incentives for collection, transportation and disposal of electrical waste, and promote public education on the safe disposal of electrical and electronic waste and negative effects of electronic waste. Environmental improvement schemes could be provided including ISO 14001 systems to recyclers and waste management groups.

**Commenté [AM3]:** For e-waste, I describe the setting up of a pilot to improve waste segregation, recycling and disposal. This ESMF does not go into detail about collection and transportation of the waste to the pilot site. Does it need to cover this?

The project will provide training and build capacity of EPA and Ghana Health Service staff on developing protocols and methodologies for assessment of environmental health risks associated with e-waste. Again, the project will support EPA to conduct Health & Safety training programs and provide protective equipment for the collectors and recyclers. The project will assess gaps in infrastructure and technologies by looking at the entire e-waste management cycle from the collection, transportation, setting up of collection centers or transfer stations and sorting stations and treatment (recycling) facility.

#### **Zambia**

The project will focus on improving the waste value chain and a number of measures that will reduce UPOPs releases from solid waste by strongly limiting the quantities of waste subject to uncontrolled



burning; invest into improving the management of waste collection; transportation; treatment and disposal and improved recycling of waste. The current dumpsite will be upgraded into a sanitary landfill (through IDA financing), and feasibility study of short- and long-term BAT/BEP actions will be supported to determine the volumes and types of waste and the economic viability for private sector collaboration. The component will ensure the segregation between hazardous contaminated wastes from the other non-hazardous waste streams. The component focus on training the existing rag-pickers and providing them with occupational health and safety training and equipment. This component will also look into the ways to reduce the impact of chemical pollution emanating from unregulated landfills in economic and socially acceptable manner and support the development of communication tools to raise awareness about the health costs and benefits of pollution management, including community outreach to increase public understanding and visibility of the scale and environmental health impacts.

#### Kenya

Component 3 will support the initiation of a pilot project in a selected county in Kenya on implementation of integrated waste management approach to reduce releases of POPs from e-waste through use of clean technologies for waste separation and recycling and following Articles 5 and 6 of the Stockholm Convention and related COP guidelines and guidance. This will start with an assessment current management plans and an analysis of available information on e-waste production, import and use. Such analysis will ensure that appropriate solutions are selected, and the basic waste management services are in place and operating, before more advanced approaches are considered. Based on the identified priorities, the infrastructure investments will be designed and implemented, focusing on addressing the gaps in the collection and disposal system. This component will also support piloting e-waste management in a selected county in Kenya, including investment in infrastructure for the entire e-waste management cycle from generation to treatment (recycling) facility. This component is aligned with the Kenya Urban Support Program (KUSP) which assists the Government of Kenya in operationalizing its National Urban Development Policy and achieving medium term planning goals in the urban sector.

**Commenté [AM4]:** Same comments as Ghana – Does the ESMF have to cover collection and transportation of the waste to the pilot site.

#### Senegal

Component 3 will support and implement actions to set up a system aiming at reducing environmental health risks from the release of UPOPs and other toxic chemicals through ESM of urban waste in Hann Belk Air, Dalifort and potentially other municipalities in Dakar, which can later be replicated and scaled-up nationally, including through the World Bank PROMOGED Project (P161477), and regionally. Under this component the project will support activities to reduce UPOPs by better preventing UPOPs precursors such as plastic wastes mixed with municipal and organic wastes that are subject to open burning and consequently cause higher emissions of UPOPs. Unregulated combustion will be also better controlled by removing uncontrolled dump sites through separation, segregation, recycling, stocking, collecting and transporting municipal and hazardous waste which should be the primary responsibility of municipalities. In this regard, the project will identify relevant partners such as private companies specialized in waste management, NGOs, etc., and develop a business model that would ensure the capitalization of waste management experiences and sustainability of the accumulated knowledge.

First, the beneficiary municipalities, together with the relevant authorities, will mobilize the communities and the necessary logistical resources to eradicate the recurrent and illegal waste dump sites in their areas in order to permanently eliminate the sources of pollution. This would lead to citizen engagement and will have the advantage of raising people's awareness of their responsibilities in terms of preservation of their living environment and prevention of environmental health risks.

Concurrently with improving the sanitary status, strategies to ensure long-term sustainability will be initiated by setting up a system adapted to local realities and accessible to the population. To this end, a comprehensive urban solid waste management system will be implemented by: (i) promoting the regulatory framework around the Community Based Organizations (CBOs), under the responsibility of local authorities or sanitary committees; (ii) sorting, reusing and recycling waste by communities, integrating social innovations and a circular and inclusive economy; (iii) professionalizing street cleaning along main thoroughfares; (iv) neighborhood cleaning through community-based activities and activities with high labor intensity (Haute intensité de main d'oeuvre - HIMO) under the responsibility of the local authorities; (v) the construction of standardized Regrouping Points (PRN) ("Points de Regroupement normalisé - PRN") incorporating screening, sorting, marketing and waste recycling to promote employment-generating and income-generating activities; (vi) pre-collection organized around the PRNs through the local authorities ; and (vii) waste collection from households, markets and industrial activities and evacuation to the appropriate municipal waste dumpsite in Dakar.

In addition to corrective actions and the implementation of a waste management system, measures will be taken to secure and enhance public spaces. To this end, public gardens, lakes, retention ponds and any open space will be developed as places for recreational, economic, tourist, sports or other activities. The objective is to develop them in a sustainable way and to guard against the proliferation of waste dumps and open burning.

A waste management unit will be set up in the participating municipalities to coordinate waste management efforts. With respect to the Guidelines on best available techniques and provisional guidance on best environmental practices relevant to Article 5 and Annex C of the Stockholm Convention on Persistent Organic Pollutants, appropriate actions will be developed to manage municipal solid waste and hazardous waste in a sound manner, to minimize the releases of UPOPs and greenhouse gases. The reduction of the release of UPOPs can be expected to be very significant under this component.

#### 1.4 Environmental and Social Benefits

Focusing on addressing environmental health risks related to harmful chemicals and waste management, the program will have immediate and longer-term socio-economic benefits for local communities. Open burning of waste is a source of UPOPs such as dioxins and furans. When formed, uPOPs are released along with other pollutants such as heavy metals, polyaromatic hydrocarbons and fine particles, which eventually contaminate the environment (air, soil and sediments). Via bioaccumulation, uPOPs as well as heavy metals are carried on in biota and in the food chain around these open burning areas. By improving waste management systems, uPOPs contamination of the environment, the food chain and humans can be avoided.

Studies have shown that the health of the miners and other people living within the area affected by mercury contamination may be negatively affected through inhalation of mercury vapor or contaminated dusts, direct contact with mercury, through eating fish and other food, and through the ingestion of waters and soils affected by the mercury contamination. Thus, demonstrating cleaner technologies and providing miners with safe alternatives other than mercury will have a direct benefit of not only reducing mercury emissions into the environment but the reduction in toxic fumes having beneficial impacts on the health of the miners including women and children.

**Commenté [AM5]:** What actions will be taken on the ground? So many things can be done. What implication does this have on the ESMF?

### 1.5 ESMF Scope

The main purpose of this ESMF is to ensure that the implementation of the EHPMP pilots will be carried out in an environmentally and socially sustainable manner. The ESMF provides the project implementers with a process that will enable them to identify, assess and mitigate potential environmental and social risks of the project. The initial screening will indicate the level of environmental and/or social due diligence that will be required.

The pilots are expected to have positive environmental and social impacts with temporary negative impacts that can be easily mitigated. The ESMF identifies broad management measures and criteria laying a basis for developing site specific management plans for each of the pilot projects under Component 3. Where required by national legislation, Environmental and Social Impact Assessment (ESIA) will be developed as well.

The ESMF will be followed to address environmental and social issues at the project sites. The activities that this ESMF covers are:

- a. Adoption of mercury abatement technologies for ASGM – Tanzania and Ghana
- b. Use of technologies for waste management to minimize e-waste and POPs burning and promote waste segregation and recycling – Ghana, Kenya, Zambia and Senegal

## 2. Legal and Regulatory Framework

The EHPMP will strictly adhere to and follow the World Bank's Environmental and Social Framework (ESF) as well as the legal and regulatory frameworks of the countries. This section provides an overview of relevant policies, laws and regulations specifically for Component 3. The key environmental policies, legal framework and procedures considered as relevant under the EHPMP are the following:

### 2.1 Ghana

#### Institutional and Administrative Framework

**Ministry of Environment Science Technology & Innovation (MESTI):** MESTI has the oversight responsibility to provide leadership and guidance for Environment, Science, Technology and Innovation within the broad sector of the economy through sound policy formulation and implementation. It ensures the establishment of the regulatory framework and setting of standards to govern the activities of science and technology and the management of the environment for sustainable development. MESTI also has the responsibility to analyse and coordinate all planned programmes in the environment, science, technology and innovation sector of the economy for purposes of achieving a single integrated management system. MESTI is the sector Ministry to which the Environmental Protection Agency reports to.

**Environmental Protection Agency (EPA):** EPA was established under the Environmental Protection Agency Act (Act 490 of 1994) as the leading public body responsible for the protection and improvement of the environment in Ghana. It is responsible for enforcing environmental policy and legislation, prescribing standards and guidelines, inspecting and regulating businesses and responding to emergency incidents. The EPA's policy direction is articulated by the Environmental Assessment Regulations, 1999 (LI1652). These two pieces of legislation mandate the EPA to manage, control and monitor compliance of environmental regulations by specific industries. The EPA has an important role in the Project implementation as the lead environmental regulator, which oversees compliance with environmental assessment requirements, facilitate public participation and disclosure and issue environmental permits for the project. The EPA has the mandate to issue environmental permits and pollution abatement notices for controlling the volume, types, constituents and effects of waste discharges, emissions, deposits or any other source of pollutants and of substances which are hazardous or potentially dangerous to the quality of the environment or a segment of the environment. The agency decides on project screening, guide the conduct of the environmental assessment studies and to grant environmental approval for the project to commence. It's mandate also covers monitoring of implementation phase of the project to confirm compliance with approval conditions, mitigation measures, and other environmental commitments and quality standards.

**Ministry of Lands and Natural Resources (MLNR):** MLNR has overall responsibility for the land and natural resources sector planning and policy direction and for monitoring sector programs towards the attainment of the national goals. The ministry is thus responsible for the management of Ghana's land, forests, wildlife and mineral resources. In order to achieve this goal, the ministry has set out the following objectives:

- Develop and manage sustainable lands, forest, wildlife and mineral resources;
- To facilitate equitable access, benefit sharing from and security to land, forest and mineral resources;
- Promote public awareness and local communities' participation in sustainable forest, wildlife and land use management and utilization;

- To review, update, harmonizes and consolidate existing legislation and policies affecting land, forest and mineral resources;
- To promote and facilitate effective private sector participation in land service delivery, forest, wildlife and mineral resource management and utilization;
- Develop and maintain effective institutional capacity and capability at the national, regional, district and community levels for land, forest, wildlife and mineral service delivery;
- Develop and research into problems of forest, wildlife, mineral resources and land use MLNR is the sector Ministry to which the Minerals Commission reports to.

**Minerals Commission:** The Commission was established under Article 269 of the 1992 Constitution and the Minerals Commission Act 1993, Act 450. It is the main promotional and regulatory body for the minerals sector in Ghana and responsible for “the regulation and management of the utilization of the mineral resources of Ghana and the coordination and implementation of policies relating to mining”. It ensures compliance with Ghana’s Mining and Mineral Laws and Regulation through effective monitoring.

**Ministry of Local Government and Rural Development** - The Ministry of Local Government and Rural Development and its departments and agencies belong to the Central Management Agencies category of Government Machinery with the mandate to ensure good governance and balanced development of Metropolitan / Municipal / District Assemblies. The Ministry derives its mandate from the 1992 constitution and section 12 of the PNDCL 327 which provides the responsibilities of Ministries.

#### National Environmental Legislation and Policies

The key policies are as below with details given in **Annex I**.

- The Constitution of the Republic of Ghana, 1992
- Environmental Protection Agency Act, 1994 (Act 490)
- Environmental Assessment Regulations, 1999 (LI 1652) & Environmental Assessment Regulations, 2002 (LI 1703)
- The National Environmental Policy, 2010
- Environmental Sanitation Policy (Revised), 2010
- National Climate Change Policy,
- Management of Ozone Depleting Substances and Products Regulations, 2005 (LI 1812)
- Forestry Commission Act, 1999 (Act 571)
- Forest and Wildlife Policy, 2012
- Mercury Act, 1989 (PNDC 217)
- Hazardous & Electronic Waste Control & Management Act, 2016, (Act 917)
- Small-Scale Gold Mining Law, 1989 (PNDCL 218)
- Minerals Commission Act, 1993 (Act 450)
- Minerals and Mining Amendment Bill 2014 (Mineral Development Fund Bill) & Minerals and Mining Act 2006 (Act 703) Section 96
- Water Resources Commission Act, 1996 (Act 552) and Water Use Regulations, 2001
- Energy Efficiency Regulations, 2008 (LI 1932)
- Ghana National Fire Service Act, 1997 (Act 537)
- The Fire Precaution (Premises) Regulations, 2003 (LI 1724)
- Local Governance Act, 2016 (Act 936)
- Land Use and Spatial Planning Act, 2016 (Act 925)
- The Labour Act, 2003 (Act 651)

- National Gender and Children Policy, 2004
- Workmen's Compensation Law, 1987 (PNDC 187)
- Public Health Act, 2012 (Act 851)

## 2.2 Tanzania

### **Institutional and Administrative Framework**

#### ***Ministry of Energy and Minerals (MEM)***

The MEM is the primary agency responsible for the satisfactory implementation and monitoring of the ESMF. In doing this, MEM will work in close association with relevant district or local level – the Local Government and Regional Authorities (LGARS). The responsibilities of the MEM include:

- Issuing Licenses (prospecting, mining, etc.) including renewals;
- Overseeing implementation of the Mining Policy;
- Enforcement of laws and regulations for mining and protection of environment in the SMMRP project areas;
- Environmental monitoring and auditing of the various SMMRP project activities;
- Mining projects EIS & EMP approvals (through a multi-sectoral committee under the VPO - DOE);
- Managing resettlements in Mining areas (through the Ministry of Lands and Housing Settlements); and
- Mining conflict resolutions.

The Environmental Management Unit (EMU) within the MEM works closely with NEMC to make sure that the social and environmental impacts of mining activities in the country are minimized.

#### ***State Mining Corporation (STAMICO)***

The main role of STAMICO is the provision of professional mineral services, which include drilling (for mineral and water), land and mine surveying, mineral exploration and investment promotion, promotion and modernization of the small-scale mining sub-sector, promotion of industrial minerals development and mineral consultancy. Its capacity could be strengthened to improve consultation and involvement with stakeholders.

#### ***Occupational Safety and Health Authority***

OSHA was set up in 2001 under the Ministry of Labour and Employment to administer occupational health and safety at workplaces in the country. The Ministry of Labor and Employment is the main actor with the oversight role of ensuring that decent work is practiced and maintained in Tanzania. It provides directives, technical advice, enforces legislations, proposes amendments, allocates resources, oversees all activities carried out by OSHA and ensures that OHS rules and regulations are adhered to and maintained at workplaces.

#### ***National Environment Management Council (NEMC)***

Environmental Management Act No. 20 of 2004 re-established NEMC as the responsible authority for the enforcement, compliance, review and monitoring of Environmental Impact Assessments (EIA), including facilitation of public participation processes in environmental decision-making. NEMC undertakes the following activities:

- Performs environmental surveys and advises the government on all relevant matters;
- Enforces pollution control, ensures compliance of the national environmental quality standards and performs the technical arbitration role in the undertaking of EIAs;

- Identifies projects and programs or types of projects and programs for which environmental audit or environmental monitoring must be conducted under this Act;
- Initiates and evolves procedures and safeguards for the prevention of accidents which may cause environmental degradation and remedial measures where accidents occur;
- Publishes and disseminates manuals, codes or guidelines relating to environmental management and prevention or abatement of environmental degradation.

#### ***Vice President's Office (Division of Environment)***

This Department has overall responsible for planning and implementation on all environmental matters, including approvals of SESA and EIA certificates. It is responsible for formulation and articulation of policy guidelines necessary for promotion & protection of the environment. It advises the Government on legislative measures related to management of the environment and on international agreements in the field of environment and issues general guidelines to sector Ministries and monitors and assesses activities being carried out by relevant agencies in order to ensure that the environment is not degraded. It also coordinates issues relating to articulation and implementation of environmental management aspects of other sector policies.

#### ***NGOs and Miners Associations***

The Governments' drive to formalise prospecting and Primary Mining Licenses and to stimulate formation of associations of smallscale miners has been effective in giving the small-scale sector a stronger voice and further influence over policy, legislation and implementation procedures. The influence of individual societies, associations, faith groups and other organisations is recognised by government and the mining sector and some bodies, like the Lawyers Environmental Action Team and Policy Forum have played key roles in advocating changes to recent draft legislation. Other groups (TAWOMA, AFWIMM) have lobbied for fairer treatment of women miners and processors.

#### **National Environmental Legislation and Policies**

The key policies are as below with details given in **Annex I**.

- The Mining Act (1998 and 2010)
- The Environmental Management Act No. 20 (2004)
- The National Environmental Policy (1997)
- Environmental Impact Assessment and Audit Regulations (2005)
- Environmental Action Plan
- The Occupational Health and Safety Act No. 5 of 2003.
- The Employment and Labour Relations Act
- The Land Policy (1997)
- Land Act, Cap.113 R.E. 2002
- Land Acquisition Act Cap118, 1967 R.E. 2002
- Mining Cadastral Information Management System [MCIMS]

### **2.3 Zambia**

#### **Institutional and Administrative Framework**

##### **Zambia Environmental Management Agency**

The mandate of Zambia Environmental Management Agency (ZEMA) formerly called Environmental Council of Zambia (ECZ), is drawn from the Environmental Management Act (EMA) No. 12 of 2011. ZEMA plays a regulatory, advisory, consultative, monitoring, coordination and information dissemination role

on all environmental issues in Zambia. It is the competent authority in the approval of safeguards instruments and post-approval monitoring.

#### **Ministry of Tourism, Environment and Natural Resources**

MTENR is charged with the responsibility of domesticating environmental conventions such as the Stockholm Convention, Basel Convention, Rotterdam Convention and other tourism related global treaties. These include wildlife, forestry, heritage and environmental protection and pollution control. All legislation relating to the management of POPs is enacted through this ministry.

#### **Ministry of Labour and Social Security**

MLSS is responsible for protecting workers against occupational accidents and diseases through the Occupational Safety and Health Services (OSHS) Department to ensure the protection of workers from physical, health and environmental hazards resulting from exposure to chemicals.

#### **Ministry of Health**

MoH is charged with the responsibility of ensuring policies related to health services are implemented effectively. The Food and Drugs Control Laboratory based in MoH monitors chemicals and drugs including POPs in food. In addition, the Occupational Health Safety and Research Bureau (OHSRB) also under MoH monitor's occupational diseases in workers and carries hazard assessment measurements at the work place.

#### **National Environmental Legislation and Policies**

The key policies are as below with details given in **Annex I**.

- National Policy on Environmental Policy (NPE), 2005
- Environmental Impact Assessment Regulations, 1997
- Environmental Management Act, 2011
- The Public Health Act, Cap 295
- Anti-Gender-Based Violence Act, 2010
- Employment Act, 1997
- Gender Equity and Equality Act, 2015
- Human Rights Commission Act, 1996
- Local Government Act, 1995
- Non-Governmental Organisations Act, 2009
- Occupational Health and Safety Act, 2010

## **2.4 Kenya**

#### **Institutional and Administrative Framework**

##### **Ministry of Environment and Natural Resources**

The Ministry of Environment and Natural Resources (MENR) is responsible for the environment at policy level. The Ministry of Environment and Natural Resources (MENR) mission statement and key objective is to facilitate good governance in the protection, restoration, conservation, development and management of the environment, water and natural resources for equitable and sustainable development.

