

# ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK (ESMF)

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## CONTRIBUTION TOWARDS THE ELIMINATION OF MERCURY IN THE ASGM SECTOR: FROM MINERS TO REFINERS

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UNITED NATIONS  
INDUSTRIAL DEVELOPMENT ORGANIZATION



United Nations  
Environment Programme



GLOBAL ENVIRONMENT FACILITY  
INVESTING IN OUR PLANET



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**Annex 2:** Environmental and Social Management Plan & E&S Risk Monitoring Plan

## ACRONYMS

ASGM	-	Artisanal Gold Mining
CCO	-	Chemical Control Order
DAO	-	DENR Administrative Order
DENR	-	Department of Environment and Natural Resources
EIS	-	Environmental Impact System
EMB	-	Environmental Management Bureau
ESESF	-	Environmental, Social and Economic Sustainability Framework
ESMF	-	Environmental and Social Management Framework
ESMP	-	Environmental and Social Management Plan
ESSP	-	Environmental and Social Safeguard Policies and Procedures
GEF	-	Global Environment Facility
IPP	-	Indigenous Peoples' Plan
LGU	-	Local Government Unit
MC	-	Memorandum Circular
NGO	-	Non-governmental Organization
NCIP	-	National Commission for Indigenous People
NIP	-	National Implementation Plan
OS	-	Operational Safeguard
PMU	-	Project Management Unit
RA	-	Republic Act
TSD	-	Treatment, Storage, Disposal
UNEP	-	United Nations Environment
UNIDO	-	United Nations Industrial Development Organization

## Purpose and Use of the Environmental and Social Management Framework (ESMF)

### Purpose of ESMF

The Environmental and Social Management Framework (ESMF) provides general policies, guidelines, codes of practice and procedures for the project – **Contribution towards the Elimination of Mercury in the ASGM Sector: from Miners to Refiners**. This ESMF was developed to ensure the compliance of the project with the UNIDO safeguard policies, UN Environment’s environmental, social and economic sustainability framework, and applicable environmental rules and regulations of the government of the Philippines.

More specifically, the ESMF serves as a guidance instrument to ensure that environmental and social impacts are identified and assessed, and that appropriate mitigation, management, and monitoring measures are incorporated and applied in implementation to achieve the desired environmental and social sustainability outcomes. It sets out the institutional and organizational arrangements, procedures, and implementation arrangements for identification, management and monitoring of environmental and social impacts and mitigating measures. It addresses mechanisms for public consultation, stakeholders’ engagement, and disclosure of project documents as well as for redress of possible grievances and management of project-related issues, which may arise during implementation.

### Use of the ESMF

The ESMF presents a detailed approach on environmental compliance that will ensure that the project and all its subproject sites are compliant with both the donor’s and partner-country’s environmental requirement. The ESMF will serve as a guide for the project implementer in the Philippines, in:

- assessing and screening all the subprojects and activities for their possible social and environmental impacts;
- identifying safeguards documentation and preparing requirements;
- suggesting mitigating measures for the identified impacts, and;
- monitor compliance of the subprojects.

The ESMF is consistent to the environmental and social safeguards of UNIDO, UN Environment, GEF and of the Philippines EIS System to support environmental protection and promote sustainable development, while mitigating risks arising from adverse environmental and social impacts on subprojects.

The ESMF is divided into two (2) parts:

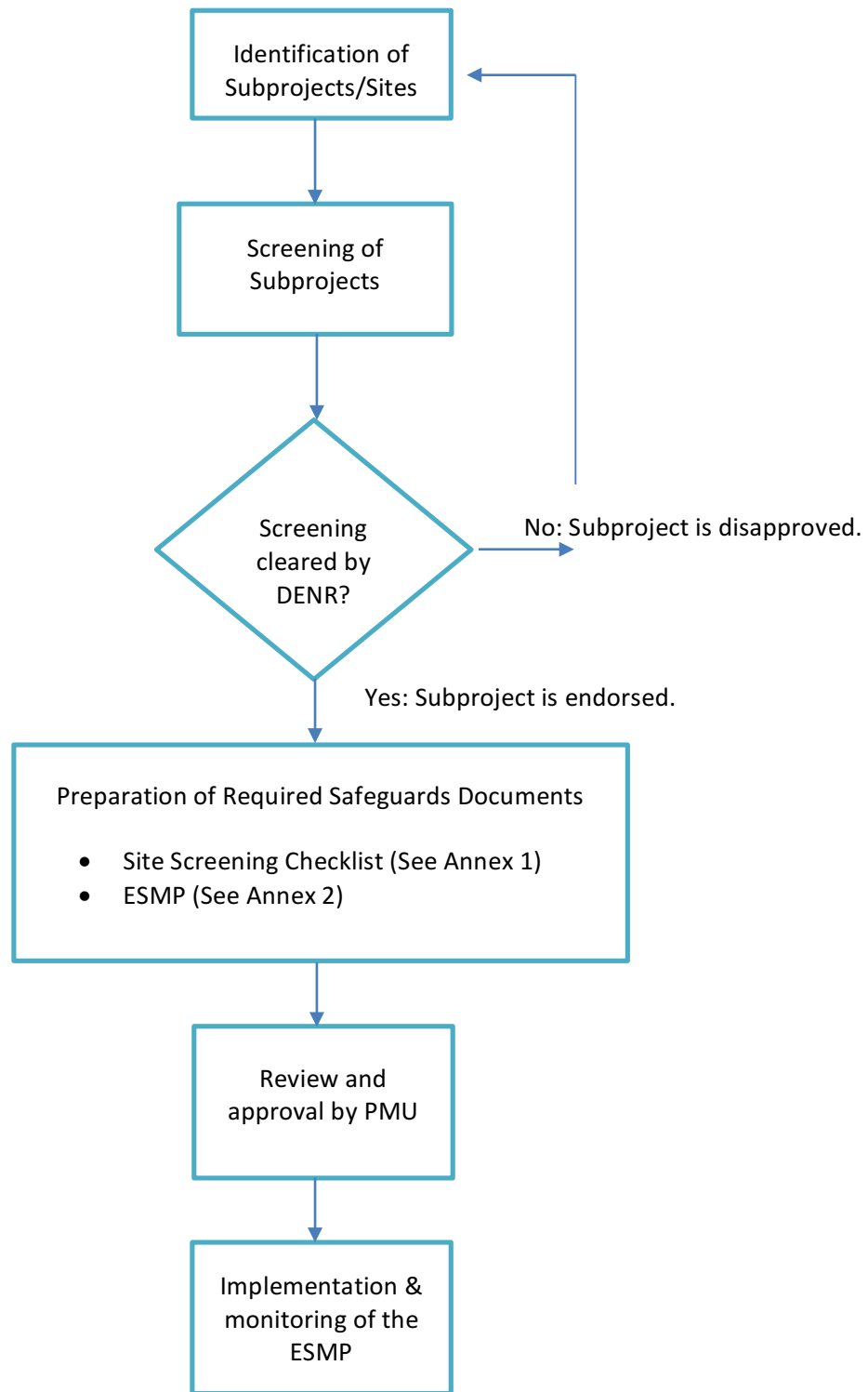
- **Part A: Main Text**- summarizing the overall environmental and social safeguard procedures and arrangements.
  - **Project Context**: Presents the background, objectives and description of the project and its components.



## Purpose and Use of the Environmental and Social Management Framework (ESMF)

- **Environmental and Social Safeguard Policies:** This section reviews the policies of UNIDO and UN Environment on environmental and social safeguards as well as the specific Philippines environmental laws and regulations applicable to the project.
  - **Environmental and Social Management Framework:** This sections provides more detailed guidance on conducting the environmental and social safeguard procedures of the project, identification of environmental and social impacts of the project and its components and developing proper mitigating measures.
  - **Sustainability Monitoring Plan:** This section presents the activities that will be done to monitor and evaluate the project's progress.
  - **Institutional Plan:** This section presents the activities for the capacity development, the communication plan and the grievance redress.
- **Part B: Annexes**
    - **Annex A:** Checklists for environmental and social site screening of proposed ASGM project site and in conducting due diligence audit of an existing project site.
    - **Annex B:** Presents an environmental and social management plan template.

## Purpose and Use of the Environmental and Social Management Framework (ESMF)



**Proposed Project Safeguard Process**

## 1. PROJECT CONTEXT

### 1.1. Background

1. UNIDO and UNEP, in association with the Ministry of Environment, Green Development and Tourism of Mongolia and the Department of Environment and Natural Resources of the Philippines are currently co-implementing a GEF child project (under the programme: Global Opportunities for Long-term Development of ASGM Sector: GEF GOLD) entitled *Contribution towards the elimination of mercury in the ASGM sector: from miners to refiners*. The programme's objective is to reduce the use of mercury in the ASGM sector through (a) facilitation of access to finance for the introduction of low and non-mercury technologies to artisanal miners and mining communities and through (b) the development of sustainable ASGM gold supply chains. The Mongolia-Philippines child project is one of the eight child projects in the programme with its specific objective to contribute to the elimination of mercury in ASGM by applying a value chain approach from the miners to the refiners.
2. Over a period of five years, the project shall implement the following four components:
  - a. **Legal framework and formalization:** Review of policy and legal framework supporting formalization of the sector;
  - b. **Financing:** Introduction of financing schemes allowing miners to adopt and subsequently invest in mercury-free technologies in a sustainable manner and access international gold markets more directly;
  - c. **Technology transfer:** Upscale mercury-free technologies and support the development of health programme for the ASGM sector; and
  - d. **Knowledge management:** Develop a communication strategy in order to replicate the project activities in the participating countries and contributing to the global knowledge management platform established under the global child of the GEF GOLD programme.
3. Based on UNIDO's Environmental and Social Safeguards Policies and Procedures and the UN Environment - Environmental, Social and Economic Sustainability Framework, the project has been categorized as risk level B (moderate risk) where an environmental and social management plan (ESMP) is needed during the preparatory phase of the project to integrate environmental and social sustainability elements into project design. Likely impacts will be site-specific, and few, if any, will be irreversible. It is expected that appropriate management and mitigation measures will be defined and/or internationally-recognized design criteria and standards incorporated. The project is expected to build necessary human and institutional capacities at all levels in order to achieve the expected outputs.

