United Nations Development Programme

Project Document for projects financed by GEF Trust Funds

<table>
<tr><td colspan="3">Project title: Accelerating transition to a circular economy in India’s electrical and electronic sector through sustainable integrated approaches</td></tr>
<tr><td>Country(ies): India</td><td>Implementing Partner (GEF Executing Entity): Ministry of Electronics and Information Technology (MeitY)</td><td>Execution Modality:

Supported National Implementation Modality (NIM) for National Project</td></tr>
<tr><td colspan="3">Contributing Outcome (UNSDCF/CPD, RPD, GPD):

Country programme document for India (2023-2027): Output:3.1: Institutional and policy frameworks developed and strengthened to address climate change, enhance green recovery, prevent environmental degradation and promote conservation and circular economy.

Indicator 3.1.1. Number of climate and gender-responsive development strategies (policies, schemes, programmes, and action plans) informed, through technical / advisory support, for achieving national priorities and global commitments under multilateral environmental agreements (global, national, subnational level) [SP IRRF: 3.1.1]

Baseline (2022): 7

Target (2027): 14

UNSDCF (2023-2027) – Outcome 5: By 2027, Government of India, state governments, communities’ private sector and other actors take informed actions to address climate change, pollution, biodiversity loss and restore ecological integrity through improved knowledge, capacity and mainstreaming of relevant actions across sectoral programmes, policies and plans

Output 5.4: Enhanced circularity and resource efficiency across sectors

Indicator 5.4.1: Amount of waste channeled into circular economy

Baseline: 158,517 tons

Target: 250,000 tons</td></tr>
<tr><td colspan="2">UNDP Social and Environmental Screening Category:

MODERATE</td><td>UNDP Gender Marker:

GEN2 (Gender equality as a significant objective)</td></tr>
<tr><td colspan="2">Quantum Award ID: 1382296</td><td>Quantum Project ID: 01004081</td></tr>
<tr><td colspan="2">UNDP PIMS ID number: 9664</td><td>GEF Project ID number: 11405</td></tr>
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LPAC meeting date: 22 August 2025	
Last possible date to submit to GEF: 31 March 2025	
Latest possible CEO endorsement date: 9 August 2025	
Project duration in months: 60 months	
Planned start date: 1 December 2025	**Planned completion date: 1 December 2030**
Expected date of Mid-Term Review (MTR) submission to the GEF: 1 June 2028	**Expected date of Terminal evaluation (TE) submission to the GEF: 1 June 2031**
Expected Operational Closure Date: 1 September 2031	**Expected Financial Closure Date: 1 March 2032**

Brief project description: The electric and electronics equipment (EEE) manufacturing is an important part of the global economy. Their production and consumption patterns also have led to generation of large quantities wastes (e-waste), which can be a source of hazardous wastes that pose risks to humans, the environment and to sustainable economic growth of nations, as variety of metals and heavy metals, plastics and (hazardous) chemicals are used by the electronics industry for different purposes.

In India, e-waste is mostly processed by informal sector using precarious and manual - and even open burning - processes which lead to high emissions of toxic chemicals and heavy metals. Therefore, the objective of this project is to reduce (and/or eliminate) the adverse impacts of POPs, UPOPs and heavy metals (such as mercury and lead) on human health and environment by making strategic interventions across the life cycle and the value chain of electrical and electronic equipment and strengthening India's capacity for the environmentally sound management e-waste through integrated approaches.

The project is intended to be transformative in nature as it will integrate circular economy principles in the electrical and electronic (manufacturing) sector by implementing measures throughout the entire value chain of products till their end-of-life (including recycling and disposal) through the proposed interventions:

1. Strengthen the institutional mechanisms and develop knowledge-based interventions including design of innovative economic models
2. Improve practices, systems and technologies for the EEE Manufacturing and its Supply Chain through prevention methods and socio-technical ESM models/pilots aimed for future replication.
3. Improve the e-waste management ecosystem by deploying investments, prevention measures, infrastructures and technologies for POPs and UPOPs and heavy metals emissions/releases reduction in e-waste processing.
4. Make information and knowledge accessible, raise awareness and build networks and partnerships to facilitate knowledge sharing among the EEE sector stakeholders, national and subnational Governments, and link national action to international/global programmes on e-waste

The project will achieve the reduction of use and emissions of 12,600 metric tonnes and 265.67 g/TEQ of Persistent Organic Pollutants (POPs and UPOPs), 8,000 metric tonnes of heavy metals, 0.41 metric tonnes of mercury and other toxic chemicals in the production of future EEE; collect and dispose of 94,500 metric tonnes of plastics and recover 365 metric tonnes of precious metals (Au, Pt, Rh, Pd, Li, Co, Ni). At the same time, it will reduce the emissions of 609,840 tons of CO2-eq during its lifecycle.

FINANCING PLAN

GEF Trust Fund grant:	USD 15,000,000
(1) Total Budget administered by UNDP	**USD 15,000,000**
(2) Total confirmed co-financing to this project not administered by UNDP	**USD 108,647,058**
(3) Grand-Total Project Financing (1) +(2)	**USD 123,647,058**

SIGNATURES:

Signature: Sunita Verma Scientist G and Group Coordinator Ministry of Electronics and Information Technology	**Agreed by Implementing Partner**	**Date/Month/Year:** *within 6 months of GEF CEO endorsement* 23/12/25
Signature: Angela Lusigi Resident Representative	**Agreed by UNDP** Angela Lusigi, PhD Resident Representative UNDP, India	**Date/Month/Year:** *within 6 months of GEF CEO endorsement* 23/12/2025

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II. LIST OF ACRONYMS AND ABBREVIATIONS

BAT/BEP	Best Available Techniques/Best Environmental Practices
BPPS NCE	Bureau for Policy and Programme Support, Nature, Climate and Energy
CPCB	Central Pollution Control Board
EEE	Electrical, Electronic Equipment
EoL	End of Life
EPR	Extended Producers Responsibility
ESM	Environmentally Sound Management
FSP	Full Sized Project
GAP	Gender Action Plan
GEF	Global Environment Facility
GEFSEC	Global Environment Facility Secretariat
ISO	International Organization for Standardization
MeitY	Ministry of Electronics and Information Technology
MFA	Material Flow Analysis
MoEF&CC	Ministry of Environment, Forest and Climate Change
MSE	Medium and Small Enterprise
Mt	Metric ton
OEM	Original Equipment Manufacturer
PBDD/F	Polybrominated dibenzo- p -dioxins and dibenzofurans
PBDE	Polybrominated diphenyl ether
PCB	Printed Circuit Board
PCDD/F	Polychlorinated dibenzo-p-dioxins and dibenzofurans
PIF	Project Identification Form
PIR	GEF Project Implementation Report
POPP	Program and Operations Policies and Procedures
POPs	Persistent Organic Pollutants
PPG	Project Preparation Grant
PRO	Producer Responsibility Organizations
RoHS	Restriction of Hazardous Substances
SESA	Strategic Environmental and Social Assessment
SESP	Social and Environmental Screening Procedure
STAP	GEF Scientific Technical Advisory Panel
UPOPs	Unintentional Persistent Organic Pollutants

III. DEVELOPMENT CHALLENGE

The global environmental and/or adaptation problems, root causes and barriers that need to be addressed

Generation of e-waste in India

1. India's Electronic and Electrical Equipment (EEE) sector has been growing at a Compound Annual Growth Rate (CAGR) of **15%,** reaching a market value of USD 155 billion in FY 2023-24 from USD 49 billion in 2016-17[1]. Electronics manufacturing in India is expected to reach USD 278 billion by 2030[2]. With this pace of growth in the sector, electronic waste has emerged as a significant waste stream. India is currently the third largest electronic waste producer globally after China and USA[3].

2. According to the Global E-waste Monitor report, India generated 4.13 million tonnes of e-waste in 2022, amounting to roughly 7% of the global e-waste generation. Of this, only 14.4% was documented as formally collected and recycled.

3. The Global E-waste Monitor report estimates an annual loss of USD 37 billion due to the economic monetary impact of e-waste management. It is also estimated that the recovery of secondary metals from the generated e-waste has the potential to deliver USD 91 billion worth of value[4].

4. The concept of circular electronics business holds immense promise, with an estimated USD7 billion in untapped revenue potential by 2035. Approximately 210 million idle inventory is present in Indian households. While a ton of ore fetches around 1.4 grams of extractable gold, a ton of printed circuit boards (PCBs) used in mobile phones can produce about 1.5 kg of gold. Urban mining of gold from waste PCBs alone could potentially become a USD1.5 billion business[5].