The mandate of the ministry is to monitor, protect, conserve and manage the environment and natural resources through sustainable exploitation for socio-economic development aimed at eradication of poverty, improving living standards and ensuring that a clean environment is sustained now and in the



future. The ministry comprises of various divisions at the headquarters and the following parastatals and departments including the National Environment Management Authority.

#### **National Environment Management Authority (NEMA)**

NEMA is the principal instrument of Government in the implementation of all policies relating to the environment including POPs. NEMA is the administrative body that is responsible for the coordination of the various environmental management activities in Kenya. It is also responsible for granting Environmental and Social Impact Assessment (ESIA) approvals and for monitoring and assessing activities in order to ensure that the environment is not degraded by such project activities.

#### **County Environmental Committees**

The County Environmental Committees also contribute to decentralized environmental management and enable the participation of local communities. These environmental committees are to be constituted by the governor and are responsible for the proper management of the environment within the County for which it is appointed.

#### **National Environmental Complaints Committee**

The National Environmental Complaints Committee (NECC) is established under Section 31 of EMCA. The NECC is concerned with the investigation of complaints relating to environmental damage and degradation generally. The NECC has powers to investigate complaints against any person or even against NEMA or on its own motion investigate any suspected case of environmental degradation. The NECC is required by law to submit reports of its findings and recommendations to NEMA.

#### **Standard and Enforcement Review Committee (SERC)**

SERC key function is to advise NEMA on the criteria and procedures for the measurement of environmental standards including but not limited to water quality, effluent discharge, air quality and noise quality, etc. Figure 2 below shows the summary of environmental management systems in Kenya.

#### **National Environmental Legislation and Policies**

The key policies are as below with details given in **Annex I**.

- Constitution of Kenya, 2010
- Environmental Management and Coordination Act, 1999 and Amended in 2015
- Environmental Impact Assessment and Audit Regulations, 2003
- County Government Act, 2012
- Land Act, 2012
- Child Rights Act 2012
- Labour Relations Act 2012

## **2.5 Senegal**

### **Institutional and Administrative Framework**

#### **The Ministry of the Environment and Sustainable Development (MEDD)**

The Ministry of the Environment and Sustainable Development (Ministère de l'Environnement et du Développement Durable, MEDD) is responsible for implementing the Government's sectoral policy in environment protection and sustainable development. Thus, the Sectoral Policy Letter on the Environment and Sustainable Development (Lettre de Politique du Secteur de l'Environnement et du Développement Durable, LPSEDD - 2016-2020) is built on accomplishments, lessons learned from under-performances recorded during the implementation of the previous policy letter, the inclusion of emerging

themes and the evolution of national and international environments. Assessment results from implementing the Sectoral Policy Letter on the Environment and Natural Resources (Lettre de Politique Sectorielle de l'Environnement et des Ressources Naturelles, LPSEEN 2009-2015) emphasize the urgent need for the MEDD to ensure on one hand a better coordination of interventions by its directorates and agencies and, on the other hand, to mobilize and commit various actors (Sectoral Ministries, Local Governments, Private Sector, NGOs, CBOs, other committees, populations) in the management of the environment and natural resources.

The overall objective of Senegal's environmental and sustainable development policy is: "To create a national dynamic for improving the environment and the management of natural resources and integrating sustainable development principles in policies designed to strengthen population resilience to climate change". To this, must be added the necessity to strengthen the capacities of actors in project and program development and execution, and in finance mobilization as well. The 2016-2020 LPSEDD, formulated in a consensus and participatory manner, expresses the shared vision, common values, strategic priorities and programs aligned with a global objective and with specific objectives translated at the functional level into programs and lines of action.

Thus, implementation of the national policy on the protection and enhancement of the environment is under the responsibility of the MEDD. It includes the following technical directorates: the Environment and Classified Establishments Directorate (DEEC), the National Parks Directorate (Direction des Parcs Nationaux, DPN), the Waters, Forests, Hunting and Soil Conservation Directorate (Direction des Eaux, Forêts, Chasses et Conservation des Sols, DEFCCS), the Directorate of Communal Marine Protected Areas (Direction des Aires Marines Communautaires Protégées, DAMCP), the Environmental Planning and Surveillance Directorate (Direction de la Planification et de la Veille Environnementale, DPVE), the Green Financing and Partnerships Directorate (Direction des Financements Verts et des Partenariats, DFVP).

#### **The Environment and Classified Establishments Directorate (DEEC)**

The DEEC is responsible for implementing Government policy on the protection of the environment and the population against pollution, nuisances and dangerous waste, and in the management of environmental requirements and provisions for classified establishments and their surrounding areas. In this regard, in the conduct and monitoring of ESIA procedures, the MEDD relies on the Environment and Classified Establishments Directorate (DEEC) and the National Technical Committee set up by ministerial decree n°009469 of November 28, 2001. As such, the DEEC ensures compliance of environmental assessment submissions and assumes the secretariat of the national technical committee. It coordinates all activities of this committee, from the studies to the validation of environmental assessments.

The DEEC thus includes the following technical divisions: (i) a Division of Environmental Impact Assessments; (ii) a Division of Pollutions and Nuisances Prevention and Control; (iii) a Division of Classified Installations; (iv) and Regional Divisions of Environment and Classified Establishments in the 14 regions.

**Division of Environmental Impact Assessments (DEIE)** is responsible for:

- validating terms of reference (TOR) of environmental assessments (environmental and social impact studies, strategic environmental assessments of policies, plans and programs, environmental audits, initial environmental analysis);
- determining the admissibility of environmental impact assessments;
- ensuring the monitoring of environmental management in Plans implementation;
- providing a technical advice on projects submitted by developers;

- preparing for the Environment Minister the decision on the environmental compliance certificate; assuming the secretariat functions of the national technical committee for environmental assessments, public hearings and the approval commission for exercising activities related to environmental assessments.

#### ***The Technical Committee***

In accordance with article R43 of decree n°2001-282 of April 12, 2001 on the Environment Code, the National Technical Committee is a unit responsible for the administration and management of the environmental impact study. It assists the Environment Ministry in the validation of the environmental impact study report. The Environment and Classified Establishments Directorate assures its secretariat. Article 2 of *decree n°009469 of November 28, 2001 on the organization and functioning of the technical committee* provides the list of members of the technical committee, including almost all national directorates, representatives of the private sector, the civil society, representatives of local governments and other entities. The National Technical Committee assumes the following functions:

- ensure the environmental dimension in development projects is taken into account;
- administer the environmental assessment process;
- advise the Environment Minister on his responsibilities as provided by law;
- make public participation to the environmental assessment process possible;
- seek the collaboration between entities that have a role in the process of the environment impact study;
- ensure process integrity and efficiency;
- assess the quality of environment impact study reports and of compliance of the report and the environment impact study process with terms of reference;
- formulate an advice on all projects subjected to an environment impact study;
- ensure recommendations are implemented;
- foster implementation of good practices in the domain of environmental assessment;
- promote research on environmental assessment.

In accordance with article 3 of said decree, the National Technical Committee is responsible for the internal validation of environmental impact study reports and for helping the Environment Minister decide whether a project may be accepted or not. It is chaired by the department which activities are analyzed based on the current case. It prepares with the developer and all stakeholders the conduct of public hearings.

After receiving the project, the National Technical Committee has ten days to notify developers on the type of studies they must conduct (notification of impact or terms of reference for an in-depth study). It communicates planned measures to decentralized governments.

#### ***The Regional Divisions of the Environment and Classified Establishments***

At the decentralized level, article 13 of the ministerial decree n°6905 of August 5, 2008 on the organization of the Environment and Classified Establishments Directorate provides for the establishment of Regional divisions of environment and classified establishments (DREEC) which organization and functioning are defined in a service note by the Environment and Classified Establishments Director (Official Gazette of October 25, 2008). DREECs represent the DEEC at the local level and are responsible for executing actions, activities and missions in their respective administrative divisions. In accordance with legislation on local governments, they provide technical assistance to these entities in project identification, formulation and monitoring. The DREEC ensures coordination of regional technical committees for environmental monitoring. They are responsible for, among other missions:

- reviewing authorization applications for any actor operating in a classified establishment;
- receiving and processing requests for opening and exploiting classified installations for environment protection (Installations Classées pour la Protection de l'Environnement, ICPE) and deliver related affidavits;
- determining admissibility of initial environmental analyses;
- proceeding to the census and development of the database on classified establishments as well as tax collection;
- ensuring regular inspections and controls of classified establishments;
- ensuring monitoring of actions by various services and organizations involved in the environment domain;
- ensuring proper handling of dangerous expired and obsolete products and monitor their destruction as needed;
- ensuring monitoring of PGES implementation;
- supporting TOR and EIS validation process;
- implementing appropriate measures to ensure prevention and control of pollution and nuisances;
- fostering energy efficiency for a greater protection of the environment and for the rational management of natural resources.

#### **The Regional Committee for Environmental and Social Monitoring (CRSE)**

A Regional Committee for Environmental and social Monitoring (*Comité Régional de Suivi Environnemental et social*, CRSE) of local development projects has been instituted at the region level – with support of the National Program for Local Development (*Programme National de Développement Local*, PNDL) – to better handle decentralization and local development processes. The CRSE is composed of the region's technical services (Environment, Water and Forests, Community Development, Spatial Planning, Programming, Local Development Support, etc.). Its core tasks are to support the environmental assessment and monitoring process for local development projects and to build capacities of local actors in environmental and social management. The DREEC manages coordination of this committee.

#### **The Local Governments Directorate (Direction des Collectivités locales, DCL) of the Ministry of Territorial Governance, Development and Spatial Planning, MGTDAT)**

The MGTDAT, under the authority of the Prime Minister, prepares and implements the Head of State's policy on decentralization, territorial governance, development and spatial planning. As such, it oversees the harmonious, balanced and coherent development of agglomerations and economic activities on the national territory. It takes into account social consequences of the territorial distribution of populations and economic activities. It proposes and executes necessary measures for strengthening decentralization. It develops and promotes strategies and programs favorable to territorial development. It ensures the good functioning of local governments. It watches over local governments' control of lawfulness in various actions. It fosters intercommunality, the harmonious cooperation between local governments and the promotion of territory hubs (*Pôles Territoires*). It oversees the capacity-building of Territorial Governments and sets up a training policy for local elected officials.

#### **National Environmental Legislation and Policies**

The key policies are as below with details given in **Annex I**.

- Law n°2001-01 of January 15, 2001 on the Environment Code
- Decree n°2001-282 of April 12, 2001
- Law n°2013-10 of December 28, 2013 on the General Code of Local Governments.

- Law n°83-71 of July 5, 1983 on the Public Health Code
- Law n°98-03 of January 8, 1998 on the Forestry Code
- Law n°2016 of November 8, 2016 on the Mining Code
- Law n°81-13 of March 4, 1981 on the Water Code
- The Labor Code and its new application decrees of 2006
- Law n°2008-43 of August 20, 2008 on the Urban Planning Code
- Nomenclature of classified installations for the protection of the environment
- Sectoral referential guides for ESIA
- Guide on the study of danger

## 2.6 World Bank ESF

The ESF protects people and the environment from potential adverse impacts that could arise from Bank-financed projects and promotes sustainable development. This new framework provides broad coverage, including important advances on transparency, non-discrimination, social inclusion, public participation and accountability. The ESF also places more emphasis on building Borrower governments' own capacity to deal with environmental and social issues.

The *Environmental and Social Framework (ESF)* enables the World Bank and Borrowers to better manage environmental and social risks of projects and to improve development outcomes. It was launched on October 1, 2018 and replaces the Safeguards Policies.

The ESF offers broad and systematic coverage of environmental and social risks. It makes important advances in areas such as climate change; labor standards; transparency; non-discrimination; disability; public participation; and accountability—including expanded roles for grievance mechanisms. The ESF codifies best practice in development policies. It brings the World Bank's environmental and social protections into closer harmony with those of other development institutions; and encourages Client countries to use, and improve, their own national environment and social policies, when these policies are strong enough. The ESF provides an incentive for countries to develop and build their own environmental and social policies and capacity.

### The ESF consists of:

- the World Bank's *Vision for Sustainable Development*
- the World Bank's Environmental and Social Policy for Investment Project Financing, which sets out the requirements that apply to the Bank
- the 10 Environmental and Social Standards (ESS), which set out the requirements that apply to Borrowers
- Bank Directive: Environmental and Social Directive for Investment Project Financing
- Bank Directive on Addressing Risks and Impacts on Disadvantaged or Vulnerable Individuals or Groups

As of October 1, 2018, the ESF applies to all new World Bank investment projects. With existing projects continuing to apply the Safeguard Policies, the two systems will run in parallel for an estimated seven years. The EHPMP will apply the ESF. **Table 1** depicts the ESSs that are anticipated to be relevant to this Program.

**Table 1. Application of ESSs to EHPMP**

Environmental and Social Standards	Yes	No
ESS 1: Assessment and Management of Environmental and Social Risks and Impacts	X	
ESS 2: Labor and Working Conditions	X	
ESS 3: Resource Efficiency and Pollution Prevention and Management	X	
ESS 4: Community Health and Safety	X	
ESS 5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement		X
ESS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources		X
ESS 7: Indigenous People/Sub-Saharan African Historically Underserved Traditional Local Communities		X
ESS 8: Cultural Heritage		X
ESS 9: Financial Intermediaries		X
ESS 10: Stakeholders Engagement and Information Disclosure	X	

From the preliminary review carried out, it can be concluded that implementing agencies' environmental and social management system and procedures need to be complemented/enhanced to comply with the ESF requirements. The Project will address the gaps through the preparation and implementation of an Environmental and Social Commitment Plan (ESCP). The ESCP include the preparation and implementation of ESMPs and Stakeholder Engagement Plans (SEPs) and where required ESIAs.

ESS 5, ESS 6, ESS 7 and ESS 8 are not anticipated to be relevant to this project as the screening criteria developed as part of the ESMF for site selection lists exclusion criteria covering these standards. See section 3.3.

**ESS1 Assessment and Management of Environmental and Social Risks and Impacts:** The project is envisioned to identify and assess environmental and social risks and impacts associated with project implementation. An ESIA where applicable and an ESMP will be prepared to address potential impacts associated with proposed activities under Component 3 which will require mitigation measures. This will help to ensure that the project activities are environmentally and socially sound and sustainable. Where there are existing ESIAs (covering the ongoing Bank-funded projects linked with each of the pilots), such ESIAs will be reviewed to assess their coverage of the proposed pilot interventions and to ensure that they are aligned with the requirements of the ESF. Where contractors will be required for demonstrative activity implementation, each contract will include a condition to implement and comply with the ESMP, including preparing Construction ESMP (CESMP).

**ESS2 Labor and Working Conditions:** The demonstration pilots footprint is relatively discrete and does not entail a significant amount of labor. Most of the projects will not require construction of physical infrastructure and will rather involve application of alternative practices and new technologies at already existing site. The pilot projects will require either additional workers or existing workers within a facility to be reassigned. In order, to ensure fair treatment of workers it will be essential that terms and conditions of employment (hours, rest periods, annual leave, nondiscrimination, equal opportunities and workers

organizations) are aligned with the requirements of national law and ESS2. In addition, to protect workers appropriate Occupational Health and Safety (OHS) should be applied to avoid the risk of ill health, accidents and injuries. In addition, child and forced labor will not be engaged in any elements of the Project. Specifications for contractors should be followed.

**ESS3 Resource Efficiency and Pollution Prevention and Management:** Different activities under the project components aim at avoiding or minimizing adverse impacts on human health and the environment by eliminating the use of mercury and preventing emissions of uPOPs and other harmful pollutants in ASGM and management of e-waste. In case of e-waste pilots, the purpose of the project is aiming towards material reuse, recycle and recovery. For all pilot designs, any remaining waste will be treated or disposed of it in a safe manner that includes the appropriate control of emissions and residues resulting from the handling and processing of the waste material. The treatment and disposal process will comply with national legislation and Basel Conventions on storage, transportation and disposal of hazardous wastes. No transboundary waste movements is funded under the project. In case relevant national legislation is insufficient, the implementing agencies will adopt Good International Industry Practice (GIIP) alternatives for its environmentally sound and safe management and disposal.

**ESS4 Community Health and Safety:** The proposed pilot projects are not anticipated to have substantial risk to community health and safety. Based on the scale of the pilots, there will likely be no influx of workers and followers into a project area. Implementation of the project will have both direct and indirect benefits to the people's health and safety. Some temporary negative effects are possible due to increased traffic, noise or disturbance to local communities living close to the sites as well as through handling of the e-waste. The capacity building programs in components 1, 2 and 3 will provide necessary knowledge and skills on safety measures to be incorporated in ASGM activities and e-waste recycling sector including safe handling of hazardous waste.

**ESS 10 Stakeholders Engagement and Information Disclosure:** The implementing agencies will provide stakeholders with timely, relevant, understandable and accessible information, and consult with them in a culturally appropriate manner, which is free of manipulation, interference, coercion, discrimination and intimidation. A SEP will be prepared for each country to keep stakeholders informed on the project progress. This will ensure appropriate project information on environmental and social risks and impacts is disclosed to stakeholders in a timely, understandable, accessible and appropriate manner format. Stakeholders will be actively involved in decision making and project implementation processes through the ongoing Bank-funded projects linked with each of the pilots and where necessary existing mechanisms will be enhanced or additional mechanisms developed to align with ESS 10.

## **2.7 World Bank Environmental Health and Safety Guidelines**

The World Bank Group's Environmental, Health and Safety (EHS) Guidelines are technical reference documents with general and industry-specific examples of GIIP. The General EHS Guidelines are designed to be used together with the relevant Industry Sector EHS Guidelines such as the EHS guidelines for waste management facilities which provide guidance to users on EHS issues relevant to waste management facilities.

The EHS Guidelines contain the performance levels and measures that are generally considered to be achievable in new facilities by existing technology at reasonable costs. The applicability of the EHS Guidelines should be tailored to the hazards and risks established for each project on the basis of the results of an environmental assessment in which site-specific variables, such as country context, assimilative capacity of the environment, and other project factors, are taken into account. The

applicability of specific technical recommendations should be based on the professional opinion of qualified and experienced persons. When host country regulations differ from the levels and measures presented in the EHS Guidelines, projects are expected to achieve whichever is more stringent. If less stringent levels or measures than those provided in these EHS Guidelines are appropriate, in view of specific project circumstances, a full and detailed justification for any proposed alternatives is needed as part of the site-specific environmental assessment. This justification should demonstrate that the choice for any alternate performance levels is protective of human health and the environment.



### 3. Environmental and Social Procedures

#### 3.1 Potential Impacts from the Program

For e-waste, the project will support technologies to reduce uPOPs by preventing uPOPs precursors such as plastic and electronic wastes being mixed with municipal and organic wastes that are subject to open burning and consequently causing emissions of uPOPs. Unregulated combustion will be better controlled by improving the separation, segregation, recycling of municipal and hazardous waste. Waste separation technologies will allow separation of the waste components such as plastics, metals, electronic cables and wires etc. Examples of e-waste separation technologies include screeners, concentrating tables or density separators, air classifiers or cyclones, magnetic separators, electrostatic separators etc.

For mercury abatement, technologies to promote phasing out of mercury usage will be introduced. The focus will be on promoting alternative technologies for gold extraction without the use of harmful chemicals. Possible technologies to avoid the use of mercury in ASGM include slucing, direct smelting, improved milling, shaking table, reactivation, centrifuges etc.

Though significant negative impacts are not envisaged, reversible impacts are likely. The key potential environmental and social issues, which can be readily managed/mitigated are related to

- hazardous waste management (including disposal) at pilot e-waste sites;
- dust and particulate materials, causing nuisances to surrounding families and businesses, specially to sensitive receptors (children, elders) during construction;
- undesirable noise levels due to the machinery and equipment especially in areas with health centers, homes for the elderly and schools;
- occupational health and safety of workers; and
- terms and conditions of employment of workers.

