

Draft Environmental and Social Management Framework (ESMF)

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Project title:					
Green Production and Sustainable Development in Secondary Aluminium, Lead, Zinc and Lithium Sectors in China					
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Public Consultation/Disclosure Notice

Date: February 20, 2021

Vehicle: Implementing Partner's Webpage

Public notice inviting companies to carry out a survey on the basic information of enterprises in China's secondary aluminum, lead, zinc and lithium industries, as well as to provide baseline data research on emissions of persistent organic pollutants such as dioxins and BFRs; compare the policies and standards of developed countries and regions on the renewable non-ferrous metal industry, assess and analyze the effects and gaps in the implementation of policies and standards for pollution prevention and control in China's secondary non-ferrous metal industry.

Date: November 9, 2022

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Diclosure on the approval of the Project (PIF) of the "Green production and Sustainable Development in Secondary Aluminum, Lead, Zinc and Lithium Sectors in China" jointly FECO and UNDP by the Global Environment Facility (GEF).

Date: April 18, 2022

Vehicle: UNDP Country Office Webpage

The United Nations Development Programme (UNDP) requests feedback on Environmental and Social Management Framework and associated Social and Environmental Screening Procedures the GEF Project 6492, "*Green Production and Sustainable Development in Secondary Aluminium, Lead, Zinc and Lithium Sectors in China*". The public consultation period will be opened for 120 days (The last date for receiving of comments is August 17, 2022). Comments and questions can be sent to the following address:

United Nations Development Programme – UNDP Physical Address: 2 Liangmahe Nan Road, Chaoyang District, Beijing China Tel: +86 10 8532 0800 Fax: +86 10 8532 0900 Email: registry.ca@undp.org Website: <u>https://cn.undp.org</u>

Note: UNDP takes note of the SES Guidance that applies to this ESMF disclosure procedure: "If undertaken as part of project implementation, must be disclosed and consulted on at least 120 days prior to implementation of any activities that may cause adverse social and environmental impacts".

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EXECUTIVE SUMMARY

This Environmental and Social Management Framework (ESMF) was prepared as response to the Social and Environmental Safeguards Procedure (SESP) screening of the CEO Endorsement Request (CEO ER) to the Global Environment Facility (GEF) of the Project "*Green Production and Sustainable Development in Secondary Aluminium, Lead, Zinc and Lithium Sectors in China*" (herewith "the Project").

The Secondary non-ferrous metal production is recognized as important sources of UP-POPs emissions, and as one of the most toxic pollutants ever known to human, PCDD/Fs, as well as other POPs such as PCBs, have attracted much attention all over the world. Thus, the objective of this project is to reduce and eliminate UP-POPs (PCDD/Fs, HCB and PCNs) and Brominated flame retardants (BFRs) releases through the introduction of BAT/BEP in secondary aluminium and zinc production; and implementation of life cycle management in lead acid battery and lithium ion battery recycling in China, to achieve sound management of chemicals and reduce risks to human health.

More specifically, the project will:

Component 1 - Strengthen the national policy and regulatory framework to reduce UP-POPs and BFRs releases from secondary non-ferrous metal industry

Component 2 - Demonstrate a regional-based lead acid battery recycling and a lithium ion battery recycling based on the full-life-cycle value chain in China; and Implement two (2) sub-projects implemented to demonstrate BAT/BEP in the secondary aluminium and zinc sectors.

Component 3 – Develop and support the deployment if a National Replication Programme (NRP) that include promotional events, technical training, awareness raising;

The purpose of this ESMF is to assist in the assessment and management of potential environmental and social impacts during the Project's lifecycle. The ESMF will be implemented by the Foreign Environmental Cooperation Center (FECO) of the Ministry of Ecology and Environment (MEE), monitored throughout the duration of the project by the Project Monitoring Unit (PMU) and overseen by the United Nations Development Programme (UNDP). This ESMF forms the basis upon which the Implementing Partner will develop site-specific Environmental and Social Management Plan(s) or other plans (as required per the SES) as needed, to ensure compliance with the UNDP SES

During project development phase (PPG), the project was screened against with UNDP's SES Policies. The analysis identified a range of potential social and environmental impacts associated with the project activities. The SESP for this project identified 10 risks by which the specific environmental and social risks that may impact activities adversely. By applying the criterion to measure the significance of each risk, based on its probability of occurrence and extent of impact, one (1) risk has been assessed as "low" significance and nine (9) as of "moderate" significance.

The risks were properly assessed, and it was concluded that these relate to activities with potential adverse social and environmental risks and impacts that are more varied or complex but remain limited in scale and are of lesser magnitude which can be reversible, predictable, have smaller and contained footprint, with less risk of cumulative impacts. It is considered that the proposed scoped Risk Management Plans can ensure that such impacts are avoided or mitigated (in case the risk becomes an issue). As such, the overall SESP risk categorization rating is **"Substantial**".

Therefore, the scope of this ESMF covers activities in Components 1 and 2. The co-financing for the replication activities related to Component 3 are also covered under this ESMF in the way as will need to be consistent with UNDP SES, noting that all works related to these activities are limited to retrofitting of existing enterprises, and no new construction or expansion is planned. The ESMF will follow three precautionary actions during project implementation:

- 1) Carry on Selection of Enterprises for Demonstration Activities and their Environmental and Social Screening:
 - i) For the Development of policies and regulations under Outputs.1.1.1 and 1.1.2; Strategic Environmental and Social Assessment principles and approach will be developed.
 - ii) Scoped Environmental and Social Impact Assessments (ESIAs) will be developed for the pilot demonstrations, considering that no new construction will take place. Based on the ESIA, preparing sitespecific Environmental and Social Management Plan (ESMPs), for avoiding, and where avoidance is not possible, reducing, mitigating, and managing adverse impacts (under Outputs 2.1.3 and 2.2.2).
- 2) Assess the Environmental and Social Risks and Potential Impacts:

- a) The findings of the ESIAs will be used to update the project's *Gender Action Plan* and *Stakeholder Engagement Plan* as determined appropriate by the ESIA/ESMP consultant(s).
- b) The finding of the ESIA will be used to build scoped Environmental and Social Management Plans (ESMPs), site-specifics, that will outline the management objectives, potential impacts, control activities and the environmental performance criteria against which projects will be evaluated (e.g. audited).

3) Elaborate, Implement and Monitor the Scoped/Targeted Management Plans.

- a) A (Chemicals and Hazardous substances) *Spill Prevention and Management Plan* will be developed as part of the Project outputs and implemented for all demonstration activities for safe handling and disposal of hazardous waste.
- b) An Occupational Health and Safety Plan will also be developed as part of the project outputs and will safeguard workers at the demonstration sites, and, if in relation to the risks related to worker's economic/health impact become issues, the appropriate Labour Management Procedures and Livelihoods Restoration Framework will be applied.
- c) Finally, prior to hiring of any new security staff to guard selected demonstration industries (Output 2.1.3 and Output 2.2.2), a *Code of Conduct* reflecting SES requirements will be prepared so that industry operators ensure their security staff abide by them.

The monitoring of the implementation of the targeted environmental and social plans developed will be carried out. Reporting on progress and issues in the ESMF implementation will be documented in the project progress reports and project implementation reports (PIRs). The targeted environmental and social plan(s) will specify their own monitoring and evaluation parameters. Key issues will be presented to the respective Project Board during the PSC meeting, as required.

Grievance Redress Mechanism (GRM)

Finally, the Project Document also foresees the establishment of a <u>Grievance Redress Mechanism (GRM)</u> that will provide a formal avenue for affected individuals or communities to engage with the Project implementers or sponsors on issues of concern or unaddressed environmental and social impacts. It aims to manage and satisfactorily respond to the complaints of individuals or groups of people regarding the environmental and social performance of the Project. The GRM process will be managed by a Grievance Redress Committee (GRC). None of the members of the Committee shall have a conflict of interest involving any complaint lodged.

ABBREVIATIONS AND ACRONYMS

BAT	Best Available Techniques
BEP	Best Environmental Practices
CMRA	China Nonferrous Metals Industry Association Recycling Metal Branch
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
FECO	Foreign Environmental Cooperation Center, Ministry of Ecology and Environment
FPIC	Free, prior and informed consent
GEF	Global Environment Facility
LAB	Lead Acid Battery
LIB	Lithium Ion Battery
MEE	Ministry of Ecology and Environment
MEP	Ministry of Environmental Protection (former of Ministry of Ecology and Environment, MEE)
METT	Management Effectiveness Tracking Tool
MIIT	Ministry of Industry and Information Technology
MOF	Ministry of Finance
NDRC	National Development and Reform Commission
PA	Protected Area
PCDD/Fs	Polychorinated dibenzodioxins/dibenzofurans
PIF	Project Identification Form (GEF)
PIR	GEF Project Implementation Report
POPP	Programme and Operations Policies and Procedures (UNDP)
POPs	Persistent Organic Pollutants
PPG	Project Preparation Grant (GEF)
PRC	Peoples' Republic of China (PRC)
SECU	Social and Environmental Compliance Review Unit (UNDP)
SES	Social and Environmental Standards (UNDP)
SESP	Social and Environmental Screening Procedure (UNDP)
SRM	Stakeholder Response Mechanism (UNDP)
UNDP	United Nations Development Programme
UNDP-GEF	UNDP Global Environmental Finance Unit
UP-POPs	Unintentionally Produced Persistent Organic Pollutants

1 INTRODUCTION

This Environmental and Social Management Framework (ESMF) has been prepared for the UNDP-supported project within the GEF-financed "Green Production and Sustainable Development in Secondary Aluminium, Lead, Zinc and Lithium Sectors in China", developed together with the Government of the Peoples' Republic of China (PRC).

UNDP is the GEF Implementing Agency (IA) for the project to which this ESMF applies.

1.1 **Project description**

Project description:

Secondary non-ferrous metal production are recognized as important sources of UP-POPs. As one of the most toxic pollutants ever known to human, PCDD/Fs, as well as other POPs such as PCBs, have attracted much attention all over the world. In China, the following elaborates on the barriers to the adoption of environmental sound management in the secondary non-ferrous metal industry:

- 1. Incomplete legal/regulatory framework and lack of capacity in policy enforcement at national, industrial and local level;
- 2. Recycling disorder has always been an important problem affecting the recycling of non-ferrous metal scrap. There is limited access to international experience in implementing and sustaining a recycling value chain both financially and operationally;
- 3. Limited access to international Best Available Technologies/Best Environmental Practices (BAT/BEP) related to secondary non-ferrous metal processing technologies and limited ability/capacity to pilot and demonstrate it; and
- 4. Insufficient capacity to undertake monitoring of the UP-POPs and BFRs pollution caused by the secondary non-ferrous metal smelting and recycling, and dealing with both socio-economic and environmental legacies.

The objective of this project is to reduce and eliminate UP-POPs (PCDD/Fs, HCB and PCNs) and Brominated flame retardants (BFRs) releases through the introduction of BAT/BEP in secondary aluminium and zinc production, and implementation of life cycle management in lead acid battery and lithium ion battery recycling in China, to achieve sound management of chemicals, and enhance human health.

This project is expected to generate multiple benefits for the global environment as it will not only lead to a reduction in UP-POPs and BFRs releases from the sector, but will also reduce the risks to human health, ecosystems and economies by sustainable supply chain management, innovations in green and sustainable chemistry, and adopting common approaches to chemicals management in secondary metallurgical sectors. The adaptation global environmental benefits from this project will result from the Sustainable Development Goals (SDGs) 3.9 and 12.4, which is in "SDG 3: Ensure healthy lives and promote well-being for all at all ages" and "SDG 12: Ensure sustainable consumption and production patterns", respectively.

1.2 Purpose and scope of this ESMF

This ESMF is a management tool to assist in managing potential adverse social and environmental impacts associated with project activities, in line with the requirements of UNDP's Social and Environmental Standards (SES). The Implementing Partner of the project and the relevant members of the project management unit will follow this ESMF during the start of the project implementation to ensure the environmental and social risks and impacts are fully assessed and management measures are in place prior to the implementation of the relevant project activities. The scope of this ESMF covers activities in Components 1, 2 and 3. Component 4 will incorporate knowledge sharing and best practices on social and environmental risk management and safeguards as part of lessons learned. Co-financing for demonstration activities are also covered under this ESMF such that they will need to be consistent with SES, noting that all works related to these activities are limited to retrofitting of existing enterprises such that no new construction or expansion is planned.

This ESMF identifies the steps for detailed screening and assessment of the project's potential, currently-identified social and environmental risks, and for preparing and approving the required management plans for avoiding, and where avoidance is not possible, reducing, mitigating, and managing the identified adverse impacts. It also sets out the additional safeguard measures that apply to the project during the inception phase.

This ESMF forms the basis upon which the Implementing Partner will develop site-specific Environmental and Social Management Plan(s) or other plans (as required per the SES) as needed, to ensure compliance with the UNDP SES.

This ESMF will be publicly disclosed in line with UNDP's Information Disclosure Policy and SES.

1.3 Potential Social and Environmental Impacts

UNDP uses its Social and Environmental Screening Procedure (SESP) to identify potential social and environmental risks and opportunities associated with proposed projects. Each project is scrutinized as to its type, location, scale, sensitivity and the magnitude of its potential social and environmental impacts. All project components are screened, including planning support, policy advice, and capacity-building, as well as site-specific, physical interventions. Activities that will be completed under project co-financing are also included in the scope of the assessment.

During project development, the project was reviewed with UNDP's SESP. The analysis identified a range of potential social and environmental impacts associated with the project activities.

Successful implementation of the project will contribute to reducing the risk for the environment and human health through the prevention of the use and release of highly toxic substances (persistent organic pollutants (POPs)) into the atmosphere. The project will also ensure the implementation of Best Available Techniques and Best Environmental Practices (BAT/BEP) in demonstration enterprises. The project will complement and enhance implementation of China's National Strategy and Action plan for the implementation of the Stockholm Convention. Specifically, it seeks to:

- 1. Strengthen the national policy and regulatory framework to reduce UP-POPs and BFRs releases from secondary non-ferrous metal industry, including guidance for the reduction of UP-POPs and BFRs releases resulting from unsound metal scrap and batteries recycling management practices;
- 2. Reduce UP-POPs and BFRs releases from unsound metal scrap and batteries recycling, through improvement of the supply chains as well as the introduction of environmentally sound disposal practices at recycling entities, including development of appropriate collection schemes, diversion of recyclable toward appropriate disposals procedures;
- 3. Demonstrate BAT/BEP and life cycle management in the collection and conditioning of waste batteries (one in lead acid batteries and one in lithium-ion batteries), and in the secondary production of metals (one in aluminum and one in zinc);
- 4. Implement a National Replication Programme (NRP) including promotional events, technical training, awareness raising.