### 1.2. Development Objectives

4. In the Philippines, ASGM occurs in more than 40 of the 79 provinces and provides important subsistence-level income for about 300,000 miners including at least 18,000 women and children. It supports the livelihood of about two million people and comprises traditional and gold rush miners most of whom operate without legal mining titles. It is the largest source of mercury emission in the country. For the past years, ASGM activities have been producing at least 80% of the Philippines' yearly gold supply (representing 28 tons). With that comes the



annual release of an estimated 70 to 140 metric tons of mercury, which is approximately 5-10% of the current estimated global mercury emissions from the sector.

5. A UN health study in 2006 found significant mercury contamination at levels up to 50 times World Health Organization standards among surveyed gold miners. Gold rushes are occurring in various places, including Diwalwal where UNIDO implemented a project aiming to assess the health impact of mercury on mining and downstream population in 1998-2000 and as one of the mercury-free pilot demonstration sites of an existing GEF5 project. The health project underlined the need for more awareness raising as it appeared that both study groups were heavily affected. The Government of the Philippines has taken proactive steps to formalize the sector. Although the use of mercury is technically banned, mercury is still being sold and used in some parts of the Philippines (as evident in the UNIDO GEF5 project).
6. The efforts of DENR have been relentless trying to improve the working and living conditions of their mining communities. Therefore, assistance is needed in the area of formalization, financing scheme for long term sustainability, technology transfer and awareness raising. It is also important to continue the existing efforts that are already made in the Philippines by keeping the momentum and the engagement of relevant stakeholders.

### 1.3. Components and Activities

7. There are four main components to this project as discussed below:
  - a) **Component 1: Review of the policy and legal framework supporting formalization of the sector.** The first project component will focus on reviewing the current policies and legislation in both countries in order to ensure conducive conditions are in place to fully support the miners, their communities and formalization of the sector.
  - b) **Component 2: Introduction of financing schemes** allowing miners to adopt and subsequently invest in mercury-free technologies in a sustainable manner and access international gold markets more directly. The second component will focus on financial schemes that can support the miners in their transition into low mercury and mercury-free mining and processing.
  - c) **Component 3: Upscale mercury free technologies and support the development of health programmes for the ASGM sector.** The third component will focus on several aspects of Article 7 as well as the Minamata Convention as a whole. It will also be complementary to the NAP process. In particular, component 3 will contribute towards a) taking steps to reduce, and where feasible eliminate the use of mercury and mercury compounds, and the emissions and releases to the environment of mercury from mining and processing, b) raising awareness of the general public and the mining communities on the dangers of mercury uses and releases, c) supporting the early implementation of the public health strategy for the sector to be developed under the NAP.
  - d) **Component 4: Knowledge management and communication.** The final and fourth component concerns the dissemination of the project successes and lessons learned both at the national and international level, establishing strong links with the global component on

knowledge management of the GOLD programme. This component consists of two separate outcomes and will be technically supported by NRDC, using the established experience and expertise of the Global Mercury Partnership.

#### 1.4. Subproject Sites and Primary Stakeholders

##### Subproject Sites

8. For the introduction and demonstration of mercury-free gold extraction techniques for the miners, the execution partners will select sites geographically representative of the geological and social conditions of the Philippines and identify appropriate mercury-free extraction techniques to be used. The selection process will build upon the experience gained by Ban Toxics in the Philippines. One of the issues preventing the adoption of low and non-mercury techniques is the lack of awareness of the miners on the dangers of mercury. In addition to the intervention on technology, awareness raising campaigns targeting miners based on AGC and Ban Toxics experience will be developed and implemented.

##### Stakeholders

9. The project envisages collaboration with civil society on its activities including the participation of indigenous people in the potential areas in the Philippines. The key stakeholders of the project that will be included are presented in the **Table 1**.

**Table 1: Project Stakeholders in the Philippines**

Stakeholders	Roles
Department of Environment and Natural Resources (DENR) - Environmental Management Bureau & the Mines and Geosciences Bureau	As main agency responsible for ASGM regulation in the country, the DENR has represented the Philippines at all INC for the Minamata Convention. DENR has also been involved in the development of the National Strategic Plan of the Philippines and the recently completed GEF-funded project in the country. DENR is also the executing agency under the National Action Plan for ASGM project under UN Environment implementation.
Artisanal Gold Council (AGC)	AGC is preparing the project preparation document for this GEF child project. It has been working on the ASGM issue for many years and has been a key partners in the Global Mercury Partnership. AGC is currently implementing two large projects on ASGM financed by the Government of Canada.
The International Labour Organization (ILO)	ILO has a long standing programme on the elimination of child and forced labour globally. With the support of the US Department of Labour, ILO has recently started the implementation of a 3.5-year project in Ghana and the Philippines dealing specifically with child labour in the mining sector. Collaboration with this project will be very valuable in the component 1 of this child project.

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Stakeholders	Roles
Natural Resources Defense Council (NRDC)	NRDC is a global leader in the environmental movement. For the last decade, NRDC has been at the forefront of national and global activities to reduce mercury pollution around the world. NRDC’s experienced lawyers and scientists took the lead in preparing critical text proposals and position papers for the Minamata Convention negotiations.
United Nations Environment Programme	UNEP has been involved in ASGM for many years. It is the host institution of the Global Mercury Partnership as well as the Interim Secretariat of the Minamata Convention for which it convened all of the INCs. UNEP managed the SAICM QSP project in the Philippines which led to the National Strategic Plan. UNEP is currently working with the Philippines on the development of its National Action Plan for ASGM under the Minamata Convention.
United Nations Industrial Development Organization	UNIDO has been involved in the ASGM sector for more than 20 years. As a GEF implementing agency, UNIDO works to reduce global poverty and achieve the Sustainable Development Goals through development of sustainable and inclusive industrial growth. Based on UNIDO’s previous and existing experience in promoting environmentally sound management of mercury in the ASGM sector, the organization plays an important role as the tri-lead (along with UNEP and NRDC) of the sector under the Global Mercury Partnership.
Local stakeholders in the Philippines	<ul style="list-style-type: none"> <li>• Miners and miners groups – engaging miners as partners/advocates in reducing pollution in the ASGM area and leaders of the community;</li> <li>• ASGM community groups;</li> <li>• Indigenous people in and around the mining sites;</li> <li>• NCIP – lead agency for IP affairs;</li> <li>• Women – engaging women as leaders, change agents, peer educators, recognition of their contribution in the family income;</li> <li>• Children and youth – engaging children and youth as partners and change agents in raising awareness of family, school and peers on the hazards of mercury and impacts to health and the environment;</li> <li>• Local government units (provincial, municipal, and barangay)– as policy makers, change agents, service provider for welfare and development of the community.</li> </ul>

## 2. ENVIRONMENTAL AND SOCIAL SAFEGUARDS POLICIES

### 2.1. Screening of UNIDO, UN Environment and GEF Guidance and Directives

10. UNIDO has adopted a set of Environmental and Social Safeguard Policies and Procedures (ESSPP) that will be applicable to all UNIDO projects starting 2016. The ESSPP aims to provide the project development team with a set of tools and guidance to be able to strategically design and implement environmentally and socially sustainable projects that support the achievement, equitability and sustainability of development results. UN Environment similarly adopts a Policy Framework for Environmental, Social, and Economic Sustainability or the “ESES Framework.” The framework is a direct response of UN Environment to the UN system-wide effort to advance the principles of environmental and social sustainability.
11. The ESSPP has nine Operational Safeguards requirements (OSs), seven programmatic and two framework safeguards that the project development team is expected to follow when addressing social and environmental impacts and risks. The ESES Framework, on the other hand, also have nine safeguard standards. **Table 2** shows UNIDO OS along with the UN Environment safeguards standards. From these, applicable safeguard standards for the project components were identified.