Therefore, the projects in the program can be managed through:

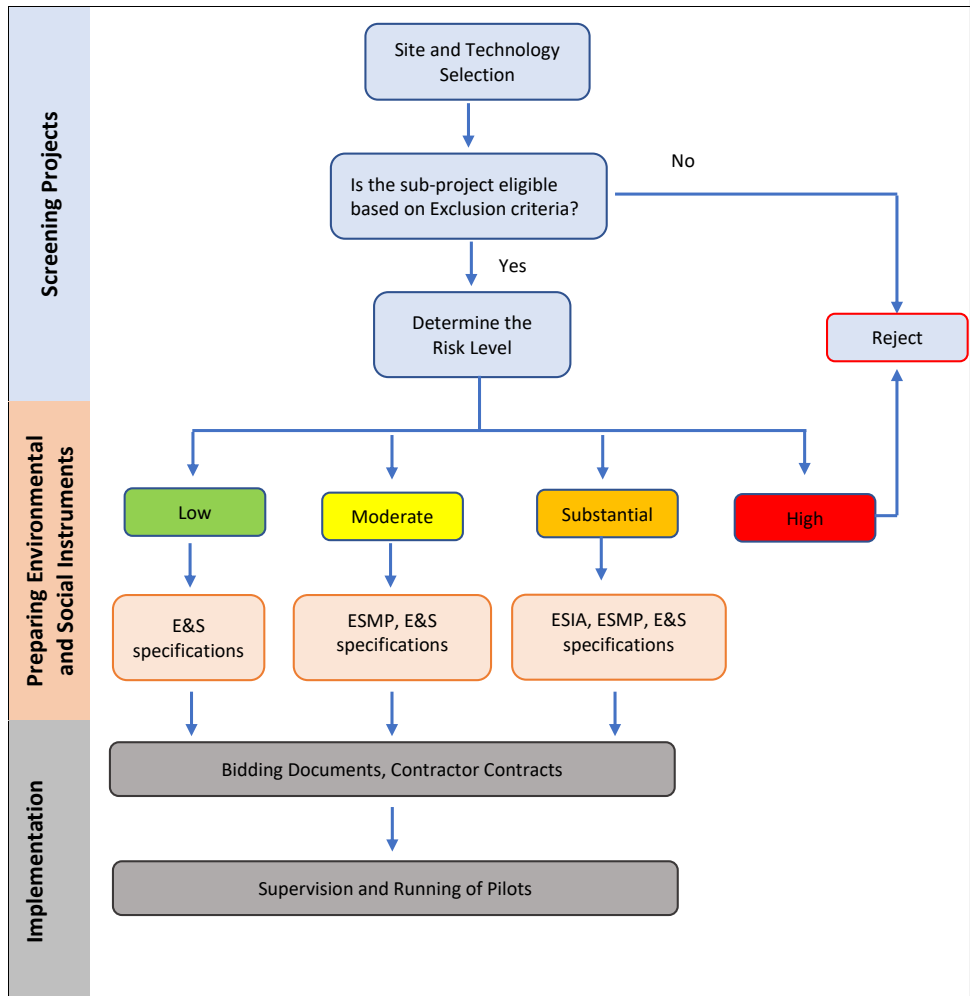
- i. The preparation of site specific environmental and social management plans for construction and operation to address localized issues at the proposed project sites and,
- ii. The application of environmental and social specifications that the contractor should follow during construction.

Projects inside protected areas will not be financed by EHPMP. However, projects near sensitive areas (native forests,) could facilitate access to these areas and increase pressure on these habitats (deforestation, encroachment or the project can have the potential to increase migration of people to the area. Therefore, the ESMF also includes the possibility for carrying out ESIA's for some projects and where required by national legislation. The environmental and social measures to be implemented during construction should be part of bidding documents and contractors' contracts.

#### 3.2 E&S Process

**Figure 1** details the process that should be followed from site and technology selection to running of the demonstration pilots.

**Figure 1. The Environmental and Social Process**



### 3.3 Screening

#### Step 1a: Application of the exclusion criteria for site selection

This is the first step to be carried out by the focal Agencies. Each proposed site should be screened based on the exclusion criteria given below. If the potential site meets any of the criteria given in the list, then it should be rejected.

The project sites will NOT:

- require land acquisition, loss of access to natural resources or involuntary physical and/or economic displacement of households including those without legally recognizable rights to the land;
- utilize land traditionally owned or under customary use or occupation or have collective attachment to indigenous and vulnerable people as defined in ESS7;
- utilize land with outstanding land disputes;
- be a significant source of pollution such as having runoff or leading to negative health and environmental effects,
- be located in a degraded area,
- be located close to areas important for biodiversity. For example, not be situated in critical habitat, natural habitats or other legally protected areas;
- be on locations where forced or child labor is present;
- be close to a riparian zone;
- have a high ground water table;
- be inaccessible by road.

In addition, where land is required, the sites should have a legally established landowner willing to voluntarily allow the siting of the demonstration pilot on their land in line with the requirements of ESS 5 on voluntary land donation or be government owned land (without resulting in displacement).

The site for locating the demonstration pilot will be selected in consultation with the stakeholders and will be one that is easily accessible to the artisanal small-scale miners. For e-waste, the site should be an existing waste disposal facility with required permits.

#### **Step 1b: Selection of technologies for demonstration pilots**

##### **a) Mercury abatement – Tanzania and Ghana**

The technology will be selected from internationally recognized and accepted non-mercury methods available. Many of the exiting methods for separating gold without the use of mercury such as using different concentration methods rely on the high density of gold relative to other minerals in ore or alluvium mixture and thus do not generate any waste or negative environmental impacts. Based on available options, discussions will be held with relevant stakeholders such as government agencies, ASGM groups, and local manufacturers to select the best available technology.

Best available technologies should to be selected with following criteria informing the selection process:

- Ease of availability and replicability;
- Ease of usage;
- Cost of purchase and manufacture of the equipment;
- Reduction in mercury use due to adoption of the technology;
- Not be a significant source of pollution or waste;
- Economic and social benefits such as number of miners moving away from mercury usage, benefit of not using mercury including cleanup costs, health benefits.

In Tanzania, the project will collaborate with local partners such as Small Enterprise Development Corporation (SEDCO/SIDO) in order to replicate the equipment for gold recovery thereby supporting small scale industries and job creation, contributing to the local economy.

b) Promotion of waste segregation and recycling to minimize e-waste burning – Ghana, Zambia, Kenya and Senegal

The cleaner and safer technologies will be selected from existing waste separation technologies. Best available technologies should be selected with the following criteria to informing the selection process:

- Ease of availability and replicability,
- Ease of usage,
- Efficiency of the process,
- Cost of purchase and manufacture of the equipment,
- Quantity of waste that can be separated as compared to the amount dumped at the facility,
- Types of wastes that can be separated,
- Economic and social benefits such decrease in the amount of uPOPs and other pollutants, health benefits including healthcare costs.

**Step 2: Determining the environmental and social risk category**

The environmental and social risk should be assessed based on the sensitivity of the site selected in line with the World Bank ESF risk category definitions (See **Annex II**). Using available information such as maps showing key features such as national parks, protected areas, forests, rivers etc; topographic maps; cultural heritage maps; planning records; literature review and site visits, the focal agency should determine the risk of the project. The criteria given in **Table 1** should inform the risk categorization.

**Table 1: Assessing Sensitivity of the Project Based on Location**

Risk	Site Sensitivity
High	<p>1.1 High possibility of environment degradation taking place (deforestation, hunting, etc) due to the project</p> <p>1.2 High possibility to adversely affect the ecology of protected area areas located with 1km of the site (e.g., interference with the migration routes of mammals or birds)</p> <p>1.3 Located in areas highly vulnerable to natural disasters (floods, earthquake, etc.)</p> <p>1.4 Will alter historical, archaeological or cultural heritage site or require excavation near such a site</p> <p>1.5 Will permanently restrict people's access to pasture, water, public services or other resources that they depend on</p> <p>1.6 Will require significant volumes of rehabilitation materials (e.g. gravel, stones, water, timber, firewood)</p> <p>1.7 Will have significant human health and safety risks during construction and operation</p> <p>1.8 Will lead to significant soil degradation in the area</p> <p>1.9 Will significantly alter soil salinity that should be avoided</p> <p>1.10 Will create significant quantities of solid or liquid waste that could adversely affect local soils, vegetation, rivers, streams or groundwater</p> <p>1.11 Will significantly affect river or stream ecology</p> <p>1.12 Will result in significant emissions of chemicals into soil, water or air</p> <p>1.13 Will lead to significant migration into the area</p> <p>1.14 Will result in permanent loss of crops, fruit trees and household infrastructure (such as granaries, outside toilets and kitchens, etc)</p> <p>1.15 Will lead to permanent loss of livelihoods of individuals or families</p>

<b>Substantial</b>	<p>2.1 Possibility of environmental degradation taking place (deforestation, hunting, etc.) due to the project</p> <p>2.2 Possibility to adversely affect the ecology of the protected area areas located with 1-3 km of the site (e.g., interference with the migration routes of mammals or birds)</p> <p>2.3 Located in areas with substantial risk to natural disasters (floods, earthquake, etc.)</p> <p>2.4 Historical, archaeological or cultural heritage site near the project that can be affected and will require preventative measures</p> <p>2.5 Will restrict people's access to the pasture, water, public services or other resources that they depend on during construction</p> <p>2.6 Will require large volumes of rehabilitation materials (e.g. gravel, stones, water, timber, firewood)</p> <p>2.7 Will have human health and safety risks during construction and operation</p> <p>2.8 Will lead to soil degradation in the area requiring mitigation</p> <p>2.9 Will affect soil salinity and requires mitigation measures</p> <p>2.10 Will generate solid or liquid waste that could affect local soils, vegetation, rivers, streams or groundwater</p> <p>2.11 Will affect river or stream ecology during construction and operation</p> <p>2.12 Will result in emissions of chemicals into soil, water or air and require specially designed mitigation measures</p> <p>2.13 Will lead to migration into the area</p> <p>2.14 Will damage crops, fruit trees and household infra-structure (such as granaries, outside toilets and kitchens, etc)</p> <p>2.15 Will lead to temporary loss of livelihoods of individuals or families during construction</p>
<b>Moderate</b>	<p>3.1 Low possibility of environmental degradation taking place (deforestation, hunting, etc) due to the project</p> <p>3.2 Project is greater than 3-5 km from ecologically sensitive habitats or critical ecosystems (wetlands, mangroves, protected areas, national parks, natural forests, wildlife sanctuaries, rivers and lakes)</p> <p>3.3 Located in zones with low risk to natural disasters (floods, earthquake, etc.)</p> <p>3.4 Historical, archaeological or cultural heritage site near with low probability of being affected but requires monitoring</p> <p>3.5 Will temporarily restrict people's access to the pasture, water, public services or other resources that they depend on during construction</p> <p>3.6 Will require small quantities of rehabilitation materials (e.g. gravel, stones, water, timber, firewood)</p> <p>3.7 Possibility of human health and safety risks during construction and operation that can be easily managed</p> <p>3.8 Possibility of soil degradation in the area</p> <p>3.9 Will temporarily affect soil salinity</p> <p>3.10 Solid or liquid waste affecting local soils, vegetation, rivers, streams or groundwater could be generated</p> <p>3.11 Installation of the technology may affect river or stream ecology</p> <p>3.12 Will result in emissions of chemicals into soil, water or air that can be easily mitigated</p> <p>3.13 Possibility of migration into the area</p> <p>3.14 Possible damage to crops, fruit trees and household infra-structure (such as granaries, outside toilets and kitchens, etc)</p> <p>3.15 Possible temporary loss of livelihoods of individuals or families</p>
<b>Low</b>	<p>4.1 No environmental degradation will take place (deforestation, hunting, etc)</p>

	4.2 Project is greater than 5 km from ecologically sensitive habitats or critical ecosystems (wetlands, mangroves, protected areas, national parks, natural forests, wildlife sanctuaries, rivers and lakes)
	4.3 Located in zones at no risk to natural disasters (floods, earthquake, etc.)
	4.4 Absence of places with cultural and historical significance near the project site
	4.5 Will not restrict people's access to the pasture, water, public services or other resources that they depend on
	4.6 Will not require rehabilitation materials (e.g. gravel, stones, water, timber, firewood)
	4.7 Will not have human health and safety risks during construction and operation
	4.8 Will not lead to soil degradation in the area
	4.9 Will not affect soil salinity
	4.10 Will not generate solid or liquid waste
	4.11 Will not affect river or stream ecology
	4.12 Will not result in harmful emission of chemicals into soil, water or air
	4.13 Will not lead to migration into the area
	4.14 Will not damage crops, fruit trees and household infra-structure (such as granaries, outside toilets and kitchens, etc)
	4.15 Will not lead to loss of livelihoods of individuals or families

### Step 3: Level of effort required

Once the risk level has been identified, the level of environmental and social effort for managing the E&S risk for each project should be determined based on Table 3.

**Table 3. Environmental Effort to be Undertaken**

Risk Level	Level of E&S Effort
High	Projects should be rejected
Substantial	ESIA and ESMP will be prepared for the project
Moderate	Site Specific ESMP and E&S specifications for contractors
Low	E&S specifications for contractors

**High Risk:** Projects identified to be of High risk should be rejected.

**Substantial risk:** Projects should undertake an ESIA. For identified impacts, an ESMP should be developed. E&S specifications for contractors should be followed. The ESMP and E&S specifications for contractors should be included in the bidding documents. The contractor should prepare construction ESMPs (CESMP) based on the ESMP requirements. The contractor should follow the E&S specifications for Contractors during construction.

**For Moderate risk Projects:** Site specific ESMPs should be developed and EIA undertaken if required by law. During construction by following the E&S specifications for contractors with oversight by the focal agency the impacts can be managed. The contractor should prepare CESMPs based on the requirements in the site specific ESMP.

**For Low risk Projects**, the impacts can be managed through the E&S specifications for contractors with oversight by the focal agency.

### 3.4 Preparing Environmental and Social Instruments

Once the sites and technologies have been selected, Terms of Reference (ToRs) for the ESMP and ESIA (where required) will be prepared by the focal agency in compliance with national legislation and the World Bank ESF. **Annexes III and IV** provide outlines of ESIA and ESMP. The ToRs will be site specific informed by the screening carried out by the focal agency (and/or PIU).

Each of these projects have undertaken or are undertaking E&S review and developing their E&S instruments. The pilots will benefit from the E&S due diligence carried out for these projects.

### Review of ToRs by the World Bank

The site-specific ToRs for ESIA and ESMP for each pilot will be reviewed by the World Bank. Site visits by the World Bank environmental and social specialists may be needed in order to better understand the site conditions and verify the appropriateness of the ToR. The ToRs will be guided by the ESMF.

### Preparation of ESIAs and ESMPs

Preparation of ESIAs and site specific ESMPs is the responsibility of the focal agencies. Upon agreement on the ToRs, the focal agency will be responsible for engaging qualified specialists to carry out the assessments and prepare the documents based on outlines of ESIA and ESMP given in Annexes III and IV. With communities being the main beneficiaries of the pilot projects, ownership is extremely important. Stakeholders' participation and public consultations should be integrated across the entire process from planning to construction to operation.

The site specific ESMPs should be prepared covering issues that warrant special attention during construction and operation such as:

- Traffic;
- Location and protection of sensitive receptors such as schools, hospitals, religious places;
- Noise;
- Pastures and fields;
- Community assets such as water supply, irrigation, generators, bus stops etc.;
- Scenic areas and community value (waterfalls, trees for shade);
- Segregation of waste particularly hazardous wastes;
- Safe disposal of waste in compliance with national laws and international conventions;
- Transport of waste to and from the site;
- Occupational health and safety of community and workers.

No transboundary waste movements will be funded under the project. In case relevant national legislation is insufficient, the focal agencies will adopt GIIP for environmentally sound and safe management and disposal of waste. The landfill where the waste would be disposed should have the requisite permits and be in compliance with the national regulations.

### E&S Specifications for Contractors

The E&S specifications for contractors are meant to guide the contractor to follow good environmental and social practices during construction. Contractors should follow the Environmental and Social Specifications given in **Annex V**.

### **Review and clearance of the E&S documents by the World Bank**

All environmental and social documents prepared according to this ESMF, will be reviewed by the World Bank prior to implementation. The approved E&S documents will be publicly disclosed in country and on the World Bank website. If a permit is required for any site, then the required permits will have to be obtained prior to starting the pilots.

### **3.5 Implementation**

The focal agencies in the countries are responsible for oversight of the demonstration pilots including engaging with all concerned such as manufacturers, local communities, artisanal small-scale gold miner organizations and waste management/disposal companies. The agencies are also responsible for ensuring implementation and compliance of the ESMPs. Chapter 4 describes the institutional arrangements.

#### **Bidding Documents and Contracts**

The site specific ESMPs requirements for projects along with the E&S specifications for contractors should be incorporated into bidding documents for the works by the focal agencies. Contractors should be aware of their obligations upfront and should include the cost of implementing the E&S (including health and safety) requirements. Contractors' contracts should also include all the E&S health and safety requirements, including requirements for the contractor to develop CESMPs during construction for issues such as noise, traffic, labor and grievances by workers and communities.

Purchase of materials should be only from approved sites. Some projects might also generate construction waste that require appropriate environmental disposal. The identification of suitable sites for waste disposal, the environmental management necessary (compacting, re-soiling and re-vegetation, drainage control), and the associated transportation costs should be included in project design and cost estimates.

#### **Construction Environmental and Social Management Plans**

Based on requirements of the ESMPs and site-specific ESMPs, contractors are required to develop CESMPs for issues such as noise, traffic and labor. The purpose of the construction environmental and social management plan is to outline how during construction the contractor will avoid, minimize or mitigate effects on the environment and surrounding area. CESMPs are 'live' documents that should be reviewed and updated at regular intervals throughout the project life cycle. The CESMP should be approved by the focal agency.

Construction environmental and social management plans may be structured as follows:

- Introduction – General purpose, scope and structure of the document.
- Scope of work and project description
- Environmental requirements and controls – Policy and planning, environmental impacts, risks and mitigation, procedures for monitoring the construction processes against environmental objectives, pollution control measures, environmental risk register
- Consents and permissions
- Management plans – Specific management plans such as noise and vibration, traffic, labor, grievances etc.,
- Health and safety procedures
- Community consultations
- Training
- Incident reporting and investigation
- Emergency response measures/plans



### **Environmental Supervision during Construction**

The focal agency will oversee the construction activities and ensure compliance with the contractor environmental and social management plans and E&S specifications. Where non-compliances are observed, the focal agency will stop the works and work with the contractor to rectify the problem in coordination with the PIU. Chance Find Procedures included in the E&S specifications will be followed if tangible cultural heritage is encountered during civil works.

### **Reporting**

Detailed reporting arrangements will be described in the ESMP, but at a minimum all implementers of activities should submit quarterly reports to the Project Focal Person in the focal agency outlining the following in their reports: type of activity undertaken, expected outputs, timeline of activities, allocated budget, and actual expenditure. The Focal Person shall prepare a report at the end of each quarter to highlight achievements and challenges faced and future activities required to achieve the stated objectives. These reports shall be sent to the Program Steering Committee and World Bank for review.

### **3.6 Public Consultation**

In addition to any specific requirement of the SEP to enhance adequate community relations the contractor shall:

1. Inform the population about construction and work schedules, interruption of services, traffic detour routes etc. as appropriate.
2. Limit construction activities at night. When necessary ensure that night work is carefully scheduled and the community is properly informed so they can take necessary measures.

### **3.7 Gender and Vulnerable Groups**

Women have the potential to play an important role in behavioral change that could significantly reduce exposure of children to hazardous chemicals and waste. The projects have an emphasis on inclusion of women and vulnerable people in the sensitization and communication campaign, participation in the health interventions that target affected children, and local level nutritional support, livelihood support activities. The project will mainstream gender equality and social inclusion into the activities to help groups such as women, children and persons with disabilities that are marginalized and are more susceptible to pollution and the environmental health impacts associated with mining and pollution. The ESIA and/or detailed ESMP will need to consider gender in the identification and assessment of impacts and develop gender specific mitigation as required. Additionally, vulnerable groups will be identified and impacts from the projects assessed and specific mitigation measures developed and included in the ESIA and ESMP.