Through its Gender Action Plan, the project will include women in the project decision making, in the technology transformation selection processes to improve industrial practices and train and support more women for management positions in the project related enterprises.

Risk Categorization and Justification

The SESP was prepared for this project (ProDoc Annex 5) and it details the specific environmental and social risks that apply, and by applying the significance of each risk, based on its probability of occurrence and extent of impact, risks had been assessed to be either low or moderate. The SESP identified a total of 10 risks of which one has been assessed as low significance and 9 as of moderate significance.

The risk assessment procedure has followed UNDP SES Guidelines and Tool Kit, as well as duly apply the precautionary principle that underpins UNDP 2021 SES Policy. In this regard, it is noted that the project's SES identified a varied range of risks rated as "Moderate", in which some require more extensive assessment and management measures. The risks were properly assessed against the relevant criterion and it was concluded that these relate to activities with potential adverse social and environmental risks and impacts that are more varied or complex but remain limited in scale and are of lesser magnitude which can be reversible, predictable, have smaller and contained footprint, with less risk of cumulative impacts. It is considered that the proposed scoped Risk Management Plans can ensure that such impacts are avoided or mitigated (in case the risk becomes an issue). As such, the overall SESP risk categorization rating is **"Substantial"**.

Additional extensive risk assessment and management measures related to SES Standards

Following UNDP 2021 SES, scoped and fit-for-purpose risk management strategy(ies) for the specific risks identified as low and moderate were prepared during the PPG phase to ensure that the SES requirements are appropriately addressed (Gender Action Plan and Stakeholders Engagement Plan).

However, considering the uncertainty about pilot demonstration sites/companies that have not seen selected (under Outputs 2.1.3 and 2.2.2) during the project preparation phase (PPG) additional targeted risk management plans will be prepared during the initial six (6) months of project implementation, and, therefore, no activities under the identified Outputs above will start until the referred Plans are developed.

It is important to note that these demonstration activities will be limited to retrofitting of existing facilities, and no new construction or expansion is planned under this project. In addition, the PPG team pre-screened all short-listed companies and found that they are located in legalized industrial areas, and the Project will carry on scoped ESIA for demo companies, thus:

- (a) <u>Standard 1</u>: pre-screening procedures carried on during preparation phase shorte/listed all potential demonstration sites. It is concluded that all activities will take place in industries/companies located in legalized industrial areas. The targeted industrial areas are not located within or adjacent to critical habitats and/or environmentally sensitive areas that would entail triggering these risks.
- (b) <u>Standards 3 and 4:</u> demonstration activities will be limited to retrofitting of existing facilities, and no new construction or expansion is planned under this project, therefore no influx of workers is expected in the targeted sites nor significant excavations, demolitions, movement of earth, flooding or other environmental changes that can harm cultural heritage sites.
- (c) <u>Standard 5</u>: considering the demonstration activities will take place in industries/companies located in legalized industrial areas, project won't lead to temporary or permanent and full or partial physical displacement, risk of forced evictions, nor impacts on or changes to land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources.
- (d) <u>Standard 6</u>: it is pre-screened that all demonstration activities will take place in industries/companies located in legalized industrial areas. The targeted industrial areas are not located within areas where indigenous/traditional peoples are present or are claimed by these.
- (e) <u>Standard 7</u>: as part of the Industries/Companies selection criterion, will also only engage with companies that abide by national laws which prohibit under aged employment and forced labour and therefore, these are not considered to be a risk under this project as only companies compliant to the national legislation and aligned with UNDP SES will participate in the project.
- (f) <u>Standard 8</u>: China is Party to the <u>Montreal Protocol</u>, <u>Minamata Convention</u>, <u>Basel Convention</u>, <u>Rotterdam Convention</u> and <u>Stockholm Convention</u>, and the project is designed to comply with the Stockholm Convention (as it is funded by the GEF the project meets the eligibility criterion of the Convention). Thus the project cannot use any alternative technology that is controlled by the Stockholm Convention. In addition:
 - i. the concept of BAT to be applied by the project also forbids using such technologies controlled by any of the international conventions regarding chemicals use;
 - ii. The project does not target any sector controlled under the Montreal Protocol, thus no risk for the project to use substances controlled by this MEA.
 - iii. The project is also in line with Rotterdam and Basel Conventions, as it is not sponsoring international movement of hazardous substances nor wastes (as noted in the Project Document, China has banned the imports of such wastes).
 - iv. The industrial sectors targeted by the project do not use mercury in their process nor products that contain mercury, so it also does not encompass any prerogative of Minamata Convention.
 - v. The project does not have any agricultural activity, this won't make use of any agri-chemicals.

The following risk is considered as "Low" in the SESP:

Risk 1: Government Officials responsible for enforcing legislation may fall short of capacities to meet their obligations in the Project upon the development of the new coordination and regulatory mechanisms (Low).

This project is placed as part of the implementation of the Stockholm Convention in China and will develop and/or propose complementary and streamlined set of regulatory instruments in Component 1. The activities are integrally funded by the GEF. Government Officials, who are responsible for enforcing legislation, will thus require further training and capacity building in order to internalize the changes promoted by the Project, as well as to enforce these to support the project effectiveness.

The following risks were considered as "Moderate" in the SESP:

Risk 2: Small or Medium sized enterprises - which are expected to benefit from project outputs and are also expected to internalize and scale up project results after its completion - may not be involved in decision-making process during the Project implementation in relation to the development of policy and regulatory frameworks that will support of the project replication and sustainability goals (Moderate).

Project Output 1.1.3 will support the "unlocking" of the Extended Producer Responsibility (EPR) and the institution of economic instruments and incentives for companies that operate in the metals recycling sector can internalize and replicate the project's pilots (the pilots will demonstrate the technical viability of BAT/BEP).

Risk 3: Potential risk to workers' employment, particularly women, in the course of the transition to implementation of BAT/BEP.

The project will undertake four (4) pilot/demonstration activities (sub-projects) in the recycling sectors of lead/lithium ion batteries and aluminium/zinc metals. These pilots/demonstrations will deploy alternative BAT that can reduce the emissions of chemicals controlled by the Stockholm Convention, and are expected to provide also improve energy efficiency in these industries. These demonstrations are partially funded by GEF resources, partially by Industries co-finance.

It is expected that certain BAT may result in phasing-in automation techniques to improve recycling processes. Best Environmental Practices can also substantially change the management of work profiling and skills sets. Both interventions can lead to cutting of certain jobs posts while creating new, specialized, jobs opportunities. This can lead to unemployment of unskilled/marginalized people in the industry.

Risk 4: Inadequate participation of women in consultations, policy decision making and design of modalities for capacity building in uptake of BAT/BEP in the metals recycling industry.

The project will sponsor pilots/demonstrations and will deploy alternative BAT that can reduce the emissions of chemicals controlled by the Stockholm Convention, and are expected to provide also improve energy efficiency in these industries. These demonstrations are partially funded by GEF resources, partially by Industries co-finance.

The metals recycling industry require high level of physical work, which by sex-driven perception is seen as a "work for men". In addition, women are mainly engaged in dismantling phase of the products that carry metals and are directly exposed to some harmful substances that are released in this process.

Risk 5: Risk of release and emissions during decommissioning, transport, storage and disposal of hazardous waste during the demonstration pilots.

Transport, storage and disposal operations for any hazardous substance may pose potential human and ecosystem health risks, whether to workers or the wider community, to local environment, or transboundary ecosystems. Therefore, for any project which involves collection, handling, packaging, transport, destruction or disposal of waste, particularly hazardous chemicals waste, there is always a standing risk of release to the environment. The project involves the recycling and storage of used lithium batteries and lead batteries. If not managed properly, especially if some pollution prevention measures are not in place, causing leakage, it will pollute the soil and water bodies and affect the health of local people and workers. The project aims to improve BAT/BEP of the selected industries in order to reduce such impact. These BAT/BEP are expected to deploy actions to reduce the quantity of contaminated waste generated of the moment. It is expected that the project will still generate waste, but in a controlled manner, such as

the contaminated filters of new filtering systems under BAT, or properly managed lithium/lead batteries waste. These are to be properly disposed as per BEP to be implemented by the project.

Risk 6: Risk of flooding of demonstration facilities and other disaster risks.

The metals recycling industry consumes substantial quantities of energy in the production process, resulting in high level of greenhouse gases emitted. In this regard, the project aims to support the industries to use BAT/BEP that can reduce the releases of hazardous chemicals. The GEF resources under this project will be used to improve BAT/BEP of the selected (pilot/demonstration) industries in order to reduce/avoid such risk. It is expected that some technologies can also bring co-benefit of improved energy efficiency of the recycling/smelting processes.

Risk 7: Increased GHG emissions and energy consumption from alternative processes to reduce the releases of hazardous chemicals (Moderate).

The metals recycling industry consumes substantial quantities of energy in the production process, resulting in high level of greenhouse gases emitted. In this regard, the project aims to support the industries to use BAT/BEP that can reduce the releases of hazardous chemicals. The GEF resources under this project will be used to improve BAT/BEP of the selected (pilot/demonstration) industries in order to reduce/avoid such risk. It is expected that some technologies can also bring co-benefit of improved energy efficiency of the recycling/smelting processes

Risk 8: Working conditions that do not meet national labor laws and international commitments and exposure to health and safety risk within the demonstration enterprises and hazardous waste disposal enterprises.

This risk is related to the potential practices and behaviours of workers that do not abide by a safety protocol and use the essential personal protective equipment (PPE) appropriate for the work they perform. It is noted that regulations on health and working environment are strictly implemented by the Government of China and that Forced Labour is illegal in China through articles in the Penal Law of 2011 and Labour Contract Law of 2007. As part of ESIA (aligning with national laws), the project will only engage with companies that abide to national laws which prohibit under aged employment and forced labor. If the project fails, the workers employed by recycling industries who participate in the project may continue to be at risk of exposure to POPs.

Risk 9: Informal recyclers, who may include marginalized and traditional communities, find their access to resources and thus income reduced as a result of new policy and regulatory framework for metal scrap management and to reduce UP-POPs and BFRs release from recycling practices (Moderate).

The project will develop, revise and improve policies and regulatory frameworks in secondary aluminium and zinc sectors for sound management from the prospective of raw materials standards, industry norms and for green battery production and waste battery collection. It will also develop, revise, adopt and improve policies and regulatory frameworks for waste battery full life circle management (collection, dismantling, storage, transportation, and recycling). The activities are integrally funded by the GEF.

These policies and regulations, once implemented or enforced, may affect access to resources for workers in the informal recycling sector, limiting their income. These workers will likely be from poor or marginalized communities and, depending on the area, some may be from traditional communities.

Risk 10: Inappropriate behavior by security personnel who may be recruited by the industries (Moderate).

Security guards may be required to secure the industries during operation. These staff may not be properly trained on how to properly deal with the local community, which may lead to grievances by other workers or nearby residents. The demonstrations are partially funded by GEF resources, partially by Industries co-finance.

2 LEGISLATION AND INSTITUTIONAL FRAMEWORKS FOR ENVIRONMENTAL AND SOCIAL MATTERS

2.1 National Legislation, Policies and Regulations

Since the enlightenment of environmental protection in 1979, China has gradually established a comprehensive environmental management framework. At the national level, more than 80 laws, 120 regulations and more than 1,000 environmental quality emission standards and technical guidance have been adopted to achieve environmental quality, pollution control, natural resources and ecological protection. A large number of provincial and local environmental protection regulations, standards and pollutant emissions are more stringent than national standards.

The following legislation, policies and regulations are relevant to the implementation of this project.

General Environmental Protection

The *Environmental Protection Law* (2015) is the most stringent environmental law passed in China, and it stipulate that pollutant emissions must comply with national or local standards. New projects must be submitted and reviewed through EIA to relevant environmental protection agencies. The project must not start before approved. Environmental protection work must be incorporated into the plan in units of environmental pollution and other public hazards. Technical transformation of new industrial enterprises and existing industrial enterprises should adopt equipment and processes with high resource utilization and less emissions. The facilities for controlling pollution in the construction project must be designed with the main project, while construction, while commissioning (three) and inspected before investing in production.

The Environmental Impact Assessment (EIA) Law (2002, amended 2016 and 2018) governs the EIA process. In general, EIAs in China are classified into two categories: (i) EIAs for plans (such as new development areas and new industrial parks) and Strategic Environmental Assessments (SEAs); and (ii) EIAs for projects. The discussion in this report focuses on the latter type of EIA, given that this ESMF is designed for a specific project. In a notice promulgated by the then State Environmental Administration for Protection (SEPA), currently MEE, in 1999, a "project" includes all types of development and construction activities through fixed assets investment, which could be funded by the government, collective economic organizations, individual businesses, joint ventures or foreign capital. Article 3 of the EIA Law further stipulates that any projects with potential environmental impacts constructed in the territory of the People's Republic of China and other sea areas under the jurisdiction of the People's Republic of China shall be evaluated in accordance with this Law. Article 25 of the amended EIA Law stipulates that EIA approval is no longer a condition precedent for the approval of a project, but a condition precedent for the commencement of project construction.

Regarding the review and approval of EIAs after a project proponent/owner submits a project proposal, a decision is made by the appropriate authority with jurisdiction over the geographical area and type of project proposed, as explained in Subsection 3.1.2 above, regarding whether and which type of EIA is required. Several instruments play a role in this determination: (i) the EIA Law; ii) the Regulations on Environmental Protection Management for Construction Projects (1998, amended 2017);¹ (iii) the Catalogue for the Classification and Administration of Environmental Impact Assessment of Construction Projects (2002, amended 2015 and 2020);² (iv) the Management Guideline on EIA Categories of Construction Projects (2008, amended 2017); and (v) the Directory for the Management of Construction Project Environmental Impact Assessment Categorization (2018, amended 2021). In addition, the former MEP and MEE issued several technical guidelines for the preparation of EIAs.

The aforementioned Directory provides detailed EIA requirements for 50 sectors and 192 subsectors, and classifies EIAs for projects into three categories with different reporting requirements based on the significance of potential environmental impact due to the project nature and the environmental sensitivity of the project site, as follows:

• **Category A:** projects with significant adverse environmental impacts, for which a full EIA report is required, called Environment Impact Report (EIR).