The Baseline Scenario

5. As per information from the Central Pollution Control Board (CPCB), e-waste generated in the country in FY21-22 was 1.6 million tons (for only 21 types of EEE)[6]. It is to be noted that the new E-waste (Management) Rules, 2022 has further expanded the list to a total of 106 types of EEE, the e-waste generation data of most of which is currently not available. The current approach of CPCB to estimate e-waste generation at the national level is based on countrywide sales data provided by producers and the average life of EEE, as notified under the E-waste Management Rules[7].

6. According to a 2007 report by the Ministry of Electronics and Information Technology (MeitY), the state of Maharashtra is the highest generator of e-waste, accounting for 19.8% of total e-waste generated in India, followed by Tamil Nadu (13.1%), Andra Pradesh (12.5%), Uttar Pradesh (10.1%), West Bengal (9.8%), Delhi (9.5%), Karnataka (8.9%), Gujarat (8.8%), and Madhya Pradesh (7.6%).

7. In FY 2021-22, the maximum amount of e-waste collected and processed was from Haryana (46.5%), Uttarakhand (9.7%), Telangana (8%), Karnataka (7.4%), and Tamil Nadu (5.9%)[8].

8. According to the Global E-waste Monitor report, formal e-waste collection in India is 1**4.4%**, indicating that only **0.5 million Tonnes** of the 4.13 million tonnes of e-waste generated in 2022 became part of the formal recycling value chain. Furthermore, India has fragmented recycling capacities with around 60% of recyclers operating at less than 1,000 tons per annum, utilizing only 15% of the installed capacity[9].

[1] https://www.meity.gov.in/writereaddata/files/AR_2022-23_English_24-04-23.pdf
[2] Electronics: Powering India's Participation in Global Value Chains, NITI Aayog, available at: GVC Report_Updated_Final_11zon.pdf
[3] https://ewastemonitor.info/wp-content/uploads/2024/03/GEM_2024_18-03_web_page_per_page_web.pdf
[4] The Global E-Waste Monitor, 2024.
[5] Pathways to Circular Economy in India's Electronics Sector, ICEA
[6] PIB, GoI - Generation of E-Waste
[7] PIB, GoI - e-Waste Management
[8] Press Release:Press Information Bureau
[9] Pathways to Circular Economy in India's Electronics Sector, ICEA

9. For better monitoring and proper operationalization of EPR, CPCB has launched an online portal for the four key stakeholders: Producers, Manufacturers, Recyclers, and Refurbishers. The EPR portal maintains a real-time public database of the number of registered Producers, Manufacturers, Refurbishers and Recyclers along with the number of applications received. As of November 2024, there are 6,884 producers, 22 manufacturers, 39 refurbishers, and 276 recyclers registered on the portal.

10. To ensure a seamless user experience of the online portal and compliance with the EPR rules, CPCB has also developed comprehensive Standard Operating Procedures (SOPs) for each of the four stakeholders describing the functioning of the portal.

11. Currently, the CPCB has mandated recycling for four end products namely gold, copper, aluminium and iron for recovery.[10] This has left other critical and rare earth metals unattended and unaccounted for. Only a small fraction of the registered recyclers engages in material recovery and are classified at R3 or R4 levels and most recyclers operate at R1 or R2 levels, which involve minimal e-waste processing, such as sorting and shredding. On the other upstream side, India relies entirely on imports for 8 out of the 14 metals (including precious and rare earths) found in a device[11].

Table 1: End product-wise inventory of e-waste and EPR Certificate (Source: EPR Portal, as of September 2024)

End Product	Total EPR Obligation	Total Achieved EPR Obligation	Total EPR Credit Generated	Total EPR Credits Transferred
Iron	267,698.96 MT	49,786.85 MT	96,810.19 MT	51,496.16 MT
Gold	160.87 Kg	4.97 Kg	32.11 Kg	4.96 Kg
Copper	24,598.85 MT	4,251.96 MT	9,739.78 MT	4,375.63 MT
Aluminum	34,723.42 MT	7,731.18 MT	13,202.62 MT	7,753.74 MT

12. The registered recyclers have a cumulative recycling capacity of around 2 million tonnes of e-waste. Nearly 42% of the recyclers are aggregated in North India, followed by South (28%) and West (26%). Based on the recycling capacity stated in their Consent To Operate (CTO), 34% of these recyclers can be classified as large, 33% as mid, and 33% as small recyclers[12].

13. Nearly 70% of e-waste generation in India is from computer devices (73%), followed by the telecom sector (12%), medical equipment (8%), and electric equipment (7%)[13]. The generated e-waste is composed of glass (37%), metals (33%), and plastics (30%)[14].

14. At the upstream level, several government initiatives have been directed towards improving product sustainability such as the Energy Conservation Act of 2001 (which set standards and labels for marking star-rating of various appliances based on energy efficiency parameters), Battery Waste Management Rules of 2022 (which mandate the use of certain percentage of recycled materials in making new batteries) and the recently notified Eco-mark scheme(which set forth standards for eco-labelling products to inform buying decisions). The Ministry of Consumer Affairs has also begun working on the framework to implement 'Right to Repair' law[15].

[10] As per data provided in the EPR Portal.
[11] Pathways to Circular Economy in India's Electronics Sector, ICEA
[12] Threshold for Small – 1409.76 MT, Medium – 6892.80 MT. Based on analysis of 264 recyclers' data from EPR portal (September 2024)
[13] E-Waste And It's Impact On Environment
[14] Electricals and Electronics manufacturing in India, ASSOCHAM, NEC technologies, 2018
[15] Eco-design-Guidelines-for-EEE-Sector- .pdf

Baseline Institutional and Regulatory Framework

16. E-waste management in the country is currently under the ambit of the Ministry of Environment, Forest and Climate Change (MoEF&CC) and the Ministry of Electronics and Information Technology (MeitY), with implementation being spearheaded by the Central Pollution Control Board (CPCB).

17. The e-waste management rules in India have been continually evolving over the last decade to effectively manage the growing quantum of e-waste in the country. The rules introduced the Extended Producer Responsibility (EPR) as the cornerstone of managing e-waste in the country.

18. The E-Waste (Management) Rules, 2022 define the EPR framework, including the entities involved, their responsibilities, and the modality for EPR transactions. The identified entities include producers, manufacturers, refurbishers, and recyclers. The EPR obligation of producers is fulfilled quarterly by proportionately purchasing EPR Certificates. The availability, requirement, and other details of the EPR certificates for every producer, recycler, or refurbisher is made available on the EPR portal.

19. The rules also include provisions for Reduction in the use of Hazardous Substances in the manufacture of EEE and their components placed in the market. The rules restrict the concentration of Lead, Mercury, Hexavalent Chromium, Polybrominated Biphenyls, Polybrominated Diphenyl Ethers (up to 0.1% by weight in homogenous materials) and Cadmium (up to 0.01% by weight in homogenous materials).

20. At the sub-national level, the State Pollution Control Board (SPCB) and Pollution Control Committee (PCC) of Union Territories are the primary concerned authorities to ensure the implementation of e-waste management rules. They're entrusted with inventorization of e-waste, EPR monitoring and compliance, inspect and audit e-waste recycling and refurbishing facilities, encourage and implement environmentally sound recycling programs at sub-national level, and any other functions delegated by MeitY or CPCB[16]. They're also the concerned bodies to be approached for obtaining CTO, CTE and Authorization under Hazardous and Other Waste (Management and Transboundary Movement) Rules, 2016 for EEE recyclers, refurbishers and manufacturers and conduct verification of RoHS self-declaration by producers and manufacturers[17]. Local bodies are responsible for ensuring the proper segregation, collection, and channeling of e-waste from Municipal Solid Waste and orphan products to registered recyclers or refurbishers and facilitate the creation of systems for e-waste collection, segregation and disposal. To support these efforts, they are responsible for conducting training sessions aimed at building the capacities of both urban and rural local bodies[18].