### **3.8 Health and Safety**

The World Bank Group Environmental, Health and Safety Guidelines are applicable to the project, with the following specific guidelines to be adopted and utilized by the project implementers: general, occupational health and safety, community health and safety, waste management. If need, based on site specific conditions (as identified in the ESIA and/or ESMP), site-specific Environment, Health and Safety Management Plans may be prepared. All employers and supervisors are expected to implement measures to protect the health and safety of workers including providing personal protective equipment (PPE) to minimize workplace injuries and on the job training.

### **3.9 Gender-Based Violence**

The risk for causing or exacerbating Gender-Based Violence (GBV) and Sexual Exploitation and Abuse (SEA) through this project is considered low using the World Bank's Corporate GBV risks assessment tool. Given

the limitations of the tool in assessing risks in non-infrastructure projects, the project context was considered in assessing the risks, noting that project activities are focused on policy and strategy formulation and implementation; knowledge and experience sharing; institutional and human capacity building; chemical and hazardous waste management; and coordination and collaboration, and are not likely to induce labor influx or require use of labor camps. Notwithstanding the low rating, the project will implement minimum measures to safeguard against residual GBV risks. The measure will include training and sensitization of participating agencies and relevant stakeholders on GBV and SEA prevention; mainstreaming GBV and SEA risks prevention in contract bidding documents and relevant environmental and social management plans (ESMPs), SEP and GRM; and undertaking regular supervision of project implementation with particular attention to identifying and managing GBV risks as appropriate.

### 3.10 Stakeholder Consultations and Stakeholder Engagement

The focal agencies in the countries will engage in meaningful consultations with all stakeholders throughout the project life cycle, paying attention to the inclusion of vulnerable and disadvantaged groups (including the elderly, persons with disabilities, female headed households and orphans and vulnerable children). The implementing agencies will provide stakeholders with timely, relevant, understandable and accessible information, and consult with them in a culturally appropriate manner, which is free of manipulation, interference, coercion, discrimination and intimidation.

A Stakeholder Engagement Plan will need to be developed for each country covering all Project Components and will need to ensure that the views of stakeholders are included in the selection of the pilot sites and the development of the ESIA/ESMPs as well as the implementation of the Project. The SEP will need to be developed by the borrower. A framework for the requirements of the SEP and associated Grievance mechanism are included in **Annex VI**.

The borrower will maintain, and disclose, a documented record of stakeholder engagement, including a description of the stakeholders consulted, a summary of the feedback received and a brief explanation of how the feedback was taken into account in Project development and implementation, or the reasons why it was not.

**Stakeholder identification:** The first step will be to undertake a stakeholder identification and mapping exercise. Stakeholders will include government agencies, multilateral organizations, civil society organizations, private sector, and community organizations. A stakeholder mapping exercise will be undertaken in every country (can add info from countries when we get it).

**Stakeholder engagement and consultation:** the approach to stakeholder engagement and consultation including key messages, engagement methods (for different stakeholder groups), timing of engagement and responsible parties will be outlined in the stakeholder engagement plan along with any budget or resource requirements. As needed, special measures will be included to ensure that the views of vulnerable groups can be captured.

**GRM:** A grievance redress mechanism will be developed to ensure that all stakeholders can raise concerns and receive feedback in a timely manner. The GRM will need to be prepared taking into account cultural norms and will need to meet the needs of different stakeholder groups.

All stakeholder engagement undertaken for the Project will be logged and records of meetings etc. held. It is also essential that all information is disclosed to stakeholders in a timely, understandable and accessible format to enable meaningful engagement.

### 3.11 Training

Successful implementation of the projects will depend among others on the effective implementation of the environmental and social management measures outlined in the ESMPs. Training and capacity building will be necessary for the key stakeholders in order to ensure effective implementation of the Environmental and Social Management Framework (ESMF).

Capacity building should be viewed as more than training. It is human resource development and includes the process of equipping individuals with the understanding, skills and access to information that enables them to perform effectively. Therefore, it should also include awareness-raising and sensitization, besides technical training.

The training under component 3 will include but not limited to:

- Environmental and social standards of the World Bank;
- Applicable laws and regulations;
- Benefits of mercury abatement and e-waste management;
- Site selection methodology;
- Best available technologies and selection;
- Use of the technology for recycling and gold extraction;
- Environmental and social management plan;
- Responsibilities of all stakeholders involved;
- ESMP implementation progress report, environmental supervision progress report;
- Occupational health and safety.

## 4. Institutional Framework and Capacity Building

### 4.1 Institutional and Reporting Arrangements

The regional platform for knowledge sharing and technology dissemination efforts (BETF - P166233), specifically related to management of POPs and mercury, will establish a coordination framework for the EHPM Program with the participating countries, the regional partners as well as stakeholders. The regional knowledge platform will enable sustained communication with and among Program stakeholders through stakeholder consultations at the national and regional levels to support all program components.

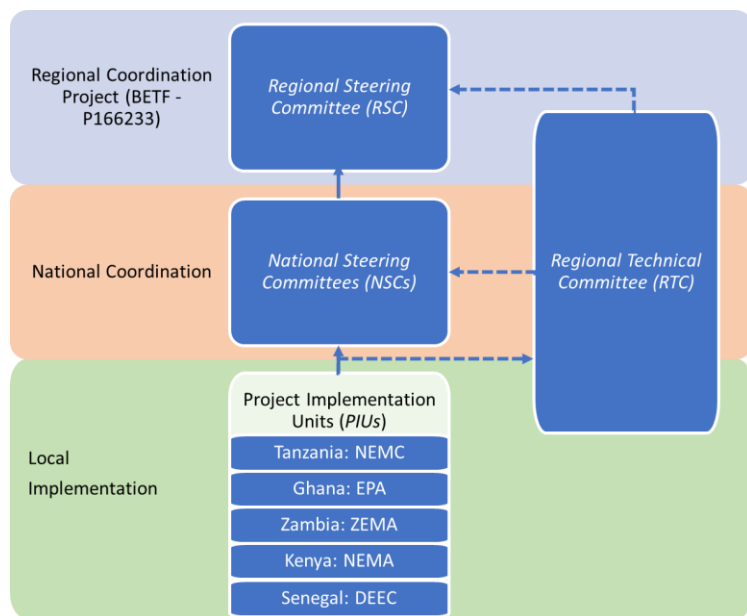
**A Regional Steering Committee (RSC)** will provide overall strategic guidance, support policy dialogue with countries for regional integration, coordinate cross-boundary interventions, facilitate resource mobilization, and assess the results and impacts of the project. The RSC meets at least once a year to review and approve the draft annual work plans prepared, assess project progress against current annual work plans, approve semiannual project progress reports, make decisions concerning regional and transboundary activities, and instruct all parties on potential emerging priority issues relevant to the project. The RSC will provide high-level coordination on technical alignment and synergy among the EHPMP Program's components to allow cross-fertilization.

**Regional Technical Committee (RTC)** will provide technical guidance for this project, promote best-practice methodologies, and actively participate in learning events and regional stakeholder workshops. The RTC constitutes representatives and technical experts from key focus areas, including, amongst others, participants from the National Technical Committees (NTCs). Members of the RTC will provide technical advice to support decision-making at Regional and National Steering Committee levels. The RTC will meet twice a year prior to the RSC meeting. The functions of the RTC are to: a) advise the regional platform in conducting its coordination function; b) provide technical guidance in implementing project activities; c) undertake sectoral and cross-sectoral coordination of project activities; d) ensure that project activities are integrated in sector plans and budgets; e) assess and recommend technical expertise needed to implement various project activities; and f) ensure close follow-up of activities to ensure compliance to the Minamata and Stockholm Conventions.

**The National Steering Committee (NSC)** will provide national guidance and project oversight and supervision. The NSC will comprise of Permanent Secretaries from the National Focal Point Ministries (NFPs/Implementing Agencies) and have overall responsibility for implementation. NSC functions are to: i) provide overall guidance on policy matters; (ii) assess and provide approval of the annual work plans; and (iii) promote, support, and coordinate with the regional knowledge platform to facilitate knowledge sharing among participating countries. The committee will meet twice a year to facilitate smooth implementation of the project activities. The identified NFPs are: in Ghana the Environmental Protection Agency and the Accra Metropolitan Assembly; in Tanzania the National Environmental Management Council (NEMC); in Senegal the Division de l' Environnement et des Etablissements Classes (DEEC); in Kenya the Environmental Protection Agency (EPA) and Forests and the National Environment Management Agency (NEMA); and in Zambia the Zambia Environmental Protection Agency (ZEMA).

**Project Coordination:** The project will be implemented by a national PIU in each country, embedded within the National Focal Point Ministries (NFP). The national PIU in each participating country supports the implementation at the national level and coordination with the AEHPMP and other regional entities. The national PIU will prepare annual work plans and budgets (AWPBs), manage procurement, and provide support to counterpart institutions in the implementation of activities. The PIU comprises the following necessary staff: (a) Project Coordinator; (b) Institutional Development Specialist; (c) Communication

Specialist; (d) M&E and Reporting Specialist; (e) Environmental and Social Safeguards Specialist; (f) Procurement Specialist; and (g) FM Specialist.



*Implementation Arrangements*

#### Tanzania

In Tanzania, national project activities will be implemented through collaboration and partnership directly and indirectly with stakeholders in the management of the mining industry. Participatory approaches will be prioritized to help stakeholders participate in project implementation to reduce environmental and health risks related to use of mercury in ASGM. Mobilizing and training beneficiaries will be considered, therefore helping to raise awareness, adopt alternative technologies, change perceptions and identify economic approaches that are more profitable and capable of reducing environmental and health risks from harmful chemicals and waste exposure.

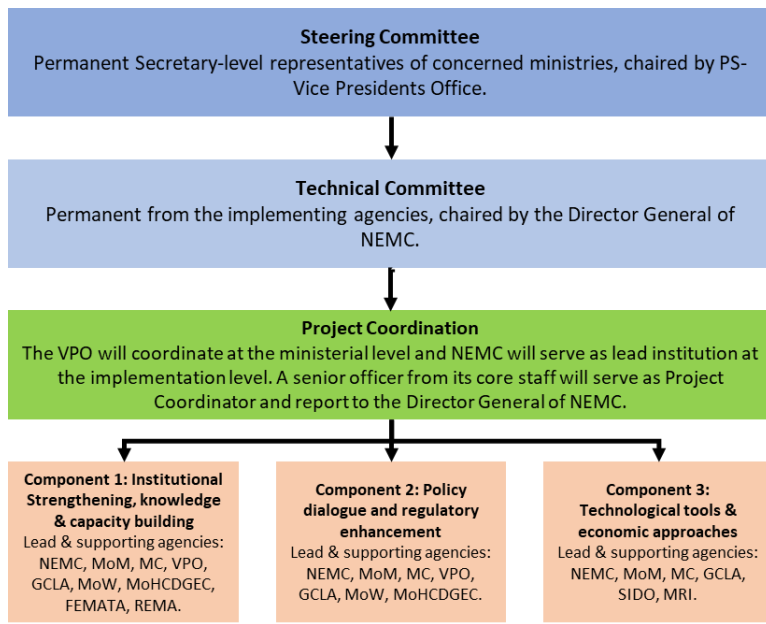
**National Steering Committee (NSC)** comprised of the Permanent Secretaries from the Ministries responsible for Environment; Mines; Finance; Health; Water; Local Government; and Industry and Trade. It will also include Chief Executives from Government Chemist Laboratory Authority (GCLA), Mining Commission, Mineral Resources Institute (MRI), State Mining Corporation (STAMICO) and Small Industry Development Organization (SIDO). The Federation of Miners Association of Tanzania (FEMATA) will represent ASGM. Functions of the Steering Committee are to: (i) receive progress reports on the implementation of project components to provide overall guidance on policy matters that relate to the Artisanal Gold Mining Sector; and (ii) ensure that activities of individual sectors are included in the annual work plans to facilitate the smooth handing over at the end of the project; as well as (iii) coordinate with the Regional Project to facilitate knowledge sharing among participating countries. The Permanent Secretary (PS) from the ministry responsible for environment will chair the Steering Committee. The

Director General for NEMC will be the Secretary to the Steering Committee. NEMC will be a Secretariat to the SC Committee which will meet twice a year to facilitate smooth implementation of project activities.

**Technical Committee (TC)** constitutes representatives from key project implementers, including Vice President's Office (VPO-Division of Environment), National Environment Management Council (NEMC), Ministry of Water and Irrigation (MoW), Ministry of Minerals (MoM), Mining Commission (MC), Ministry of Industry and Trade (MIT), Government Chemist Laboratory Authority (GCLA), Ministry of Health, Community Development, Gender, Elderly, and Children (MoHCDEC), Mineral Resources Institute (MRI), STAMICO, SIDO, University of Dar es Salaam (UDSM-Mining and Mineral Processing Department), and offices of Regional Administrative Secretaries for Geita, Mwanza, Mara, Shinyanga, Singida Songwe and Mbeya Regions as well as offices of Regional Miners Associations (REMA) in the seven regions where the project will be implemented. Members of the TC will also have key project implementation responsibilities and will provide technical advice to support decision-making at Steering Committee level. The Director General NEMC will be the Chairperson of the TC. TC will meet twice a year prior to the steering committee meeting. Functions of TC are to: a) advise NEMC in conducting its coordination function; b) provide technical guidance and oversight in implementing project activities; c) undertake sectoral and cross-sectoral coordination of project activities; d) ensure that project activities are integrated in sector plans and budgets; e) Assess and recommend technical expertise needed to implement various project activities; f) make a close follow up of activities to ensure compliance to the Minamata Convention; and g) oversee the adoption and adaptation of alternative gold recovery technologies in ASGM.

**Project coordination.** Project coordination will be under the Vice President's Office (VPO). At implementation level, the National Environment Management Council (NEMC) will serve as the lead coordinating institution which has demonstrated experience in the coordination of multi-sectoral projects. A senior officer from its core staff will be appointed as Project Coordinator, who will report to the Director General of NEMC. The Project Coordinating Unit (PCU) will be responsible for overall coordination and facilitation of the work program of the participating countries and provide communication channels between participating countries and relevant regions with active artisanal mining. Within each implementing institution, a focal person will be appointed to coordinate project activities. The responsibilities of NEMC will include the following: (a) the management of the designated account; (b) financial management and reporting on the overall project; (c) ensuring the execution of the audit of the project; (d) preparation of quarterly Interim financial reports. NEMC will oversee the project financial affairs of the project. More specifically it will be fully responsible for overall project financial management, disbursement, reporting, and auditing under the supervision of the Director of the Finance and Administration. This directory has adequate qualified and experienced accountants with long experience in managing other IDA and other donor funded projects. In addition, NEMC has a well manned and experienced Internal Audit Unit. This unit will review project financial affairs as part of their regular internal audit reviews.

**Project reporting.** All implementers of activities are required to submit quarterly reports to the Project Focal Person at NEMC outlining the following in their reports: Type of activity undertaken, Expected outputs, Timeline of activities, Allocated budget, and Actual expenditure. The Focal Person shall prepare a report at the end of each quarter to highlight achievements and challenges faced and future activities required to achieve the stated objectives. These reports shall be presented and discussed at bi-annual review meetings. At the component level, implementation of key activities is summarized in the Table below.



## Ghana

The project will be concurrently implemented with an IDA project under preparation - Ghana Artisanal and Small-Scale Mining Formalization Project (P168002), which aims to address the challenges associated with illegal mining by supporting ASGM formalization, strengthening the government's capacity to monitor ASGM operations, and support environmentally and socially sustainable ASM practices. Shared activities between the two projects include: (i) improving the enabling environment for legalization and formalization of ASGM; (ii) strengthening institutional capacity to manage ASGM; and (iii) promoting sustainable ASGM Practice. In view of these similarities, the two projects will share implementation arrangements to improve coordination. The implementation arrangement will consist of a three-level structure reflecting the roles of coordination, implementation, and project management. The structure comprises the National Steering Committee (SC), the National Project Coordinating Unit (PCU) and the Implementing Agencies (IAs). The function of each of these elements is described below:

### ***The National Steering Committee (SC)***

The NSC will have overall oversight responsibility for coordination and field costs and operating and administrative costs of the project. It will be co-chaired by the Ministry of Environment Science Technology & Innovation and Ministry of Lands and Natural Resources. Other members include the Ministry of Finance; Ministry of Health, Ministry of Local Government and Rural Development; Ministry of Trade, Ministry of Gender, Children and Social Protection; Ministry of Water and Sanitation; Ministry of Monitoring and Evaluation; Ministry of Food and Agriculture; Ministry of Chieftaincy; Ministry of Defence; and Ministry of National Security.

**Implementing Agencies:** The implementing agencies are the Environmental Protection Agency (EPA)

under the Ministry of Environment Science, Technology, and Innovation (MESTI) and the Minerals Commission (MC) under the Ministry of Lands and Natural Resources (MLNR). Both entities are responsible for regulating and monitoring mercury use in ASGM in accordance with the country's mining laws. EPA is also responsible for regulating and monitoring e-waste management, following Article 6 of the Stockholm Convention on wastes and relevant guidance.

**Project Implementation Unit:** A PIU will be mainstreamed in EPA and be responsible for overall project management, facilitation of work programs, fiduciary management, supervision of implementation and project reporting. The PIU will coordinate the project under the leadership of the Executive Director or Deputy Executive Director (Technical Services) of EPA. EPA will provide dedicated staff for the positions of Project Coordinator (at Senior level), Monitoring and Evaluation officer, Environmental and Social Management officer, Finance and Accounts officer, communication officer and procurement officer. PIU staff resources may be supplemented from time to time as needed with short term consulting expertise for financial management, procurement, environmental and social management, communication, reporting and logistics. The PIU will coordinate closely with all Implementing Agencies (Environmental Protection Agency (EPA), Minerals Commission and will be responsible for preparing work plans and budgets for implementation. Again, the PIU will coordinate closely with the PCU for the proposed Artisanal and Small-Scale Mining Formalization (P168002) and the Project management unit (PMU) for the Forest Investment Program (FIP) - Enhancing Natural Forest and Agroforest Landscapes Project (P163745). The PIU will also serve as the secretariat to the National Steering Committee.

**A broader project coordination committee** will include the PIU, EPA, Minerals Commission, MESTI - Policy, Planning, Monitoring & Evaluation (PPME) unit, and dedicated focal points from the, Ghana Health Service, Forestry Commission, the Ministry of Local Government and Rural Development and may include representatives of other sector ministries, agencies and department as needed.

**Partner Ministries, Departments and Agencies (MDAs) and other for Implementation:** Relevant Sector Ministries, Agencies, Department/organizations that support ASM sector and e-waste management in Ghana include: MESTI, MLNR, Ministry of Local Government and Rural Development, The Ministry of Trade & Industry, EPA, MC, Forestry Commission, GHS, Ghana Standard Authority, Metropolitan, Municipal and District Assemblies, University of Mines and Technology and Council for Scientific and Industrial Research - Science and Technology Policy Research Institute.

## Zambia

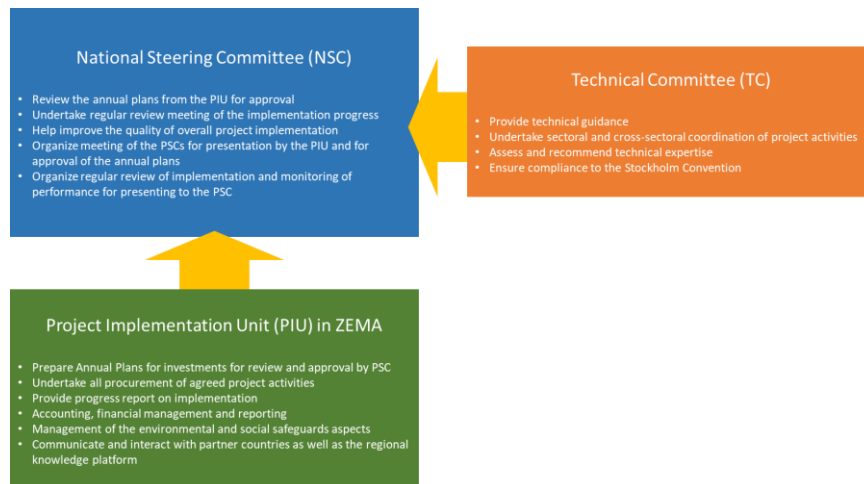
The Zambia national project will be implemented through collaboration and partnership directly and indirectly with stakeholders of waste management in Zambia. Participatory approaches will be prioritized to help stakeholders participate in project implementation to reduce environmental and health risks related to waste management in Zambia. Mobilizing and training beneficiaries will be considered, therefore helping to raise awareness, adopt alternative technologies, change perceptions and identify economic approaches that are more profitable and capable of reducing environmental and health risks from harmful chemicals and waste exposure. The project will use the Project Steering Committee (PSC) established under the ZMERIP. The PSC is chaired by the Permanent Secretary (MMMD) and comprises the Permanent Secretaries of MOF, MLNREP, MOH, MLGH, Central Province, and Director General of ZEMA and Chief Executive Officer of ZCCM-IH. For purposes of implementation, the same Project Implementation Unit (PIU) set up at ZEMA for ZMERIP will be responsible for planning, procurement, implementation and monitoring of various activities.