¹ The Regulations spelled out details on the EIA process, including screening and categorization, preparation and review procedures, approval authority and responsible parties, contents of an EIA Report and an EIA Form, and EIA practitioners' qualification and certification system.

² The Catalogue introduced and implemented the three forms of an EIA, namely the Environment Impact Report (EIR), the Environment Impact Form (EIF) and the Environmental Impact Registration Form (EIRF).

- **Category B:** projects with adverse environmental impacts which are of a lesser degree and/or significance than those of Category A, for which a simplified tabular report is required, called Environment Impact Form (EIF).
- **Category C:** projects unlikely to have adverse environmental impacts, for which an Environmental Impact Registration Form (EIRF) is required.

Project developers/owners, institutions specialized in preparing EIAs, and public agencies responsible for reviewing and approving EIAs, may be subject to penalties for violating the 2018 EIA Law. In case a project developer/owner unlawfully starts construction without obtaining approval for its EIA documents, it is ordered to stop construction and may be fined or asked to restore the site. Fines may apply to both the project developer/owner or its legal representative, principal person in charge, directly responsible person in charge and other directly liable persons of the project developer/owner. When a specialized institution entrusted to prepare the environmental impact report or form for a project violates the relevant EIA rules, which results in serious quality issues of the EIA document it prepared, various penalties may apply, including: (i) fines; (ii) banning the entity from preparing environmental impact reports and forms, when the circumstances are serious; (iii) confiscation of any illegal income; and (iv) possible criminal liability. If any staff members of the administrative department of environmental protection or any other department seek private gains by illegal means or abuse their powers, neglecting their duties or unlawfully granting approval for an EIA, they are subject to an administrative penalty and/or criminal liability.

In the course of project construction, and depending on the applicable jurisdictional authority, MEE, the corresponding provincial Ecology and Environment Department (EED) or local Ecology and Environment Bureau (EEB), is authorized to monitor compliance with the mitigation measures included in the approved EIA and other legal environmental requirements during construction and operation of the project, which is also a requirement of the "Three Simultaneities Policy".

Upon the completion of construction, the project owner is required to file an application with the pertinent EED or EEB for inspection and approval of the environmental protection facilities.

The *Regulations on the Management of Environmental Protection of Construction Projects* (2017) stipulate that construction projects that cause pollution must comply with national and local standards for pollutant discharge. In the areas where total emission control of key pollutants is implemented, the requirements for total emission control of key pollutants must be met. Measures must be taken to control the original environmental pollution and ecological damage associated with reconstruction, expansion and technological transformation projects.

The "Building Project Environmental Impact Assessment Classification Management Directory (2021)" specifies the quantitative index threshold, thereby determining if the project needs an EIA report / table. The EIA report is divided into three working grades (construction project environmental impact report, influence report form or fill in the environmental impact registration form). The specific applicable legal framework and standard need to ultimate determination in the environmental impact assessment of specific projects, and perform detailed analysis, and develop corresponding mitigation measures in accordance with the requirements. For example, atmospheric pollution control projects (such as desulfurization, denitrification, dust and VOCs removal), metal waste (except hazardous waste) disposal and waste battery disposal need to be registered table, environmental impact assessment table and environmental impact assessment report, respectively. Environmental impact assessment table and environmental impact assessment report shall focus on the impact of construction projects on environmentally sensitive areas. The environmentally sensitive area is a region that is particularly sensitive to various types of protection areas and environmental impacts generated by the construction projects, including the following areas: (1) National Park, Nature Reserve, Scenic Area, World Culture and Nature Heritage, marine special protected area, drinking water source protection zone; (2) Except for ecological protection red line control range, permanent basic farmland, basic grassland, Natural Park (Forest Park, Geological Park, Ocean Park, etc.), important wetland, natural forest, key protection wildlife habitat, the growth and reproduction area of important wild plants, natural spawning areas of important aquatic organisms, feeding waters of fish and shrimp, tour channel, natural fisheries, and key prevention zones and key treatment zone, sand land banned protected area, closed and semi-closed sea; (3) Regional, medical and health, cultural education, scientific research, administrative office, and cultural relics protection units.

Cleaner Production

"The Ministry of Cleaner Production Promotion Law of the People's Republic of China" (2012) stipulates that from the source to reduce or avoid the production and emissions of pollutants during production, service and product use to reduce or eliminate the harm of human health and the environment. The first paragraph of Article 19 stipulates "Enterprises should adopt the following cleaning production measures in the process of conducting technical

transformation: using non-toxic, harmless or low-toxic, low-damaged raw materials, replacement of toxicity, and serious raw materials." "Article 27 stipulates that "Enterprises that use toxic, harmful raw materials or enterprises to discharge toxic, harmful substances in production, should implement mandatory cleaner production audit.

The *Law of the People's Republic of China Circular Economy Promotion* is to promote the development of circular economy, improve resource utilization efficiency, protect and improve the environment, and achieve sustainable development. The law stipulates that during the reuse and resource process, the law should guarantee production safety to ensure product quality in line with the standards specified in the state, and prevent the production of re-pollution.

"Interim Measures for Cleaning Production Audit" (2016) stipulate that the requirements, scope, procedures, and organizational management of entries involving UP-POPs emissions.

"*Profile Cleaning Production Audit Procedure*" (2005) stipulate the provisions of the key enterprise cleaning production audit procedures related to UP-POPs emissions and toxic and hazardous substances that need to be reviewed.

Pollutant Permit

Notice of the General Office of the State Council on Printing and Distributing the Implementation Plan for Control Pollutants (2016) stipulates that the new "sewage license system", with sewage permission to control the core system of environmental management of fixed pollution source, will discharge pollutants, Concentration, quantity, direction of direction, and corporate governance facilities are concentrated to a certificate to form a "one certificate" management.

The *Technical specification for application and issuance of pollutant permit non-ferrous metal metallurgy industry—secondary non-ferrous metal (HJ 864.3-2018)* specifies the basic filing requirements for the application and issuance of pollutant discharge permits for secondary non-ferrous metal (secondary copper, aluminium, lead and zinc) pollutant discharge units, the determination of permitted emission limits, the actual emissions accounting, the method for compliance determination, and the self-monitoring, environmental management ledger and discharge permit implementation report and other environmental management requirements, put forward feasible technical requirements for the prevention and control of recycled non-ferrous metals.

The "Dioxin pollution prevention and control technology policy in key industries" (2015) specifies that the technical routes and technical methods that can be adopted for the prevention and control of dioxin pollution in key industries, including source reduction, process control, end treatment, new technology research and development, etc.

The *Emission standards of pollutants for secondary copper, aluminium, lead and zinc. (GB 31574-2015)* specifies the discharge limit value of waste water: HCBD≤0.006 mg/L; dioxin≤0.3 ng TEQ/L. Emission limit value of exhaust gas: dioxin≤0.1 Ng TEQ/m³.

Hazardous Waste Management

The waste liquid and solid waste generated in the recycling process of recycled metals should be identified and classified in accordance with the provisions of GB5085.7. If they are hazardous wastes, they should be collected, stored, and transported in accordance with GB 18597 and HJ 2025, and handed over to a qualified unit to process. If it belongs to general industrial solid waste, it shall be implemented in accordance with the requirements of GB18599. The storage and disposal unit shall obtain the business license for the corresponding category of hazardous waste in the "National Catalogue of Hazardous Wastes" in accordance with the latest version of the "Management Measures for Hazardous Waste Business Licenses". The hazardous waste transfer process should meet the requirements of GB13392 and GB21668 for the transportation of hazardous goods by vehicles, and strictly follow the relevant requirements of the latest version of the "Management Measures for the Transfer of Hazardous Wastes".

The *General standard for identification of hazardous waste (GB5085.7)* specifies procedures and rules for the identification of hazardous wastes. It is suitable for the identification of hazardous characteristics of solid waste produced in production, living and other activities, and for the identification of liquid waste.

The *Standard for pollution control of hazardous waste storage (GB 18597-2001)* specifies the general requirements for the storage of hazardous waste, as well as the requirements for the packaging of hazardous waste, the site selection, design, operation, safety protection, detection and closure of storage facilities. This standard applies to the pollution control and supervision management of the storage of all hazardous wastes (except tailings ponds), and is applicable to the producers, operators and managers of hazardous wastes.

The *Standard for Pollution Control of General Industrial Solid Waste Storage and Disposal Site (GB18599-2001)* specifies the requirements for the storage, disposal, design, operation management, closure and closure of industrial solid waste, as well as pollution control and monitoring, etc. It is applicable to the construction, operation, supervision and management of the storage and disposal sites of general industrial solid waste that are newly built, expanded, rebuilt and already put into production, but not applicable to hazardous waste and domestic waste landfill sites.

The *Technical specifications for collection, storage, transportation of hazardous waste (HJ 2025-2012)* sets out the technical requirements to be followed during the collection, storage and transportation of hazardous wastes. It is applicable to the collection, storage and transportation of hazardous waste by hazardous waste producing units and operating units.

The Vehicle mark for road transportation dangerous goods (GB 13392-2005) stipulates the classification, specifications and dimensions, technical requirements, test methods, inspection rules, packaging, marking, loading and unloading, transportation and storage, as well as requirements for installation, suspension and maintenance of vehicles carrying dangerous goods by road. It is applicable to the production, use and management of the marks of dangerous goods vehicles in road transport.

The *Provisions of vehicle for the carriage of dangerous goods with regard to their specific constructional features* (*GB 21668-2008*) sets out the structural requirements for vehicles for the transport of dangerous goods and applies to Class N and Class O vehicles and trains consisting of Class N and one Class O vehicle for the transport of dangerous goods.

The *National List of Hazardous Wastes (2021)* stipulates that through the implementation of the National Hazardous Waste List, the accuracy of hazardous waste attribute determination and environmental management will be further improved, the classification and classification management of hazardous waste will be promoted, and the environmental management level of hazardous waste will be effectively improved.

The *Measures for the Administration of Operating Permits for Hazardous Wastes (2004)* specify the conditions, procedures, supervision and administration and legal responsibilities for applying for and obtaining a hazardous waste management license.

The *Measures for the Administration of Dangerous Waste Transfer Coupling (1999)* stipulate that before transferring hazardous waste, the unit producing hazardous waste shall, in accordance with the relevant provisions of the State, report for approval the plan for transferring hazardous waste; Upon approval, the generating unit shall apply to the competent administrative department of environmental protection of the place to be moved for a duplicate receipt.

Extended Producer Responsibility (EPR)

The *Implementation Plan of the Extended Producer Responsibility System (2016)*³ stipulate that power battery manufacturers should implement product coding and establish the whole life cycle traceability system. China has taken the lead in developing a recycling system for electric vehicle power batteries in Shenzhen and other cities, and has gradually promoted it throughout the country. Lead acid battery manufacturers should be guided to establish a product life cycle traceability system, adopt independent recycling, combined recycling or commissioned recycling modes, and recycle lead acid batteries through their own sales channels or the network established by professional enterprises at the end of consumption, and support the adoption of "old for new" and other ways to increase the recovery rate. Standby power batteries and energy storage batteries shall be disposed of by professional enterprises after being scrapped. We will explore and improve ways of centralized collection and trans-regional transport by production enterprises. It took the lead in establishing a recycling and utilization system for lead-acid batteries in Shanghai, and standardized the treatment and utilization of waste lead-acid batteries that were recovered in the mode of "selling one and collecting one".

The Interim Measures for the Administration of Recycling and Utilization of Power Battery for New Energy Vehicles (2018) stipulate the management requirements for the recovery and treatment of waste power batteries in the process of production, use, utilization, storage and transportation. We will promote innovation in market mechanisms and recycling models. Encourage enterprises to explore new business models, battery production and automobile production enterprises should disclose battery disassembly and storage technical information. Automobile production enterprises and scrap vehicle recovery and dismantling enterprises should share information on power battery

³ <u>http://www.gov.cn/zhengce/content/2017-01/03/content_5156043.htm</u>

disassembly and storage technology, recycling service outlets and scrap new energy vehicle recycling, etc. To maximize the benefits of comprehensive utilization of resources. Battery production enterprises are encouraged to cooperate with comprehensive utilization enterprises to carry out reasonable multi-level and multi-purpose utilization of waste power batteries in accordance with the principle of first echelon utilization and then recycling under the premise of ensuring safety and control. Clear supervision and management measures. It is clearly required to formulate relevant technical standards for disassembly, packaging and transportation, build a standard system, and establish a management system for cascade utilization of battery products.

The Announcement No. 46, 2019"Guide to the Construction and Operation of New Energy Vehicle Power Battery Recycling Service Sites" (2019) puts forward the requirements for the construction, operation and safety and environmental protection of the waste power batteries of new energy vehicles and the waste cascade battery recycling service network.

The *Coupling function No. 129,2021 "Implementation Plan for the Extension of Pilot Producer Responsibility of Automobile Products"(2021)* specifically to establish a recycling system, to carry out the comprehensive utilization of resources, the implementation of green supply chain management, strengthen the information disclosure for the implementation of the direction, including recycling system for automobile production enterprises through recycling, recovery or joint recovery of model, established in accordance with the law of scrapped automobiles, old parts recycling network and management system. By 2023, the standard recycling level of scrapped vehicles will be significantly improved, forming a recycling mode of scrapped vehicles with a group of replicable and popularizable automobile production enterprises as the main body of responsibility. The utilization level of renewable resources of scrapped vehicles has been steadily improved, and the comprehensive utilization rate of automobiles reached 75%. The green supply chain system of automobiles is well established. The recycling rate of automobiles reaches 95%, and the proportion of recycled raw materials used for key components is not less than 5%.

Environmental risk and emergency

The "Emergency Measures for Environmental Emergencies" (2015). To further standardize environmental emergency management, the environmental emergency management system mechanism, control environmental safety hazards and sudden environmental incidents have highly composite, highly superimposed and highly normative trend. The environmental emergency management work is fully, systematically stipulated, clearly requires government and its relevant departments and enterprise institutions, to do a good job of risk control, emergency preparation, emergency disposal and post-recovery, etc. The main content report is 8 chapters. It mainly includes the following five aspects::1) Regulate emergency management of emergencies from the whole process angle system; 2) The basic system of emergency management of sudden environmental events is constructed; 3) Highlight the environmental safety subject responsibility of the enterprise institutions; 4) Clarify the sequence of emergency management priority for emergencies; 5) Some penalties are set in accordance with the permissions of the department regulations.