**Table 2: Screening of Applicable Operational Safeguards/Standards to the Project**

UNIDO Operational Safeguard/UN Environment Safeguard Standards	Objectives	Applicable to the Project
<b>OS1. Environmental and Social Assessment</b>	This safeguard governs the process of determining the project’s environmental and social category and the resulting environmental and social assessment requirements by screening the project, assigning an appropriate category, undertaking public scoping with key stakeholders and determining the need for any environmental and social impact assessment (ESIA) or environmental and social management plan (ESMPs).	<b>Yes</b>
<b>SS2. Resource efficiency, pollution prevention and management of chemicals and wastes</b>	This is to promote more sustainable uses of resources, including energy and water and to reduce project-related greenhouse gas (GHG) emissions. This standard also aims to avoid or minimize adverse impacts on human health and the environment originating from project activities through the use or management of hazardous chemicals and waste materials, including pesticides.	<b>Yes</b>

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UNIDO Operational Safeguard/UN Environment Safeguard Standards	Objectives	Applicable to the Project
<b>OS2. Protection of Natural Habitats / SS1. Biodiversity conservation, natural habitats, and sustainable management of living resources</b>	The objective of this safeguard is to conserve biological diversity and promote the sustainable use of natural resources. UNIDO or UN Environment does not engage in any projects that deal with critical habitats.	No
<b>OS3/SS4. Involuntary Resettlement</b>	The objective of this safeguard is to ensure that projects that could result in involuntary resettlement are either re-designed or are not approved for further development.	No
<b>OS4/SS5. Indigenous People</b>	This safeguard ensures that projects foster full respect for indigenous people and their dignity, human rights and cultural uniqueness.	<b>Yes</b> (Potential areas have IP communities.)
<b>OS5. Pest Management</b>	The objective of this safeguard is to ensure that the environmental and health risks associated with pesticide use are minimized and managed, and that safe, effective, and environmentally sound pest management is promoted and supported.	No
<b>OS6/SS7. Physical Cultural Resources</b>	This safeguard commits UNIDO/UN Environment to banning projects that adversely impact any critical physical or cultural heritage.	No
<b>OS7/SS3. Safety of Dams</b>	This OS applies to all projects that involve the construction, operation, and maintenance of new dams or the rehabilitation of existing dams. Also, this safeguard ensures that UNIDO or UN Environment does not engage to any large-scale water management infrastructure investment projects.	No
<b>Framework Operational Safeguards</b>		
<b>OS8. Information Disclosure</b>	This OS recognizes the importance of open and transparent engagement among UNIDO, the project development team, local communities directly affected by the project and other stakeholders. This ensures that any information concerning UNIDO projects is available to the public, in the absence of a compelling reason for confidentiality.	<b>Yes</b>

UNIDO Operational Safeguard/UN Environment Safeguard Standards	Objectives	Applicable to the Project
<b>OS9. Accountability and Grievance Systems</b>	This safeguard ensures that UNIDO has a mechanism for dispute resolution and for ensuring accountability and compliance with its environmental and social safeguards.	<b>Yes</b>
<b>SS6. Labor and Working Conditions</b>	This safeguard standard ensures that projects supported by UN Environment comply with national labor laws and with the objectives of the International Labour Organization (ILO) Standards.	<b>Yes</b>
<b>SS8. Gender Equality</b>	This is to ensure the integration of gender perspectives in all UN Environment projects, and to promote gender equality and the empowerment of women in sustainable development.	<b>Yes</b>
<b>SS9. Economic Sustainability</b>	This standard is to ensure that UN Environment projects avoid negative economic consequences during and after project implementation, especially for vulnerable and marginalized social groups in targeted communities and that benefits are socially-inclusive and sustainable.	<b>Yes</b>

## 2.2. Safeguard Standards and Policies Applicable to the Project

12. **Environmental and Social Assessment (OS1).** This policy was triggered since the project will involve the handling and treating of mercury-containing substances and wastes which can have potential impacts to human health and environment. The subprojects will be screened and assessed for possible health and environmental impacts. Proper mitigating measures will be implemented to avoid or reduce the impacts identified which will be reflected in an ESMP.
  
13. **Resource efficiency, pollution prevention and management of chemicals and wastes (SS2).** UN Environment will avoid or minimize the potential for community exposure to hazardous materials and substances that maybe released by a project. Where there is a potential for the public to be exposed to hazards, projects will exercise special care to avoid or minimize their exposure by modifying, substituting, or eliminating the condition or material causing the potential hazards.
  
14. **Indigenous People (OS4/SS5).** Depending on the sites to be included in the project, this policy may be triggered when the project site is located in an area with indigenous people (IP). The subprojects will be screened and assessed for impacts on the cultural practices of the IPs in the area. In such cases, indigenous peoples’ plan (IPP) will be required from the proponent and must be coordinated with the National Commission for Indigenous People (NCIP).

15. **Information Disclosure (OS8).** The final ESMF will be disclosed to the public, most especially to the project stakeholders, through the UNIDO's website (*www.unido.org*). A consultation with the stakeholders will take place before the ESMF is finalized. The draft of the ESMF must be uploaded to the website 10 days before the consultation. A communication plan will be developed for this project.
16. **Accountability and Grievance Systems (OS9).** This OS applies to all UNIDO projects where an affected party has made a complaint focused either on perceived non-compliance with UNIDO policies and procedures, or where the complainant claims to have been affected by the implementation of a UNIDO project.
17. **Labor and Working Conditions (SS6).** All implementing/executing partners will have in place human resources policies and procedures appropriate to their size and workforce that set out their approach to comply with these standards and national laws.
18. **Gender Equality (SS8).** UN Environment will assess potential roles, benefits, impacts and risks for women and men in the preparation and implementation of projects undertaken or supported, with the aim of supporting equality of opportunity and treatment of women and men. In this context, UN Environment will avoid, minimize, and/or mitigate any adverse gender impacts or risks from its projects, as identified through the environmental, social and economic safeguard screening processes.
19. **Economic Sustainability (SS9).** Projects will promote, as part of their design, planning, implementation and monitoring, the financial sustainability of the activities implemented, also including those that will occur beyond the project intervention period. Projects should consider various project modality options and undertake approaches that do not generate welfare disparities, especially for the poor, during or beyond the project intervention period.

### 2.3. Philippine Environment Impact Assessment

20. The Philippine Environmental Impact Assessment (EIA) System, also referred as the Philippine EIS System (PEISS), was established under Presidential Decree (PD) 1586 on June 11, 1978. Section 4 of PD 1586 provides that no person, partnership or corporation shall undertake or operate any such declared environmentally critical project or area without first securing an Environmental Compliance Certificate (ECC).
21. The DENR issued a DENR Administrative Order (DAO) No. 2003-30 last June 30, 2003 establishing the implementing rules and regulations for the EIS System. It is concerned primarily with assessing the direct and indirect impacts of a project or undertaking on the biophysical and human environment ensuring that these impacts are addressed by appropriate environmental protection and enhancement measures. This DAO is supplemented further with MC 2015-005, which provided guidelines for coverage screening and standardized requirements under the EIS System.

## 2.4. Specific Environmental Laws and Regulations Applicable to the Project

### R.A 6969: Toxic Substances and Hazardous and Nuclear Wastes Control Act of 1990

22. Republic Act No. (RA) 6969 is also known as the Toxic Substances and Hazardous and Nuclear Wastes Control Act was enacted by the Philippine Congress in 1990. This law empowers the Department of Environment and Natural Resources (DENR), among others, to monitor, regulate, restrict, or prohibit the importation, manufacture, processing, sale, distribution, use, and disposal of toxic substances and hazardous wastes in the country. The Act seeks to protect public health and the environment from unreasonable risks posed by these substances in the Philippines.

23. This law also encompasses handling, storage, transportation, sale, use and disposal of all **mercury and mercury compounds (including wastes)** in the Philippines as well as the generation or storage and disposal of these materials. Although the project will not involve the purchase and use of mercury, residual wastes containing mercury may be encountered in managing the project sites as the ASGM sector migrates from mercury to mercury-free technologies.

### DAO 92-29: Implementing Rules and Regulations (IRR) of RA 6969

24. DENR Administrative Order (DAO 92-29) is also known as the Implementing Rules and Regulations (IRR) of RA 6969. Through this administrative order, the DENR sought to put in place policies and guidelines to regulate the importation, manufacture, sale, transfer, distribution, and use — as well as to establish the responsibilities for the management and handling — of mercury, mercury compound and mercury-containing wastes and containers.

### DAO 2013-22: Revised Procedures and Standards for the Management of Hazardous Waste

25. DENR Administrative Order No. 2013-22 revised the DENR Administrative Order No. 2004-36 or known as the Procedural Manual for the Title 3 of DAO 92-29, the Hazardous Waste Management. This revised procedural manual seeks to collate and streamline the existing rules and regulations of the hazardous waste management. And also, the DAO ensures that the important aspects of the Title 3 of DAO 92-29, particularly the requirements for hazardous waste generators, transporters and treaters are developed and presented in useful information/reference document for various stakeholders.

### DAO 1997-38: Chemical Control Order (CCO) for Mercury

26. Through the DAO 1997-38, the DENR has implemented monitoring and inventory of mercury and mercury compounds. The CCO applied to the importation, manufacture, processing, use and distribution of mercury and mercury compounds. It also addresses the treatment, storage, and disposal of mercury-bearing or mercury-contaminated wastes in the Philippines.

### RA 7076: People's Small-Scale Mining Act of 1991

27. RA 7076 aims for the Philippine Government to promote, develop, protect and rationalize viable small-scale mining activities in order to generate more employment opportunities and provide



an equitable sharing of the nation's wealth and natural resources, giving due regard to existing rights.