Root Causes and Barriers Analysis

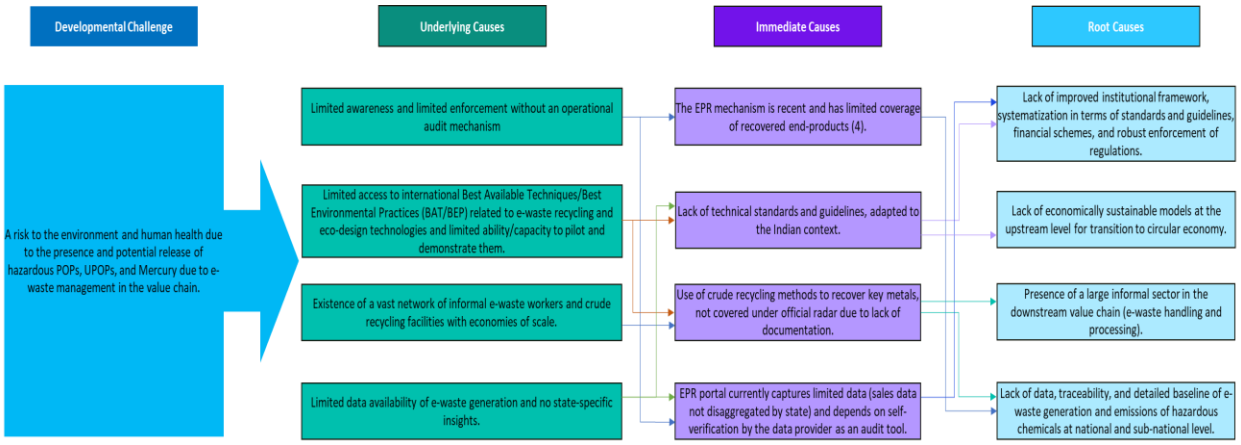


Figure 1: Root Causes and Barriers

[16] https://cpcb.nic.in/uploads/Projects/E-Waste/e-waste_rules_2022.pdf
[17] https://eprewastecpcb.in/#/
[18] https://cpcb.nic.in/uploads/Projects/E-Waste/e-waste_rules_2022.pdf

21. India is currently updating its National Implementation Plan (NIP) for the Stockholm Convention[19] in order to review the inventories of the legacy POPs and establish the inventories for new POPs (such as PFOS, its Salts, PFOSF, and PBDEs)and provide a comprehensive picture of current POPs situation in the country. As an example, additional analysis of the use along their value chains and comprehensive overview of control measures for the new-POPs are urgently needed. However, in relation to the EEE Sector, it is noted that:

- **Lack of improved institutional framework, systematization in terms of standards and guidelines, financial schemes, and robust enforcement of regulations:** The regulatory framework for e-waste management in India, spearheaded by the MoEF&CC and implemented by the CPCB and SPCBs, is comprehensive and well-structured. The E-waste Management and Handling Rules, 2011, and the later amendments provide a solid foundation. The government has put in place innovative instruments (such as CPCB's e-waste EPR portal) to ensure the effectiveness of the implementation of the rules. While the EPR mechanism is a good start and puts in place a robust structure for managing the rather unorganized e-waste management sector, it has limited coverage of recovered end-products (Currently, only for Gold, Aluminium, Iron, Copper). Further, while the latest amendment has introduced an auditing mechanism and RoHS compliance check on sample basis, the implementation modalities are yet to be finalized.

- **Lack of economically sustainable models at the upstream level for transition to a Circular Economy:** Most of the EEE OEMs / Producers in India have an extensive assembly and production network spanning multiple countries, and usually have separate production standards to ensure uniformity across the regions. This increases the possibility of reluctance on part of OEM to integrate new eco-design or eco-labelling practices arising from the complexities of aligning global production processes with diverse national regulations and standards. Furthermore, the substantial cost implications and logistical challenges associated with implementing eco-friendly practices across a global supply chain act as notable deterrents. While a few global OEMs/Producers have introduced eco-design concepts in their products owing to the evolving global policy and regulatory framework, there is no available data to track their replicability or scalability potential in the country.

- **Presence of a large informal sector in the downstream value chain:** Nearly 90% of the e-waste collection volumes are currently managed by the informal sector, with a last-mile presence and impressive cost competitiveness. The cost competitiveness is attributed to the absence of compliance costs. However, the informal sector uses crude recycling technologies which has negative social and environmental externalities such as emission of toxic chemicals. They follow crude techniques like burning or acid wash for the extraction of metals and the residuals are often disposed of in the open. A study conducted by ASSOCHAM shows that about 80% of the e-waste workers in India suffer from respiratory ailments which may be attributed to the leakage of hazardous material and emission of gases during the crude processing[20].

  In addition, a study from the Office of the United Nations High Commissioner for Human Rights (OHCHR)[21] estimated that some 12.9 million women may be working in the general informal waste sector for income generation, which exposes them to potentially toxic e-waste and puts them and their unborn children at risk. Considering that e-waste recycling in India, especially in the informal sector, is geared toward high throughput and output, and the most vulnerable status of women in front of the heavy metals and chemicals contained in EEE, Occupational safety and environmental protection must be prioritized.

- **Lack of data, traceability, and detailed baseline of e-waste generation and emissions of hazardous chemicals at national and sub-national level:** The Central Pollution Control Board (CPCB) of India informs that e-waste generated in the country in FY21-22 was 1.6 million tons (for only 21 types of EEE)[22]. This is estimated by using countrywide sales data provided by producers and the average life of EEE, different from

19 https://www.thegef.org/projects-operations/projects/10978

20 Garg, Neha and Adhana, Deepak, E-Waste Management in India: A Study of Current Scenario (January 31, 2019). International Journal of Management, Technology And Engineering. Volume IX, Issue I, January/2019, ISSN No : 2249-7455 , Available at SSRN: https://ssrn.com/abstract=3356877

21 https://www.ohchr.org/sites/default/files/documents/issues/toxicwastes/cfis/gendertoxics/inputsreceived/subm-gender-toxics-aca-areena-parveen-ansari.docx

22 PIB, GoI - Generation of E-Waste

the methodology used by the Global E-Waste Monitor to estimate the quantum of e-waste in the country. It is to be noted that the new *E-waste (Management) Rules, 2022* has further expanded the list to a total of 106 types of EEE, but the e-waste generation data for most is currently not available. The EPR Portal, introduced by the CPCB in 2023, is maturing into a comprehensive and integrated platform. However, ensuring compliance with regulations and verifying the authenticity of EPR certificates requires thorough audits and cross-verification of data which adds to the complexity of the inventorization process. The volume of e-waste handled by the informal sector often lacks proper documentation and makes it challenging to accurately inventorize and track e-waste flows. So far, there are no authentic estimates for the volume of e-waste managed by the informal sector[23].

Coordination and Cooperation with Ongoing Initiatives and Project.

22. The Implementing Partner (GEF Executing Agency) for the project is the Ministry of Electronics and Information Technology (MeitY) and the project will be implemented over a period of five (5) years, with UNDP as the GEF Implementing Agency. The project will be implemented through the Supported National Implementation Modality (NIM) for National Project.

23. Independently of the Implementation Modality sought, relevant execution guidance will be obtained through the National Steering Committee set up with the Secretary of the MeitY as the chairperson and in conjunction with the Project Board to be formed under the Project Framework. It is expected that a Project Manager will head the Project Management Unit (PMU), reporting technically directly to the Project Board and who will be responsible for coordination with the Hazardous Waste Management Division (HSMD), Ministry of Electronics and Information Technology (MeitY), other line ministries and departments and overseeing the implementation of the project.

24. This GEF project will cooperate and coordinate closely with ongoing initiatives to ensure sharing of information and lessons and collaboration in related activities as described in the Table below:

Table 2: Complementarity with existing Projects and Programs

Ongoing Initiative	Complementarity with GEF 8 project
GEF/UNDP Accelerating adoption of super-efficient technologies for sustainable thermal comfort in buildings in India (2023-2029) US$4,534,357	The project aims to support Government of India and key stakeholders in policy, institutional & technical readiness to curb GHG emissions through accelerating the provision of energy efficient thermal comfort in buildings in India and enable market transformation of energy efficient building technologies. The GEF-8 project may learn from the star-labelling model on energy efficiency and cooling technologies and designing the guidelines for national rollout with EEE products.
Plastic Waste Management program with private sector (2018-2024) US$4,534,357	This project aims to create a socio-technical model for taking plastic waste management from informal to formal economy and establish material recovery centres for sustained practices in waste management. In addition to these alignments, the other interventions on institutionalizing Swachhta Kendras within governance framework structures and improving socio-economic conditions of waste pickers, developing technology-supported knowledge management would align well with the GEF project.
UNDP-The Coca-Cola Foundation (TCCF) partnership to scale up management of plastic waste in Asia US$3,000,000	The project aims to mprove plastic waste management, promote recycling, reduce plastic leakage into the environment, foster country-based solutions, and facilitate regional collaboration in South Asian countries (including India). It aims to inspire policy changes and community-level actions to reduce and help to eliminate disposable plastic and improve the livelihoods of waste workers.