Information Disclosure and Public Participation

The *"Environmental Information Disclosure Measures for Enterprise Institutions"* (2015) stipulate that regeneration Metal Collection, Storage, Transportation, Recycling Process Contains UP-POPs Public Infusions and Public Supervision and Public Oversight of Pollution Emissions.

The *Notice on "Environmental Impact Assessment Government Information Disclosure (Trial)"* (2013) stipulate that construction Unit Submit a Construction Project Environmental Influence Report to Environmental Protection Departments, before the table, it should actively publicly open the construction project environment according to law Impact report, list information, and submitted to the environmental impact report, the table is available at the same time and deletion of national secrets, trade secrets and other content and deletion basis. Environmental protection authorities in accepting environmental impacts When the report, the table, the instruction report shall be reviewed, and the environmental impact report is disclosed according to law, and the whole information is available."

The *Environmental Protection Public Participation Measures* (2015) stipulate that in order to protect citizens, legal persons and other organizations to obtain environmental information, participate in and supervise environmental protection, smooth participation channels, promote environmental protection public participation in an orderly development, encourage citizens, legal people and others, organize the development of policies and regulations, implement administrative licenses or administrative punishments, oversee violations, and carry out public affairs such as publicity and education.

The "Guidance Opinions on Promoting Environmental Protection" (2014) stipulate that establish and improve environmental public welfare litigation mechanisms, clarify the scope, content, methods, channels and procedures, regulations, and guiding the public's orderly participation in environmental protection. Strengthen coordinated communication with the judiciary, and increase the public's judicial guarantee for public participation in environmental protection. Develop and take effective measures to protect the reporters to avoid the recovery of the person. When publicizing the people's court, the environmental pollution damages, the environmental protection administrative departments shall support affairs such as environmental pollution damage.

Occupational Health and Safety, and Workers' Protection

Chinese laws, regulations and policies have comprehensive provisions on, among others, occupational health and safety, child labor, discrimination, forced labor, working hours and minimum wage. The country has established a system of laws, regulations and industry standards to protect workers' health and safety, including state laws and regulations, local regulations and bylaws, and health and safety standards for different industries. Employers must establish a sound occupational health and safety system, and reduce occupational hazards.

The following subsections highlighted relevant provisions of, correspondingly: (i) the Work Safety Law; (ii) the Production Safety Law; and (iii) laws and regulations on workers' protection.

Work Safety Law (2002, amended in 2009, 2014, and 2021)

This Law seeks to, among other aspects, reinforce work safety, prevent and reduce work accidents, and protect the safety of people's lives and property. It is applicable to entities engaged in production and other business activities, which are referred to as "business entities" in the Law.

The articles of the Work Safety Law of particular interest for the Project are the following:

Article 21. The main responsible person of a production and operation entity shall have the following duties for the work safety of the entity:

- Establishing, improving and implementing the work safety responsibility system for all employees of the entity and strengthening construction of work safety standardization.
- Organizing the formulation and implementation of work safety rules and systems and operating procedures of the entity.
- Organizing the formulation and implementation of work safety education and training plan of the entity.
- Guaranteeing the effective implementation of the entity's input in work safety.
- Organizing the establishment and implementation of a dual prevention mechanism consisting of graded management and control of safety risks and examination and control of potential risks, supervising, promoting and inspecting the work safety of the entity, and eliminating the potential risk of work safety accidents in a timely manner.
- Organizing the formulation and implementation of an emergency rescue plan for work safety accidents of the entity.
- Reporting a work safety accident in a timely and truthful manner.

Article 24. An entity engaged in manufacturing, marketing, or storing or loading and unloading of hazardous substances shall establish a work safety management body or have full-time work safety management personnel.

Article 28. Business entities shall provide their employees with work safety education and training to ensure that their employees have necessary work safety knowledge, are familiar with the relevant work safety policies and rules and safe operating procedures, possess the safe operating skills for their respective posts, know the emergency response measures for accidents, and are informed of their rights and obligations in work safety.

Article 40. Business entities shall register and maintain files for major hazard installations, conduct regular monitoring, assessment and control, prepare emergency response plans, and inform employees and relevant personnel of measures to be taken in case of emergency.

A production and operation entity shall file the sources of major danger and related safety measures and emergency measures with the emergency management authority and relevant authorities of the local people's government in accordance with relevant provisions issued by the state. The emergency management authority and relevant authorities of the local people's government shall realize information sharing through relevant information systems.

Article 45. Business entities must provide their employees with labor protection products meeting the national or industry standards, and supervise and educate their employees on wearing or using such products in accordance with the rules of use.

Article 62. A local people's government at or above the county level shall, according to the work safety condition within its administrative region, organize the relevant departments to conduct strict inspections of business entities with greater risks of serious work safety accidents within the administrative region according to their respective functions.

Article 65. The emergency management authorities and other departments with work safety regulatory functions shall conduct agency law enforcement on work safety according to the law, and conduct supervisory inspection on the compliance of business entities with laws, regulations, and national standards or industry standards related to work safety, by exercising the following powers:

- Entering business entities to conduct inspection, review relevant materials, and gather information from the relevant entities and persons.
- Redressing on the spot, or requiring correction within a specified period, of any violations of the law in work safety discovered during inspection; and for acts subject to administrative punishment according to the law, making administrative punishment decisions in accordance with this Law and other relevant laws and administrative regulations.
- Ordering immediate elimination of any hidden risks of accidents discovered during inspections; ordering evacuation of workers from dangerous areas and ordering suspension of production or business, or suspension of use of relevant facilities and equipment if safety cannot be guaranteed before or during the elimination of any hidden risk of a serious accident; and allowing resumption of production or business or use upon examination after elimination of the hidden risk of a serious accident.
- Seizing or impounding any facilities, equipment and devices which do not meet the national or industry standards for work safety protection, as determined based on evidence or hazardous substances illegally produced, stored, used, marketed or transported; seizing the work sites where hazardous substances are illegally produced, stored, used or marketed; and making corrective decisions according to the law.

Article 78. An authority charged with the duty of supervision and administration of work safety shall establish a database of information on work safety violations to truthfully record information on work safety violations by production and operation entities and their relevant employees; and if the circumstances of a violation by a production and operation entity and its related employees are serious, the authority charged with the duty of supervision and administration of work safety shall promptly make an announcement to the public, and notify the industry authorities, investment authorities, natural resources authorities, ecology and environment authorities, securities regulatory institutions and relevant financial institutions. The relevant authorities and institutions shall take such measures as increasing the frequency of law enforcement inspections, suspending project approval, raising relevant insurance premium rates, imposing an industry or occupation ban, and other joint disciplinary measures against the production and operation entity and its relevant employees that commit violations and publish the penalties.

Article 82. Entities manufacturing, marketing or storing hazardous substances and entities engaged in mining, metal smelting, urban rail transit operations, or building construction shall establish emergency rescue units.

Production Safety Law (2002, amended 2009)

This Law seeks to strengthen the supervision and administration of production safety, prevent and reduce safety of accidents, and defend the safety life and property of communities. It is applicable to entities that are engaged in production and business operation activities, which are referred to as "production and business operation entities" in the Law.

The following articles of this Law are particularly pertinent to the Project:

Article 17. The main persons in charge of the production and business operation entities shall have the following duties and responsibilities regarding the production safety of their own entity:

- Establishing and perfecting the system of responsibility relating to production safety.
- Organizing the formulation of rules of safe production and operational rules of the entity.

- Ensuring the effective execution of input in production safety.
- Overseeing and inspecting the work of production safety of the entity and eliminating in a timely manner the potential production safety accidents.
- Organizing the formulation and execution of plans for emergency rescue and relief of production safety accidents of the entity.
- Reporting production safety accidents truthfully and in a timely manner.

Article 19. Entities engaged in the production, selling and storage of hazardous substances shall establish a unit for production safety or have fulltime personnel for the administration of production safety.

Article 21. Production and business operation entities shall offer education and training programs to employees regarding production safety so as to ensure that the employees have the necessary knowledge of production safety, know the relevant regulations and rules for safe production and the rules for safe operation, and master the skills for safe operation in their respective positions. No employee who has not passed the education and training programs regarding production safety may start to work at his position.

Article 32. Production, business operation, transportation, storage and use of any hazardous substances or disposal of hazardous substances shall be subject to the examination and approval as well as the supervision and administration of relevant administrative departments, according to the provisions of relevant laws and regulations, national standards or industrial standards. For the production, business operation, transportation, storage and use of any hazardous substance or disposal of any hazardous substance by any production and business operation entity, the entity shall execute the provisions of relevant laws and regulations as well as the national standards or industrial standards, and establish specialized safety administration rules, take reliable safety measures, and accept the supervision lawfully carried out by relevant administrative departments.

Article 33. Production and business operation entities shall have archivist files for substantial hazardous sources, make regular checks, appraisals, supervisions and controls, make emergency plans, and inform the employees and other relevant people of the emergency measures that should be taken under emergent circumstances. The production and business operation entities shall report, according to the relevant provisions of the state, substantial hazardous sources in their possession and the corresponding safety measures and emergency measures to the administrative department and other relevant departments of the local people's government in charge of the supervision and administration of production safety for archivist purposes.

Article 37. Production and business operation entities shall provide labor protection articles that meet the national standards or industrial standards to their employees, supervise and educate them to wear or use these articles according to the prescribed rules.

Article 38. The persons in charge of the production safety of the production and business operation entities shall conduct regular inspections over the production safety of the entities concerned by taking the specificities of business operation of the entities into consideration. The safety problems that are found out in the inspections shall be dealt with immediately; if they cannot deal with the problems, they shall report to the relevant persons in charge of the entities in good time. Records shall be taken of the inspections and the handling of the problems.

Article 56. A government department responsible for the supervision and administration of production safety shall supervise and inspect according to relevant laws and regulations concerning production safety and the national or industrial standards by the production and business operation entities, and shall have the following duties and functions:

- To make inspections at the production and business operation entities, gather relevant materials, and inquire relevant entities and persons.
- To correct the acts violating the statutory provisions of law discovered in the inspections or demand their correction within a prescribed time limit; to make decisions of administrative penalties according to the provisions of the present law and other relevant laws and regulations to those acts that shall be subject to administrative penalties according to law.
- If it finds any potential accident in its inspections, it shall order them to be eliminated without delay. If safety cannot be guaranteed before a serious potential accident is eliminated or in the process of elimination, it shall order the employees at work to leave the dangerous areas, and order that the business

operation or production or use be suspended or terminated. The production or business operation or use may not be resumed until the serious potential accident has been eliminated and approval has been obtained upon examination.

• Shall be entitled to seal up or stop the facilities, equipment and apparatuses that are believed as not meeting the national or industrial standards for guaranteeing production safety. The supervision and inspection may not affect the normal production and business operation activities of the inspected entities.

Laws and Regulations on Workers' Protection

Legal protections afforded to workers include: (i) employers are prohibited from recruiting minors under 16 years; (ii) female and underage workers (16-18 years) are subject to special protection; (iii) laborers should not be discriminated against based on ethnic group, race, gender or religion; (iv) women enjoy the same employment rights as men; (v) specific laws protect women's labor rights, including the prohibition of sexual harassment; and (vi) forced labor is prohibited.

The national laws and regulations on workers' protection are:

- Labor Law (Amended 2018).
- Occupation Disease Prevention and Control Law (Amended 2018).
- Regulations on Labor Protection in Workplaces with Toxic Substances (2002).
- Provisions of the State Council on Working Hours of Workers and Staff (1995).
- Emergency Incident Response Law (2007).
- Labor Contract Law (Amended 2012).
- Regulations on the Implementation of the Labor Contract Law (2008).
- Special Rules on Labor Protection of Female Employees (2012).
- Interim Provisions on Payment of Wages (1995).
- Social Insurance Law (Amended 2018).
- Law on the Protection of Minors (Amended 2020).
- Law on the Protection of Disabled Persons (Amended 2018).
- Labor Dispute Mediation and Arbitration Law (2007).
- Labor Union Law(Amended 2009).

2.2 International Agreements and Treaties

China is a signatory to several multilateral agreements and conventions that are relevant to the program; including but not limited to the following:

- 1990, The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal
- 1992, United Nations Framework Convention on Climate Change
- 1995, Beijing Declaration (a resolution adopted by the UN at the end of the Fourth World Conference on Women on 15 September 1995. The resolution adopted to promulgate a set of principles concerning the equality of men and women)
- 1998, International Covenant on Civil and Political Rights (ICCPR); signed in 1998, not yet ratified
- 2001, The Stockholm Convention on Persistent Organic Pollutants
- 2007, United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP)
- 2013, the Minamata Convention on Mercury
- C100 Equal Remuneration Convention, 1990
- 111 Discrimination (Employment and Occupation) Convention, 2006
- C138 Minimum Age Convention, 1999
- C182 Worst Forms of Child Labour Convention, 2002

2.3 UNDP's Social and Environmental Standards

The Secondary Metal Project covered by this ESMF will comply with UNDP's Social and Environmental Standards (SES), which came into effect 1 January 2021. These Standards underpin UNDP's commitment to mainstream social and environmental sustainability in its programs and projects to support sustainable development and are an integral component of UNDP's quality assurance and risk management approach to programming.

The SES objectives are to:

- (i) strengthen the quality of programming by ensuring a principled approach;
- (ii) maximize social and environmental opportunities and benefits;
- (iii) avoid adverse impacts to people and the environment;
- (iv) minimize, mitigate, and manage adverse impacts where avoidance is not possible;
- (v) strengthen UNDP and partner capacities for managing social and environmental risks; and
- (vi) ensure full and effective stakeholder engagement, including through a mechanism to respond to complaints from project-affected people.

Key Elements of UNDP's Social and Environmental Standards (SES) are shown as Figure 1.



Figure 1: Key Elements of UNDP's Social and Environmental Standards (SES)

In accordance with UNDP SES policy, the Social and Environmental Screening Procedure (SESP) has been applied to the project during the Project Preparation Grant (PPG) phase. Under this policy, a SES principle or standard is 'triggered' when a potential risk is identified and assessed as having either a 'moderate'," substantial" or 'high' risk rating based on its probability of occurrence and extent of impact. Risks that are assessed as 'low' do not trigger the related principle or standard.