28. DENR AO 2015-03 provides the revised implementing rules and regulations of RA 7076. This AO prescribes the government's procedure in implementing the People's Small-Scale Mining Program (also known as *Minahang Bayan*). It stipulates guidelines on the administration and disposition of small-scale mining areas and on the regulation of the small-scale mining industry (including ASGM) with a view of enhancing its growth and productivity, as well as ensuring environmental protection. The AO also provided guidelines for technical, financial and marketing assistance and adoption of best practices.

#### **RA 7942: Philippine Mining Act**

29. The Philippine Mining Act of 1995 is the governing law that regulates the use and development of mineral resources in the Philippines including ASGM. The law defines the various roles of the national government as well as the local government units in the equitable sharing of benefits of natural wealth. With its IRR, it has covered several provisions in the protection and sustainable management of mining areas in the Philippines.
30. Executive Order 79 and DAO 2012-07A aim to strengthen environmental protection and promote responsible mining and provide a more equitable revenue-sharing scheme in the mining sector. These issuances provided mechanisms to increase the revenue of the government from mining while enhancing environmental standards in mining and harmonize national and local regulations pertaining to mining.

#### **RA 8371: The Indigenous Peoples' Rights Act (IPRA) of 1997**

31. IPRA aims to recognize, protect and promote the rights of indigenous cultural communities/indigenous people including rights to their ancestral domains to ensure their economic, social and cultural well-being. It recognizes the applicability of customary laws governing property rights or relations in determining the ownership and extent of ancestral domain. Since most of the mining sites of ASGM in the Philippines overlap with ancestral domain, there is a need to have a free and prior informed consent (FPIC) for any activity that may have impact on the economic, social and cultural activities of the IPs.
32. All activities must be coordinated with the NCIP who is primary responsible in the formulation and implementation of policies, plans and programs to recognize, protect and promote the rights of IPs. Activities in IP areas, especially those awarded with Certificate of Ancestral Domain Title (CADT), must be coordinated with the IP community and council of elders.

### 3. ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

#### 3.1. Project and Subproject Risk Category Rating

33. The identified sub-projects will be screened and will be categorized based on the type and scale of the project, its location, and the nature and magnitude of the potential environmental and social impacts. Project categorization is determined by the significance of potential impacts.

34. Based on UNIDO and UN Environment sustainability guidelines, the sub-projects will be screened for potential environmental and social impacts indicated in the UNIDO ESSPP and UN Environment Framework. Using the screening checklist, a category of the sub-project will be proposed which can be one of the following shown below:

**Category A:** A sub-project of this type is likely to induce significant and/or irreversible adverse environmental and/or social impacts that are sensitive, diverse, or unprecedented, or that affect an area broader than the sites or facilities subject to physical works. Category A projects will require an ESIA to be conducted, which should examine the project's potential negative and positive environmental impacts, compare them with feasible alternatives and recommend any measures to prevent, minimize or mitigate the identified impacts.

**Category B:** Category B projects often differ from category A projects of the same type only in scale. They are likely to have less adverse impacts on human populations or environmentally important areas than those of Category A projects. In most cases, impacts can be readily minimized by applying appropriate management and mitigation measures or incorporation internationally recognized design criteria and standards. An ESIA is not required for this category but an ESMP must be developed to integrate the environmental and social sustainability elements into the project design.

**Category C:** A sub-project is classified as Category C either if it is likely to have minimal or no adverse social and/or environmental impacts or because sufficient environmental and social review has already have been conducted and environmental and social management recommendations had been incorporated into the sub-project. Beyond screening, no further specific environmental and/or social assessment if required for a Category C project.

**Category NO PROJECT:** A sub-project of this type is likely to (i) infringe on the protection of critical habitats or physical cultural resources (ii) use banned pesticide and/or chemicals and (iii) causes involuntary resettlement.

35. Based from the UNIDO and UN Environment screening, the project was determined to fall under **Category B (moderate risk)**.

36. Using the Philippines EIS System, the sub-projects will also be screened based on the following categorization:

**Category A:** A project of this category is classified as environmentally critical project (ECP) declared under Presidential Proclamation No. 2146 (1981), Proclamation No. 803 (1996) and other projects that may later be declared. An Environmental Compliance Certificate (ECC) must be secured for this type of project.

**Category B:** These are projects that are not classified as ECP but are projects that will be located in an environmentally critical area (ECA) that is declared under Proclamation No. 2146 and according to the parameters in the guidelines. An ECC is also required in this type of project.

**Category C:** A sub-project of this type does not fall under Category A or B but is intended to directly enhance the quality of the environment or directly address existing environmental problems.

**Category D:** Category D projects are unlikely to cause significant adverse impact on the quality of the environment. These projects are not covered by the PEISS and there's no need to secure an ECC.

37. From the initial listing of the subproject scope, this project may be classified as Category C or D.

### 3.2. Safeguard Procedures

38. This section provides guidance on environmental and social safeguards and the associated project development procedures to ensure that the sub-projects are sustainable. This guidance serves to ensure that potential impacts and practical mitigation measures are identified early on in the planning and selection process for this project.

39. **Figure 1** shows the proposed Project Safeguard Process.

#### Step 1: Identification of candidate sub-projects.

40. The first step will involve the identification and selection of sub-projects based on the agreed criteria.

#### Step 2: Screening of Sub-projects

41. Project staff will screen subprojects early in the identification stage determining the project boundaries and possible safeguard issues that may be encountered. Potential environmental and social risks must be identified at the beginning to facilitate the proper selection of mitigating measures. The screening will ensure that the sub-project is aligned with the process undertaken by the UNIDO/UNEP for its potential environmental and social impacts and to determine the nature and extent of the environmental and social due diligence that must be conducted before the approval of the sub-project.

42. The screening results will be validated using the Philippines EIS System to determine the additional documents that may be required by the Philippine environment regulators. There are three possible instruments in this regulation: a. Environmental Impact Assessment (EIA) report, b. Initial Environmental Examination (IEE) Checklist and c. Project Description for Certificate of Non-Coverage whenever required.

#### Step 3: Subproject Preparation and Documentation

43. An environmental due diligence (EDD) may be conducted to the existing activities which will be considered as a subproject, if needed, to check its compliance with national regulations.

Attached in **Annex 1** are inspection checklists that can be used in conducting a due diligence to existing ASGM site, waste storage facilities, and/or waste treatment facilities.

44. Once the screening and documentation requirements are completed, the project staffs will prepare the required site- and project-specific environmental and social management plan (ESMP) which will contain the impact or risk analysis and with the proposed mitigating measures based on the identified impacts. Sample ESMP template is presented in **Annex 2**.
45. For subprojects or site with IPs, a consultation with the project stakeholders is required. In this case, coordination must be made with the NCIP for the possible formulation of an indigenous peoples' plan (IPP).
46. All safeguard documents (checklist, ESMPs, and IPPs) will be subjected to consultation and disclosure in an accessible place, in a timely manner, in a form and language understandable to key stakeholders, prior to the finalization of the documents. Particular attention will be given to ensure project-affected persons have adequate time and ready access to draft documents before consultation takes place. These specific documents will be prepared during project implementation.

#### Step 4: Review and Approval

47. All the safeguard documents submitted will be reviewed by the UNIDO/UNEP technical team before the PMU clears the documents for its final appraisal and approval. Once the project document has been cleared by PMU, the proposed project goes through a number of compliance verification systems.

#### Step 5: Implementation, Monitoring and Evaluation

48. UNIDO/UNEP and DENR will regularly monitor the sub-projects to ensure the safeguard instruments are being implemented and to evaluate the compliance of the sub-projects with the policy requirements. The PMU will prepare annual project implementation reports, mid-term reviews and terminal evaluations.
49. All the projects covered by the PEISS which have been issued an ECC shall be subjected to periodic monitoring by the DENR. The responsibilities of monitoring the projects are lodged with the EMB regional offices. The DENR must evaluate the compliance of the project and the effectiveness of the committed ESMP in mitigating the identified environmental impacts.