**National Steering Committee (NSC)** will comprise of Permanent Secretaries from the Ministries of Environment, Health, Local Governance, Central Province and Finance, as well as Director General (DG) of Zambia Environmental Management Agency (ZEMA). The NSC will be chaired by the Permanent Secretary of the Ministry of Mines and Mineral Development. The EHPM project will use the Project Steering Committee (PSC) established under the Zambia Mining and Environmental Remediation and Improvement Project (ZMERIP). Functions of the NSC are to: i) provide overall guidance on policy matters that relate to the e-waste and hazardous material management; and (ii) assess and provide approval of the annual work plans; and (iii) coordinate with the regional knowledge platform to facilitate knowledge sharing among the participating countries. The committee will meet twice a year to facilitate smooth implementation of the project activities.

**Technical Committee (TC)** constitutes representatives from key project implementers. Members of the TC will also have key project implementation responsibilities and will provide technical advice to support decision-making at Regional and National Steering Committee level. The Director General ZEMA will be the Chairperson of the TC. TC will meet twice a year prior to the steering committee meeting. Functions of TC are to: a) advise ZEMA in conducting its coordination function; b) provide technical guidance in implementing project activities; c) undertake sectoral and cross-sectoral coordination of project activities; d) ensure that project activities are integrated in sector plans and budgets; e) assess and recommend technical expertise needed to implement various project activities; and f) ensure close follow up of activities to ensure compliance to the Stockholm Convention.

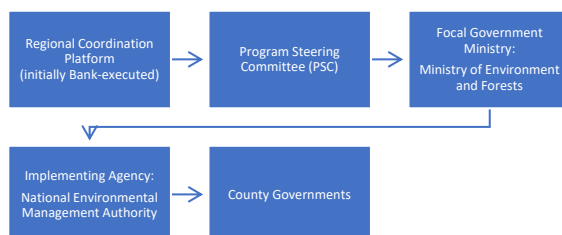
**Project coordination.** A PIU set up at ZEMA for ZMERIP will be responsible for overall coordination and facilitation of the work program as described in the annual plans. ZEMA is a regulatory agency under the Ministry of Lands, Natural Resources and Environmental Protection (MLNREP) with a mandate that includes the prevention and management of environmental pollution, conservation and sustainable management of natural resources, environmental audits and monitoring, and implementation of international environmental agreements and conventions. The PIU at ZEMA will in collaboration with the MMMD and the MLGH implement the EHPM project activities through the targeted Municipal Councils. Functions of the PIU are: (a) preparation of procurement plans and the management of the designated accounts; (b) accounting, financial management and reporting on the overall project subcomponents; (c) ensuring the project audits; (d) preparation of quarterly financial and technical progress reports; (e) the management of the environmental and social safeguards aspects; (f) undertaking all procurement and contract management activities for all components; and (g) communicate and interact with partner countries as well as the regional knowledge platform. A senior officer from the PIUs core staff will be appointed as Project Coordinator, who will report to the Director General of ZEMA. Within each implementing institution, a focal person will be appointed to coordinate project activities. Figure # describes the parts responsibilities and accountabilities.



## Kenya

*National Steering Committee (NSC)* will comprise of Permanent Secretaries from the Ministries of Environment and Forestry, as well as Director General (DG) of National Environmental Management Agency (NEMA). Functions of the Steering Committee are to: i) Provide overall guidance on policy matters that relate to the e-waste and hazardous material management; and (ii) Assess and provide approval of the annual work plans; and (iii) Coordinate with the regional knowledge platform to facilitate knowledge sharing among the participating countries. The committee will meet twice a year to facilitate smooth implementation of the project activities.

*Project coordination:* The Ministry of Environment and Forestry and its subsidiary agency National Management Agency (NEMA) will be the leading the project implementation. Both have a legislative mandate that provides authority with regards to management and control of e-waste. The Ministry of Environment has the mandate to promote, monitor and coordinate environmental activities and enforce compliance of environmental regulations and guidelines. A PIU set up within NEMA will be responsible for overall coordination and facilitation of the work program as described in the annual plans. The PIU at NEMA will implement the EHPM project activities through the targeted counties. Functions of the PIU are: (a) preparation of procurement plans and the management of the designated accounts; (b) accounting, financial management and reporting on the overall project subcomponents; (c) ensuring the project audits; (d) preparation of quarterly financial and technical progress reports; (e) the management of the environmental and social safeguards aspects; (f) undertaking all procurement and contract management activities for all components; and (g) communicate and interact with partner countries as well as the regional knowledge platform. A senior officer will be appointed as Project Coordinator, who will report to the Director General of NEMA. Within each implementing institution, a focal person will be appointed to coordinate project activities.



## Senegal

The Environment and Classified Establishments Directorate (Division de l'Environnement et des Etablissements Classés - DEEC) is responsible for implementing Government policy to protect the environment and the population against pollution, nuisances and hazardous waste, and in the management of environmental requirements and provisions for classified establishments and their surrounding areas. In this regard, the DEEC will be the Implementing authority under the supervision of municipalities in collaboration with a local NGO, to be selected. The DEEC will have the overall FM responsibility.

**Steering Committee:** Policy guidance and overall project oversight and supervision will be provided by the Steering Committee. The Steering Committee will be chaired by the Minister of Environment or his/her Representative and will comprise representatives involving ministries such as Finance, Local government, Health, it will also include representatives from UCG, Mayors of Hann Bel Air, Dalifort and other zones in Dakar. Functions of the Steering Committee are to: (i) Receive progress reports on the implementation of project components, in order to provide overall guidance on policy matters related to the decrease of environmental health risks from the release of UOPs and other toxic chemicals; and (ii) Ensure that project activities are included in the annual work plans in order to facilitate the smooth handing over at the end of the project life; as well as (iii) Coordinate with the Regional Project to facilitate knowledge sharing among the participating countries. The DEEC will be the secretary to the Steering Committee. The committee will meet twice a year to facilitate smooth implementation of the project activities.

**Technical Committee (TC):** A Technical Committee (TC) will provide technical guidance for this project. The TC constitutes representatives from key project implementers; including representatives from DEEC, Municipalities of Hann Bel Air, Dalifort and other municipalities in Dakar, as appropriate, UCG, National Committee of Chemicals products, ADM ("Agence de Developpement Municipal"), ARD (Agence Régionale de Developpement), NGOs and any other useful competences. Members of the TC will also have key project implementation responsibilities and will provide technical advice to support decision-making at Steering Committee level. The TC will be chaired by the DEEC. TC will meet twice a year prior to the steering committee meeting. Functions of TC are to: a) Advise DEEC in conducting its coordination function; b) Provide technical guidance and oversight in implementing project activities; c) Undertake sectoral and cross-sectoral coordination of project activities; d) Ensure that project activities are integrated in sector plans and budgets; e) Assess and recommend technical expertise needed to implement various project activities; and f) Make a close follow up of activities to ensure compliance to the Stockholm Convention.

**Project coordination:** At national level, the DEEC will serve as the lead coordinating institution which has demonstrated experience in the coordination of multi-sectoral projects. A Project Coordinator will be recruited and will report to the Director of DEEC.

The Project Coordinating Unit (PCU) will be responsible for overall coordination and facilitation of the work programme of the participating countries and provide communication channels between participating countries. Within each implementing institution, a focal person will be appointed to coordinate project activities.

Under this project, the capacities of key stakeholders will be strengthened for an effective appropriation and implementation, jointly with the PROMOGED

## Annex I: National Environmental Legislation and Policies

### Ghana

**The Constitution of the Republic of Ghana, 1992** - The 1992 Constitution<sup>4</sup> of Ghana sets out the first source of environmental protection requirements in Ghana. Article 36 (9) of the Constitution states that “the State shall take appropriate measures needed to protect and safeguard the national environment for posterity; and shall seek co-operation with other states and bodies for purposes of protecting the wider international environment for mankind”. Similarly, Article 36 (10) states that “the State shall safeguard the health, safety, and welfare of all persons in employment, and shall establish the basis for the full deployment of the creative potential of all Ghanaians”. In addition, Article 41 (k) requires that all citizens protect and safeguard the natural environment of the Republic of Ghana.

**Environmental Protection Agency Act, 1994 (Act 490)** - The Act came into being to establish the EPA as a body for the protection, conservation and management of environmental resources for the Republic of Ghana. The Act mandates the EPA with the formulation of environmental policy, prescribing of standards and guidelines, issuing of environmental permits and pollution abatement notices. In addition, the Act allows the agency to control the volumes, types, constituents, and effects of waste discharges, deposits, or other sources of pollutants and/or substances which are hazardous or potentially dangerous to the human health and the environment.

Section 2 (i) of Act 490 further mandates the EPA to enforce compliance with established EIA procedures among companies and businesses in the planning and execution of development projects, including existing projects. Section 10 (2) of the Act also promulgates the establishment of a Hazardous Chemicals Committee with functions to monitor the use of hazardous chemicals by collecting information on the importation, exportation, manufacture, distribution, sale, use and disposal of such chemicals.

**Environmental Assessment Regulations, 1999 (LI 1652) & Environmental Assessment Regulations, 2002 (LI 1703)** - The Regulations is established to provide a framework for environmental assessment of development projects in Ghana. The LI 1652 is organized into five schedules of categorised projects which may either be subjected to a complete EIA or a Preliminary Environmental Assessment. Regulation 1 (2) of LI 1652 mandates that no person shall commence an undertaking which in the opinion of the Agency has or is likely to have adverse effects on the environment or public health unless, prior to the commencement, the undertaking has been registered by the EPA and an environmental permit has been issued by the Agency in respect of the undertaking.

The LI 1652 prescribes requirements for the following documents:

- Environmental Impact Statement (EIS).
- Preliminary Environmental Assessment (PEA).
- Environmental Management Plan (EMP).
- Annual Environmental Report (AER).
- Environmental Permits and Certificates

In 2002, the regulations have been amended LI 1703 on fees and charges for processing the

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<sup>1 4</sup>The 1992 Constitution of the Republic of Ghana sets out the Rights, Freedom, Duties and Obligation of every citizen of Ghana. These are these are the constitutional rights of Ghanaians. The constitution also defines specific requirements for the protection of the Environment such as provided under: Article 37(3); Article 39(6); Article 41(k); Article 268 and Article 269.

EIA applications and for permits specified in new Schedules 2A and 2B and fees for certificate specified in new Schedule 2C to the principal Regulations.

**The National Environmental Policy, 2010** - The Policy<sup>5</sup> sets out a new vision for environmental management in Ghana and is based on an integrated and holistic management system for the environment. It is aimed at sustainable development now and in the future. The policy seeks to unite Ghanaians in working toward a society where all residents of the country have access to sufficient and wholesome food, clean air and water, decent housing and other necessities of life that will further enable them to live in a fulfilling spiritual, cultural and physical harmony with their natural surroundings. The policy requires the State to take appropriate measures to control pollution and the importation and use of potentially toxic substances, which include Electrical and Electronic Equipment (EEE). The NEP is defined under key operational principles of accountability, equity, environmental justice, inclusivity and open information, precautionary and polluter pays principles.

**Environmental Sanitation Policy (Revised), 2010** - This revised Policy lays the basis for developing a systematic approach and framework for identifying and harnessing resources for value-for-money services to all. It is the outcome of reviews to address limitations of the old policy published in 1999 and a result of nation-wide consultation among sector stakeholders. The Policy has been revised to update its scope to meet current development objectives and address aspirations of sector actors. The revision also takes on board the changing context of national and international development priorities. Emphasis is placed on the need to ensure systematic collection of data on wastes from all sectors of the economy to support relevant research and development to meet the challenges of managing wastes associated with the growing economy and rapidly changing lifestyles.

**National Climate Change Policy, 2012** - The main purpose of the Policy is to help policy makers think about the national policy actions and programmes needed to contribute to the fight against climate change and how such needs can be articulated in order to seek or leverage internal and external resources from public, private and international organisations.

**Management of Ozone Depleting Substances and Products Regulations, 2005 (LI 1812)** – The Regulation aims to protect the ozone layer from further depletion and enable Ghana to meet the national obligations in line with the Montreal Protocol. The Regulations aims to control importation of used refrigerators and air conditioners, which contains ozone depleting chemicals Chlorofluorocarbons (CFCs) and Hydrochlorofluorocarbons (HCFCs), using ODSs.

**Forestry Commission Act, 1999 (Act 571)** - An Act to re-establish the Forestry Commission (FC) to bring under the Commission the main public bodies and agencies implementing the functions of protection, development, management and regulation of forests and wildlife resources and to provide for related matters. The Act mandates the Forest Commission to identify land for Artisanal Small-Scale Mining (ASM), ensure harvesting of high-value 'economic trees' prior to mining, and land reclamation and reforestation after mining.

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<sup>2</sup> <sup>5</sup>National Environmental Policy (Revised) 2010 comes in to replace the 1992 National Environmental Policy broad vision founded on and directed by respect for all relevant principles and themes of environment and sustainable development. The policy describes major environmental challenges in Ghana and recommends operational policies, sector strategic goals and sector environmental policies to combat them.

**Forest and Wildlife Policy, 2012** – The Policy strengthens the legal framework to give permanency to gazed forest reserves, and Protected Areas to conserve representative samples of major ecosystems and biodiversity in Ghana. In doing so, the Government seeks to (i) develop and approve Forest Management Plans to cover all registered forest reserves, (ii) conclude legal processes for the reservation of all proposed forest reserve areas, and (iii) reduce the prospecting and mining of mineral resources in registered forest reserves.

**Mercury Act, 1989 (PNDC 217)** – The Act regulates the import and trade of mercury and use of mercury in ASGM in Ghana. It establishes as an offense the use of bad mining practices in the use of mercury by small-scale miners (section 5). Section 4 of the Act authorizes licensed small-scale gold miners to purchase reasonable quantities of mercury from licensed mercury dealers for the purpose of their mining operations. In addition, Section 4 states that the small-scale gold miners shall observe good mining practices in the use of mercury for carrying out mining operations.

**Hazardous & Electronic Waste Control & Management Act, 2016, (Act 917)** – The Act prohibits the import, export, and transportation of hazardous and other waste in, out and within Ghana, with exception if obtain a written authorization under circumstances specified under the Act. The Act provides that import and export of e-waste is allow if a person is registered and obtains a permit from the EPA after paying an Advance Eco Levy (AEL) for the item.

**Small-Scale Gold Mining Law, 1989 (PNDC 218)** – The Law regulates registration activity, granting of gold-mining licenses to individuals, groups, and registered cooperatives, licensing of buyers, and the establishment of district centres to support applicants.

**Minerals Commission Act, 1993 (Act 450)** – The Act established the Minerals Commission (MC) as a corporate body and defines its functions and powers to designate areas for ASM and transfer mineral rights: that “Where the Minister, after consultation with the Commission considers that is in the public interest to encourage small-scale mining in the area, the Minister may by notice in the Gazette, design that area for operations and specify the mineral to be mined”.

**Minerals and Mining Amendment Bill 2014 (Mineral Development Fund Bill) & Minerals and Mining Act 2006 (Act 703) Section 96 -**

Act to enable the Minister of Lands and Natural Resources to prescribe the rate of royalty payments (formerly fixed at five percent), and second, to enable the confiscation of equipment used in illegal artisanal and small-scale mining operations.

Act revising and consolidating mining and mineral law. Empowers the minister, after consulting MC, to designate areas for ASM operations. Repeals the Minerals and Mining Act, 1986 (PN DCL 153) and Small-Scale Gold Mining Law, 1989 (PN DCL 218) among others and incorporates existing laws and regulations on the sale of mercury and minerals, use of explosives, requirement for environmental permits, etc.

**Water Resources Commission Act, 1996 (Act 552) and Water Use Regulations, 2001** - Regulation of domestic and commercial water use and where MC, in consultation with the EPA, considers the proposed water use to require an environmental management plan. Under Section 17 of the Minerals and Mining Act, 2006 (Act 703), a holder of a mineral right may, subject to obtaining the requisite approvals or licences from the Water Resources Commission under the Water Resources Commission Act, 1996 (Act 552), and for purposes of or ancillary to the mineral operations, obtain, divert, impound, convey and use water from a river, stream, underground reservoir or watercourse within the land the subject of the mineral right.

**Energy Efficiency Regulations, 2008 (LI 1932)** - The Regulation prohibit the importation as well as the sale, manufacture, and distribution of used refrigerators, freezers, incandescent filament lamp, and air-conditioners.

#### **Other Legislations and Policies**

**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.

**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 and a fire permit is obtained for development prior to the commencement of works.

**Local Governance Act, 2016 (Act 936)** - The Act 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.

**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.

The Act ensures that the exploitative use of natural resources for agriculture, mining, industry, and other related activities do not adversely impact on human settlements and collaborates with relevant agencies (e.g. EPA, MC, FC) to ensure adequate reclamation of natural resources areas which have been exploited.

**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.

**National Gender and Children Policy, 2004** – The Policy aims to mainstream gender and children concerns in the national development in order to improve the social, legal/civic, economic and cultural conditions of the people of Ghana, particularly women and children. The Policy complements all policies and programmes of all sectors and defines structures and key target areas for ensuring that gender concerns



are routinely addressed in planning activities, as well as in the implementation, monitoring and evaluation of programme activities.

**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.

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

## **Tanzania**

### ***The Mining Act (1998 and 2010)***

Principal legislations in the Mineral sector are the Mining Act, 2010, and the Explosives Act, 1963. The following regulations are made under Mining Act also apply:

- The Mining (Mineral Rights) Regulations, 2010
- The Mining (Environmental Protection for Small Scale Mining) Regulations, 2010
- The Mining (Safety, Occupational, Health and Environmental protection) Regulations, 2010
- The Mining (Mineral Beneficiation) Regulations, 2010
- The Mining (Mineral Trading) Regulations, 2010
- The Mining (Radioactive Minerals) Regulations, 2010
- The Explosives Regulations, 1964

The Mining Act (1998), which is the primary mining law, required any minerals project to have a detailed Environmental Impact Statement (EIS) and Section 10(c) of the Mining Act, 1998 clearly stated that development agreements may contain binding provisions relating to, “environmental matters, including in respect of matters which are project specific and not covered by regulations of general application, provisions intended to define the scope, and as may be appropriate in any particular case, limit the extent of the obligations or liabilities of the holder of a special mining license”.

The Mineral Policy (2009) recognizes the need to ensure sustainability in mining and the importance of integrating environmental and social concerns into mineral development programs. The policy highlights the need to balance the protection of flora and fauna and the natural environment with the need for social and economic development.

The Mining Act (2010) together with the national environmental legislation governs the environmental management of mining projects. The Act has been amended to include prospecting activities for small-scale miners and addresses licensing barriers by increasing Primary Mining License (PML) tenure to be processed at regional zonal offices. The Act widens the playing field considerably for artisanal and small-scale miners. Specific regulations were made under the Act requires holders of PMLs to conduct baseline environmental investigation and social studies with regard to human settlement, burial sites, cultural heritage sites, water, vegetation, animals and soil, and prepare an Environmental Protection Plan to mitigate the environmental impacts in the licensed area. PMLs are required to pay all liabilities, including employees' entitlement, mine closure and environmental rehabilitation costs as may be necessary for the termination of mining operations.