The screenings conducted during the PPG phase indicate that up to eight of the twelve social and environmental principles and standards have been triggered due to Moderate risks:

• *Human Rights* (due to potential exclusion of marginalized communities, such as informal recyclers, in decision making related to policies and legislation that may affect them);

- *Gender Equality and Women's Empowerment* (due to potential existing gender disparities that exist at demonstration enterprises and inadequate participation of women in consultations, policy decision making and design of modalities for capacity building in uptake of BAT/BEP);
- *Accountability* (due to the potential exclusion of small or medium sized enterprises and potential risks to workers' employment, particularly women);
- Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management (due to the potential impacts from demonstration activities based on the eventual siting);
- Standard 2: Climate Change and Disaster Risks (due to the risk that project outcomes will be vulnerable to impacts of climate change);
- Standard 3: Community Health, Safety and Security (due to the risk of release and emissions during decommissioning, transport, storage, and disposal of hazardous waste);
- Standard 4: Cultural Heritage (due to the potential impact from demonstration activities if located near cultural heritage sites);
- Standard 5: Resettlement and Economic Displacement (due to potential limiting access to resources of informal recyclers as a result of upstream activities such as the new policy and regulatory framework for metal scrap management. The ESIA/ESMP will also confirm no such risks exist at site level);
- *Standard 6: Indigenous Peoples* (due to potential presence of vulnerable/traditional communities among informal recyclers who may be affected by upstream activities such as the proposed policies and legislation limiting their access to resources. The ESIA/ESMP will confirm no such risks exist at site level);
- *Standard 7: Labour and Working Conditions* (due to potential worker exposure to health and safety risks and hazardous material during the demonstration activities); and
- *Standard 8: Pollution Prevention and Resource Efficiency* (due to the risk of release and emissions of pollutants from demonstration pilots).

A summary of the risk significance under each SES principle and standard, and the project-level safeguard standards triggered by each project (indicated with ticks) are shown in **Table 1** below. Table 2 provides a preliminary qualitative analysis of the Social and Environmental risks and impacts of the proposed activities, and applicable SES and possible form of the social and environmental management plans. It should be noted that these preliminary screening are indicative risk analysis

Overarching Principle / Project-level Standard	Assessed?	
Human Rights	✓	Moderate
Gender Equality and Women's Empowerment	✓	Moderate
Accountability	✓	Moderate
Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management	✓	Moderate
Standard 2: Climate Change and Disaster Risks	\checkmark	Moderate
Standard 3: Community Health, Safety and Security		Moderate
Standard 4: Cultural Heritage		Moderate
Standard 5: Displacement and Resettlement	Moderate	
Standard 6: Indigenous Peoples	Moderate	
Standard 7. Labour and Working Conditions		Moderate
Standard 8: Pollution Prevention and Resource Efficiency	Moderate	
Number of risks in eac	h risk rating category	
	0	
	0	
	9	
	1	
Total nu	10	
Overall Projec	Substantial	
Number of safeguar	11	

Table 1: Summary of safeguards triggered based on screening conducted during project preparation

ComponentActivitiesPotential Environmental risks/impactsPotential Social risks/impactsPrinciples, standards and management plan1.Strengthening the national policy and regulatory regulatory reduce UP-POPs and BFRs releases from secondary non-Adoption and implementation of standards/measures, policies, plans, laws, regulations and guidance on sound metal secondary non-No potential environmental impact• Risk 1- Government Officials responsible for enforcing legislation may fall short of capacities to meet their obligations in the Project upon the development of the new coordination and regulatory mechanisms.P.2, 3, 5, 6, 14 Standards: 5, 6 Possible management plan: • Stakeholders Engagement plan - SEPand BFRs releases from secondary non-• Risk 2- Small or Medium sized enterprises - which are expected to benefit from project outputs and are also expected to internalize and scale up project results after its completion - may not be involved in decision-making process during the Project involved in decision-making process during the Project• An Griawanea meder Social Assessment					
1.Strengthening the national policy and regulatory regulatory and BFRs releases from secondary non-Adoption and implementation of standards/measures, policies, plans, laws, regulations and guidance on sound metal secondary non-No potential environmental impact• Risk 1- Government Officials responsible for enforcing legislation may fall short of capacities to meet their obligations in the Project upon the development of the new coordination and regulatory mechanisms.P.2, 3, 5, 6, 14 Standards: 5, 6 Possible management plan:• Risk 2- Small or Medium sized enterprises - which are expected to benefit from project outputs and are also expected to internalize and scale up project results after its completion - may not be involved in decision-making process during the Project• Strategic Environmental ar Social Assessment• AGriavance or GriavancePadea	Component	Activities	Potential Environmental risks/impacts	Potential Social risks/impacts	Principles, standards and management plan
ferrous metal industry Implementation in relation to the development of policy and regulatory frameworks that will support of the project replication and sustainability goals. Implementation in relation to the development of policy and regulatory frameworks that will support of the project replication and sustainability goals. Mechanism • Risk 9- Informal recyclers, who may include marginalized and traditional communities, find their access to resources and thus income reduced as a result of new policy and regulatory framework for metal scrap management and to reduce UP-POPs and BFRs release from recycling practices Mechanism	1.Strengthening the national policy and regulatory framework to reduce UP-POPs and BFRs releases from secondary non- ferrous metal industry	Adoption and implementation of standards/measures, policies, plans, laws, regulations and guidance on sound metal scrap and batteries recycling management practices.	No potential environmental impact	 Risk 1- Government Officials responsible for enforcing legislation may fall short of capacities to meet their obligations in the Project upon the development of the new coordination and regulatory mechanisms. Risk 2- Small or Medium sized enterprises - which are expected to benefit from project outputs and are also expected to internalize and scale up project results after its completion - may not be involved in decision-making process during the Project implementation in relation to the development of policy and regulatory frameworks that will support of the project replication and sustainability goals. Risk 9- Informal recyclers, who may include marginalized and traditional communities, find their access to resources and thus income reduced as a result of new policy and regulatory framework for metal scrap management and to reduce UP-POPs and BFRs release from recycling practices 	 P.2, 3, 5, 6, 14 Standards: 5, 6 Possible management plan: Stakeholders Engagement Plan – SEP <u>Strategic Environmental and</u> <u>Social Assessment</u> A Grievance Redress Mechanism
Analysis – Component1					
Appropriate social management systems have been established in China, including a management system for social risks, a social management system, a minority management system, and a labor management system. The "Interim Revaluations on Major Administrative" requires "major administrative decisions shall be made under the principle of democratic decision-making, opinions shall be fully solicited form all parties, and it shall be guaranteed that the people participate in decision-making through various channels and form. Therefore, the risk is "Low"					

Table 2: Potential Social and Environmental Risks and Impacts of the Project

The project will develop, revise and improve policies and regulatory frameworks in secondary metal sectors for sound management from the prospective of raw materials standards, industry norms and for green battery production and waste battery collection. These policies and regulations once implemented or enforced, may affect access to resources for workers in the informal recycling sector, limiting their income. Through the investigation and consultation, the project's battery recycling will not affect the existing system and there is no substitution. The front end belonging to private as well as small recycling will also be properly considered how to be integrated into the formal recycling system. Therefore, the risk is "Moderate".

 2. Reduction of UP-POPs and BFR releases from unsound battery recycling demonstration and tateries recycling demonstration battery recycling demonstration battery recycling demonstration for the secondary aluminium and zine sectors. • Risk 5-Risk of release and emissions during the demonstration form and termation form and termative processes to reduce the releases of hazardous chemicals • Risk 10-Inappropriate behaviour by security personnel who may be recruited by the industries • Strategic Env Social Assess • Strategic Env Social Assess • Strategic Env Social Assess 	4, 10 4, 5,7,8 ment plan: <u>1 and Social</u> Framework 1 and Social Plan (ESMP) vention and Plan ironmental and ment (SESA) Engagement <u>n Plan (GAP)</u> <u>Health and</u> <u>DHSP)</u> <u>Management</u> <u>MP</u> Redress			
Analysis- Component 2				

All hazardous waste is domestic waste, no high energy or water consuming activity is involved, mature control measures are in place for transport, storage and disposal. According to the selection process indicated in the Project document, the demonstrations will be located within the Industrial park with no sensitive environmental sites nearby. Although the processing may cause environmental pollution risks and health/safety impacts, such risks will be well predictable and there are management plan/measures to avoid, minimize and mitigate such impacts. Therefore, the environmental risks are "Moderate"

The Chinese system of laws, regulations and industry standards to protect laborers' occupational health and safety, including local regulations and safety standards of different industries. There are also special laws that protect women's labor rights. The project design has taken into consideration of establishing an LMP, OHSP and Grievance Redress Mechanism pursuant to the applicable laws. Therefore, the social risks are "Moderate"

The project involves contracted workers, workers of primary suppliers, and potential labor management risks may encounter, such as labor health and safety and health risks during operating. Employers will manage them in accordance with the Labor Law of the PRC (amended in 2018) and the Labor Contract Law (amended in 2012). These laws make provisions on wages, working hours, labor protection and labor disputes, and prohibit the use of forced labor and/or child labor, fully consistent with the requirements of Standard 7.

3. Implementation of a National Replication Programme (NRP)	Replication and Promotion of demonstration results and experience. Technical training for stakeholders and awareness raising workshops developed and implemented.	 Risk 5- Risk of release and emissions during decommissioning, transport, storage and disposal of hazardous waste during the demonstration pilots Risk 6- Risk of flooding of demonstration facilities and other disaster risks Risk 7 - Increased GHG emissions and energy consumption from alternative processes to reduce the releases of hazardous chemicals 	 Risk 3- Potential risk to workers' employment, particularly women, in the course of the transition to implementation of BAT/BEP. Risk 4- Inadequate participation of women in consultations, policy decision making and design of modalities for capacity building in uptake of BAT/BEP in the metals recycling industry Risk 8-Working conditions that do not meet national labour laws and international commitments and exposure to health and safety risk within the demonstration enterprises and hazardous waste disposal enterprises 	 Principles 9, 13, 14, 10 Standards: 1,2,3,4,5,7,8 Possible management plan: Environmental and Social Management Framework (ESMF) Environmental and Social Management Plan (ESMP) Spill Prevention and Management Plan Strategic Environmental and Social Assessment (SESA) Stakeholders Engagement Plan Gender Action Plan (GAP) Occupational Health and Safety Plan (OHSP) Labour Management PLAN
All hazardous waste is domestic waste no high energy or water consuming activity is involved mature control measures are in place for transport storage and disposal. According to the selection				

All hazardous waste is domestic waste, no high energy or water consuming activity is involved, mature control measures are in place for transport, storage and disposal. According to the selection process indicated in Project document, the demonstrations will be located within the Industrial park with no sensitive environmental sites nearby. Although the processing may cause environmental pollution risks and health/safety impacts, such risks will be well predictable and there are management plan/measures to avoid, minimize and mitigate such impacts. Therefore, the environmental risks are "Moderate"

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2.4 Gaps in policy framework

The main gap identified during this stage is that the national EIA regulations do not require assessment of social risks, which is not in line with UNDP SES. Further analysis of the legal and policy frameworks that apply to the project will be completed during the implementation of this ESMF (i.e. during the completion of SESAs and ESIAs) to determine which standard (national, international or UNDP's SES) must be followed for each risk area.

3 PROCEDURES FOR SCREENING, ASSESSING AND MANAGING SOCIAL AND ENVIRONMENTAL IMPACTS

This ESMF has been developed as part of UNDP's due diligence process in the project cycle, following the screening of the UNDP-supported project "Green Production and Sustainable Development in Secondary Aluminum, Lead, Zinc and Lithium Sectors in China" with the SESP template.

Based on the analysis of potential environmental and social risks and impacts associated with the Project conducted in Sections 1.3 and 2.3, the following interventions will undergo further environmental and social assessment under the ESMF process:

- During activities related to Output 1.1.1 Policy and regulatory framework for metal scrap management developed, revised and improved and relevant components integrated into the existing policy and regulatory framework
- During activities related to Output 1.1.2 Technical by-laws, regulations and guidance aiming to reduce UP-POPs and BFRs release from batteries manufacturing, recycling and disposal practices developed, adopted and implemented
- Before commencing activities related to Output 2.1.3 Two demonstration projects implemented to demonstrate BAT/BEP and life cycle recycling in the collection and conditioning of waste batteries (one in lead acid batteries and one in lithium-ion batteries), applying proper management of hazardous waste generated in the whole process.
- Before commencing activities related to Output 2.2.2 Two demonstration projects implemented to demonstrate BAT/BEP in the secondary production of metals (one in aluminium and one in zinc).

Other risks are addressed through measures that have been designed within the project activities.

The ESMF process comprises the following three steps:

- 1. Environmental and Social Screening and Selection of Enterprises for Demonstration Activities.
- 2. Environmental and Social Assessment
- 3. Elaboration, Implementation and Monitoring of Management Plans.

The next three subsections detail, respectively, the tools and supporting documents designed to help implement each of the above steps, as well as the institutional responsibilities in the execution of each step.

3.1 Environmental and Social Screening and Selection of Enterprises for the Demonstration Activities (Output 2.1.3 and Output 2.2.2)

During selection of the demonstration enterprises (among the shortlisted ones), consideration will be taken regarding social and environmental impacts, including the proximity to protected areas, cultural heritage sites and households will be done to ensure that they will not be adversely impacted. The enterprises must also meet the following conditions: "Environmental management: waste, flue gas and water shall be discharged after meeting relevant standards. UP-POPs-containing wastes shall be managed according to relevant requirements on hazardous waste management." Once the sites are selected, the ESIA procedures will be conducted and an Individual company/fitted SESP will be developed to assess the location/wise risks. Main project SESP will then be updated as result of this exercise if any additional risks have been identified. Locations, and proposed project activities specific to those locations will be defined during the first year of the project.

The results of such screening will inform the final selection of sites for inclusion in the project. Where proposed enterprises do not meet the required standards 1,2,3,4,5,7 and 8 of UNDP SES, FECO will propose alternative enterprises for inclusion during implementation, totalling a comparable area. Alternative enterprises will be subject to the same screening procedure.

During project implementation, certain circumstances require the revision of the completed design-stage screening. These include, but are not limited to: (a) where new information becomes available such as through a social and environmental assessment, (b) where there are substantive changes to the project (e.g., changes in design, additional components), or (c) where changes in the project context might alter the project's risk profile. If the revised screening results in a different risk category, then the revised SESP needs to be reviewed by the Project Board and cleared by the RTA/ NCE team.