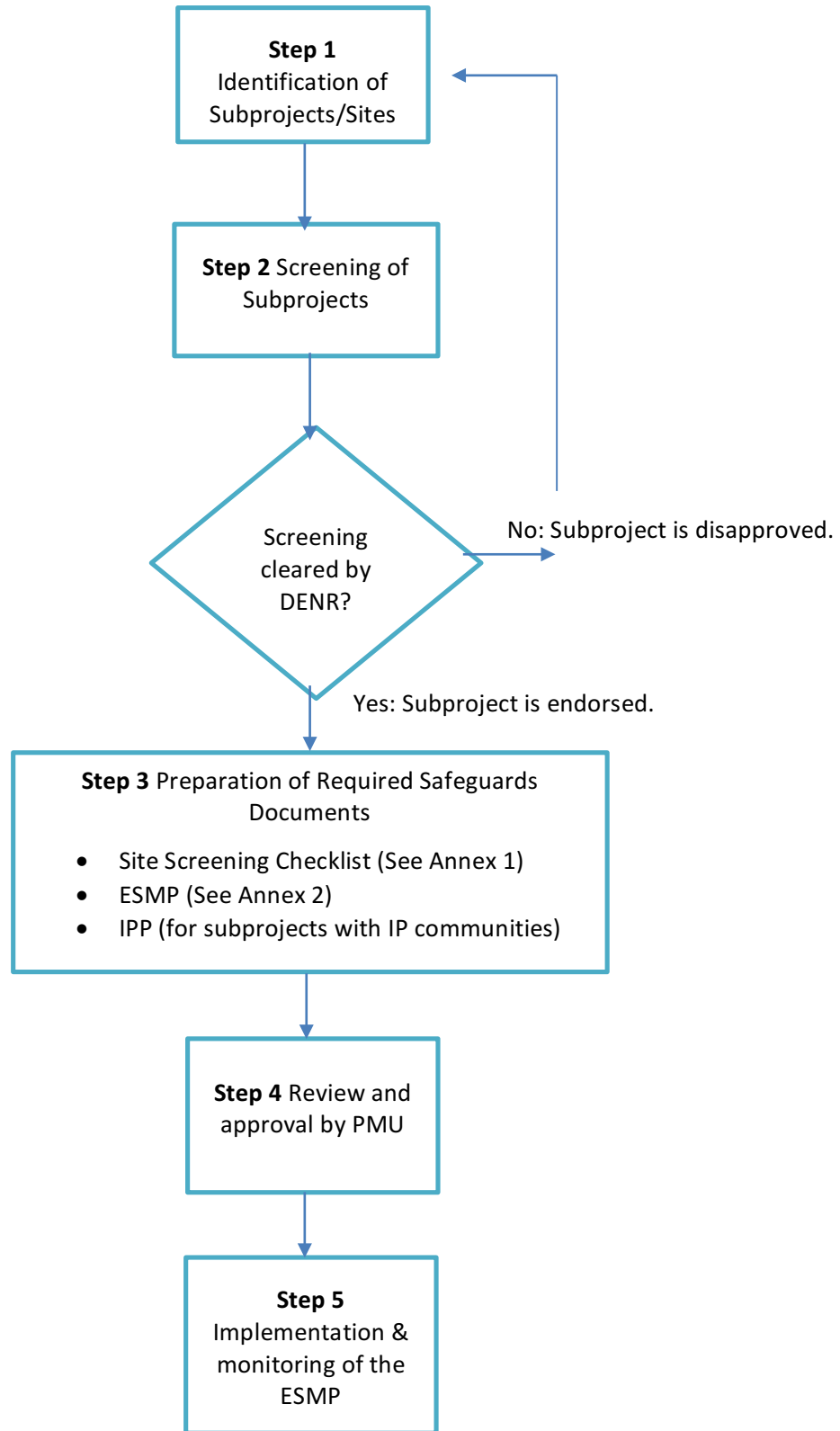


Figure 1: Proposed Project Safeguard Process

### 3.3. Specific Subproject Environmental Requirements

50. This section provides the requirements for the hazardous waste management, which will include the transportation, storage and treatment of the wastes. Wastes must only be transported and treated by waste transported and TSD facilities that are duly registered by EMB Central Office. The following are the requirements stated in DAO 2013-22.

#### Storage Requirements

51. Storage refers to containment of a hazardous waste for transport, or while awaiting treatment and disposal. Except under extraordinary circumstances, storage should always be considered as a temporary measure and is not acceptable for the long-term management of hazardous waste. The maximum hazardous waste accumulation time is one (1) year, except for wastes that have no existing infrastructure for proper treatment and disposal.

52. The storage area for the wastes must comply with storage and handling requirements stated in Chapter 6 of DAO 2013-22.

#### Waste Transporter

53. Transportation is one of the most important areas of concern associated with the handling of hazardous waste. Waste transport has to be planned in such a way that this waste does not cause danger to health or environment, when handled individually or when in contact with other wastes or substances during transportation.

54. Hazardous wastes can only be transported by waste transporters who meet the following criteria:

- a waste transporter who is registered with by the DENR; and
- a transporter who has an approved Manifest Form to convey the hazardous waste from the waste generator's premises to the designated TSD facility.

#### TSD Facility

55. A person who wishes to operate a TSD facility is required to register with EMB prior to commencement of operation in conjunction with Environmental Compliance Certificate issued under DAO 96-37. The TSD Facility Permit shall be valid for one (1) year.

### 3.4. Potential Environment and Social Impacts

56. Environmental and social impacts may be encountered during project implementation. Such risks may arise during mining and ore processing. In cases where mercury is still being used by the project beneficiaries, proper management of mercury wastes must be ensured.

57. The possible environmental and social impacts related to the operations of a small-scale mining, processing including waste storage and disposal are listed in an Environmental and Social Management Plan (ESMP) template presented in **Annex 2**.

Environmental Impacts

58. There are two receptor groups that may be affected as a result gold mining and processing and in the use or handling of mercury and mercury-compound and wastes - (1) the workers involved and (2) the neighborhood around the areas. These people are exposed to physical, chemical or biological hazards of mining and processing. In areas where mercury is still used prior to conversion to mercury-free processing, exposure to mercury can be direct (skin contact, inhalation, ingestion) or indirect (intake of polluted water or contaminated food, inhalation of contaminated air).
59. More than the impacts mentioned, the project is expected to have positive long term improvements in the environment. Soil, water and air pollution that may result from the mismanagement and improper disposal of the mercury and mercury compounds could be eliminated once the project is implemented.

Social and Economic Impacts

60. Negative social impacts are expected to be minimal and limited. Resettlement is not expected to happen unless a new facility will be constructed. Direct effects on ecosystems, sites with archeological, historical or cultural value are not likely to occur. In IP areas, the impact of the project to the socio and economic activities of the community must be carefully assessed.

**3.5. Mitigating Measures**

61. Proper mitigating measures must be developed to address the impacts that were identified. The objective is to minimize or reduce the effect of the impacts. The ESMP consists of the mitigation and monitoring commitments during the implementation to eliminate the adverse environmental and social impacts or to reduce the effects to acceptable levels.
62. The summary of the potential impacts as well as the corresponding mitigating measures is presented in **Table 3**.

**Table 3: Summary of Environmental and Social Impacts and Mitigating Measures**

Environmental & Social Impacts	Mitigating /Enhancement Measures
<b>Mining and Processing of Gold in small-scale mining</b>	
Accidental release of hazardous wastes (spill or leaks) which may lead to air, water and soil contamination	<ul style="list-style-type: none"> <li>• Spill containment System in the storage area to prevent leakage of to the environment</li> <li>• Regular inspection of container and equipment used in handling wastes</li> <li>• Emergency and Preparedness &amp; Response Plan /Contingency Program</li> </ul>
Exposure of workers to physical, chemical and biological hazards	<ul style="list-style-type: none"> <li>• PPE Program</li> <li>• Signage must be available on working areas</li> <li>• First Aid Stations</li> </ul>
Indirect exposure of residents nearby	<ul style="list-style-type: none"> <li>• Conduct Information and Education (IEC) to raise awareness to the toxicity of mercury</li> </ul>

<b>Environmental &amp; Social Impacts</b>	<b>Mitigating /Enhancement Measures</b>
Generation of solid wastes from ASGM activities	<ul style="list-style-type: none"> <li>• Solid Waste Management Program</li> </ul>
Reduced health risks for the workers	<ul style="list-style-type: none"> <li>• PPE Program</li> <li>• IEC</li> </ul>
Enhanced capacity of ASGM workers on mercury-free technologies	<ul style="list-style-type: none"> <li>• IEC</li> <li>• Trainings/workshops</li> </ul>
<b>Waste Transport</b>	
Accidental release of hazardous waste (spill or leakage)	<ul style="list-style-type: none"> <li>• Check waste containers prior to transfer</li> <li>• Vehicles must be equipped with spill clean-up kit</li> <li>• Emergency and Preparedness &amp; Response Plan /Contingency Program</li> </ul>
Vehicle breakdown and accidents	<ul style="list-style-type: none"> <li>• Proper and regular maintenance of vehicles</li> <li>• All drivers must be properly trained</li> <li>• Vehicles must have hazard warning panels</li> </ul>
Exposure of workers to physical and chemical hazards	<ul style="list-style-type: none"> <li>• First Aid Kit must be available in the vehicle</li> <li>• PPE and IEC Programs</li> </ul>



## 4. SUSTAINABILITY MONITORING FRAMEWORK

### 4.1. Monitoring and Evaluation

63. The PMU will be in charge of the regular monitoring of the project, both from the technical and financial standpoint, and for the day by day planning and coordinating of project activities. UNIDO and UNEP, through regular mission to the country, and regular conference calls with PMU staff will also play important role in project monitoring and supervision.
64. Project monitoring will be documented by quarterly progress reports (QPR), annual progress reports (APR), and Project Implementation Reports. Project planning will be documented by quarterly and annual work plans. The **Table 4** shows the monitoring and evaluation plan of the project.

**Table 4: Monitoring and Evaluation Plan**

Type of M&E activity	Responsible Parties	GEF Budget (USD)	Time Frame
<b>Regular monitoring and analysis of performance indicators</b>	PMU, DENR and consultants as required	For validation	Regularly to feed into project management and Annual Project Review
<b>Annual Project Review to assess project progress and performance</b>	PMU, and Project Steering Committee to review the project performance and make corrective decision	For validation	Annually prior to the finalization of APR/PIR and to the definition of annual work plans
<b>Mid-term Evaluation</b>	PMU, independent evaluation consultants	For validation	Mid of project
<b>Terminal Project Evaluation</b>	PMU, independent evaluation consultants	For validation	Evaluation at least one month before the end of the project; report at the end of project implementation
<b>Visits to field sites to monitor progress and assess project</b>	PMU, DENR, NDRC, consultants as required	For validation	Twice a year; as necessary for PMU
<b>Total Indicative Cost</b>		For validation	

## 5. INSTITUTIONAL FRAMEWORK

65. UNIDO and UN Environment are the GEF Implementing Agency (IA) for the project. A project officer will be appointed from UNIDO and/or UN Environment to oversee the implementation of the project, assisted by a support staff and supervised by a senior professional staff engaged in the coordination of Minamata Convention commitments and milestones. The UNIDO Country Office in the Philippines will also play significant role in the implementation and monitoring of the project. Country-level monitoring will be provided as part of the in-kind contribution of the organization to the project.
66. The Department of Environmental Resource through its Environmental Management Bureau and the Mines Geosciences Bureau will be the main executing partner for the project.