***The Environmental Management Act No. 20 (2004)***

This is a framework legislation governing environmental aspects in Tanzania. It includes provisions for sustainable management of the environment, prevention and control of pollution, environmental quality standards, public participation, and the basis for the implementation of international environmental agreements. The Act sets out the mandates of various actors to undertake enforcement and exercise general supervision and coordination matters relating to the environment. The EMA has established environment units in all ministries and environmental committees at the regional, district and village levels. Within each ministry, it is the Environmental Section's responsibility to ensure that environmental concerns are integrated into the ministry's developmental planning and project implementation in a way that protects the environment. It requires project developers to develop and implement Environmental Management Plans (EMP) as well as monitor any identified environmental issues associated with their project.

***The National Environmental Policy (1997)***

The NEP provides the framework for incorporating and mainstreaming environmental and social considerations into decision-making in Tanzania. It is a comprehensive attempt to guide the conservation and management of natural resources and the environment and provides for cross-sectoral and sectoral policy guidelines, instruments for environmental policy, and the institutional arrangements for environmental management for determining priority actions and monitoring.

***Environmental Impact Assessment and Audit Regulations (2005)***

The Mandatory List of Projects requiring EIA includes extractive industry including mining. An in-depth study is required to determine the scale, extent and significance of the impacts and to identify appropriate mitigation if the project is deemed likely to have significant adverse environmental impacts. ASM is included in the schedule of small scale industries that require a Preliminary Environmental Assessment. This preliminary assessment decides whether the Project needs a full environmental impact assessment as the Project is likely to have some significant adverse environmental impacts but that the magnitude of the impacts are not well-known.

***Environmental Action Plan***

The Ministry of Energy and Minerals (MEM), the Vice President's Office and DANIDA produced an Environmental Action Plan 2011 – 2016 for the Minerals Sector in August 2011. The Environmental Action Plan aims to mainstream environmental management activities into the Ministries Policies, Strategies and Plans. Eight key issues/challenges are identified by the Action Plan, as detailed below, and 17 priority actions were identified to tackle these issues, along with targets, indicators and budgets:

- Water and Soil Pollution
- Land Degradation
- Air Pollution
- Disturbance of Biodiversity
- Climate change
- Earthquakes, Flooding and Landslides
- Radioactive Minerals
- Unsecured Mine Closure Liabilities.

***Other Legislations and Policies***

***The Occupational Health and Safety Act No. 5 of 2003.***

The role of OSHA is to improve health, safety, and general wellbeing of workers and workplaces by promoting occupational health and safe practices in order to eliminate occupational accidents and diseases, hence achieve better productivity in the workplaces.

#### ***The Employment and Labour Relations Act***

This Act sets out provisions for fundamental rights and protections, which include forced labor, child labor, discrimination, and freedom of association. It also sets out employment standards, wage parameters, working hours, and dispute regulations, among others. Tanzania overhauled its employment and labor laws in 2004 when it enacted the Employment and Labour Relations Act, Act No. 6 of 2004 and the Labour Institutions Act, Act No. 7 of 2004. While the Employment Act provides for labor standards, rights and duties, the Labour Institutions Act constitutes the governmental organs charged with the task of administering the labor laws. Subsequently, in 2007 several pieces of subsidiary legislation were promulgated to facilitate the enforcement of labor rights and standards stipulated in the Employment Act. The new laws further enact employment and labor standards which, by and large, conform to the labor standards set by the International Labour Organization.

There are a number of policies positively impacting gender. Important among them include the following: (i) Gender Policy, (ii) Affirmative Action Policy, (iii) Sexual Offenses Act (1998), and (iv) Action Plan against Gender Based Violence (since 2010). Tanzania is a signatory to the Convention on the Rights of the Child.

#### ***The Land Policy (1997)***

The Policy and laws emanating from it, addresses issues of: land tenure, promotion of equitable distribution of land access to land by all citizens; improvement of land delivery systems; fair and prompt compensation when land rights are taken over or interfered with by the government; promotion of sound land information management; recognition of rights in unplanned areas; establishment of cost effective mechanisms of land survey and housing for low income families; improvement of efficiency in land management and administration and land disputes resolution, and protection of land resources from degradation for sustainable development.

The Land Act No 4 of 1999: Private property is given either through Granted Rights in General and Reserved Land (Land Act, Section 19) or through Customary Rights in Village land (Village Land Act, Section 22). Provision is also made for holding land by joint occupancy or occupancy in common (Land Act, Part XIII). This is under the Ministry of Lands and Human settlements. The Village Lands Act, No. 5 of 1999 requires each village to identify and register all communal land, and obtain the approval of all members of the village for identification and registration (Village Assembly, Section 13). A Register of communal land (section 13(6)) is to be maintained by each village land council, and land cannot be allocated to individuals, families or groups for private ownership (section 12(1) (a)). This is also under the Ministry of Lands and Human Settlements.

**Land Act, Cap.113 R.E. 2002:** The major function of the Land Act is to promote the fundamentals of the National Land Policy by giving clear classification and tenure of land, land administration procedures, rights and incidents of land occupation, granted rights of occupancy, conversion of interests in land, dispositions affecting land, land leases, mortgaging of land, easements and analogous rights, co-occupation and partitioning and settlement of land disputes. Section 1(4) classifies Tanzanian land into three categories: Tanzanian land falls into three categories, namely:

1. Reserved Land: set aside for wildlife, forests, marine parks, etc. Specific legal regimes govern these lands under the laws which established them e.g. Wildlife Conservation Act, Cap 283, National Parks Ordinance, Marine Parks and Reserves Act, etc.
2. Village Land includes all land inside the boundaries of registered villages, with Village Councils and Village Assemblies given power to manage them. The Village Land Act, Cap 114 governs the land and gives details of how this is to be done.
3. General Land is neither reserved land nor village land and is therefore governed by the Land Act and managed by the Commissioner.

#### ***Land Acquisition Act Cap118, 1967 R.E. 2002***

The Land Acquisition Act is the principal legislation governing the compulsory acquisition of land in Tanzania. Sections 3-18 of the Act empower the President to acquire land, and provide the procedures to be followed when doing so. The President is empowered to acquire land in any locality provided that such land is required for public purposes, and those who will be adversely affected to the acquiring of land by the government are eligible for the payment of compensation.

#### ***Mining Cadastral Information Management System [MCIMS]***

Tanzania decided to follow the modern worldwide trends to reform the Mining Act and set up a Mining Cadastre Information Management System. The regulations starting from Mining Act 1998 and 2010 recognized ASM as an activity which could be recognized legally if environmental and social due diligences requirements are met. This allows small miners to get PMLs which then get registered in the cadaster system. The MCIMS allows for improved transparency in the sector along with integration of an Environmental and social database.

#### ***Zambia***

##### ***National Policy on Environmental Policy (NPE), 2005***

Zambia's National Environmental Policy is aimed at promotion of sustainable social and economic development through sound management of the environment and natural resources. The policy seeks, among other things, to: secure for all persons now and in the future an environment suitable for their health and well-being; promote efficient utilization and management of the country's natural resources and encourage, where appropriate long – term self-sufficiency in food, fuel wood and other energy requirements; facilitate the restoration, maintenance and enhancement of the ecosystems and ecological processes essential for the functioning of the biosphere and prudent use of renewable resources; integrate sustainable environment and natural resources management into the decentralized governance systems and ensure that the institutional framework for the management of the environment and natural resources supports environmental governance in local government authorities; enhance public education and awareness of various environmental issues and public participation in addressing them; and promote local community, NGO and private sector participation in environment and natural resource management. The key principles applicable to EHPMP are that:

- every person has a right to a clean and healthy environment;
- every person has a duty to promote sustainable utilization and management of the environment and natural resources, including taking legal action against any person whose activities or omissions have or are likely to have adverse effects on the environment;
- women should effectively participate in policy, program and project design and implementation to enhance their role in natural resource use and management activities;
- there is need to use natural resources sustainably to support long-term food security and sustainable economic growth;

- rational and secure tenure over land and resources is a fundamental requirement for sustainable natural resource management; and
- trade-offs between economic development and environmental degradation can be minimized through use of EIA instruments and environmental monitoring.

#### **Environmental Impact Assessment Regulations, 1997**

A developer shall not implement a project for which a project brief or an environmental impact statement is required under these Regulations, unless the project brief or an environmental impact assessment has been concluded in accordance with these Regulations and the Council has issued a decision letter.

The various activities to be undertaken on the project are likely to have environmental and social impacts and this will require that site specific environmental instruments be prepared to eliminate or minimize possible impacts. At national level, In Zambia the Environmental Impact Assessment (EIA) regulation of 1997 gives guidance, schedules and categories the various project types and the relevant EIA studies to undertaken. It further gives provision on post EIA approval management of projects and guidelines for developing Environmental Social Management Plans (ESMP's).

#### **Environmental Management Act, 2011**

An Act to continue the existence of the Environmental Council and re-name it as the Zambia Environmental Management Agency; provide for integrated environmental management and the protection and conservation of the environment and the sustainable management and use of natural resources; provide for the preparation of the State of the Environment Report, environmental management strategies and other plans for environmental management and sustainable development; provide for the conduct of strategic environmental assessments of proposed policies, plans and programmes likely to have an impact on environmental management; provide for the prevention and control of pollution and environmental degradation; provide for public participation in environmental decision making and access to environmental information; establish the Environment Fund; provide for environmental audit and monitoring; facilitate the implementation of international environmental agreements and conventions to which Zambia is a party; repeal and replace the Environmental Protection and Pollution Control Act, 1990; and provide for matters connected with, or incidental to, the foregoing.

Implementation of the project will involve construction and operation. This will require that a site specific environmental instruments be prepared in accordance with the provisions of the ZEMA EIA regulations. Furthermore, during the operational phase of the project, some activities will be required to be licensed by ZEMA in accordance with the compliance requirements of the Environmental Management Act, 2011.

#### **The Public Health Act, Cap 295**

This Act provides for the prevention and suppression of diseases and generally to regulate all matters connected with public health in Zambia.

#### **Other Legislations and Policies**

##### **Anti-Gender-Based Violence Act, 2010.**

An Act to provide for the protection of victims of gender-based violence; constitute the Anti- Gender-Based Violence Committee; establish the Anti-Gender-Based Violence Fund; and provide for matters connected with, or incidental to, the foregoing.

The project will give priority to vulnerable grouping such as women by engaging them in income generation activities for improved financial security and independence.

**Employment Act, 1997**

An Act to provide legislation relating to the employment of persons; to make provision for the engagement of persons on contracts of service and to provide for the form of and enforcement of contracts of service; to make provision for the appointment of officers of the Labour Department and for the conferring of powers on such officers and upon medical officers; to make provision for the protection of wages of employees; to provide for the control of employment agencies; and to provide for matters incidental to and consequential upon the foregoing.

During project implementation various individuals will be engaged to perform multiple tasks. This will require that all contractors on the project adhere to the provision of the employment act and the national labour laws. This will be achieved by creating a conducive work environment, treating workers in a humane manner and remuneration is favorable.

**Gender Equity and Equality Act, 2015**

An Act to establish the Gender Equity and Equality Commission and provide for its functions and powers; provide for the taking of measures and making of strategic decisions in all spheres of life in order to ensure gender equity, equality and integration of both sexes in society; promote gender equity and equality as a cross cutting issue in all spheres of life and stimulate productive resources and development opportunities for both sexes; prohibit harassment, victimisation and harmful social, cultural and religious practices; provide for public awareness and training on issues of gender equity and equality; provide for the elimination of all forms of discrimination against women, empower women and achieve gender equity and equality by giving effect on the Convention on the Elimination of all Forms of Discrimination against Women, the Protocol to the African Charter on Human and People's Rights on the Rights of Women in Africa and the SADC Protocol on Gender and Development; and provide for matters connected with, or incidental to, the foregoing.

The project will mainstream gender equality into its activities to help groupings such as women and children that are marginalized and are more susceptible to pollution and the environmental health impacts associated with AGSM.

**Human Rights Commission Act, 1996**

An Act to provide for the functions and powers of the Human Rights Commission; to provide for its composition and to provide for matters connected with or incidental to the foregoing.

These activities will help protect the rights of residents to live in a nonhazardous environment.

**Local Government Act, 1995**

An Act to provide for an integrated three tier local administration system; to define the functions of local authorities; to repeal the Local Administration Act and certain related laws; and to provide for matters connected with or incidental to the foregoing.

Project implementation and supervision will involve the Municipality of Kabwe. The function of the municipalities are guided by the provision of the Local Government Act.

**Non-Governmental Organisations Act, 2009**

An Act to provide for the co-ordination and registration of non-governmental organisations; establish the Non-Governmental Organisations' Registration Board and the Zambia Congress of Non-Governmental Organisations; constitute the Council of Non-Governmental Organisations; enhance the

transparency, accountability and performance of nongovernmental organisations; and provide for matters connected with or incidental to the foregoing.

Non-Governmental Organizations (NGO's) can be stakeholders in the project. This will require that NGO's are registered, regulated and adhere to ethical practices set by the Non-Government Organizations Registration Board and The Zambia Congress of Non- Governmental Organizations.

#### **Occupational Health and Safety Act, 2010**

An Act to establish the Occupational Health and Safety Institute and provide for its functions; provide for the establishment of health and safety committees at workplaces and for the health, safety and welfare of persons at work; provide for the duties of manufacturers, importers and suppliers of articles, devices, items and substances for use at work; provide for the protection of persons, other than persons at work, against risks to health or safety arising from, or in connection with, the activities of persons at work; and provide for matters connected with, or incidental to, the foregoing.

During the implementation of project activities, personnel involved in construction and operation will be required to adhere to best practices with regards to Occupational Health and Safety. Procedures

#### **Kenya**

##### **Constitution of Kenya, 2010**

The Constitution of Kenya (CoK) 2010 is the supreme law of the Republic and binds all persons and all State organs at all levels of government. In relation to the environment, Article 42 of Chapter four, *The Bill of Rights*, confers to every person the right to a clean and healthy environment, which includes the right to have the environment protected for the benefit of present and future generations through legislative measures, particularly those contemplated in Article 69, and to have obligations relating to the environment fulfilled under Article 70. Section 69 (2) every person has a duty to cooperate with State organs and other persons to protect and conserve the environment and ensure ecologically sustainable development and use of natural resources. Section 70 provides for enforcement of environmental rights.

##### **Environmental Management and Coordination Act, 1999 and Amended in 2015**

The EMCA of 1999, amended in 2015, is an act of Parliament that provides for the establishment of an appropriate legal and institutional framework for the management of the environment. This Act provides for the establishment of an appropriate legal and institutional framework for the management of the environment and for matters connected therewith and incidental thereto. Part II of the Act states that every person in Kenya is entitled to a clean and healthy environment and has the duty to safeguard and enhance the environment. Part VI of the Act directs that any new program, activity or operation should undergo EIA and a report prepared for submission to the NEMA, who in turn may issue a license as appropriate.

##### **Environmental Impact Assessment and Audit Regulations, 2003**

This regulation provides guidelines for conducting EIA and Audits. It offers guidance on field study and outlines the structure of EIA and Audit reports. The legislation further explains the legal consequences of partial or non-compliance to the provisions of the Act.

##### **County Government Act, 2012**

The County Government Act, 2012 has been adapted to the Constitution's State and County structure in relation to devolution. In particular, the management and governance of a city and municipality shall be vested in the county government (Article 12, Urban Areas and Cities Act).

The Act empowers the county government to be in charge of planning by coordinating integrated development planning within the county; and ensuring integrated planning within the county Act provides for the following;

- The Constitution confers powers on the County Assemblies to receive and approve plans and policies. These plans and policies affect the management and exploitation of the county's resources, and development and management of its infrastructure and institutions.
- Ensuring and coordinating the participation of communities and locations in governance at the local level and assisting communities and locations to develop the administrative capacity for the effective exercise of the functions and powers and participation in governance at the local level.
- Control of air pollution, noise pollution, and other public nuisances.

#### **Land Act, 2012**

The Land Act <sup>6</sup> is the Kenya's framework legislation regulating compulsory acquisition of land (i.e. land, houses, easements etc.). The LA was adopted on 2<sup>nd</sup> May 2012 and provides for sustainable administration and management of land and land based resources including compulsory acquisition. The Act is based on the 2010 Constitution that recognizes the rights of the landowner and the necessity for fair and just compensation.<sup>7</sup> Under the current Constitution,<sup>8</sup> the LA 2012 empowers the NLC (under the guidance of Cabinet Secretary for Lands) to exercise the power of compulsory acquisition on behalf of the State<sup>9</sup>.

#### **Other Legislations and Policies**

##### **Child Rights Act 2012**

This Act of Parliament makes provision for parental responsibility, fostering, adoption, custody, maintenance, guardianship, care and protection of children. It also makes provision for the administration of children's institutions, gives effect to the principles of the Convention on the Rights of the Child and the African Charter on the Rights and Welfare of the Child. Section 15 states that a child shall be protected from sexual exploitation and use in prostitution, inducement or coercion to engage in any sexual activity, and exposure to obscene materials.

##### **Labour Relations Act 2012**

An Act of Parliament to consolidate the law relating to trade unions and trade disputes, to provide for the registration, regulation, management and democratization of trade unions and employers organizations or federations, to promote sound labour relations through the protection and promotion of freedom of association, the encouragement of effective collective bargaining and promotion of orderly and expeditious dispute settlement, conducive to social justice and economic development and for connected purposes. This Act in Section II Part 6 provides for freedom of employees to associate; section 7 provides for protection of rights of employees; Part 9 provides for adjudication of disputes and Part 10 provides for protection of the employees to hold strikes and lock outs.

#### **Senegal**

**Law n°2001-01 of January 15, 2001 on the Environment Code** establishes basic rules for the protection of the environment. It regulates classified installations, addresses water pollution, noise pollution, air

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<sup>6</sup> Land Act, 2012.

<sup>7</sup> The Constitution of Kenya, 2010 recognizes prompt and just compensation when compulsory acquisition of land is made.

<sup>8</sup> The Constitution of Kenya, 1963, was replaced in 2010

<sup>9</sup> Land Act, § 6, 2012



pollution and unpleasant odors. It also addresses other aspects such as human settlements, waste management, noxious and dangerous substances and the setup of emergency plans.

Article L 48 of the *Environment Code* defines environmental assessment as a systematic process consisting in assessing possibilities, capacities and functions of resources, natural systems and human systems in order to facilitate sustainable development planning in general and anticipate and manage adverse impacts and consequences of proposed developments in particular. There are 4 types of studies: (i) *Environment impact studies* which apply to project or programs with known components and implementation sites; (ii) the strategic environmental assessment intends to assess environmental impacts of decisions made for policies, plans and programs and their alternatives, and regional and sectoral studies; (iii) audits of regulatory compliance for exploitation units authorized before the 2001 environment code or which had not been subjected to an environmental assessment as provided for by said code; (iv) the initial environmental analysis is intended for projects, often of reduced scope, that might have limited impacts on the environment, which are generally contained to a restricted area and may be mitigated by simple measures.

**Decree n°2001-282 of April 12, 2001:** the main objective under the legislative section of the Environment Code is to provide rules on priority sectors of environmental management. Thus, the environment code and its application decree represent the base reference in environmental management. These are completed by the Prime Minister Office's Circular n°01 of May 22, 2007 on the application of Environment Code provisions relative to environmental impact studies. In terms of the law per se, it is more specifically articles L49, L50, L51, L52, L53 and L54 that govern environmental impact studies. With regard to potential impacts on the environment and the population, the DEEC recommends conducting the study on environmental and social impact.

#### Other Legislations and Policies

##### **Law n°2013-10 of December 28, 2013 on the General Code of Local Governments.**

Since March 19, 2013, Senegal committed to a reform project of its decentralization policy named "Act III of the decentralization" in order to further local democracy. This reform which is marked by a major restructuring of the State's territorial action has for main objective to "organize Senegal into viable and competitive territories that are vectors of sustainable development".