[23] https://pib.gov.in/Pressreleaseshare.aspx?PRID=1812032

Phase II of Japan Supplementary Budget-Leveraging NDCs for Low Carbon Development Pathways' (2023-2024) US$5,174,839	This project will examine the ESG baseline for the entire life cycle of solar PV systems, ranging from raw material extraction through manufacturing, deployment, and end-of-life management at the disposal stage, etc. The GEF-8 project can learn from the project's Just Transition plans, supporting the deployment of low-emission technologies and facilitating the implementation of climate-positive adaptation in the waste management sector and the life cycle of EEE sector.

IV. STRATEGY

25. The objective of the project is to reduce and or eliminate the adverse impacts of POPs, UPOPs and heavy metal (such as mercury) on the human health and environment by making strategic interventions across the life cycle of electrical and electronic equipment and strengthen India's capacity for the environmentally sound management of electrical and electronic wastes (e-waste) through integrated approaches. To achieve this aim, project interventions will include four (4) components.

Impact	Component	Outcomes	Output	Activities
Sustainable, integrated, and targeted interventions to embed circularity and reduce/eliminate POPs, UPOPs, and Heavy metals across the EEE lifecycle, Improved legal and institutional frameworks for implementing the interventions	**Component 1:** Strengthen institutional mechanisms and develop knowledge-based interventions including design of innovative economic models.	**Outcome 1:** Enabling environment enhanced for sustainable EEE production and e-waste management	**Output 1.1:** Circular Economy baseline for EEE eco-design and cleaner production established	*Activity 1.1.1:* Establish a CE baseline among EEE OEMs/producers in India via primary data collection by using established indicators
			Output 1.2: Inventories of e-waste generation and assessment on externalities established, cost of e-waste management estimated, and value chain of key materials mapped taking into consideration specific gender-related aspects.	*Activity 1.2.1:* Conduct national e-waste inventory assessment with improved granularity at national and sub-national levels, aligned to global methodologies.
				Activity 1.2.2: Conduct a study to estimate the cost burden of e-waste management and adoption of BAT/BEPs on different stakeholders (producers, recyclers, manufacturers, refurbishers)
				Activity 1.2.3: Conduct a socio-environmental and gender assessment of the impact of informal recycling, its nature of operation, collection network, modus operandi and identifying informal hubs in the country.
				Activity 1.2.4: Undertake a Material Flow Analysis (MFA) to map the life cycle of the 106 EEE included in the e-waste management rules and assess the emissions of POPs, UPOPs, and hazardous metals.
			Output 1.3: E-waste rules' enforcement, including EPR monitoring, harmonized between national and subnational level and coordination mechanism and guidelines for e-waste management established.	*Activity 1.3.1:* Develop guidelines/SOPs for sub-national (state and city-level) e-waste inventory development, management and enforcement in accordance with UNDP Social and Environmental Safeguards (SES).
				Activity 1.3.2: Conduct a feasibility study to extend the scope of the EPR certificate regime beyond the 4 key metals (Gold, Aluminium, Copper and Iron)

Impact	Component	Outcomes	Output	Activities
			Output 1.4: Frameworks for audit of e-waste recycling facilities developed.	*Activity 1.4..1:* Develop an SOP to streamline and effectively implement the auditing of e-waste recycling facilities in accordance to the E-waste management rules provisions with insights from global waste audit certificationsand in accordance with UNDP SES
			Output 1.5: India's RoHS for imported and manufactured EEE assessed and gender-sensitive recommendations proposed to strengthen its implementation and aligned for the national/subnational action.	*Activity 1.5.1:* Develop product-wise testing protocol and guidelines including testing infrastructure development/upgradation for RoHS compliance aligned with global laboratory standards
				Activity 1.5.2: Develop a Monitoring, Reporting and Verification (MRV) framework for post-market surveillance of RoHS certified products.
			Output 1.6: Gender-sensitive Eco-design and eco-labelling standards and guidelines proposed at targeted industries.	*Activity 1.6.1:* Identify critical EEE product categories with increased potential for eco-design and eco-labelling incorporation.
				Activity 1.6.2: Develop a roadmap to facilitate adoption of the new Ecomark rules, 2024 for each EEE category
				Activity 1.6.3: Conduct Readiness Assessment to gauge India's readiness to adopt a policy akin to the EU's Eco-design for Sustainable Products Regulation (ESPR)
			Output 1.7: Economically sustainable management model for e-waste designed and piloted.	*Activity 1.7.1:* Based on the assessed existing business models, at its different stages, develop a blueprint of an "ideal" business model, including compliance with UNDP SES and reflecting relevant gender considerations
				Activity 1.7.2: Conduct a study of the product subscription model with the aim of diminishing e-waste generation and extending the lifespan of electronic products.
	Component 2: EEE Manufacturing, Supply Chain and End of Life (EOL) Ecosystem improvement	**Outcome 2:** POPs and other highly hazardous releases and emissions	**Output 2.1:** Initiate the transformation of the EEE production and assembly in at least two (2) Original Equipment Manufacturers (OEMs) through eco-design and other inputs/materials/chemicals reduction measures piloted.	*Activity 2.1.1:* Conduct pre-feasibility and assessment of potential intervention. Define feasible and easily adoptable eco-design measures that can be integrated in EEE production and assembly by conducting a pre-feasibility assessment.
				Activity 2.1.2: Design the implementation of the intervention with the participating OEMs/Producers

Impact	Component	Outcomes	Output	Activities
	through prevention measures and socio-technical ESM models/pilots for replication.	from EEE's unsound production and e-waste's management reduced with support from financial models and BAT/BEP piloted		*Activity 2.1.3:* Initiate implementation of intervention, undertake final assessment.
			Output 2.2: At least two (2) Feasibility Studies for replacement/rebate models of used EEE developed with manufacturers (OEMs) and/or large retailers to support strengthening of EPR schemes.	*Activity 2.2.1:* Based on pre-defined selection criteria, which will include health and safety, environmental, social and gender considerations, select OEMs and identify types of intervention, design two business models for replacement-rebate of large EEE goods. Implement pilot projects, conduct assessment and document pilot results.
			Output 2.3: At least one (1) gender-responsive economically sustainable model with OEMs for education and public engagement on e-waste collection (offsetting) and supply chains piloted.	*Activity 2.3.1:* Based on pre-defined selection criteria, including health and safety, environmental, social and gender consideration, select and engage two OEMs interested in participation.
				Activity 2.3.2: Design detailed intervention and engage a CSO or SME which will operate the offsetting model, with schools/universities or youth communities interested in participating in the pilot projects.
				Activity 2.3.3: Implement the pilot schemes through an agile model of offsetting through education.
			Output 2.4: At least four (4) gender-responsive schemes for e-waste collection and BEP for transforming or upgrading informal processing facilities developed and piloted.	*Activity 2.4.1*: Based on pre-defined selection criterial, including health and safety, social, environmental and gender aspects, identify and select (with due diligence) micro or small aggregators/disassemblers/recyclers for pilot projects, design and implement the pilot projects, assess results and design replication plan
				Activity 2.4.2: BAT/BEP implementation of e-waste management (at its preparatory stages: collection, classification, disassembly, segregation, etc.) to a group of micro or small aggregators/disassemblers/ recyclers and linking the recycling facility with OEMs to ensure uptake
			Output 2.5: Lithium-ion scrap batteries management pilot (1), developed and tested, linked to upstream electric car production to manage their off-spec	*Activity 2.5.1:* Conduct study on technology landscape and economic feasibility in India of recycling spent LIBs
				Activity 2.5.2: Based on pre-defined criteria, select and engage aggregators/ disassemblers/ recyclers for the pilot projects

Impact	Component	Outcomes	Output	Activities
			batteries, with ESM model and guidelines prepared.	*Activity 2.5.3:* Implement pilot for safe handling of spent LIBs to prevent explosion. Design of replication plan with replication implemented and results assessed
	Component 3: Improvement of baseline systems and infrastructures for POPs and uPOPs reduction in e-waste processing.	**Outcome 3:** Systems changed and Infrastructures for reduction of POPs and UPOPs & recovery of key materials improved.	**Output 3.1:** Circularity gender-responsive infrastructure for eco-design in OEM facilities (3) assessed and improvements' feasibility determined.	*Activity 3.1.1:* Shortlist OEMs and their feasible and easily adoptable eco-design measures that can be integrated in EEE production and assembly.
				Activity 3.1.2: Infrastructure changes selection based on Eco-design, assessment of potential implementation, and feasibility study and implementation plan.
			Output 3.2: Review of baselines and BAT/BEP in process for metal and valuable material extraction from e-waste tested in one (1) pilot site.	*Activity 3.2.1:* Develop a recovered metal re-use strategy for pilot test. Define the process type, location, , scope and type of partnership. Select and engage consulting designer and plant developer. Define type of partnership
				Activity 3.2.2: Design, procure and start-up the pilot processing unit for metal extraction from end-of-life (EoL) materials sourced from downstream recyclers and MSEs. Processing unit tested and put into operation
			Output 3.3: Gender-responsive Feasibility study(ies) and strategic roadmap developed for replication of 3.2.	*Activity 3.3.1:* Develop a sustainable scale-up strategy to replicate the pilot model of PCB recycling in multiple locations.
				Activity 3.3.2: Identify areas of gender inclusion in proposed pilot and develop strategy to enhance their livelihood. (social security, leadership opportunities, skill development, access to finance etc.)
			Output 3.4: Process for PBDE removal from e-waste plastics designed, assessed and pilot scale tested in one (1) site.	*Activity 3.4.1:* Define the process type, location, scope and type of partnership. Selection and engagement of consulting designer and plant developer. Define type of partnership
				Activity 3.4.2: Based on pre-defined selection criteria, which will include compliance with UNDP SES, identify, select and engage large collector/aggregator for the pilot project.