### 5.1. Capacity Development

67. Institutional needs assessment will be undertaken to determine capacity gaps in developing and implementing the project. The results of the needs assessment will be used in crafting a capacity building program that will address these needs.
68. The needs assessment will also be considered in IEC activities for the awareness raising component of the project and the setting up of a knowledge management infrastructure on the areas of the mercury, mercury compound and wastes.

### 5.2. Communication Plan and Stakeholders' Engagement

69. The project information and final ESMF will be disclosed to the public and key stakeholders through the UNIDO's and UN Environment's websites. UNIDO and UN Environment will also ensure that the activities, achievements and lessons learned from the project will be shared to all its relevant partners and in appropriate regional and global forums. A consultation with the stakeholders should take place before the ESMF is finalized.
70. The knowledge management platform to be created will be used to disseminate project results. For this purpose, a project website will be built. The website will be established using a blog-type platform, allowing PMU and other project operators to update the website content in real time. The website will be initially built with the support of a professional web-site builder. Subsequently, the website will be updated regularly by the PMU – by assigning a person with the specific task of result dissemination. Even for the website, different level of access will be granted depending on the targeted stakeholders.
71. Although based on simple activities and systems, the knowledge management will be the responsibility of the PMU but may require assistance from a staff who may be recruited on a part-time basis dedicated to maintaining the system, and prompting PMU staff on the deadline for uploading M&E reports into the system.

### 5.3. Gender and Development (GAD)

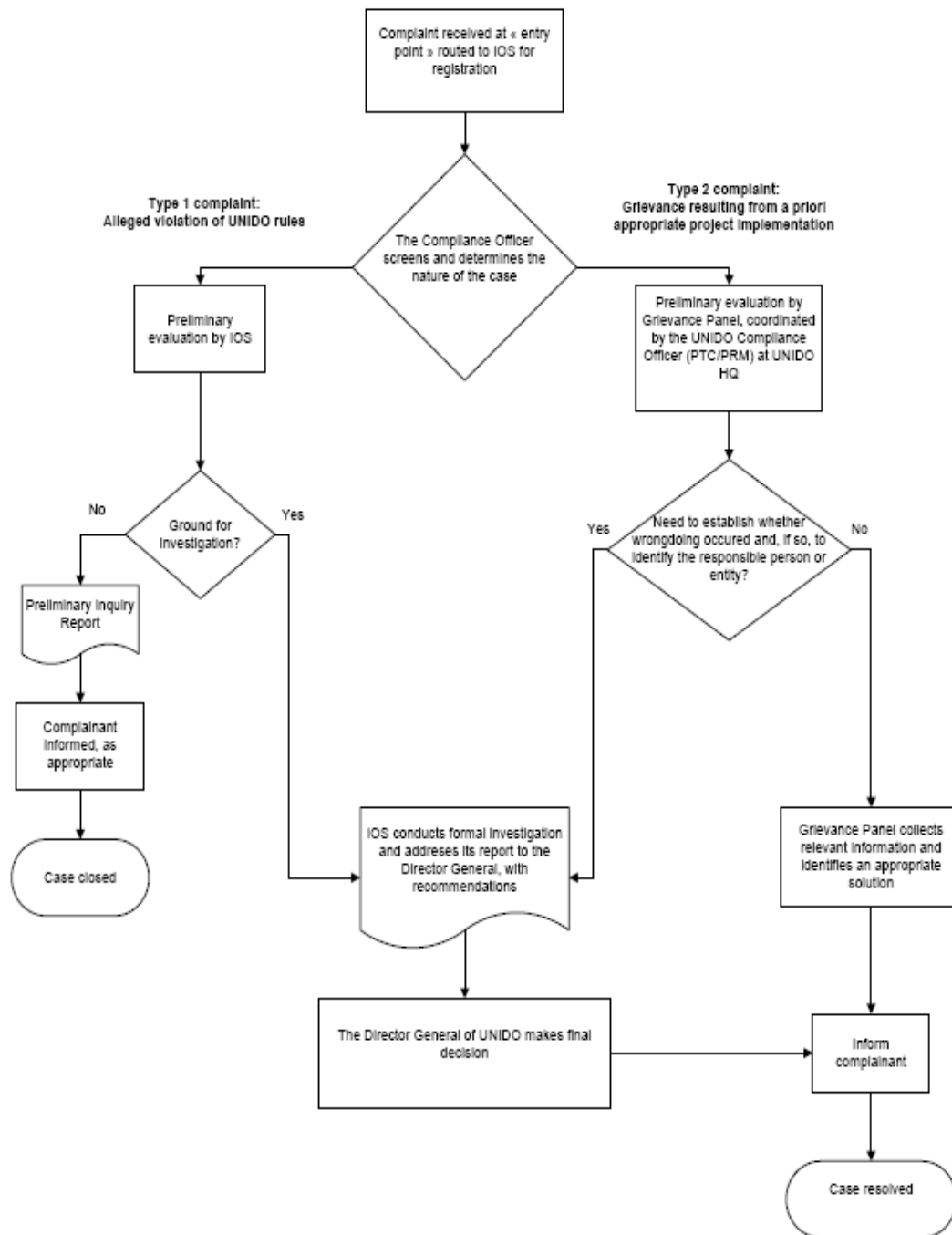
72. The Toxic Substances and Hazardous and Nuclear Wastes Control Act (RA 6969, which covers mercury) has gender awareness policies in place, daily tasks and responsibilities are considered, and the increasing awareness of women to toxic substances in hazardous waste management are highlighted.
73. Gender and Development (GAD) considerations will be made an integral part of the project strategy in consideration of the Gender policies of the GEF, UNIDO, UN Environment and the DENR. During the project implementation, women and children who are often involved in mercury handling and use (to be validated via surveys and ocular inspections) will be the recipients of IEC and trainings on health impact of mercury use.
74. In addition, the project will take into consideration UNIDO, UN Environment and GEF Gender policies during its formulation and implementation. Active participation of women in proposed activities will be supported. Gender neutral publications will be designed. GEF and UN gender markers will be applied, and that the project shall be rated for gender relevance. Gender marking entails inclusion in project reporting of the following data: (i) Total number of full-time project staff that are men/women; (ii) Number of jobs created by the project that are held by men/women; (iii) Number of gender sensitive publications produced
75. In the implementation of the project, the following shall be done in order to integrate gender dimension in the whole scope of project management. These steps may be distinct activities or maybe incorporated in the different activity components of the project.
- Assess and categorize the potential of the project to integrate gender dimension and contribute in the advancement of women empowerment and gender equality.
  - Collection and analysis of sex-disaggregated data and qualitative information to understand roles and needs of women and men in the project. This can be done both at the project team level and project implementation level.
  - The project must ensure that the project activities meet the specific needs of women and men. Example for capacity building activities, ensure training curricula and tools are developed to accommodate the different education/skill levels that may exist between women and men.
  - Incorporate mechanisms to ensure gender balanced representation and participation in project activities and decision-making processes (target at least 40% of whichever sex is underrepresented). Example activity: Targeted awareness outreach activity to increase women's participation in project activities.
  - Develop gender-specific targets or performance indicators that track gender results and impact. Example target/indicator: Number of gender sensitive publication produced by the project.
  - Take into account any adverse impacts or risks that may affect the equal access to, equal participation in and/or equal benefit from project activities among women and men. Example activity: Identify if there are any cultural/ religious/legal restrictions that would not allow women or men to access or participate in project activities.
  - Ensure equal opportunity for women and men in the management and implementation arrangements of project. Example activities: Create terms of reference for project staff that

include gender sensitivity/respect for diversity as a competency and/or include incentives for women to apply.

- Allocate sufficient financial resources for gender equality and women’s empowerment activities. The Project Manager should complete a basic gender course. Also, there is a need to hire gender expert consultant to ensure gender issues are addressed during implementation; conduct gender equality training; undertake a comprehensive gender analysis and baseline exercise in the field at project inception. Ensure that at least one member of the project management team is knowledgeable about gender issues and gender mainstreaming.
- Monitor access, participation, and benefits among women and men and incorporate remedial action that redresses any gender inequalities in project implementation. Submit report regularly on how gender is mainstreamed and ensure that mid-term reviews, assessments, audits, etc. include gender as specific criteria/component.