Based on the territorialization of public policies, the reform aims to build Senegal by developing each territory's full potential, in a multi-actor and multi-level approach that will guarantee the participation of all territorial actors. It thus embodies a shift in favor of the strengthening of decentralization and the renewal of regional development policy.

Due to its complexity and its lasting impact on the future of the country, Act III of the decentralization is implemented incrementally and will be deployed in several phases in an iterative, cumulative and inclusive approach.

Thus, law n°2013-10 of December 28, 2013 on the General Code of Local Governments (CGCL) sets the first phase of the reform. The CGCL repeals and replaces laws n°96-06 on the Code of Local Governments, n°96-07 on knowledge transfer to regions, municipalities and rural communities and n°96-09 of March 22, 1996 which sets the administrative and financial organization of the neighboring community ("*commune d'arrondissement*") and its relationship to the City. These texts specify that the "local government manages the environment inside its own perimeter".

**Law n°83-71 of July 5, 1983 on the Public Health Code** essentially regulates individual or collective public health and sanitation of the environment. The law defines, among other things, sanitation rules applicable to housings, industrial installations, public roads and waste disposal. EHPMP is concerned by this public health code in that compliance with sanitation rules is an obligation for all actors involved in the project: local governments, enterprises, populations, decentralized services, etc.

**Law n°2016 of November 8, 2016 on the Mining Code** repeals law n°2003-36 of November 24, 2003 on the Mining Code and its application decree n°2004-647 of May 17, 2004 which regulates all mining activities at the national level. This law regulates the prospection, research and exploitation of mines and quarries.

**Law n°81-13 of March 4, 1981 on the Water Code** provides various provisions designed to fight against water pollution while reconciling demands related to drinking water supply and public health, to agriculture, biological life of the receptor medium and the fish fauna, site protection and water conservation.

**The Labor Code and its new application decrees of 2006:** In its health-related provisions, law n°97-17 of December 1st, 1997 on the Labor Code sets work conditions, namely regarding work duration which may not exceed 40 hours per week, night work, women and child work contracts and mandatory weekly rest. The law also addresses Sanitation and Safety in the workplace and provides measures any activity must follow to ensure sanitation and safety – the guarantors of a healthy environment and safe working conditions. The project is concerned by this code because work involved will require a large labor force that will need to be protected.

**Law n°2008-43 of August 20, 2008 on the Urban Planning Code**, complemented by decree n°2009-1450 of December 30, 2009. The urban planning code sets construction standard rules and regulates urban plans in three categories: the planning scheme, the master urban plan and the detailed urban plan. The master and the detailed urban plans determine the distribution and organization of surfaces of the urban zone, communication routes, sites reserved for public service, installations of general interest, free spaces, construction rules and servitudes, zoning requirements, etc. The project is concerned by this law and will have to conform to these planning instruments.

The **discharge standards** that may be relevant for the project are:

- **Senegalese Standard NS05-061** on the protection of the environment and the population against harmful or unpleasant air pollution and the inter-ministerial decree n°7358 of November 5, 2003 which provides conditions of its application. The NS05-061 addresses conditions of waste water disposal on the national territory. Waste water discharges which may affect the quality of surface waters, ground waters or the sea are prohibited. The standard thus defines rules and modalities for the discharge of waste waters on the Senegalese territory.
- **Senegalese Standard NS05-062**, on the discharge of waste waters and the inter-ministerial decree n°1555 of March 15, 2002 which provides conditions of its application. This standard defines general conditions under which air discharges must take place. Air pollution is primarily caused by discharged substances from various sectors of activity. The standard addresses all sectors likely to produce pollutants and establishes conditions that must be observed for the protection of the environment and of populations.

It must be noted, however, that noise pollution is addressed by article R84 of the Environment Code which provides that “the maximum noise thresholds not to be exceeded, beyond which the human

organism may be exposed to dangerous consequences, are fifty-five (55) to sixty (60) decibels during daytime and forty (40) decibels at night”.

#### **Nomenclature of classified installations for the protection of the environment**

The nomenclature establishes the classification of establishments into classes based on the dangers or the severity of harm caused by their exploitation: establishments that must be distant from inhabited areas; those whose distance from inhabited areas is not rigorously necessary, but which exploitation may only be authorized under the condition that measures be implemented to prevent dangers or nuisances; establishments which, although they do not present any severe drawback for the neighborhood or for the public health, are only subjected to general provisions issued for the benefit of the neighborhood or the public health to all such establishments. Establishments that are dangerous, unhealthy or inconvenient may not operate without an authorization from the Environment Minister. Classified establishments are either subjected to authorizations, to registration or to affidavits depending on the nature of the activity.

#### **Sectoral referential guides for ESIA**

The document on Sectoral referential guides on environmental impact studies published in November 2006 by the DEEC is presented as a sectoral reference document which summarizes the body of information that regulates activities of ESIA execution entities (engineering firms in charge of ESIA) in Senegal and particularly those dealing with procedures. The guide is composed of two major parts: the first part provides general provisions including the mandate, status and composition of the execution entity, work modalities of the execution entity and procedures applicable to ESIA; the second part consists of specific provisions that provide particular conditions for the conduct of ESIA by various sectors of activities. Guide update mechanisms are planned but have never been implemented.

In practice, these guides are very seldom used for several reasons: inadequate sharing and outreach; difficulty of use in light of the current progress of ESIA; etc. They thus should be updated and distributed among actors, namely ESIA professionals.

#### **Guide on the study of danger**

The objective of the Guide on the study of danger is to report on the review conducted by the operator of an establishment in order to characterize, analyze, assess, prevent and reduce risks of an installation or group of installations, as long as it is technologically feasible and economically acceptable, whether its causes are intrinsic to products used, linked to implemented processes or due to proximity with other internal or external risks of the installation. It specifies all the risk-containment measures implemented in the establishment, which reduce the risk inside and outside of the establishment to a level deemed acceptable by the operator.

## Annex II. World Bank ESF Risk Categories

### High Risk

A Project is classified as High Risk after considering, in an integrated manner, the risks and impacts of the Project, taking into account the following, as applicable.

a. The Project is likely to generate a wide range of significant adverse risks and impacts on human populations or the environment. This could be because of the complex nature of the Project, the scale (large to very large) or the sensitivity of the location(s) of the Project. This would take into account whether the potential risks and impacts associated with the Project have the majority or all of the following characteristics:

- i) long term, permanent and/or irreversible (e.g., loss of major natural habitat or conversion of wetland), and impossible to avoid entirely due to the nature of the Project;
- ii) high in magnitude and/or in spatial extent (the geographical area or size of the population likely to be affected is large to very large);
- iii) significant adverse cumulative impacts;
- iv) significant adverse transboundary impacts; and
- v) a high probability of serious adverse effects to human health and/or the environment (e.g., due to accidents, toxic waste disposal, etc.);

b. The area likely to be affected is of high value and sensitivity, for example sensitive and valuable ecosystems and habitats (legally protected and internationally recognized areas of high biodiversity value), lands or rights of Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities and other vulnerable minorities, intensive or complex involuntary resettlement or land acquisition, impacts on cultural heritage or densely populated urban areas.

c. Some of the significant adverse E&S risk and impacts of the Project cannot be mitigated or specific mitigation measures require complex and/or unproven mitigation, compensatory measures or technology, or sophisticated social analysis and implementation.

d. There are significant concerns that the adverse social impacts of the Project, and the associated mitigation measures, may give rise to significant social conflict or harm or significant risks to human security.

e. There is a history of unrest in the area of the Project or the sector, and there may be significant concerns regarding the activities of security forces.

f. The Project is being developed in a legal or regulatory environment where there is significant uncertainty or conflict as to jurisdiction of competing agencies, or where the legislation or regulations do not adequately address the risks and impacts of complex Projects, or changes to applicable legislation are being made, or enforcement is weak.

g. The past experience of the Borrower and the implementing agencies in developing complex Projects is limited, their track record regarding ES issues would present significant challenges or concerns given the nature of the Project's potential risks and impacts.

h. There are significant concerns related to the capacity and commitment for, and track record of relevant Project parties, in relation to stakeholder engagement.

i. There are a number of factors outside the control of the Project that could have a significant impact on the ES performance and outcomes of the Project.

### Substantial Risk

A Project is classified as Substantial Risk after considering, in an integrated manner, the risks and impacts of the Project, taking into account the following, as applicable.

a. the Project may not be as complex as *High Risk* Projects, its E&S scale and impact may be smaller (large to medium) and the location may not be in such a highly sensitive area, and some risks and impacts may be significant. This would take into account whether the potential risks and impacts have the majority or all of the following characteristics:

- i) they are mostly temporary, predictable and/or reversible, and the nature of the Project does not preclude the possibility of avoiding or reversing them (although substantial investment and time may be required);
- ii) there are concerns that the adverse social impacts of the Project, and the associated mitigation measures, may give rise to a limited degree of social conflict, harm or risks to human security;
- iii) they are medium in magnitude and/or in spatial extent (the geographical area and size of the population likely to be affected are medium to large);
- iv) the potential for cumulative and/or transboundary impacts may exist, but they are less severe and more readily avoided or mitigated than for *High Risk* Projects; and
- v) there is medium to low probability of serious adverse effects to human health and/or the environment (e.g., due to accidents, toxic waste disposal, etc.), and there are known and reliable mechanisms available to prevent or minimize such incidents;

b. The effects of the Project on areas of high value or sensitivity are expected to be lower than *High Risk* Projects.

c. Mitigatory and/or compensatory measures may be designed more readily and be more reliable than those of *High Risk* Projects.

d. The Project is being developed in a legal or regulatory environment where there is uncertainty or conflict as to jurisdiction of competing agencies, or where the legislation or regulations do not adequately address the risks and impacts of complex Projects, or changes to applicable legislation are being made, or enforcement is weak.

e. The past experience of the Borrower and the implementing agencies in developing complex Projects is limited in some respects, and their track record regarding E&S issues suggests some concerns which can be readily addressed through implementation support.

f. There are some concerns over capacity and experience in managing stakeholder engagement but these could be readily addressed through implementation support.

#### **Moderate Risk**

A Project is classified as *Moderate Risk* after considering, in an integrated manner, the risks and impacts of the Project, taking into account the following, as applicable:

a. the potential adverse risks and impacts on human populations and/or the environment are not likely to be significant. This is because the Project is not complex and/or large, does not involve activities that have a high potential for harming people or the environment, and is located away from environmentally or socially sensitive areas. As such, the potential risks and impacts and issues are likely to have the following characteristics:

- i) predictable and expected to be temporary and/or reversible;
- ii) low in magnitude;
- iii) site-specific, without likelihood of impacts beyond the actual footprint of the Project; and
- iv) low probability of serious adverse effects to human health and/or the environment (e.g., do not involve use or disposal of toxic materials, routine safety precautions are expected to be sufficient to prevent accidents, etc.).

b. The Project's risks and impacts can be easily mitigated in a predictable manner.\

**Low Risk**

A project is classified as Low Risk if its potential adverse risks to and impacts on human populations and/or the environment are likely to be minimal or negligible. These Projects, with few or no adverse risks and impacts and issues, do not require further E&S assessment following the initial screening.

### Annex III. Outline of Environmental and Social Assessment Report

The objectives the Environmental and Social Impact Assessment are to:

- Establish the baseline conditions of the study area through a combination of desk review, consultations and site visits taking account of any committed development projects which could change the baseline in the future;
- Identify environmental constraints and opportunities associated with the study area which may influence, or be affected by the proposed technologies;
- Identify and assess any environmental impacts (both positive and negative) which could result from the proposed project;
- Identify and incorporate into project design and operation, features and measures to avoid or mitigate adverse impacts and enhance beneficial impacts; and
- Assess the level of significance of all residual effects (direct and indirect, adverse and beneficial, short-term and long-term, permanent and temporary) taking into account of the proposed mitigation measures

The ESIA should at minimum encompass the following:

1. Executive summary

2. Legal and Regulation 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 ESS1, paragraph 26.
- Comparison between the Borrower's existing environmental and social framework and the ESSs, identification of the gaps between them and measures to fill the gaps.
- Compliance with World Bank Group Environmental, Health and Safety Guidelines
- Where applicable, Identification and assessment of the environmental and social requirements of any co-financiers.

3. Project Description

Concise describes the proposed project and its geographic, environmental, social, and temporal context, including any offsite investments that may be required (e.g., dedicated pipelines, access roads, power supply, water supply, housing, and raw material and product storage facilities), 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.

For the EHPMP, this should also describe the criteria for selection of the e-waste and mercury reduction technology selected, the various options/alternatives considered and a description of selected the technology.

4. Baseline Data

- Identified the baseline data that is relevant to decisions about project location, design, operation, or mitigation measures. This should include estimation of 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 describe 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.
  - Site investigation results
5. Alternatives analysis
- Site selection criteria
  - For each of the alternatives, quantify the environmental and social impacts to the extent possible, and attaches economic values where feasible.
  - With and without Project scenario
  - Description of selected site
  - Feasibility of project in selected site i.e environmental, social and economic
6. E&S Risks and Impacts
- This should take 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 ESS2–8, 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. It should include the positive environmental and social outcomes as well.
7. Mitigation Measures
- Identifies mitigation measures to manage the environmental and social impacts and significant residual negative impacts that cannot be mitigated and, to the extent possible, assesses 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; and 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. Covers Environmental and workers health and safety measures.
- Includes a monitoring plan identifying parameters to be monitored, frequency and responsible authority.
8. Key Measures and Actions for the Environmental and Social Commitment Plan (ESCP)
- Identifies key measures and actions and the timeframe required for the project to meet the requirements of the ESSs. This will be used in developing the Environmental and Social Commitment Plan (ESCP).
9. Public consultation and information disclosure
- Stakeholder engagement plan  
Grievance Redress System
10. Institutional Arrangements and Reporting



#### Annexes

- List of the individuals or organizations that prepared or contributed to the environmental and social assessment.
- References—setting 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.

#### Annex IV. Outline of Environmental and Social Management Plan

Based on the requirements laid out in the ESMF, the ESMP for the pilot projects should describe the mitigation, monitoring, and institutional measures to be taken during implementation and operation to eliminate adverse environmental and social risks and impacts. The ESMP should also include the measures and actions needed to implement these measures.

The ESMP should at minimum encompass the following:

1. Objectives of the ESMP

2. Project Description

This summarizes the project and provides maps of sufficient detail, showing the project site and the area that may be affected by the project's direct and indirect impacts.

3. Mitigation Measures

This should identify and summarize all anticipated adverse environmental and social impacts and describe 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. It should also estimate any potential environmental and social impacts of these measures.

4. Monitoring Plan

This should identify the monitoring objectives and specifies the type of monitoring, with linkages to the impacts assessed in the ESIA and the mitigation measures described. This is meant to provide (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.

5. Capacity Development and Trainings

This should provide 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).

6. Implementation Schedule and Cost Estimates

For all three aspects (mitigation, monitoring, and capacity development), the ESMP should include (a) 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 (b) 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.

7. Integration of ESMP with Project

The individual mitigation and monitoring measures and actions and the institutional responsibilities relating to each, and the costs of so should be integrated into the project's overall planning, design, budget, and implementation and maybe reflected in the ESCP.

8. Legal requirements and bidding/contract documents

The EMP should be incorporated in all legal documents to enforce compliance by all contractors participating in the project. The EMP should be summarized and incorporated in the bidding and contract documents.

**Annexes**

Labor Management Plan

Stakeholder Engagement Plan including GBV prevention strategy

Any other site specific plan required

## Annex V. E&S Specifications for Contractors

### General

In order to prevent harm and nuisances on local communities, and to minimize the impacts on the environment during construction and installation of the pilots under the EHPMP, the Contractor and his employees shall adhere to the mitigation measures set down in:

- ESIA
- Site Specific ESMP
- The specifications, procedures, and best practices included in this Annex. These specifications complement any technical specifications included in the work quantities and the requirements of the country's regulations
- **Contractor's ESMP:** The Contractor is required to submit a construction ESMP (CESMP)) as part of his proposed Construction Method Statements prepared as part of his Bid document and/or during construction phase. The Contractor's CESMP shall provide details such as Contractor's commitment to environmental protection; methodology of implementing the project ESMP; environmental mitigation measures and monitoring program during different stage of the construction period, and the contractor's proposed resources for the implementation of the ESMP.

The Contractor and his employees shall adhere to the mitigation measures set down in these specifications to prevent harm and nuisances on local communities, and to minimize the impacts in construction and operation on the environment.

### Code of Conduct

A Code of Conduct shall be established to outline the importance of appropriate behavior, drug and alcohol abuse, and compliance with relevant laws and regulations. Each employee shall be informed of the Code of Conduct and bound by it while in the employment of the Contractors. The Code of Conduct shall be available to local communities at the project information centers or other place easily accessible to the communities.

The Code of Conduct shall address the following measures (but not limited to them):

- All of the workforce shall abide by the laws and regulations of the country;
- Reporting of work situations that are believed not to be safe or healthy;
- Treating other people with respect, and not discriminating against specific groups such as women, people with disabilities, migrant workers or children;
- Illegal substances, weapons and firearms shall be prohibited;
- Pornographic material and gambling shall be prohibited;
- Fighting (physical or verbal) shall be prohibited;
- Creating nuisances and disturbances in or near communities shall be prohibited;
- Disrespecting local customs and traditions shall be prohibited;
- Smoking shall only be allowed in designated areas;
- Maintenance of appropriate standards of dress and personal hygiene;
- Requirement of completion of relevant training courses that will be provided related to the environmental and social aspects of the Contract, including on health and safety matters, and Sexual Exploitation, and Sexual Abuse (SEA)
- Failure to comply with the Code of Conduct, or the rules, regulations, and procedures implemented at the construction camp will result in disciplinary actions.

**Prohibitions**

The following activities shall be prohibited on or near the project site.

- Cutting of trees for any reason outside the approved area;
- Hunting, fishing, wildlife capture, or plant collection;
- Buying of wild animals for food;
- Feeding of wild animals;
- Use of unapproved toxic materials, including lead-based paints, asbestos, etc.;
- Disturbance to anything with architectural or historical value;
- Building of fires;
- Use of firearms;
- Use of alcohol by workers in office hours;
- Washing cars or machinery in streams or creeks;
- Doing maintenance (change of oils and filters) of cars and equipment outside authorized areas;
- Disposing trash in unauthorized places;
- Driving in an unsafe manner in local roads;
- Working without safety equipment (including boots and helmets);
- Creating nuisances and disturbances in or near communities;
- The use of rivers and streams for washing clothes;
- Indiscriminate disposal of rubbish or rehabilitation wastes or rubble;
- Littering the site;
- Spillage of potential pollutants, such as petroleum products;
- Collection of firewood;
- Poaching;
- Explosive and chemical fishing;
- Latrine outside the designated facilities;
- Burning of wastes and/or cleared vegetation;
- Engaging in any form of sexual harassment including unwelcome sexual advances, requests for sexual favors, and other unwanted verbal or physical conduct of a sexual nature with other Contractor's or Employer's Personnel;
- Engaging in sexual exploitation, rape or sexual abuse;
- Engaging in any form of sexual activity with individuals under the age of 18, except in case of pre-existing marriage.

**Transport**

The Contractor shall use selected routes to the project site, as agreed with the implementing agency, and appropriately sized vehicles suitable to the class of roads in the area, and shall restrict loads to prevent damage to local roads and bridges used for transportation purposes. The Contractor shall be held responsible for any damage caused to local roads and bridges due to the transportation of excessive loads, and shall be required to repair such damage to the approval of the implementing agency.

The Contractor shall not use any vehicles, either on or off road with grossly excessive, exhaust or noise emissions. In any built up areas, noise mufflers shall be installed and maintained in good condition on all motorized equipment under the control of the Contractor.

Adequate traffic control measures shall be maintained by the Contractor throughout the duration of the Contract and such measures shall be subject to prior approval of the implementing agency.