Impact	Component	Outcomes	Output	Activities
				Activity 3.4.3: Conduct feasibility study of the pilot to compensate for the cost of removal of PBDEs in EEE plastic and value generated from value generated by metal extraction.
	Component 4: Knowledge management, Global coordination & cooperation, and monitoring & evaluation (M&E)	**Outcome 4:** Global, regional cooperation improved, and capacities enhanced	**Output 4.1.1:** Coordination established with Global Programmes and Initiatives for knowledge management, information exchange and gender equality action.	*Activity 4.1.1:* Develop a knowledge-sharing mechanism strategy for the project with detailed SOPs.
			Output 4.1.2: Gender-responsive cross collaboration, including web-based MIS system and communication platform established and aligned with global programmes or initiatives on EEE Sector.	*Activity 4.1.2:* Conduct experience exchange sessions or roundtables to share lessons and insights from the pilots.
		Outcome 4: Awareness, training and robust mechanism for monitoring and evaluation developed	**Output 4.2.1:** Gender-sensitive Awareness and training Programme(s) for stakeholders, consumers, recyclers and dismantlers launched. Women are empowered to lead and participate in awareness and training activities.	*Activity 4.2.1:* Conduct gender sensitization training sessions for all the project stakeholders before project inception.
			Output 4.2.2: Gender-sensitive Guidelines on incorporating EPR/CE principles and results, metrics and impacts into ESG Reports launched and Champions on ESG reporting identified through a manufacturer's driven awareness programme.	*Activity 4.2.2:* Develop a playbook for Micro and Small EEE OEMs and Producers to guide them on how to integrate EPR-related metrics and results into their sustainability reporting regime.
			Output 4.2.3: Gender-sensitive Project Monitoring & Evaluation established and ongoing throughout project cycle.	*Activity 4.2.3:* Develop a gender-sensitive Monitoring and Evaluation (M&E) plan for each activity, drawing from the project's M&E plan.

Alignment with GEF-8 Programming strategies and country/regional priorities

26. India is Party to both Stockholm and Minamata Conventions, so their nationals' policies, in particular the most recent ones, are aligned with those MEAs.

27. The project is aligned with GEF 8 programming and objectives 1, 2, and 3 under the Chemicals and Waste Focal Area. Through promoting circular economy approaches, implementing upstream measures, and tackling the chemicals and waste at end of life, the project will prevent highly hazardous chemicals and waste containing POPs from entering uncontrolled dumps and/or material recovery supply chains.

28. The project integrates circularity principles across the value chain of EEE in terms of product design, enhancing product sustainability, improving recycling/ refurbishment/ repair and finally the material recovery and sound management of end-of-life EEE products.

GEF-8 Objectives	Project's Contribution
Objective 1: Creation, strengthening and supporting the enabling environment and policy coherence to transform the manufacture, use and sound management of chemicals and to eliminate waste and chemical pollution.	• Investments to eliminate hazardous chemicals, and products containing chemicals including POPs, UPOPs, Mercury, heavy metals and e-waste, including in supply chains that emit and/or use, or produce these. • Access to, and transparency of chemical information in products and materials across supply chains. • Reverse logistics and supply chains to enable recovery of materials and products for reuse, including in supply chains, thereby preventing them from building up in the environment. • Participation and incentivization of women in businesses that work in the environmentally sound management of such chemicals and e-waste as well as the formalization of informal waste management and others engaged in activities related to the management of these chemicals and e-waste.
Objective 2: Prevention of future buildup of hazardous chemicals and waste in the environment.	• Introduction and use of BAT/BEP to minimize and eliminate emissions of POPs, UPOPs and mercury from e-waste categories included in the Stockholm and Minamata Conventions. • Phase out and eventual elimination of mercury or mercury compounds used in manufacturing processes contained in Annex B of the Minamata Convention.
Objective 3: Elimination of hazardous chemicals and waste	• Environmentally sound e-waste management and disposal of e-waste containing POPs, UPOPs and Mercury. • Prevention of e-waste/products consisting, containing or contaminated with POPs or mercury from entering material recovery supply chains.

29. No national policy contradicts any of the proposed outcomes of this Project, on the contrary, the most recent E-waste (Management) Rules, 2022 and Battery Rules 2022, are very favourable to project's outcomes. For a large and rapidly developing country like India, which lacks domestic reserves of rare earth elements required for manufacturing EEE, transitioning to a circular economy provides an opportunity to improve resource availability for the electronics sector and ensure the environmentally sound management of e-waste.

30. However, there might be differentiated Legal, Policy and Institutional responsibilities spread over stakeholders at national and subnational government levels, particularly in relation to downstream activities (waste management, recycling and waste movement for disposal). The project design will recognize any differentiated and conflicting responsibilities, identify the core of the issue and proposed coordination mechanisms and harmonization practices and framework that could hinder any project output.

Theory of Change

This project aims to make strategic interventions across the life cycle of EEE and strengthen India's capacity for the environmentally sound management of electrical and electronic wastes (e-waste) through integrated approaches by targeting the reduction or elimination of POPs, UPOPs and heavy metals in the value chain. The project targets five thematic areas: Inventorization, Informality, Reduction of hazardous chemicals, material recovery, and prevention control.

As a result of a circular economy approach and the application of BAT/BEP, the project will implement a concrete Theory of Change (ToC) that is expected to support the Government of India to reach the ultimate goal of improved human health and the environment and:

(a) Establish a POPs emissions reduction (the avoidance of open-burning of e-waste) and proper management of hazardous chemicals such as POPs, UPOPs and heavy metals (mercury) which should improve health and reduce environmental impacts.
(b) Generate profitable green investment opportunities for the private sector that contribute economically to targeted stakeholders.
(c) Contribute to the Climate Change Mitigation efforts of India given greenhouse gas emissions are expected to be reduced with an improved life-cycle approach that prioritizes recycling and recirculation of materials, reducing the needs for primary mining, but also with the associated emissions of GHG in these activities.
(d) Contribute to an improved well-being of the workers in the last stages of the E-waste end of life.

The ToC of the project is intended to be transformative in nature as it will integrate circular economy principles in the EEE (manufacturing) sector by implementing measures throughout the entire value chain of products till their end-of-life (including recycling and disposal) through the proposed interventions:

1. Strengthen the institutional mechanisms, in the different government levels and develop knowledge-based interventions including design of innovative economic models.
2. Improve practices, systems and technologies for the EEE Manufacturing and its Supply Chain through prevention methods and socio-technical Economically Sustainable Management models/pilots aimed for future replication.
3. Deploy measures (both preventive and corrective) through infrastructures and technologies improvements and innovation, for POPs and u-POPs and heavy metals emissions/releases reduction all along the value chain and specially in e-waste processing, which will generate investments to improve the entire e-waste management ecosystem.
4. Make information and knowledge accessible, raise awareness and build networks and partnerships, facilitate knowledge sharing among the EEE sector stakeholders, national and subnational Governments, and link national action to international/global programmes on e-waste.

Strategically, the project will address the development challenge in a holistic way. With simultaneous and interconnected activities, for instance, between the institutional strengthening (specially at subnational levels) for enforcement, which will trigger the involvement of the private sector. Private sector will in term be interested not only in fulfilling the E-waste rules but also on the potential economic values that will be increasingly obtained through the more systematic e-waste management in the ecosystem. All this will also include workers conditions improvement and the gender inclusive approach as well.