## 6. GRIEVANCE REDRESS SYSTEM

76. A grievance redress mechanism for the project is necessary for addressing legitimate concerns of affected individuals and groups who raise issues of concern during project implementation. UNIDO has established mechanism for dealing with various kinds of complaints. **Figure 3** shows the structure of the grievance mechanism of UNIDO which is consistent with the UN Environment requirements.
77. When approaching UN with a complaint, it is accepted that the complaint “entry point” could be any one of the following:
- UN office in the given country;
  - UNIDO/UN Environment representative at country or regional level;
  - Relevant Project Manager at UNIDO/UN Environment HQ; and,
  - GEF Conflict Resolution Commissioners in Washington, D.C.
78. All complaints through the entry points mentioned are channeled to UNIDO Office of Internal Oversight Services (IOS), which plays the role of official repository. All complaints will be registered in IOS’ intake register for tracking until resolution. IOS will forward all complaints to the UNIDO Compliance Officer to screen and determine the nature of the complaints. The Compliance Officer maintains records on all cases and issues brought forward, with due regard for confidentiality of information.



**Figure 2: Structure of UNIDO Grievance Mechanism**

# **ANNEX 1**

## **INSPECTION CHECKLISTS**

- **SITE SCREENING CHECKLIST**
- **ENVIRONMENTAL AND SOCIAL DUE DILIGENCE  
FOR EXISTING ASGM SITES**

**Potential Subproject Site Screening: Environmental Site Risk Assessment**

**Instruction:** As part of environmental screening, vulnerability of the proposed subproject site as well as the communities around it to specific environmental hazards will be assessed. A risk-screening template is shown below which may be used to evaluate the existing condition of the areas.

Location/Area		Date Inspected	
Contact Person		Inspected by	
Land Use and Classification of the Area:			

Hazard	Result of Screening Based on Hazard and Vulnerability Map (Refer to PSR)			Information Required for Hazard Assessment
	None	Low Risk	High Risk	
Earthquakes				Earthquake susceptibility map (PHILVOCS or MGB)
Liquefaction				Liquefaction potential maps (PHIVOLCS or MGB)
Rain-Induced Landslides				RIL susceptibility maps (MGB)
Ground Shaking				Ground Shaking Potential Map (PHIVOLCS)
Ground Rupture				Fault line maps (PHIVOLCS)
Tsunami				Tsunami Hazard Map (PHIVOLCS)
Storm Surges				Storm surges hazard maps (MGB)
Typhoons				Historical typhoon that hit the area (PAGASA)
Flooding				Flood susceptibility map (Mines and Geoscience Bureau)



**Environmental and Social Due Diligence for an Existing ASGM Site**

**Instruction:** Below is the checklist of required documents that will be needed in conducting the environmental and social due diligence for an existing/active ASGM site which will be proposed for inclusion as a subproject. The applicable documents will be reviewed to check the existing environmental and social issues/risks at the site.

Location/Area		Date Inspected	
Contact Person		Inspected by	

Information/Document Requirement	Specifics	Observations/ Remarks (Tick <input type="checkbox"/> , when completed)	
<b>A. Information on Small-Scale Mining Site/Activity</b>			
1. Description of small-scale mining site /activity	<ul style="list-style-type: none"> <li>Indicate process and technology used in the mining and processing activities</li> </ul>	<input type="checkbox"/>	
2. Wastes generated	<ul style="list-style-type: none"> <li>Observe the type of wastes generated (i.e., tailings, emissions, solid wastes)</li> </ul>	<input type="checkbox"/>	
3. Location	<ul style="list-style-type: none"> <li>Identify specific address</li> </ul>	<input type="checkbox"/>	
<b>B.1 Environmental Aspects</b>			
1. Existing management plans	<ul style="list-style-type: none"> <li>Review the project’s environmental management plan (EMP) and environmental monitoring plan (EMoP)</li> </ul>	<input type="checkbox"/>	
2. Pollution control system	<ul style="list-style-type: none"> <li>Describe the pollution prevention and control features of the site (water pollution, air pollution, solid and hazardous wastes)</li> <li>Indicate equipment installed with specifications (if, any)</li> </ul>	<input type="checkbox"/>	
3. Environmental and socio-economic benefit of the project	<ul style="list-style-type: none"> <li>Indicate and quantify anticipated benefits of the project to the environment and surrounding communities (i.e., amount of mercury use that will be avoided)</li> </ul>	<input type="checkbox"/>	
4. Personnel protection equipment	<ul style="list-style-type: none"> <li>Indicate existing personnel protective equipment used by workers</li> </ul>	<input type="checkbox"/>	

**Annexes: ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK**

<b>Information/Document Requirement</b>	<b>Specifics</b>	<b>Observations/ Remarks</b> (Tick <input type="checkbox"/> , when completed)	
5. Training	<ul style="list-style-type: none"> <li>List any formal/informal training the workers had on waste management</li> </ul>	<input type="checkbox"/>	
6. Proper Waste Management Plan	<ul style="list-style-type: none"> <li>Review if there is an existing method/procedure on waste handling, treatment and disposal</li> </ul>	<input type="checkbox"/>	
<b>B.2 Social Aspects</b>			
1. Social safeguards documentation	<ul style="list-style-type: none"> <li>Indicate the status of ownership of the subproject area (mining and processing sites)</li> </ul>	<input type="checkbox"/>	
2. Cultural property screening	<ul style="list-style-type: none"> <li>Are there or were there cultural, heritage, historical sites affected by the mining and processing activities?</li> </ul>	<input type="checkbox"/>	
3. Indigenous people screening	<ul style="list-style-type: none"> <li>Are there IPs directly and indirectly affected by the project?</li> <li>If there are IPs directly affected, review if there is an existing IP development plan consistent with the requirements of NCIP</li> </ul>	<input type="checkbox"/>	
4. Gender and Development	<ul style="list-style-type: none"> <li>Indicate number of women, PWD and children directly affected by the project</li> </ul>	<input type="checkbox"/>	
<b>B.3 Proper Management Plan of Hazardous Waste</b>			
1. Storage Management Plan	<ul style="list-style-type: none"> <li>Review the plan for the storage for raw materials, residues, by-products and end-products</li> </ul>	<input type="checkbox"/>	
2. Contingency Plan	<ul style="list-style-type: none"> <li>Review if there is a contingency plan for accidental spills or spillage</li> </ul>	<input type="checkbox"/>	
3. Mercury Disposal Management Plan	<ul style="list-style-type: none"> <li>Review if there is an existing mercury waste disposal plan</li> </ul>	<input type="checkbox"/>	
<b>C. Screening of Permits</b>			
1. Mining permits	<ul style="list-style-type: none"> <li>For small-scale mining, review existing permit granted by the PLGU</li> <li>For 'minahang bayan', review permit granted by MGB</li> </ul>	<input type="checkbox"/>	

**Annexes: ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK**

<b>Information/Document Requirement</b>	<b>Specifics</b>	<b>Observations/ Remarks</b> (Tick <input type="checkbox"/> , when completed)	
2. TSD Permit (if there is a formal TSD facility)	<ul style="list-style-type: none"> <li>Indicate TSD Permit No. and validity</li> </ul>	<input type="checkbox"/>	
3. Permit to Operate Air Pollution Control Devices	<ul style="list-style-type: none"> <li>This P/O will be required for generators exceeding the cut-off for exemptions.</li> <li>Indicate Validity</li> </ul>	<input type="checkbox"/>	
4. Hazardous waste registration ID	<ul style="list-style-type: none"> <li>When the facility generates hazardous wastes (i.e., used oil), a HW registration ID must be secured from the EMB regional office)</li> <li>Provide ID No. and validity</li> </ul>	<input type="checkbox"/>	
5. CADC if applicable	<ul style="list-style-type: none"> <li>This will be required if the proposed projects area is in ancestral domain.</li> </ul>	<input type="checkbox"/>	
6. Discharge Permit	<ul style="list-style-type: none"> <li>Indicate validity of the permit</li> <li>Indicate location and classification of discharging body of water</li> </ul>	<input type="checkbox"/>	
<b>D. Other Documents</b>			
1. LGU Endorsement or Ordinance	<ul style="list-style-type: none"> <li>This may be in a form of municipal resolutions or ordinance supporting the project</li> </ul>	<input type="checkbox"/>	
2. Others	<ul style="list-style-type: none"> <li>Indicate details.</li> </ul>	<input type="checkbox"/>	

**Annexes: ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK**

**Environmental and Social Due Diligence for the Waste Storage Facility**

Location/Area		Date Inspected	
Contact Person		Inspected by	

<b>Waste Storage Facility</b>	<b>Yes</b>	<b>No</b>	<b>Remarks</b>
Is the storage area accessible, secured, enclosed but properly ventilated?			
Are the floors impermeable to liquids, resistant to attack by chemicals, not slippery, and constructed to retain spillages?			
Does the storage area have a proper signage?			
Are Safety Data Sheets available at the storage facility?			
Are the containers used compatible with their contents?			
Are incompatible waste containers separated and segregated?			
Are the containers properly labeled and legible?			
Are the labels accompanied by proper placards?			
Are all containers properly closed?			
Are all containers in good condition without leakage or damage?			
Have wastes been disposed of within the allowable accumulation time?			

**Annexes: ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK**

**Environmental and Social Due Diligence for Waste Transporter (including contracted party)**

Location/Area		Date Inspected	
Contact Person		Inspected by	

Information/Documents Required	Available?		Status/Remarks
	Yes	No	
DENR Transporter Registration <i>*Specify Transporter registration ID no. and validity of the registration</i>			
Contingency and Emergency Plan			
Emergency Response Plan specific to the wastes being transported			
Valid contract with registered TSD Facility <i>*Specify validity of the contract</i>			
Are the emergency response equipment (i.e., Fire extinguishers, PPE, spill kit, etc.) available in the vehicle?			
Are the communication equipment available in the vehicle?			
Does the transportation vehicle have proper signage, markings and placards?			
Does the transportation vehicle have sealed flooring in the cargo compartments?			
Are the vehicles in good mechanical condition?			