**Waste Management:**

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

*Waste Management:*

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

*Erosion Control:*

- Disturb as little ground area as possible, stabilize that area as quickly as possible, control drainage through the area, and trap sediment onsite.
- Conserve topsoil with its leaf litter and organic matter and reapply this material to local disturbed areas to promote the growth of local native vegetation.
- Apply local, native grass seed and mulch to barren erosive soil areas or closed construction surfaces.
- Apply erosion control measures before the rainy season begins preferably immediately following construction. Install erosion control measures as each construction site is completed.
- In all construction sites, install sediment control structures where needed to slow or redirect runoff and trap sediment until vegetation is established. Sediment control structures include windrows of logging slash, rock berms, sediment catchment basins, straw bales, brush fences, and silt
- Control water flow through construction sites or disturbed areas with ditches, berms, check structures, live grass barriers, and rock
- Maintain and reapply erosion control measures until vegetation is successfully established.
- Spray water on dirt roads, cuts, fill material and stockpiled soil to reduce wind-induced erosion, as needed

*Maintenance:*

Identify and demarcate equipment maintenance areas (>15m from rivers, streams, lakes or wetlands). Fuel storage shall be located in proper areas and approved by the Project Engineer.

Ensure that all equipment maintenance activities, including oil changes, are conducted within demarcated maintenance areas; never dispose spent oils on the ground, in water courses, drainage canals or in sewer systems.

All spills and collected petroleum products shall be disposed of in accordance with standard environmental procedures/guidelines. Fuel storage and refilling areas shall be located at least 300m from all cross drainage structures and important water bodies or as directed by the supervising Personnel.

### **Disposal of Construction and Vehicle Waste**

The Contractor shall establish and enforce daily site clean-up procedures, including maintenance of adequate disposal facilities for construction debris

Debris generated due to the dismantling of the existing structures shall be suitably reused, to the extent feasible, in the proposed construction. The disposal of remaining debris shall be carried out only at sites identified and approved by the Supervising Personnel. The contractor should ensure that these sites (a) are not located within designated forest areas; (b) do not impact natural drainage courses; and (c) do not impact endangered/rare flora. Under no circumstances shall the contractor dispose of any material in environmentally sensitive areas.

In the event any debris or silt from the sites is deposited on adjacent land, the Contractor shall immediately remove such, debris or silt and restore the affected area to its original state to the satisfaction of the Supervising Personnel.

All arrangements for transportation during construction including provision, maintenance, dismantling and clearing debris, where necessary, will be considered incidental to the work and should be planned and implemented by the contractor as approved.

### **Safety during Construction**

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

- Conduct safety training for construction workers prior to beginning work;
- Provide personal protective equipment and clothing (goggles, gloves, respirators, dust masks, hard hats, steel-toed and –shanked boots, etc.) for construction workers and enforce their use;
- During heavy rains or emergencies of any kind, suspend all work.

### **Dust Control**

To control nuisance and dust the Contractor should:

1. Minimize production of dust and particulate materials at all times, to avoid impacts on surrounding families and businesses, and especially to vulnerable people (children, elders).
2. The Contractor shall ensure that the generation of dust is minimized and shall implement a dust control program to maintain a safe working environment, minimize nuisance for surrounding residential areas/dwellings and protect damage to natural vegetation, crops, etc;
3. Construction vehicles shall comply with speed limits and haul distances shall be minimized;
4. Material loads shall be suitably covered and secured during transportation;
5. Exposed soil and material shall be protected against wind erosion and the location shall take into consideration the prevailing wind directions and locations of sensitive receptors;

### **Community Relations**

To enhance adequate community relations the Contractor shall:

1. Inform the population about construction and work schedules, interruption of services, traffic detour routes as appropriate.

2. Limit construction activities at night. When necessary ensure that night work is carefully scheduled and the community is properly informed so they can take necessary measures.

#### **Physical Cultural Property Chance-finds Procedures**

If the Contractor discovers archeological sites, historical sites, remains and objects, including graveyards and/or individual graves during excavation or construction, the Contractor shall:

- Stop the construction activities in the area of the chance find;
- Delineate the discovered site or area;
- Secure the site to prevent any damage or loss of removable objects. In cases of removable antiquities or sensitive remains, a night guard shall be arranged until the responsible local authorities or the National Culture Administration take over;
- Notify the supervisory Personnel who in turn will notify the responsible local authorities and the National Culture Administration immediately (within 24 hours or less);
- Responsible local authorities and the National Culture Administration would be in charge of protecting and preserving the site before deciding on subsequent appropriate procedures. This would require a preliminary evaluation of the findings to be performed by the archeologists of National Culture Administration. The significance and importance of the findings should be assessed according to the various criteria relevant to cultural heritage; those include the aesthetic, historic, scientific or research, social and economic values;
- Decisions on how to handle the finding shall be taken by the responsible authorities and National Culture Administration. This could include changes in the layout (such as when finding an irremovable remain of cultural or archeological importance) conservation, preservation, restoration and salvage;
- Implementation for the authority decision concerning the management of the finding shall be communicated in writing by relevant local authorities; and
- Construction work could resume only after permission is given from the responsible local authorities or National Culture Administration concerning safeguard of the heritage.

#### **Hazardous Materials**

If the construction site is expected to have or suspected of having hazardous materials the Contractor will be required to prepare a Hazardous Waste Management Plan to be approved by the Implementing agency. The plan should be made available to all persons involved in operations and transport activities. Removal and disposal of existing hazardous wastes in project sites should only be performed by specially trained personnel following national or provincial requirements, or internationally recognized procedures

#### **Eating areas**

- If none is available, the Contractor shall provide adequate temporary shade within the site to ensure that site personnel do not move off site to eat;
- The Contractor shall provide adequate refuse bins at all eating areas;
- If deemed necessary the Contractor shall demarcate designated eating areas.

#### **Ecological Considerations**

##### ***Protection of Natural Vegetation***



- The Contractor shall be responsible for informing all employees about the need to prevent any harmful effects on natural vegetation on or around the rehabilitation site as a result of their activities;
- Clearing of natural vegetation shall be kept to a minimum;
- The removal, damage and disturbance of natural vegetation without the written approval of the Supervising Personnel are prohibited;
- The use of herbicides shall be approved by the Supervising Personnel;
- Regularly check the work site boundaries to ensure that they are not exceeded and that no damage occurs to surrounding areas;
- Prohibit and prevent open fires during rehabilitation and provide temporary firefighting equipment in the work areas, particularly close to forest areas;
- Some trees might be of value for the communities and may not be cut, disturbed, damaged, destroyed and their products may not be possessed, collected, removed, transported, exported, donated, purchased or sold except under license granted a delegated authority.

#### ***Protection of Fauna***

- The Contractor shall ensure that no hunting, trapping, shooting, poisoning or otherwise disturbance of any fauna takes place;
- The feeding of any wild animals shall be prohibited;
- The use of pesticides shall be approved by the Supervising Personnel;
- No domestic pets or livestock shall be permitted on site.

#### **Grievance Redress Mechanism**

The contractor shall develop a GRM for workers and community members to express concerns about the works. The GRM system should be easily accessible. For GBV cases, the GRM shall be designed in a way to keep strict confidentiality. All workers shall be trained about the GRM process and the contractor shall prove that each employee has been inducted with signatures to show that they have been inducted on the procedure. If the dispute is not resolved at the workplace, other resolutions mechanisms provided for in the labor legislations can be utilized.

All complaints received shall be recorded. The Implementing Agency and Supervising Personnel should be informed about the complaints when they are received. A mechanism shall be put in place to resolve the complaint swiftly.

#### **Health Services, HIV/AIDS Education**

The Contractor shall provide basic first aid services to the workers as well as emergency facilities for work related accidents including medical equipment suitable for treatment likely to be required prior to transportation to hospital.

The Contractor shall send, to the Implementing Agency and Supervising Personnel details of any accident as soon as practicable after its occurrence. The Contractor shall maintain records and make reports concerning health, safety and welfare of persons, and damage to property, as the Engineer may reasonably require.

The Contractor shall conduct an HIV-AIDS awareness program via an approved service provider, and shall undertake such other measures as are specified in this Contract to reduce the risk of the transfer of the HIV virus between and among the Contractor's Personnel and the local community, to promote early diagnosis and to assist affected individuals.

The Contractor shall conduct information and education campaigns addressed to all the site staff and labor (including all the Contractor's employees, all Sub-Contractors and Consultants' employees, and all truck drivers and crew making deliveries to site for construction activities) and to the immediate local communities, concerning the risks, dangers and impact, and appropriate avoidance behavior with respect to of Sexually Transmitted Diseases (STD)-or Sexually Transmitted Infections.

#### **First Aid Facilities**

Medical and first aid facilities shall be make available for workers. First aid box shall be provided at the construction site and under the charge of a responsible person who shall always be readily available during working hours of the work place. He/she shall be adequately trained in administering first aid-treatment. Formal arrangement shall be prescribed to make motor transport available to carry injured person or person suddenly taken ill to the nearest hospital.

#### **Environmental Emergency Procedures**

The possibility exists for environmental emergencies of an unforeseen nature to occur during the course of the construction and operational phases of the project;

- By definition, the nature of such emergencies cannot be known. Therefore, the Contractor shall respond on a case-by-case basis to such emergencies and shall initiate event-specific measures in terms of notifications and reactions;
- The Contractor shall prepare a report on the incident detailing the accident, clean-up actions taken, any pollution problems and suggested measures to prevent similar accidents from happening again in future. The incident report shall then be submitted to the Implementing Agency and Supervising Personnel for review and records.

#### **Environmental Training and Awareness**

The Contractor should ensure that all concerned staff are aware of the relevant environmental requirements as stipulated in local environmental legislation and the Contract specifications. The Contractor is responsible for providing appropriate training to all staff. This should be tailored to suit their level of responsibility for environmental matters. The Contractor should also ensure that all site staff members are aware of the emergency response procedures. All staff should receive environmental induction training and managerial staff should receive additional training. The training materials should be reviewed by the Implementing Agency and Supervising Personnel.

## Annex VI. Outline of Stakeholder Engagement Plan

The scope and level of detail of the plan should be commensurate and proportionate with the nature and scale, potential risks, and impacts of the project and the concerns of the stakeholders who may be affected by or are interested in the project.

The SEP should be clear and concise, and focus on describing the project and identifying its stakeholders. It is key to identify what information will be in the public domain, in what languages, and where it will be located. It should explain the opportunities for public consultation, provide a deadline for comments, and explain how people will be notified of new information or opportunities for comment. It should explain how comments will be assessed and taken into account. It should also describe the project's grievance mechanism and how to access this mechanism. The SEP should also commit to releasing routine information on the project's environmental and social performance, including opportunities for consultation and how grievances will be managed.

### 1. Introduction/Project Description

Briefly describe the project, the stage of the project, its purpose, and what decisions are currently under consideration on which public input is sought. Describe location and, where possible, include a map of the project site(s) and surrounding area, showing communities and proximity to sensitive sites, and including any worker accommodation, lay-down yards, or other temporary activities that also may impact stakeholders. Provide a link to, or attach a nontechnical summary of, the potential social and environmental risks and impacts of the project.

### 2. Brief Summary of Previous Stakeholder Engagement Activities

If consultation or disclosure activities have been undertaken to date, including information disclosure and informal or formal meetings/or consultation, provide a summary of those activities (no more than half a page), the information disclosed, and where more detailed information on these previous activities can be obtained (for example, a link, or physical location, or make available on request).

### 3. Stakeholder identification and analysis

Identify key stakeholders who will be informed and consulted about the project, including individuals, groups, or communities that:

- Are affected or likely to be affected by the project (project-affected parties); and
- May have an interest in the project (other interested parties).

Depending on the nature and scope of the project and its potential risks and impacts, examples of other potential stakeholders may include government authorities, local organizations, NGOs, and companies, and nearby communities. Stakeholders may also include politicians, labor unions, academics, religious groups, national social and environmental public-sector agencies, and the media.

#### 3.1. Affected parties

Identify individuals, groups, local communities, and other stakeholders that may be directly or indirectly affected by the project, positively or negatively. The SEP should focus particularly on those directly and adversely affected by project activities. Mapping the impact zones by placing the affected communities within a geographic area can help define or refine the project's area of influence. The SEP should

identify others who think they may be affected, and who will need additional information to understand the limits of project impacts.

### *3.2. Other interested parties*

Identify broader stakeholders who may be interested in the project because of its location, its proximity to natural or other resources, or because of the sector or parties involved in the project. These may be local government officials, community leaders, and civil society organizations, particularly those who work in or with the affected communities. While these groups may not be directly affected by the project, they may have a role in the project preparation (for example, government permitting) or be in a community affected by the project and have a broader concern than their individual household.

Moreover, civil society and nongovernmental organizations may have in-depth knowledge about the environmental and social characteristics of the project area and the nearby populations, and can help play a role in identifying risks, potential impacts, and opportunities for the Borrower to consider and address in the assessment process. Some groups may be interested in the project because of the sector it is in, and others may wish to have information simply because public finance is being proposed to support the project. It is not important to identify the underlying reasons why people or groups want information about a project—if the information is in the public domain, it should be open to anyone interested.

### *3.3. Disadvantaged / vulnerable individuals or groups*

It is particularly important to understand project impacts and whether they may disproportionately fall on disadvantaged or vulnerable individuals or groups, who often do not have a voice to express their concerns or understand the impacts of a project. The following can help outline an approach to understand the viewpoints of these groups:

- Identify vulnerable or disadvantaged individuals or groups and the limitations they may have in participating and/or in understanding the project information or participating in the consultation process.
- What might prevent these individuals or groups from participating in the planned process? (For example, language differences, lack of transportation to events, accessibility of venues, disability, lack of understanding of a consultation process).
- How do they normally get information about the community, projects, activities?
- Do they have limitations about time of day or location for public consultation?
- What additional support or resources might be needed to enable these people to participate in the consultation process? (Examples are providing translation into a minority language, sign language, large print or Braille information; choosing accessible venues for events; providing transportation for people in remote areas to the nearest meeting; having small, focused meetings where vulnerable stakeholders are more comfortable asking questions or raising concerns.)
- If there are no organizations active in the project area that work with vulnerable groups, such as persons with disability, contact medical providers, who may be more aware of marginalized groups and how best to communicate with them.
- What recent engagement has the project had with vulnerable stakeholders and their representatives?

## **4. Stakeholder Engagement Program**

### **4.1. Purpose and timing of stakeholder engagement program**

Summarize the main goals of the stakeholder engagement program and the envisaged schedule for the various stakeholder engagement activities: at what stages throughout the project's life they will take place, with what periodicity, and what decision is being undertaken on which people's comments and

concerns. If decisions on public meetings, locations, and timing of meetings have not yet been made, provide specific information on how people will be made aware of forthcoming opportunities to review information and provide their views. Include the ESCP as part of such information. For some projects, a stand-alone SEP may not be necessary and its elements may be incorporated into the ESCP.

#### 4.2. Proposed strategy for information disclosure

Briefly describe what information will be disclosed, in what formats, and the types of methods that will be used to communicate this information to each of the stakeholder groups. Methods used may vary according to target audience. For each media example, identify the specific names (for example, *The Daily News* and *The Independent*, *Radio News 100.6*, television *Channel 44*). The selection of disclosure—both for notification and providing information—should be based on how most people in the vicinity of the project routinely get information, and may include a more central information source for national interest. A variety of methods of communication should be used to reach the majority of stakeholders. The project should select those that are most appropriate and have a clear rationale for their choices. The plan should include a statement welcoming comments on the proposed engagement plan and suggestions for improvement. For remote stakeholders, it may be necessary to provide for an additional newspaper outlet or separate meeting, or additional documents that should be placed in the public domain. The public domain includes:

- Newspapers, posters, radio, television;
- Information centers and exhibitions or other visual displays;
- Brochures, leaflets, posters, nontechnical summary documents and reports;
- Official correspondence, meetings;
- Website, social media.

The strategy should include means to consult with project-affected stakeholders if there are significant changes to the project resulting in additional risks and impacts. Following such consultation, an updated ESCP will be disclosed.

#### 4.3. Proposed strategy for consultation

Briefly describe the methods that will be used to consult with each of the stakeholder groups. Methods used may vary according to target audience, for example:

- Interviews with stakeholders and relevant organization
- Surveys, polls, and questionnaires
- Public meetings, workshops, and/or focus groups on specific topic
- Participatory methods
- Other traditional mechanisms for consultation and decision making.

#### 4.4. Proposed strategy to incorporate the view of vulnerable groups

Describe how the views of vulnerable or disadvantaged groups will be sought during the consultation process. Which measures will be used to remove obstacles to participation? This may include separate mechanisms for consultation and grievances, developing measures that allow access to project benefits, and so forth.

#### 4.5. Timelines

Provide information on timelines for project phases and key decisions. Provide deadlines for comments.

#### 4.6 Review of Comments

Explain how comments will be gathered (written and oral comments) and reviewed, and commit to reporting back to stakeholders on the final decision and a summary of how comments were taken into account.

#### 4.7 Future Phases of Project

Explain that people will be kept informed as the project develops, including reporting on project environmental and social performance and implementation of the stakeholder engagement plan and grievance mechanism. Projects should report at least annually to stakeholders, but often will report more frequently during particularly active periods, when the public may experience more impacts or when phases are changing (for example, quarterly reports during construction, then annual reports during implementation).

### 5. Resources and Responsibilities for implementing stakeholder engagement activities

#### 5.1. Resources

Indicate what resources will be devoted to managing and implementing the Stakeholder Engagement Plan, in particular:

- What people are in charge of the SEP
- Confirm that an adequate budget has been allocated toward stakeholder engagement
- Provide contact information if people have comments or questions about the project or the consultation process; that is, phone number, address, e-mail address, title of responsible person

#### 5.2. Management functions and responsibilities

Describe how stakeholder engagement activities will be incorporated into the project's management system and indicate what staff will be devoted to managing and implementing the Stakeholder Engagement Plan:

- Who will be responsible for carrying out each of the stakeholder engagement activities and what are the qualifications of those responsible?
- How involved will management be in stakeholder engagement?
- How will the process be documented, tracked, and managed (for example, stakeholder database, commitments register, and so forth)?

### 6. Grievance Mechanism

Describe the process by which people affected by the project can bring their grievances and concerns to the project management's attention, and how they will be considered and addressed:

- Is there an existing formal or informal grievance mechanism, and does it meet the requirements of ESS10? Can it be adapted or does something new need to be established?
- Is the grievance mechanism culturally appropriate, that is, is it designed to take into account culturally appropriate ways of handling community concerns? For example, in cultures where men and women have separate meetings, can a woman raise a concern to a woman in the project grievance process?
- What process will be used to document complaints and concerns? Who will receive public grievances? How will they be logged and monitored?
- What time commitments will be made to acknowledge and resolve issues? Will there be ongoing communication with the complainant throughout the process?
- How will the existence of the grievance mechanism be communicated to all stakeholder groups? Are separate processes needed for vulnerable stakeholders?

- If a complaint is not considered appropriate to investigate, will an explanation be provided to the complainant on why it could not be pursued?
- Will there be an appeals process if the complainant is not satisfied with the proposed resolution of the complaint? Not all projects will necessarily have an appeals process, but it is advisable to include one for more complex projects. In all cases, complainants need to be reassured that they still have all their legal rights under their national judicial process.
- A summary of implementation of the grievance mechanism should be provided to the public on a regular basis, after removing identifying information on individuals to protect their identities. How often will reports go into the public domain to show that the process is being implemented?

## **7. Monitoring and Reporting**

### **7.1. Involvement of stakeholders in monitoring activities**

Some projects include a role for third parties in monitoring the project or impacts associated with the project. Describe any plans to involve project stakeholders (including affected communities) or third-party monitors in the monitoring of project impacts and mitigation programs. The criteria for selection of third parties should be clear. For further information, see the World Bank's Good Practice Note on Third-Party Monitoring.

### **7.2. Reporting back to stakeholder groups**

Describe how, when, and where the results of stakeholder engagement activities will be reported back to both affected stakeholders and broader stakeholder groups. It is advised that these reports rely on the same sources of communication that were used earlier to notify stakeholders. Stakeholders should always be reminded of the availability of the grievance mechanism.