Results' activities, supported by a sturdily developed baseline as to the existing inventory, its present way to manage it and its existing and potential impact on health, will be validated by on-the-ground implementation of demonstrative activities, such as several pilot tests, running from eco-design at the EEE manufacturing stage through to systematic improvement of the dismantling operations environment-, safety- and health wise considering the several facilities in the country and down to the deployment of 2 final process equipment design and development, one for recovery of the critical metals and other for the elimination of the PBDEs content in the e-waste plastic separated. Many of these demonstrative activities will be market tested through business models development and economic feasibility of the designs.

The project's Theory of Change can be presented in the diagram Figure 2 below. The 4 project components with the specificities are detailed in Section V.

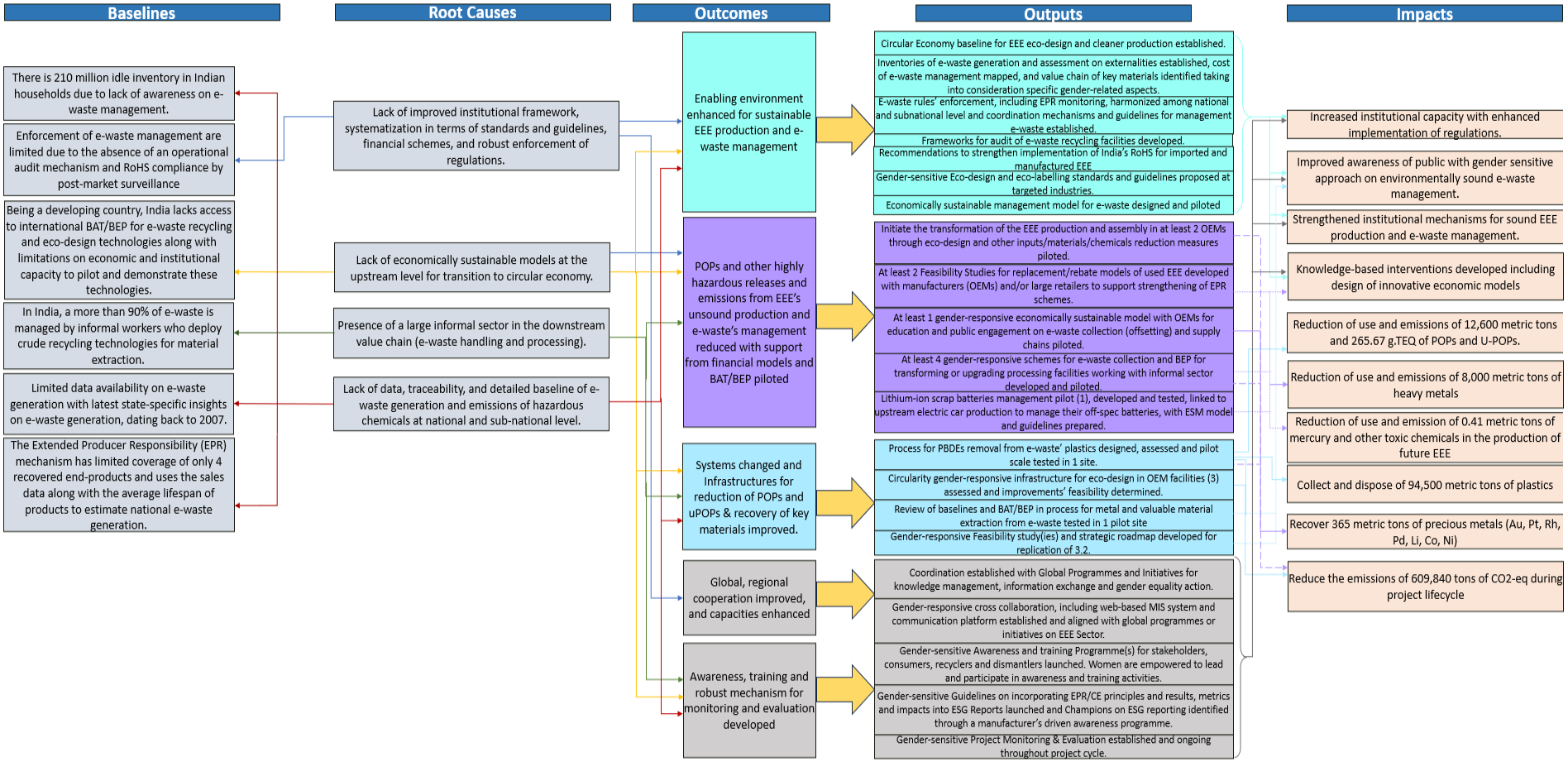


FIGURE 2: THEORY OF CHANGE

V. RESULTS AND PARTNERSHIPS

Project Results

31. **The objective of the Project** is to reduce (and/or eliminate) the adverse impacts of POPs, UPOPs and heavy metal (such as mercury) on human health and environment by making strategic interventions across the life cycle of electrical and electronic equipment and strengthening India's capacity for the environmentally sound management of electrical and electronic wastes (e-waste) while at the same time increasing recovery of scarce and valuable metals through integrated approaches.

32. The project is intended to be transformative in nature as it will integrate circular economy principles in the electrical and electronic (manufacturing) sector by implementing measures throughout the entire value chain of products till their end-of-life (including recycling and disposal) through the proposed interventions:

    1. Strengthen the institutional mechanisms and develop knowledge-based interventions including design of innovative economic models
    2. Improve practices, systems and technologies for the EEE Manufacturing and its Supply Chain through prevention methods and socio-technical ESM models/pilots aimed for future replication.
    3. Improve the e-waste management ecosystem by deploying investments, prevention measures, infrastructures and technologies for POPs and u-POPs and heavy metals emissions/releases reduction in e-waste processing.
    4. Make information and knowledge accessible, raise awareness and build networks and partnerships facilitate knowledge sharing among the EEE sector stakeholders, national and subnational Governments, and link national action to international/global programmes on e-waste

Component 1. Strengthen institutional mechanisms and develop knowledge-based interventions including design of innovative economic models.

Outcome 1. Enabling environment enhanced for sustainable EEE production and e-waste management.

Output 1.1: Circular Economy baseline for EEE eco-design and cleaner production established.

33. EEE manufacturing is resource intensive and is dependent on several critical materials such as Indium, gallium, nickel and so on. India is currently the third largest consumer of raw materials and depends on imports of cobalt, nickel, and other rare earths for manufacturing due to its limited reserves. Several drivers such as planned obsolescence, short-term profits prioritization, growing consumption and demand, and lack of incentives for the circularity transition, perpetuate the linear business model in the upstream value chain. In this light, it is imperative for India to transition to a circular business model to reduce its import dependency, and further promote EEE manufacturing within the country. To accelerate the transition, it is imperative to establish a unified framework to have a consistent approach to track and monitor the transition.

34. Targeting this objective, the project aims to establish a baseline for a Circular Economy on EEE production considering eco-design and cleaner production parameters.

    Activity 1.1.1: Establish a CE baseline among Indian EEE OEMs/producers via primary data collection by using established indicators.

Output 1.2: Inventories of e-waste generation and assessment on externalities established, cost of e-waste management estimated, and value chain of key materials mapped taking into consideration specific gender-related aspects.

35. To effectively manage the growing e-waste stream in the country, it is imperative to be able to first measure it and track its progress against a baseline. Up-to-date data on EEE production, import and e-waste generation at the national and sub-national levels is lacking. Further, the recycling statistic is limited to CPCB-registered recyclers only. Therefore, a gnawing data gap on e-waste exists in the country. Currently, the CPCB estimates

the e-waste generated in India based on the countrywide sales data provided by producers and the average lifespan of the products. There is no record-keeping of e-waste generation data at the state or city level.

36. To initiate the baseline, a comprehensive national e-waste inventory is needed and will be developed based on the methodology developed by the United Nations University (UNU) to calculate the e-waste generated and undertake a Material Flow Analysis (MFA) of EEE production through to end of life. A mapping of POPs (PBDEs) and other highly hazardous (HH) constituents (Cadmium, Lead, Chromium and Mercury) flow along the electronic waste life cycle will then also be realized. This will include selected sampling and chemical analyses and the determination of potential release of PBDEs, PBDD/F and PCDD/F.

37. At the same time, key value metals (Lithium, Cobalt, Nickel, Rare earths, precious and platinum group metals) will be identified and estimated.

38. Environmental externalities and solutions' processing costs will be assessed. Sources, generators, types, management bottlenecks, critical points of accumulation in public health and the environment of e-waste will be identified and assessed, taking into consideration gender-sensitive approaches and impacts. Precious and key metals contained in e-waste will be quantified, besides other value containing materials. This will be presented in the development of guideline for e-waste inventories in Indian cities and states; and further application in model 4 metro-cities for demonstration and dissemination to rest of the country.