3.2 Environmental and Social Assessment

3.2.1 SESAs for Development of Policy and Regulatory Framework (Outputs 1.1.1 and 1.1.2)

In accordance with UNDP's SES policy, Substantial Risk projects require comprehensive forms of assessment. Activities related for development of policy and regulatory frameworks in secondary aluminium and zinc sectors for sound management from the prospective of raw materials standards, industry norms and for green battery production and waste battery collection (Outputs 1.1.1 and 1.1.2) will be underpinned by a Strategic Environmental and Social Assessment (SESA) approach, in a participatory manner with stakeholders as follows:

- 1. Identify social and environmental priorities, including gender aspects, to be included in planning and policy processes
- 2. Assess gaps in the institutional, policy, and legal frameworks to address these priorities
- 3. Identify potential adverse social and environmental impacts associated with policy options
- 4. Engage decision makers and stakeholders to ensure a common understanding and broad support for implementation, including potentially affected communities to ensure that the proposed regulations and standards will not affect vulnerable groups, including indigenous peoples.
- 5. Formulate policy and institutional measures needed to close policy and legal gaps, address institutional weaknesses, and avoid adverse social and environmental impacts.
- 6. A key output of the SESA may be a SESA report, an Action Matrix or an advanced ESMF.

A SESA process is fully integrated in activities related to policies and regulations such that these steps would progress as part of their development and feed into each other in an iterative manner. The SESA will take into consideration potential risks related to livelihoods and traditional communities; the need for FPIC during the SESA process will be confirmed in its early stages, and should the SESA find potential impacts to traditional communities, the Project will take steps to ensure relevant requirements of Standard 6 are applied, including obtaining Free Prior Informed Consent (FPIC) and developing a Traditional Communities Framework as part of the relevant policy/legislation. The SESA will confirm original assessment that any economic displacement risk can be avoided or reduced to the extent possible; a Livelihoods Restoration Framework will be developed to be implemented during roll out of the policies and legislation if confirmed as necessary for SES compliance. In addition, should any of the SESAs find that this risk is relevant to traditional communities, the Project will take steps to ensure relevant requirements of SES 6 are applied, including obtaining FPIC and developing a Traditional Communities Planning Framework.



Figure 3-1: Basic Stages of a SESA

Adopting a SESA approach will result in the identification of measures (e.g. institutional strengthening, governance reform) to address and manage anticipated adverse social and environmental risks and impacts, including a summary Action Matrix. Where applicable, final or advanced draft of ESMF will be prepared as a framework for managing social and environmental risks during implementation

3.2.2 Site-specific ESIA/ESMP for the Demonstration Activities (Output 2.1.3 and Output 2.2.2)

Individual scoped Environmental and Social Impact Assessments (ESIA) will assess all relevant risks and in line with UNDP SES, including the potential release and emissions of hazardous material for the demonstration activities at the site level and occupational health and safety.

The ESIA development procedure will commence immediately following selection of the enterprises and will focus on, but not be restricted to the potential impacts identified during the SESP screening process, which are a result of proposed on-the-ground project activities in their location-specific contexts.

The preparation of the ESIA for each location will be undertaken by the selected enterprises and using their own financing (under component 2, considering large part of retrofit investments is done with co-financed resources outside of GEF funding), and to ensure alignment with UNDP SES, a specialized institution will be hired by the Project to provide guidance and oversight. The ESIAs will be overseen by the Project's Safeguards Specialist (C3). ESIAs will involve stakeholder consultations and engagement, as well as research, fieldwork, and management planning.

The assessments will be conducted in a manner consistent with national regulations and the UNDP SES and lead to the development of appropriately scoped management measures and plans to address the identified risks and impacts. The ESIAs will:

- Screen social and environmental issues and impacts specific to the local context.
- Further clarify the applicable social and environmental standards (including UNDP SES) triggered by the project activities.
- Take steps necessary in the context of the ESIA to fulfil those requirements and make recommendations on how such compliance is to be carried out through the life of the project.

Resulting from site-specific-scoped ESIA, the Environmental and Social Management Plans $(ESMP)^4$ will be established and implemented during the project lifecycle. Impact management plans and strategies will adhere to the "mitigation hierarchy" model. Where possible, adverse impacts will be "designed out" – i.e. design of project activities will be amended or adjusted so as to avoid the identified impacts. Where this is not possible, measures will be developed to reduce, minimize, mitigate, or manage those impacts.

The ESMP will:

- Provide time-bound specific recommendations for avoiding adverse impacts, and where avoidance is not possible, for reducing, mitigating, and managing those impacts for all project activities.
- Further identify project activities that cannot take place until certain standards, requirements and mitigation measures are in place and carried out (complimenting and updating what has already been identified in this draft ESMF).
- Develop site-specific management plans, as necessary and as required by the applicable UNDP SES. These will outline the management objectives, potential impacts, control activities and the environmental performance criteria against which projects will be evaluated (e.g. audited). Recommendations will be adopted and integrated into the project activities, monitoring and reporting framework and budget.

3.3 Management Plan

Findings of the ESIAs will be used to update the project's *Gender Action Plan* and *Stakeholder Engagement Plan* as determined appropriate by the ESIA/ESMP consultant(s).

A (Chemicals and Hazardous substances) *Spill Prevention and Management Plan* that will be developed – as part of the Project outputs - and implemented for all demonstration activities for safe handling and disposal of hazardous waste.

An *Occupational Health and Safety Plan* will also be developed – as part of the project outputs - that will safeguard workers at the demonstration sites, and, if in relation to the risks related to worker's economic/health impact become issues, the appropriate *Labour Management Procedures* and *Livelihoods Restoration Framework* will be applied.

Finally, prior to hiring of any new security staff to guard selected demonstration industries (Output 2.1.3 and Output 2.2.2), a *Code of Conduct* reflecting SES requirements will be prepared so that industry operators ensure their security staff abide by them.

⁴ Template for EMPs can be found in the UNDP (2020) Guidance Note Social and Environmental Standards Social and Environmental Assessment and Management: <u>https://info.undp.org/sites/bpps/SES_Toolkit/SES%20Document%20Library/Uploaded%20October%202016/UNDP%20SES%20Assessment%20and%20Management%20GN%20-%20FInal%20Nov2020.pdf</u>

4 INSTITUTIONAL ARRANGEMENTS AND CAPACITY BUILDING

4.1 Roles and responsibilities for implementing this ESMF

The roles and responsibilities of project staff and associated agencies in the implementation of this ESMF is as follows. This ESMF does not cover the roles and responsibilities associated with implementation of the subsequent site-specific ESMPs and/or stand-alone management plans; those will be defined for each demonstration enterprise's subsequent management plan that is developed in the project inception phase, as required per this ESMF.

Implementing Partner:

The Implementing Partner for this project is the Foreign Environmental Cooperation Center, Ministry of Ecology and Environment (FECO/MEE). The Implementing Partner is the entity to which the UNDP Administrator has entrusted the implementation of UNDP assistance specified in this signed project document along with the assumption of full responsibility and accountability for the effective use of UNDP resources and the delivery of outputs, as set forth in this document.

The Implementing Partner is responsible for executing this project. Specific tasks include:

- Ensuring that the required assessment (scoped ESIA or targeted assessment, as above) and assessment report and the required management plan(s) (a site-specific ESMP and/or stand-alone management plan, as above) are developed, disclosed for public consultation and approved, and management measures are adopted and integrated during project implementation;
- Project planning, coordination, management, monitoring, evaluation and reporting.
- Reporting, fairly and accurately, on project progress against agreed work plans in accordance with the reporting schedule and required formats;
- Maintaining documentation and evidence that describes the proper and prudent use of project resources in conformity to the signed Project Document and in accordance with applicable regulations and procedures (e.g. SES);
- Ensuring all requirements of UNDP's SES and national regulatory/policy frameworks and relevant international standards have been addressed (e.g. mitigation of identified adverse social and environmental impacts);
- Procurement of goods and services, including human resources required to ensure compliance with this ESMF;

Responsible Parties:

Three categories of Responsible Parties will be engaged in the implementation of this project:

Responsible Party A: The Responsible Party A is the demonstration enterprises, one in secondary aluminum production, one in secondary zinc production, one in lead acid battery recycling and one in lithium ion battery recycling. With the guidance of the Implementing Partner, they are responsible for carrying out demonstration activities with the ultimate aim to reduce dioxins emission, and the application and promotion of BAT/BEP. They will be the resources and driving force to the implementation of the National Replication Programme and the transfer of knowledge and implementation experience to ensure a successful implementation of the NRP.

Responsible Party B: Responsible Party B are industry associations including Non-Ferrous Metal Association of China, Chinese Non-ferrous Metal Association Recycling Metal Branch, China Industry Technology Innovation Strategies Alliance, China Power battery forcible recovery of industrial technology innovation strategic alliance, Electric Vehicle Power Battery Recycling Strategic Alliance), research institutions and NGOs with concerns regarding environmental protection and public health. They are responsible for providing technical guidance, support and consultations to facilitate project implementation and decision making of governance and management.

Responsible Party C: The Responsible Party C are local government and Ecology and Environment Bureaus. Guided by the Implementing Partner, they are responsible for carrying out demonstration project activities to promote and facilitate pollution prevention and control, emission reduction, monitoring, supervision and enforcement actions. They will be instrumental in promoting the National Replication Programme and facilitating application of new alternative technologies, assisting in the promotion and awareness raising activities to achieve emission reduction and sound management of chemicals.

UNDP:

UNDP is accountable to the GEF for the implementation of this project. This includes oversight of project execution to ensure that the project is being carried out in accordance with agreed standards and provisions. UNDP is responsible for delivering GEF project cycle management services comprising project approval and start-up, project supervision and oversight, and project completion and evaluation. UNDP is also responsible for the Project Assurance role of the Project Steering Committee. UNDP's role includes the following:

- Provide oversight on all matters related to safeguards;
- Inform all the stakeholders and right-holders involved in, or potentially impacted, positively or negatively, by the GEF-financed projects, about the UNDP's corporate Accountability Mechanism (described below);
- Ensure that the Compliance Review and the Stakeholder Response Mechanisms are operational during the lifetime of the projects;
- Ensure adherence to the SES for project activities implemented using funds channelled through UNDP's accounts, and undertake appropriate measures to address any shortcomings;
- Verify and document that all UNDP SES requirements have been addressed;
- Provide technical guidance on implementation of this ESMF and administrative assistance in recruiting and contracting expert safeguards services (as required), and monitor adherence of each project to the ESMF and UNDP policies and procedures.

Project Management Unit (PMU):

- Supervise and manage implementation of measures defined in this ESMF;
- Assign specific responsibilities for implementation of this ESMF, including monitoring, and community consultations on the draft management plans to a staff member(s) of the PMU;
- Maintain relevant records associated with management of environmental and social risks, including updated SESPs, impact assessments, a log of grievances together with documentation of management measures implemented;
- Report to the Implementing Partner, the Project Steering Committee, and UNDP CO on the implementation of the ESMF;
- Ensure that all service providers are informed of their responsibilities for the day to day compliance with the ESMF.

Technical Team:

The Technical Team will consist of different technical areas from the industrial associations or individuals or entities engaged by the Implementing Partner. This team will ensure the proper and suitable assistance in every area involved in chemicals life cycle management. The following areas needs to be included: Waste, Enforcement, Emissions & Releases, Contaminated Sites, Chemicals and Monitoring.

<u>Governance role for project target groups</u>: The Project Manager will ensure the engagement of target groups in decision making for the project by following the Stakeholder Engagement Plan, where a stakeholder identification and analysis was carried out. This analysis includes concerns and expectations as well as recommendations in order to ensure that there is enough support for the project. This exercise helps build local ownership, strengthens project integrity and design, and helps create foundational relationships that may contribute to constructive problem solving if difficulties or challenging issues arise.

Project stakeholders and target groups:

- Ministry of Ecology and Environment (MEE), as the administrative authority on ecological and environmental protection, is designated by the State Council as the core agency for coordination of all ecological and environmental protection work including UP-POPs related activates in China. As the focal point for the implementation of the Stockholm Convention in China, MEE is the National Executing Agency (Implementing Partner) for this project;
- The National Steering Group (NSG) is an Inter-ministerial Steering Group and will comprise of MEE and other ministries like the Ministry of Industry and Information Technology (MIIT), the National Development and Reform Commission (NDRC) etc. It will provide overall guidance and coordination for the implementation of the relevant project activities and ensure that inputs and contributions are available as required. The NSG will secure the cooperation, as necessary, with key Ministries and other public/private

decision-making bodies, to ensure that execution of activities occurs smoothly and in an integrated way with overall national policies and planning;

- The National Project Team comprising of staff from MEE, MIIT, and NDRC etc. will be established and based in Foreign Environmental Cooperation Center (FECO, formerly the Foreign Economic Cooperation Office) of MEE;
- Participating production enterprises will be the major role-players in the demonstration of technology transfer to and application of BAT/BEP as well as undertaking sound management of waste metal scraps and batteries recycling;
- Associations and research institutions that are well connected with industrial sectors will provide information and coordination in implementing relevant activities and provide technical/policy consultation as well as awareness raising and environmental risk assessments;
- Research institutions and laboratories will be engaged in the gap identification of the regulatory framework, R&D for UP-POPs emission reduction, risk assessment and management of chlorine-containing waste metals and waste batteries to minimize exposure to the population. The project also seeks public participation by consulting those who may be affected by the production of secondary metal recycling, such as residents living near the recycled metal recycling industry and employees of these industries;

Project extensions:

The UNDP Resident Representative and the UNDP-GEF Executive Coordinator must approve all project extension requests. Note that all extensions incur costs and the GEF project budget cannot be increased. A single extension may be granted on an exceptional basis and only if the following conditions are met: one extension only for a project for a maximum of six months; the project management costs during the extension period must remain within the originally approved amount, and any increase in PMC costs will be covered by non-GEF resources; the UNDP Country Office oversight costs in excess of the CO's Agency fee specified in the DOA during the extension period must be covered by non-GEF resources.

As noted above, the projects' subsequent ESMPs and stand-alone management plans as required, will describe the roles and responsibilities in the implementation of those plans. Those new roles and responsibilities will be assessed and integrated, as appropriate, as part of the participatory decision making and implementation proceedings of the project.

The project organization structure is shown in Figure 2 below.



Figure 2. Proposed GEF Project governance structure

Project Steering Committee:

The Project Board (also called Project Steering Committee) is responsible for taking corrective action as needed to ensure the project achieves the desired results. In order to ensure UNDP's ultimate accountability, Project Board decisions should be made in accordance with standards that shall ensure management for development results, best value money, fairness, integrity, transparency and effective international competition.

In case consensus cannot be reached within the Board, the UNDP Resident Representative (or their designate) will mediate to find consensus and, if this cannot be found, will take the final decision to ensure project implementation is not unduly delayed.