## **ANNEX 2**

- **ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP) FOR PROPOSED ASGM SITE**
- **E&S RISK MONITORING**

## ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN for Small-Scale Mining Activities under ASGM Project

**Instruction:** For each project phase, component or activity, potential impact/risks should be listed and provided with proposed mitigating measures and the responsibilities.

Environmental and Social Risks	Mitigating Measures	Technical Details	Location	Timeline	Responsibility	\$ Cost of Mitigation
Workers' safety during mining and processing of ore	Provision and wearing of appropriate personal protective equipment (PPEs)	Dust mask, and eye protection against fugitive dust and debris; safety harness; provision of training on occupational hazard	At the subproject site both for mining and processing	Must be ensured all the time even before mercury-intervention is introduced	Workers' group	\$500 per site (depends on # of workers)
Noise generation during mining and processing of ore from use of drillers, blasters and milling equipment could pose direct hazard to workers and surrounding communities	Provision and wearing of appropriate PPEs	Use of appropriate ear muffs or plugs (for workers) especially when doing activities generating noise > 60dB	Mining and processing areas especially those with noise levels exceeding prescribed standards	Must be ensured all the time even before mercury-intervention is introduced	Workers' group	\$50 per site for purchase of ear muffs/ear plugs
	Consider noise suppression in equipment	Prefer use or purchase of equipment fitted with mufflers or silencers	Mining and processing areas	Whenever applicable and possible	Workers' group	For validation
	Maintain equipment on a regular basis to reduce noise generation	Well-maintained equipment tend to produce less noise	Mining and processing areas	Whenever applicable and possible	Workers' group	Included in operating expenses
	Consider regulating schedule of activities to lessen impact to surrounding communities	Limit working hours and operation of equipment emitting > 80dB only at daytime to lessen nuisance to community	Mining and processing areas	Whenever applicable and possible	Workers' group in consultation with community and barangay leaders	Minimal

**Annexes: ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK**

<b>Environmental and Social Risks</b>	<b>Mitigating Measures</b>	<b>Technical Details</b>	<b>Location</b>	<b>Timeline</b>	<b>Responsibility</b>	<b>\$ Cost of Mitigation</b>
Dust generated during mining and processing (including due to vehicle movement) may impact health of workers and surrounding communities	Control of source and fugitive emissions around work areas	Regular water spraying in work areas generating dust and provision of covers to stockpiled soils	Mining and processing areas including roads used by transport vehicles	All the time of operations	Workers' group	Minimal
	Install appropriate dust collection and control equipment	If necessary, provision of scrubbers, filters and dust collectors	Mining and processing areas	Whenever applicable and possible	Workers' group	For validation
	Wearing of appropriate PPEs for workers	Dust masks and goggles may be provided to workers	Mining and processing areas	All the time of operations	Workers' group	Minimal
Generation of smoke and other gaseous pollutants from the operation of mining and processing equipment and vehicles	Install appropriate emission control for equipment	Install appropriate scrubbers to equipment generating gaseous emissions; regular maintenance of equipment and vehicles to lessen emissions	Mining and processing areas including access roads	All the time of operations	Workers' group	For validation
	Wearing of appropriate PPEs for workers	Appropriate masks and goggles may be provided to workers	Mining and processing areas	All the time of operations	Workers' group	Minimal
Wastewater (both process and domestic) when not properly treated and managed may affect water quality of surrounding water resources	Provision of appropriate sanitation facilities for workers	Adequate toilet facilities with septic tanks must be provided	Mining and processing areas including workers' camp	All the time of operations	Workers' group in coordination with barangay officials	~ \$500 per site
	Provision of appropriate wastewater collection, storage and treatment	Runoff and process water must be collected and treated to control BOD, oil and grease and suspended solids	Mining and processing areas	All the time of operations	Workers' group in coordination with barangay officials	~ \$1,000 per site



**Annexes: ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK**

<b>Environmental and Social Risks</b>	<b>Mitigating Measures</b>	<b>Technical Details</b>	<b>Location</b>	<b>Timeline</b>	<b>Responsibility</b>	<b>\$ Cost of Mitigation</b>
Generation of waste products from the use of mercury in ore processing especially during project transition to mercury-free technologies	Immediately discourage the use of inappropriate processing of mercury; for residual wastes already generated prior the project – maintain appropriate storage and recommend processing by accredited TSD contractors	The project will promote mercury-free processing technologies; for residual activities which produce mercury wastes, the wastes must be handled according to DENR guidelines (i.e., CCO of mercury).	Processing areas	At the onset of the project after engagement with the beneficiaries	Workers' group with UNIDO, UN Environment	For validation
Generation of solid wastes from the operation of mining and extraction activities both coming from workers' and the processes	There must be a solid waste management plan agreed upon by the workers for handling mining and processing solid wastes including garbage.	Solid waste management plan will define storage, collection, segregation, recycling, reuse and disposal procedures for all types of wastes generated in the area.	Mining and processing areas including workers' camp	At the onset of the project after engagement with the beneficiaries	Workers' group with UNIDO, UN Environment and the host community	~ \$2,000 per site
Potential impact of the subproject to indigenous people who are directly and indirectly involved in the mining and processing of ore	Consultation with the IP in strict coordination with NCIP; potential development of indigenous peoples' plan (IPP)	The IPP must be consistent with the NCIP guidelines and must complement any existing IPP in the area.	Mining and processing areas	Prior to the implementation of any intervention which would affect the socio, economic and cultural conditions of the IP	Proponent in consultation with NCIP, IP groups and the host community	For validation

Note: Risks and mitigating measures were identified during the early part of the project preparation when the specific project sites have not yet identified. These measures will have to be validated towards the end of the PPG or on the early part of project implementation.

## ENVIRONMENTAL AND SOCIAL RISK MONITORING PLAN for Small-Scale Mining Activities under ASGM Project

**Instruction:** For each project phase, component or activity, potential impact/risks should be listed and provided with appropriate monitoring procedures.

Environmental and Social Risks	Parameters to be measured	Monitoring Methods	Frequency	Detection Limit & Thresholds	Location	Responsibility
Workers' safety during mining and processing of ore	# of reported accidents or man-hours lost during accidents including near-miss incidents	Review of records	Daily	0 loss	Mining and processing area	Workers' group
Noise generation during mining and processing of ore from use of drillers, blasters and milling equipment could pose direct hazard to workers and surrounding communities	Noise levels in dB(A) scale	Use of noise meter and compare with existing occupational and safety guidelines in the Philippines	Weekly	0.5dB or depending on the available noise meter to be used	Mining and processing area	Workers' group
Dust generated during mining and processing (including due to vehicle movement) may impact health of workers and surrounding communities	Concentration of TSP or whenever possible PM <sub>10</sub>	Use of high-volume sampler; laboratory analysis and comparing with existing prescribed ambient TSP or PM <sub>10</sub> levels	Whenever possible	Depending on the method of analysis used but must be consistent with appropriate standards	Mining and processing area and workers' camp	Workers' group
Generation of smoke and other gaseous pollutants from the operation of mining and processing equipment and vehicles	Concentration of gaseous emissions (such as CO, SO <sub>2</sub> and NO <sub>x</sub> )	Use of high-volume sampler; laboratory analysis and comparing with existing prescribed ambient and source-specific standards	Whenever possible	Depending on the method of analysis used but must be consistent with appropriate standards	Mining and processing area	Workers' group

**Annexes: ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK**

<b>Environmental and Social Risks</b>	<b>Parameters to be measured</b>	<b>Monitoring Methods</b>	<b>Frequency</b>	<b>Detection Limit &amp; Thresholds</b>	<b>Location</b>	<b>Responsibility</b>
Wastewater (both process and domestic) when not properly treated and managed may affect water quality of surrounding water resources	Levels of BOD, TSS, oil and grease, and total and fecal coliform	Water sampling at effluent discharges; laboratory analysis; and comparison to existing effluent standards	Whenever possible	Depending on the limits of the equipment but must be within the prescribed limits of the Standard Methods or equivalent ASTM	Mining and processing area and workers' camp	Workers' group
Generation of waste products from the use of mercury in ore processing especially during project transition to mercury-free technologies	Mercury in water discharged and sediments	Water sampling; laboratory analysis and comparison with existing limits on mercury both for environmental and health protection	At least once every quarter for monitoring purposes	Depending on the limits of the equipment but must be within the prescribed limits of the Standard Methods or equivalent ASTM	Mining and processing area and workers' camp	Workers' group
Generation of solid wastes from the operation of mining and extraction activities both coming from workers' and the processes	Kg of wastes generated or segregated	Segregation; inspection	Every week	No residuals left undisposed	Mining and processing area and workers' camp	Workers' group
Potential impact of the subproject to indigenous people who are directly and indirectly involved in the mining and processing of ore	# of IPs affected or who would benefit from the project	Consultation using NCIP guidelines	Annual	-	Mining and processing area and workers' camp	Workers' group together with NCIP, IP groups and host community