39. A comprehensive socio-environmental gender assessment of the impact of informal recycling, its nature of operation, collection networks, modus operandi of recycling and informal recycling hubs in various states will be developed. This will be complemented with determination of potential environmental effects as well as its health effects on informal male and female collectors and recyclers, and other workers along the value chain: i.e., from discarding by public down to final end-of-life, with the aim of improving health and livelihoods of general population and workers through a gender-responsive approach.

40. Nationwide e-waste value chain of the recycling industry will be assessed, including listing and characteristics of industries. Formal units will be determined from authorizations and informal units estimated by surveys and visits and with the support of Bulk Consumers help. This industrial sub-sector will be assessed in number of facilities, size, process type, processing capacity and personnel involved.

    Activity 1.2.1: Conduct national e-waste inventory assessment with improved granularity at national and sub-national levels, aligned to global methodologies.

    Activity 1.2.2: Conduct a study to estimate the cost burden of e-waste management and adoption of BAT/BEPs on different stakeholders (producers, recyclers, manufacturers, refurbishers).

    Activity 1.2.3: Conduct a socio-environmental and gender assessment of the impact of informal recycling, its nature of operation, collection network, modus operandi and identifying informal hubs in the country.

    Activity 1.2.4: Undertake a Material Flow Analysis (MFA) to map the life cycle of the 106 EEE included in the e-waste management rules and assess the emissions of POPs, UPOPs, and hazardous metals.

Output 1.3: E-waste rules' enforcement, including EPR monitoring, harmonized between national and subnational levels and coordination mechanism and guidelines for e-waste management established.

41. A comprehensive assessment (including identification of gaps and problem areas) of the national EPR system, specifically with respect to auditing and verification mechanism for the involved stakeholders. From that, amendments referring particularly to enforcement mechanisms will be developed and proposed. Audit framework for E-waste value chain will be developed, based on experience from ISO 18000 and other voluntary hazardous waste audits from other countries, such as R2 and E stewardships. Draft guidelines will be prepared to operationalize the audit mechanism.

42. A gender-sensitive coordination mechanism, supported by guidelines specifically designed for the purpose, will be developed to harmonize the local/state administrative permits for transportation, collection, and management of e-waste.

Activity 1.3.1: Develop guidelines/SOPs for sub-national (state and city-level) e-waste inventory development, management and enforcement, in accordance with UNDP Social and Environmental Safeguards (SES).

Activity 1.3.2: Conduct a feasibility study to extend the scope of the EPR certificate regime beyond the 4 key metals (Gold, Aluminium, Copper and Iron).

Output 1.4: Frameworks for audit of e-waste recycling facilities developed.

43. The latest amendment of the E-waste Rules enforced in 2024 has introduced the provision of a verification and audit system for registered recycling facilities. A comprehensive assessment (including identification of gaps and problem areas) of the national EPR system, specifically with respect to auditing and verification mechanism for the involved stakeholders. From that, amendments referring particularly to enforcement mechanisms will be developed and proposed. An audit framework for E-waste value chain will be developed, based on experience from ISO 18000 and other voluntary hazardous waste audits from other countries, such as R2 and E stewardships. Draft guidelines will be prepared to operationalize the audit mechanism.

    Activity 1.4.1: Develop an SOP to streamline and effectively implement the auditing of e-waste recycling facilities in accordance to the E-waste management rules provisions with insights from global waste audit certifications, and in accordance with UNDP SES.

Output 1.5: India's RoHS for imported and manufactured EEE assessed and gender-sensitive recommendations proposed to strengthen its implementation and aligned for the national/subnational action.

44. RoHS implementation under the E-waste (Management) Rules, 2022 is confined to a self-declaration from the producers' stating compliance. The Rules mandate post-market surveillance on a random sampling basis to verify the self-declaration. However, the future course of action on mechanisms to operationalize it is currently lacking.

    Activity 1.5.1: Develop product-wise testing protocol and guidelines including testing infrastructure development/upgradation for RoHS compliance aligned with global laboratory standards.

    Activity 1.5.2: Develop a Monitoring, Reporting and Verification (MRV) framework for CPCB for post-market surveillance of RoHS certified products.

Output 1.6: Gender-sensitive Eco-design and eco-labelling standards and guidelines proposed at targeted industries.

45. Initiatives to accelerate eco-design and eco-labelling adaptation for EEE production will be developed based on BAT/BEP from other countries and in the experience in India. Standards will be socialized and guidelines for their implementation prepared. Eco-design practices will be tested in conjunction with Component 2, and further refined.

    Activity 1.6.1: Identify critical EEE product categories with increased potential for eco-design and eco-labelling incorporation.

    Activity 1.6.2: Develop a roadmap to facilitate adoption of the new Ecomark Rules, 2024 for each EEE category.

    Activity 1.6.3: Conduct a Readiness Assessment study to gauge India's readiness to adopt a policy akin to the EU's Eco-design for Sustainable Products Regulation (ESPR).

Output 1.7: Economically sustainable management model for e-waste (a "first blueprint") designed and piloted

46. A reference, gender responsive, Economically Sustainable Model for India will be designed and developed for integration into the entire value chain. The concept creation of the model will be based on the learnings obtained during baseline development, in the present and evolving ecosystem assessment, in world trends in E-waste management and EEE production and supported by recent E-waste (Management) Rules, 2022 and other regulations, keeping in mind the social wellbeing of the workers and people.

47. Departing from the feasibility study of E-waste recycling and processing of India, the economic dimension will be determined, and assessment of potential financial instruments/ mechanism will be realized, to be adapted

for supporting the path for the full establishment of the integrated in the reference model, allowing regulations' compliance. This Mechanism will include Extended Producer Responsibility. Financing sources for the establishing of successful business models (start-ups) and implementation projects for EEE eco-design and for e-waste sound processing, will be identified and fostered, from the background information developed by the UNDP Asia/Pacific Regional Office for plastics and circular economy.

48. The upstream value chain is largely formal and therefore would be more resilient to adopt changes. Infusing circularity at the upstream design stage of a product has two major avenues. The first avenue would be to reduce the use of virgin raw materials and promote the use of secondary raw materials. Secondly, the products' design could be moulded to enhance repairability, the ability to refurbish, and recyclability. Furthermore, the changes in this segment would have a cascading impact on all other circular business models in the mid and downstream segments. The objective of pilots in the upstream value chain is to leverage their sector expertise, experience in other countries, and willingness to adopt circularity as a practice in India.

    Activity 1.7.1: Based on the assessed existing business models, at its different stages, develop a first blueprint of an "ideal" business model, including compliance with UNDP SES and reflecting relevant gender considerations.

    *Activity 1.*7.2: Conduct a study of the product subscription model with the aim of diminishing e-waste generation and extending the lifespan of electronic products.

Component 2. EEE Manufacturing, Supply Chain and End of Life (EOL) Ecosystem improvement through prevention measures and socio-technical ESM models/pilots for replication.

Outcome 2: POPs and other highly hazardous releases and emissions from EEE's unsound production and e-waste's management reduced with support from financial models and BAT/BEP piloted

Output 2.1: Initiate the transformation of the EEE production and assembly in at least two (2) Original Equipment Manufacturers (OEMs) through eco-design and other inputs/materials/chemicals reduction measures piloted. Participating OEMs will be selected from OEMs/Producers identified at PPG phase and based on pre-defined selection criteria.

49. Eco-design (measures) piloted in 2 Original Equipment Manufacturers (OEM): Deployment of improved Extended Producer Responsibilities (EPR) of the manufacturers (OEM) and assemblers will be tested through application of Eco-design measures[24] covering different aspects of product design, with previous pre-feasibility studies, but strongly enforcing the reduction of POPs and other chemicals in processes. Pilots will be developed in conjunction with 2 different OEMs will be selected at the beginning of the Project's implementation, since design modifications take long time. Definition of the modification in design to be addressed and the OEMs to work with will be further defined in the initial stages of project implementation in direct discussion between the stakeholders.

50. Gender equity perspective will be taken into consideration in the mapping and identification of OEMs, retailers, assemblers and other stakeholders. The two OEMs will participate in pilot projects where Eco-design measures (preferably with focus on POPs or other Highly hazardous substances minimization) are implemented, as an extension of EPR. In particular, but not exclusively, these may be Indian EEE producers, and the potential substances to be controlled in their processes to be Lead, Mercury, Cadmium, hexavalent Chromium, Polybrominated biphenyls (PBB), Polybrominated diphenyl ethers (PBDE), Bis(2-ethylhexyl) phthalate (DEHP), Butyl benzyl phthalate (BBP), Dibutyl phthalate (DBP), Di isobutyl phthalate (DIBP). Or else, it can be standardization of a common fixture (like U type connector) or product durability, reusability, upgradability, and

[24] Taking Eco-design as per EU Directives scopes for EEE, as:
- product durability, reusability, upgradability, and repairability
- presence of substances that inhibit circularity
- energy and resource efficiency
- recycled content
- remanufacturing and recycling
- information requirements, including a Digital Product Passport
- carbon and environmental footprints

repairability. Activities will include mainly, selection of OEMs and preliminary selection of intervention type, Eco-design measures selection, pre-feasibility, and assessment of potential implementation, design and beginning of implementation, implementation and improvement and final assessment.