Specific responsibilities of the Project Board include:

- Provide overall guidance and direction to the project, ensuring it remains within any specified constraints;
- Address project issues as raised by the project manager;
- Provide guidance on new project risks, and agree on possible mitigation and management actions to address specific risks;
- Agree on project manager's tolerances as required, within the parameters set by UNDP-GEF, and provide direction and advice for exceptional situations when the project manager's tolerances are exceeded;
- Advise on major and minor amendments to the project within the parameters set by UNDP-GEF;
- Ensure coordination between various donor and government-funded projects and programmes;
- Ensure coordination with various government agencies and their participation in project activities;
- Track and monitor co-financing for this project;
- Review the project progress, assess performance, and appraise the Annual Work Plan for the following year;
- Appraise the annual project implementation report, including the quality assessment rating report;
- Ensure commitment of human resources to support project implementation, arbitrating any issues within the project;
- Review combined delivery reports prior to certification by the implementing partner;

- Provide direction and recommendations to ensure that the agreed deliverables are produced satisfactorily according to plans;
- Address project-level grievances;
- Approve the project Inception Report, Mid-term Review and Terminal Evaluation reports and corresponding management responses;
- Review the final project report package during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.
- Ensure highest levels of transparency and take all measures to avoid any real or perceived conflicts of interest.

The composition of the Project Board must include the following roles:

- *a.* Project Executive: Is an individual who represents ownership of the project and chairs the Project Board. The Executive is normally the national counterpart for nationally implemented projects. The Project Executive is the Deputy Director General of FECO/MEE.
- b. Beneficiary Representative(s): Individuals or groups representing the interests of those who will ultimately benefit from the project. Their primary function within the board is to ensure the realization of project results from the perspective of project beneficiaries. Often civil society representative(s) can fulfil this role. The Beneficiary representatives are China National Metal Industry Association (CNMIA) and China Battery Industry Association (CBIA).
- *c.* Development Partner(s): Individuals or groups representing the interests of the parties concerned that provide funding and/or technical expertise to the project. The Development Partner(s) is/UNDP.
- d. Project Assurance: UNDP performs the quality assurance and supports the Project Board and Project Management Unit by carrying out objective and independent project oversight and monitoring functions. This role ensures appropriate project management milestones are managed and completed, and conflict of interest issues are monitored and addressed. The Project Board cannot delegate any of its quality assurance responsibilities to the Project Manager. UNDP provides a three tier oversight services involving the UNDP Country Offices and UNDP at regional (UNDP NCE RTA) and headquarters (UNDPNCE PTA) levels. Project assurance is totally independent of project execution.

As noted above, the projects' subsequent site-specific ESMPs and stand-alone management plans as required, will describe the roles and responsibilities in the implementation of those plans. Those new roles and responsibilities will be assessed and integrated, as appropriate, as part of the participatory decision making and implementation proceedings of the project.

4.2 Capacity Building

Specialists with relevant expertise in social and environmental safeguards will be engaged to support the completion of the targeted assessment(s) of economic displacement and other risks, and the subsequent development of ESMPs and any stand-alone management plans. These experts will offer an induction session for Project Management Units (and implementing partners, as needed) on safeguards responsibilities and approaches.

The UNDP-GEF Unit will provide advice to project teams as needed to support the implementation of this ESMF and the preparation, implementation and monitoring of social and environmental management plans/measures.

During the inception phase, training on the ESMF and relevant SES requirements will be conducted targeting all national stakeholders, with focus on the public sector and local UNDP staff. In addition, the site-specific ESMPs and/or standalone management plans will also identify capacity building activities to ensure sufficient capacities for implementation.

The Project Board will have the final responsibility for the integration of ESMP/stand-alone management plan(s) in the execution of the project. The integration of those plans will need to consider particular institutional needs within the implementation framework for application of the ESMP, including a review of the required budget allocations for each measure, as well as the authority and capability of institutions at different administrative levels (e.g. local, regional, and national), and their capacity to manage and monitor ESMP implementation. Where necessary, capacity building and technical assistance activities will be included to enable proper implementation of the ESMP.

5 STAKEHOLDER ENGAGEMENT AND INFORMATION DISCLOSURE

Discussions with project stakeholders, including local communities at project sites, commenced during the project development phase. A list of the stakeholders engaged in these consultations has been Annexed to the Project Documents. The project also has an individual Stakeholder Engagement Plan and Gender Action Plan, which is annexed to the Project Documents. These Plans will be followed to ensure that stakeholders are engaged in project implementation and particularly in the further assessment of social and environmental impacts and the development of appropriate management measures. Project Stakeholder Engagement Plans will be updated during project implementation based on the assessments and management plans conducted in line with this ESMF, as needed.

Potentially affected stakeholders will be engaged during the implementation of this ESMF.

As part of the stakeholder engagement process, UNDP's SES require that project stakeholders have access to relevant information. Specifically, the SES (SES, Policy Delivery Process, para. 21) stipulates that, among other disclosures specified by UNDP's policies and procedures, UNDP will ensure that the following information be made available:

- Stakeholder engagement plans and summary reports of stakeholder consultations
- Social and environmental screening reports with project documentation
- Draft social and environmental assessments, including any draft management plans
- Final social and environmental assessments and associated management plans
- Any required social and environmental monitoring reports.

As outlined in the SES and UNDP's Social and Environmental Screening Procedure (SESP), the type and timing of assessments and management plans vary depending of the level of social and environmental risk associated with a project as well as timing of the social and environmental assessment.

This ESMF (and the project SESP) will be disclosed via the UNDP China website in accordance with UNDP SES policy. The subsequent project ESMPs or stand-alone management plan(s) will also be publicly disclosed via the UNDP China website once drafted, and finalized and adopted only after the required time period for disclosure has elapsed.

These requirements for stakeholder engagement and disclosure will be adhered to during the implementation of this ESMF, and the subsequent implementation of the resulting ESMPs and any stand-alone management plans.

The stakeholder analysis aims to identify the key stakeholders related to the project and assess their roles, responsibilities for, interests in life cycle recycling of lead-acid and li-ion batteries, and secondary production of the four nonferrous metals in China. Major barriers for female staff and female residents to engagement in the project are also assessed. The key stakeholders and their roles are summarized in Table **3**.

Key Stakeholders	Mandate Relevant to the project	Roles in the project
National level administrativ	e authorities	
Ministry of Finance (MOF)	MOF manages loans (grants) from multi- and bi-lateral development organizations and foreign governments.	 a) Overall responsibility for national GEF programme; b) Review, endorse and supervise preparation and implementation of this proposal as the Country GEF Official Focal Point. The MOF was briefed on project development and will endorse the final Project Document.
National Development and Reform Commission (NDRC)	NRRC is responsible for promotion of the strategy of sustainable development through its lead role in the five-year planning process.	NRDC will be a key partner in project mainstreaming efforts related to its lead role in the five-year planning process, and will support mainstreaming of life-cycle recycling into five- year planning process for relevant sectors.

Table 5 Summary of Key Stakeholder Analys	y of Key Stakeholder Analysis
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Key Stakeholders	Mandate Relevant to the project	Roles in the project		
	NDRC makes proposal on strategy, plan, and relevant policies on using foreign funds.			
Ministry of Ecology and Environment (MEE)	Supervise and administer to ensure the attainment of national emission reduction targets; Supervise efforts to prevent environment pollution; Formulate and implement regulations for pollution of the air, water, sea, soil, noise, light, odor, solid waste, chemicals, and vehicles; Guide and coordinate educational campaigns over ecological environmental protection; Formulate and implement educational campaign outlines for ecological environmental protection; Promote societal and public participation in environmental protection efforts;	 a) Ongoing management of implementation of the project and management of the project; b) Issue national policy and standards to regulate environmental performance of China's secondary lead production sector; c) Supervise enforcement of environmental policies. 		
Foreign Environmental Cooperation Centre (FECO), Ministry of Ecology and Environment, China	Responsible for performing the Stockholm Convention in China	As the Executing Agency of the project, FECO is responsible for the project design, advise and supervise the project implementation.		
Ministry of Industry and Information Technology (MIIT)	Overall planning and promotion of national information technology development Planning of manufacture industry development	Provide technical and policy support to MOF, MOC and MEE on development and implementation of the secondary metal (lead, aluminum and zinc) and li-ion batteries production industry management system including identification of technology requirements.		
United Nations Development Programme (UNDP)	UNDP works in about 170 countries and territories, helping to achieve the eradication of poverty, and the reduction of inequalities and exclusion. UNDP helps countries to develop policies, leadership skills, partnering abilities, institutional capabilities and build resilience in order to sustain development results.	UNDP is GEF Implementing Agency for the project, and is therefore responsible for oversight and monitoring project implementation and ensuring adherence to UNDP and GEF policies and procedures.		
Local government and local level administrative authorities				
Local Government and Ecology and Environment Bureaus (EEB)	Within their jurisdictions: Supervise and administer to ensure the attainment of national and local emission reduction targets ; Supervise efforts to prevent environment pollution; Formulate and implement regulations for pollution of the air, water, sea, soil, noise, light, odor, solid waste, chemicals, and vehicles;	 Within their own jurisdictions: a) Planning and development approvals; b) Support public information dissemination and local social impact mitigation; c) Monitor environmental performance; d) Enforce environmental policies and requirements applicable to secondary lead management. 		
	campaigns over ecological environmental			

Key Stakeholders	Mandate Relevant to the project	Roles in the project		
	protection; Formulate and implement educational campaign outlines for ecological environmental protection; Promote societal and public participation in environmental protection efforts.			
Industry Association				
Non-Ferrous Metal Association of China, Chinese Non-ferrous Metal Association Recycling Metal Branch, China Industry Technology Innovation Strategies Alliance, China Power battery forcible recovery of industrial technology innovation strategic alliance, Electric Vehicle Power Battery Recycling Strategic Alliance)	Within their own areas: Coordinate and support compliance actions within the sector; Facilitate information exchanges among members; Facilitate formulation of sector development strategies; Industrial strategy development of secondary metals.	 a) Coordinate and support compliance actions within the sector; b) Facilitate information exchanges among members; c) Facilitate formulation of sector development strategies; d) Industrial strategy development of secondary metals; e) Enterprises management support. 		
The project demonstration a	and national replication enterprises			
Private Sectors	Investing and making profits from production of secondary metallurgy of nonferrous metals, and collection of waste lead-acid and/or waster Li-ion batteries	 a) Participate in project activities; b) Carry out investment on UP-POPs, BSRs, and heavy metal reduction; c) Comply with national and local environmental policies and standards 		
Local communities and gen	eral public			
Local communities	Living in the influential area of the project enterprises including life cycle recycling, and those surrounding the project related waste battery collection	Participate in the project training planning and training activities, such as training on BAT/BEP and collection of life cycle recycling of waste lead-acid and/or li-ion batteries.		
Ethnic minorities	Living in proximity to as none have been identified, but not within the area of influence, of the selected enterprises.	Ditto		
General Public	Consumers of products which might have heavy metal issues Residents whose surrounding air might be impacted by UP-POPs	 a) Improve consumers' awareness on UP- POPs, BFRs, and heavy metal issues related to the secondary nonferrous metal production; b) Exercise consumers' rights to influence environmental performance of the sector. 		
Universities, research institutions and CSOs				
Academic institutes, colleges, universities, and/or relevant individuals	Universities and research organizations focus on teaching, research and conservation knowledge development and policy recommendations	Conduct field surveys, monitoring, data collection and database development for the project Provide technical expertise on life cycle recycling of waste lead-acid and/or li-ion batteries Provide technical expertise on secondary production of the four nonferrous metals		

Key Stakeholders	Mandate Relevant to the project	Roles in the project
CSOs	Have their focuses and special interests on recycling of waste lead-acid and/or li-ion batteries, and/or secondary production of the four nonferrous metals.	Potential to provide technical expertise and bring in international experience, networking and platform for communication. Possible co- implementers for some activities such as training, communication and public awareness under projects.

Sources: PIF, consultations with the EA and other PPG team members, field visits of seven relevant enterprises, etc.

6 ACCOUNTABILITY AND GRIEVANCE REDRESS MECHANISMS

6.1 UNDP's Accountability Mechanisms

UNDP's SES recognize that even with strong planning and stakeholder engagement, unanticipated issues can still arise. Therefore, the SES are underpinned by an Accountability Mechanism with two key components:

- 7. A Social and Environmental Compliance Review Unit (SECU) to respond to claims that UNDP is not in compliance with applicable environmental and social policies; and
- 8. A Stakeholder Response Mechanism (SRM) that ensures individuals, peoples, and communities affected by projects have access to appropriate grievance resolution procedures for hearing and addressing project-related complaints and disputes.

UNDP's Accountability Mechanism is available to all of UNDP's project stakeholders.

The Social and Environmental Compliance Unit (SECU) investigates concerns about non-compliance with UNDP's Social and Environmental Standards and Screening Procedure raised by project-affected stakeholders and recommends measures to address findings of non-compliance.

The Stakeholder Response Mechanism helps project-affected stakeholders, UNDP's partners (governments, NGOs, businesses) and others jointly address grievances or disputes related to the social and/or environmental impacts of UNDP-supported projects.

Further information, including how to submit a request to SECU or SRM, is found on the UNDP website at: http://www.undp.org/content/undp/en/home/operations/accountability/secu-srm/

6.2 Project-level Grievance Redress Mechanisms

As described in the Project Document, the Project will establish a project-level Grievance Redress Mechanism (GRM) during the first year of implementation. The full details of these GRMs will be agreed upon during the Inception Phase, a process that will be overseen by the Project Manager with the Project Safeguards Specialist. Interested stakeholders may raise a grievance at any time to the Project Management Unit, the Executing Agency (FECO), Implementing Agency (UNDP), or the GEF.

Main features of the GRM are detailed in Table 4 below. Two models of GRM are required:

- for the redress of grievances submitted by communities in and surrounding the demonstration enterprises; and
- from the wider public.

The full details of the GRM will be agreed upon during project inception.

Table 4.	Grievance	Redress	Mechanism	(Outline)
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Engagement methods and actions	Objectives	Key Stakeholders being engaged	Main responsible agencies	Location	Time	Resources
(i) Mechanism for redress of grievances from communities in and surrounding the demonstration enterprises						
Step 1: Providing demonstration enterprises' contact details to the project affected communities and community-activities management committees	Make project information accessible to affected communities and resolve any complaints as soon as possible	The project affected communities, women and men farmers, ethnic minority farmers	Project Management Unit (PMU)	The relevant communities PMU	Immediately after inception workshop	Project budget for M&E
Step 2: Affected stakeholders submit complaint to their committees or the demonstration enterprises					Any time during the project implementation	Project budget for M&E
Step 3: Community management committees communicate and explain/clarify /solve complaint first, and submit to the PMU whenever needed					Two weeks after received the complaint	Project budget for M&E
Step 4: The demonstration enterprises explain/clarify/resolve complaints					Two weeks after received the complaint	Project budget for M&E
(ii) Mechanism for redress of public complaints						
Step 1: provide PMU's hotline for public	Make project information	Project affected people, male or	PMU	N/A	Immediately after inception workshop	Project budget for M&E
Step 2: present complaint if any to the PMU	accessible to affected communities and resolve any complaints as soon as	essible to female ected numunities resolve any nplaints as n as			Any time during the project implementation	Project budget for M&E
Step 3: Figure out resolution					Two weeks after received the complaint	Project budget for M&E
Step 4: communicate with the complainants and resolve problems	possible				Two weeks after received the complaint	Project budget for M&E

7 BUDGET FOR ESMF IMPLEMENTATION

Funding for implementation of the ESMF is included in the Project budget. The estimated costs are indicated in Table 5 below. Costs associated with the time of Project Management Unit staff coordinating the implementation of this ESMF or UNDP support are not shown. Costs related to applying the SESA to the policy and legal framework development is incorporated in those activities. As for costs related to preparing ESIAs, they will be borne by the industries participating in the demonstration projects considering that the investments on plant modifications/retrofit are born by co-financed resources, and not by GEF funds, and the ESIA is pre-condition for the companies to engage in the Project demonstration activities. However, since this will require alignment with UNDP SES, a specialized institution will be hired to provide guidance to ensure SES compliance with a focus on social risks.

Table 5: Breakdown of project level costs for ESMF implementation (USD)

Costs of Project Safeguards Specialist	16,000
Environmental and social assessment and management (to ensure alignment of industry site-level ESIAs/ESMPs with UNDP SES)	50,000
Travel expense for consultations	5,000
Total:	71,000

8 MONITORING AND EVALUATION ARRANGEMENTS

Reporting on progress and issues in the implementation of this ESMF will be documented in the project progress reports and annual project implementation reports (PIRs). Until the site-specific ESMPs and stand-alone management plans are put in place, UNDP CO will be responsible for compiling reports on the implementation of this ESMF, for reporting to the Project Steering Committee. Key issues will be presented to the Project Steering Committee (also called Project Board) during each committee meeting.

Implementation of the subsequent site specific ESMPs and/or stand-alone management plans will be the responsibility for the individual project management teams, and other partners as agreed upon and described in those future plans.

The ESMF monitoring and evaluation plan is outlined below in Table 6.

Monitoring Activity & Relevant Projects	Description	Frequency / Timeframe	Expected Action	Roles and Responsibilities	Cost (per project, excl. staff time
Track progress of ESMF implementation	Implementation of this ESMF coordinated for each project, and with results reported to each Project Steering Committee on an annual basis	Quarterly (until ESMPs and management plans are in place)	Required ESMF steps are completed in a timely manner.	Project Manager, with support from and Project Coordinator and Project Safeguards Specialists	None
Development of SESAs, scoped ESIAs and site- specific ESMPs	Carried out in a participatory manner, in- depth analysis of potential social and environmental impacts, as well as identification / validation of mitigation measures, drafted in participatory manner	Quarters 1 and 2 of project implementation	Risks and potential impacts are assessed with support of external consultants and participation of project team and stakeholders; management actions identified and incorporated into project implementation strategies.	Project Manager, with support from and Project Coordinator and Project Safeguards Specialists	US\$ 50,000 fees and US\$5,000 travel costs
Implementation of mitigation measures and monitoring of potential impacts identified in targeted assessment(s) and per the subsequent ESMP	Permanent and participatory implementation and monitoring of impacts and mitigation measures, in accordance with ESMP (to be prepared together with targeted assessment)	Continuous, once TARGETED ASSESSMENT is completed and ESMP is in place	Implementation of ESMP; participatory monitoring of targeted assessment findings (i.e. identifying indicators, monitoring potential impacts and risks); integration of ESMP into project implementation strategies. Monitoring of environmental and social risks, and corresponding management plans as relevant (tendered to national institute, local consultant, CSO or service provider)	Project Manager, Project Coordinator, Local PMO Coordinators, oversight by UNDP CO, PSC	TBD, based on targeted assessment.
Implementation of management measures and monitoring of potential impacts identified in targeted assessment	Permanent and participatory implementation and monitoring of management measures, in accordance with findings of targeted assessment (and livelihoods restoration plan if developed)	Continuous, once assessment is complete and management plan is in place	Implementation of stand-alone management plans; participatory monitoring; integration of management plans into project implementation strategies	Project Manager, Project Coordinator, oversight by UNDP CO, PSC	TBD, based on assessment
Learning	Knowledge, good practices and lessons learned regarding social and environmental risk management will be captured regularly, as well as actively sourced from other projects and partners and integrated back into the project.	At least annually	Relevant lessons are captured by the project teams and used to inform management decisions.	Project Manager	None
Annual project quality assurance	The quality of the project will be assessed against UNDP's quality standards to identify project strengths and weaknesses and to inform management decision making to improve the project	Annually	Areas of strength and weakness will be reviewed and used to inform decisions to improve project performance	UNDP CO, Program Alignment Officer, with support from Project Manager and Project Coordinator	None
Review and make course corrections	Internal review of data and evidence from all monitoring actions to inform decision making	At least annually	Performance data, risks, lessons and quality will be discussed by the project steering committee and used to make course corrections	Project Steering Committee	None
Annual project	As part of progress report to be presented to the Project Steering Committee and key	Annually	Updates on progress of ESMF/ESMP will be reported in the project's annual PIRs. A summary of	UNDP CO, UNDP-GEF RTA, Project Manager	None

Table 6: ESMF M&E plan and estimated budget

Monitoring Activity & Relevant Projects	Description	Frequency / Timeframe	Expected Action	Roles and Responsibilities	Cost (per project, excl. staff time
	stakeholders, analysis, updating and recommendations for risk management will be included		the avoidance and mitigation of potential social and environmental impacts will be included in the program annual report, sharing best practices and lessons learned across the program.		
Project review	The Project Steering Committee will consider updated analysis of risks and recommended risk mitigation measures at all meetings	At least annually	Any risks and/ or impacts that are not adequately addressed by national mechanisms or project team will be discussed in project steering committee. Recommendations will be made, discussed and agreed upon.	Project Steering Committee, Project Manager	None

9 ANNEXES

9.1 Indicative Outline of Environmental and Social Impact Assessment (ESIA)/ Report

UNDP Social and Environmental Standards: ESIA Report – Indicative Outline

Please refer to the UNDP SES Guidance Note on Assessment and Management for additional information.

An ESIA report should include the following major elements (not necessarily in the following order):

(1) Executive summary: Concisely discusses significant findings and recommended actions.

(2) Legal and institutional framework: Summarizes the analysis of the legal and institutional framework for the project, within which the social and environmental assessment is carried out, including (a) the country's applicable policy framework, national laws and regulations, and institutional capabilities (including implementation) relating to social and environmental issues; obligations of the country directly applicable to the project under relevant international treaties and agreements; (b) applicable requirements under UNDP's SES; and (c) and other relevant social and environmental standards and/or requirements, including those of any other donors and development partners. Compares the existing social and environmental framework and applicable requirements of UNDP's SES (and those of other donors/development partners) and identifies any potential gaps that will need to be addressed.

(3) **Project description:** Concisely describes the proposed project and its geographic, social, environmental, and temporal context, including any offsite activities 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 supply chain. 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. (i.e. area of influence).

(4) Baseline data: Summarizes the baseline data that is relevant to decisions about project location, design, operation, or mitigation measures; identifies and estimates the extent and quality of available data, key data gaps, and uncertainties associated with predictions; assesses the scope of the area to be studied and describes relevant physical, biological, and socioeconomic conditions, including any changes anticipated before the project commences; and takes into account current and proposed development activities within the project area but not directly connected to the project.

(5) Social and environmental risks and impacts: Predicts and takes into account all relevant social and environmental risks and impacts of the project, including those related to UNDP's SES (Overarching Policy and Principles and Project-level Standards). These will include, but are not limited to, the following:

(a) Environmental risks and impacts, including: any material threat to the protection, conservation, maintenance and rehabilitation of natural habitats, biodiversity, and ecosystems; those related to climate change and other transboundary or global impacts; those related to community health and safety; those related to pollution and discharges of waste; those related to the use of living natural resources, such as fisheries and forests; and those related to other applicable standards.⁵

(b) Social risks and impacts, including: any project-related threats to human rights of affected communities and individuals; threats to human security through the escalation of personal, communal or inter-state conflict, crime or violence; risks of gender discrimination; risks that adverse project impacts fall disproportionately on disadvantaged or marginalized groups; any prejudice or discrimination toward individuals or groups in providing access to development resources and project benefits, particularly in the case of disadvantaged or marginalized groups; negative economic and social impacts relating to physical displacement (i.e. relocation or loss of shelter) or economic displacement (i.e. loss of assets or access to assets that leads to loss of income sources or means of livelihood) as a result of project-related land or resource acquisition or restrictions on land use or access to resources; impacts on the health, safety and well-being of workers and project-affected communities; and risks to cultural heritage.

⁵ For example, the Environmental, Health, and Safety Guidelines (EHSGs), which are technical reference documents with general and industryspecific statements of Good International Industry Practice. The EHSGs contain information on industry- specific risks and impacts and the performance levels and measures that are generally considered to be achievable in new facilities by existing technology at reasonable cost. Available at <u>www.ifc.org/ehsguidelines</u>.

(6) Analysis of alternatives: systematically compares feasible alternatives to the proposed project site, technology, design, and operation – including the "without project" situation – in terms of their potential social and environmental impacts; assesses the alternatives' feasibility of mitigating the adverse social and environmental impacts; the capital and recurrent costs of alternative mitigation measures, and their suitability under local conditions; the institutional, training, and monitoring requirements for the alternative mitigation measures; for each of the alternatives, quantifies the social and environmental impacts to the extent possible, and attaches economic values where feasible. Sets out the basis for selecting the particular project design.

(7) Mitigation Measures: Inclusion or summary of (with attachment of full) Environmental and Social Management Plan (ESMP) (see indicative outline of ESMP below.) The ESMP identifies mitigation measures required to address identified social and environmental risks and impacts, as well as measures related to monitoring, capacity development, stakeholder engagement, and implementation action plan.

(8) Stakeholders. Summarizes and links to project Stakeholder Engagement Plan or ESMP that includes plan for consultations. Includes summary of consultations undertaken for development of ESIA (see appendices).

(9) Conclusions and Recommendations: Succinctly describes conclusion drawn from the assessment and provides recommendations. Includes recommendation regarding the project's anticipated benefits in relation to its social and environmental risks and impacts.

(10) Appendices: i) List of the individuals or organisations that prepared or contributed to the social and environmental assessment; (ii) References – setting out the written materials both published and unpublished, that have been used; (iii) Record of meetings, consultations and surveys with stakeholders, including those with affected people and local NGOs. The record specifies the means of such stakeholder engagement that were used to obtain the views of affected groups and local NGOs, summarizes key concerns and how these concerns addressed in project design and mitigation measures; (iv) Tables presenting the relevant data referred to or summarized in the main text; (v) Attachment of any other mitigation plans; (vi) List of associated reports or plans.

9.2 Indicative outline of Environmental and Social Management Plan (ESMP)

UNDP Social and Environmental Standards: ESMP – Indicative Outline

Please refer to the UNDP SES Guidance Note on Assessment and Management for additional information.

An ESMP may be prepared as part of the Environmental and Social Impact Assessment (ESIA) or as a stand-alone document.⁶ The content of the ESMP should address the following sections:

(1) Mitigation: Identifies measures and actions in accordance with the mitigation hierarchy that avoid, or if avoidance not possible, reduce potentially significant adverse social and environmental impacts to acceptable levels. Specifically, the ESMP: (a) identifies and summarizes all anticipated significant adverse social and environmental impacts; (b) describes – with technical details – each mitigation measure, including the type of impact to which it relates and the conditions under which it is required (e.g., continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate; (c) estimates any potential social and environmental impacts of these measures and any residual impacts following mitigation; and (d) takes into account, and is consistent with, other required mitigation plans (e.g. for displacement, ethnic minorities).

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

(3) Capacity development and training: To support timely and effective implementation of social and environmental project components and mitigation measures, the ESMP draws on the environmental and social assessment of the existence, role, and capability of responsible parties on site or at the agency and ministry level. Specifically, the ESMP provides a 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). Where support for strengthening social and environmental management capability is identified, ESMP recommends the establishment or expansion of the parties responsible, the training of staff and any additional measures that may be necessary to support implementation of mitigation measures and any other recommendations of the environmental and social assessment.

(4) Stakeholder Engagement: Summarizes and links to project Stakeholder Engagement Plan or outlines plan to engage in meaningful, effective and informed consultations with affected stakeholders. Includes information on (a) means used to inform and involve affected people in the assessment process; and (b) summary of stakeholder engagement plan for meaningful, effective consultations during project implementation, including identification of milestones for consultations, information disclosure, and periodic reporting on progress on project implementation. Require documentation of consultations (summaries including presentations, key points raised and responses provided, participation lists). Include information on project grievance mechanism (below) and on UNDP Accountability Mechanisms (SRM, SECU).

(5) Grievance redress mechanism: Describes effective processes for receiving and addressing stakeholder concerns and grievances regarding the project's social and environmental performance. Describe mechanisms to provide stakeholders and potential affected communities avenues to provide feedback or grievances, and receive responses, with regard to the implementation of specific activities, policies, or regulations.

(6) Implementation action plan (schedule and cost estimates): For all four above aspects (mitigation, monitoring, capacity development, and stakeholder engagement), ESMP provides (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. Each of the measures and actions to be implemented will be clearly

⁶ This may be particularly relevant where contractors are being engaged to carry out the project, or parts thereof, and the ESMP sets out the requirements to be followed by contractors. In this case the ESMP should be incorporated as part of the contract with the contractor, together with appropriate monitoring and enforcement provisions.

specified and the costs of so doing will be integrated into the project's overall planning, design, budget, and implementation.