51. The criteria for the selection of the two OEMs would be Indian producers of, but not exclusively, small household appliances, IT and telecommunications equipment, electrical and electronic tools and toys, leisure and sports equipment (according to the E-waste Management Rules categorization). Gender equality perspective will be taken into consideration in the mapping and identification of OEMs, retailers, assemblers and other stakeholders by conducting inclusive stakeholder analysis and participatory consultations. The two pilot projects will result in two eco-design measures having been tested, implemented and documented.

    Activity 2.1.1: Conduct pre-feasibility and assessment of potential intervention. Define feasible and easily adoptable eco-design measures that can be integrated in EEE production and assembly by conducting a pre-feasibility assessment.

    Activity 2.1.2: Design the implementation of the intervention with the participating OEMs/Producers.

    Activity 2.1.3: Initiate implementation of intervention, conduct and final assessment.

Output 2.2: At least two (2) pilot projects for replacement/rebate models of used EEE developed with manufacturers (OEMs) and/or large retailers to support strengthening of EPR schemes.

52. Used E&E equipment replacement / rebate schemes through OEMs and/or large retailers: Based on one of the EU eco-design scope's definitions, i.e. (improvement of) "product durability, reusability, upgradability, and repairability", two OEMs and/or large retailers[25] will be engaged into pilot projects where one of those schemes will be tested. In the Replacement scheme, a specific brand can replace a used (in working conditions) equipment for a newer or upgraded model of the same brand, with the differential paid for by user, through a big retailer chain, who will then re-sell the used equipment, duly certified, or else recover the spare important parts to be sold for replacement in other equipment, in full compliance with the E-waste Management Rules. Or alternatively, in the Rebate scheme, the large retailer can receive a used (in working conditions) equipment and apply a rebate in the buying of a new one of any brand.

53. Participant candidates to be selected for the pilot projects will be two OEMs Indian producers of, but not exclusively, small household appliances, IT and telecommunications equipment, electrical and electronic tools and toys, leisure and sport equipment. The pilot projects will result in two business models tested, implemented and documented, with 4,000 tons of equipment having their use life extended.

    Activity 2.2.1: Based on pre-defined selection criteria, which will include health and safety, environmental, social and gender considerations, select OEMs and identify types of intervention, design two business models for replacement-rebate of large EEE goods. Implement pilot projects, conduct assessment and document pilot results.

Output 2.3: At least one (1) gender-responsive economically sustainable model with OEMs for education and public engagement on e-waste collection (offsetting) and supply chains piloted.

54. E-waste offsetting by OEMs with collection engagement through schools and universities: A gender-responsive ESM will be designed and tested for the establishment of a direct relationship between an OEM and educational institutions, taking advantage of the interest of youth into the preservation of environment. In the basic format, OEM will pay for specific awareness lessons to an educational institute and develop and pay for collection and processing of the E-waste from-and around the educational institute. This initiative can be accounted for in the ESG reports of the OEM.

55. Two OEMs will be selected to engage with schools or other youth communities (YC) pay for specific awareness lessons to 100+ schools/YC per year by each OEM, and for collection and sound management of the E-waste from schools/YC and their surroundings. Engagement, environmental educational lessons and operation of

[25] Large electronic retailers in India, such as Flippkart and Tata Croma stores, are major companies that sell a wide range of electronic products, including gadgets, appliances and accessories, both online and through physical stores

collection will be implemented by a CSO. An Environmentally Sound Model (ESM) will be designed, tested and documented. Replication model will be designed. The pilot projects will result in 2,400,000+ young people directly made aware of the environmental impact of waste unsoundly managed. 24,000 tons of E-waste will be collected and soundly managed and reported.

56. Participants will be selected from schools in large cities like Delhi, Mumbai. OEM producers of IT equipment will be invited to participate.

    Activity 2.3.1: Based on pre-defined selection criteria, including health and safety, environmental, social and gender consideration, select and engage two OEMs interested in participation.

    Activity 2.3.2: Design detailed intervention and engage a CSO or SME which will operate the offsetting model, with schools/universities or youth communities interested in participating in the pilot projects.

    Activity 2.3.3: Implement the pilot schemes through an agile model of off-setting through education.

Output 2.4: At least four (4) gender-responsive schemes for e-waste collection and BEP for transforming or upgrading informal processing facilities developed and piloted.

57. E-waste collection and BAT/BEP for transforming or upgrading four (4) informal processing facilities, with social and gender-responsive schemes incorporated**.** Four pilot projects for small or medium sized dismantlers/refurbishers/recyclers/ will be designed and developed to obtain optimized operations as to BAT/BEP. Aspects addressed will be to improve mechanical pre-treatment processes to minimize losses of valuable fractions and diffusion of POPs/PTS and support facilities that remove components from PCBs to upgrade them to an integrated process. Considering the lack of traceability to informal players, a Centre of Excellence is proposed to be developed nearby documented informal recycling hubs in the country (such as Moradabad). The Centre of Excellence (CoE), through a partner NGO and technology provider(s), will provide technology demonstration sessions to the informal e-waste collectors/processors as well as provide them with the avenue to sell the collected e-waste at the Centre for recycling in an environmentally sound manner, thereby protecting their health. (Following the successful pilot demonstration by the project's midterm, the CoE is anticipated to be replicated in multiple states, with one CoE established in each state.).

58. New/up-gradation of processing facilities with minimum benchmarks and standard operating procedures to bring in professionalism in the process of e-waste processing and recycling will be obtained. A gender-sensitive best practice Guideline will be produced to serve as the basis for a standard at later stages, which will be based on a gender-responsive focus with a group of “informal recyclers’ facilities” sustained in the E-waste (Management) Rules, 2022, together with State or any other government agency authorized in this regard. Once established, model will be tested and evaluated for their feasibility of replication. Activities will include selection (and due diligence) of facilities, engagement of enterprises, design and implementation of pilots, assessment and replication design.

59. Three small and one medium size facilities will be selected from sites in Gujarat, Rajasthan, Maharashtra, Southwest States; or cities like Delhi, Moradabad, and Hyderabad.

    Activity 2.4.1: Based on pre-defined selection criterial, including health and safety, social, environmental and gender aspects, identify and Select (with due diligence) micro or small aggregators/ disassemblers/recyclers for pilot projects, design and implement the pilot projects, assess results and design replication plan.

    *Activity 2.*4.2: BAT/BEP implementation of e-waste management (at its preparatory stages: collection, classification, disassembly, segregation, etc.) to a group of micro or small aggregators/disassemblers/ recyclers and linking the recycling facility with OEMs to ensure uptake.

Output 2.5: One Lithium-ion scrap batteries management pilot project developed and tested, linked to upstream electric car production to manage their off-spec batteries, with ESM model and guidelines prepared.

60. Sound and safe management of Lithium-ion batteries scrap will be piloted. To implement Lithium-ion batteries management, including from collection, sorting and neutralization as preparation for export for recycling, will

be tested mainly in two senses: for risks prevention from explosions and as a materials (lithium, cobalt and nickel) source. Work will be linked to car main automobile's' manufacture which produces electric cars to also manage their off-spec Lithium batteries. A business model will be developed to foster a likely start up. A practical guideline for will be elaborated and disseminated.

61. One Pilot on Lithium-ion batteries management will be implemented with an existing E-waste processor, either dismantler or recycler. Pilot activities will include from collection, sorting and neutralization as preparation for either transport to a national processing facility (if one exists) or for export for recycling. Tests and development will address two goals: risks prevention/protection from explosions and as "black mass" (which contains lithium, cobalt and nickel) source. An automobile's' assembler which produces electric cars will also be engaged to manage their off-spec Lithium batteries as well. A business model will be developed to foster a likely start up. A technical guideline will be elaborated and promoted for E-waste processors.

62. The pilot project will result in the collection and sound management of 4,800 tons of Lithium-ion batteries, and a business model designed and tested, with Lithium batteries safe management guideline developed. The criteria for selection of the pilot participants

    Activity 2.5.1: Conduct study on technology landscape and economic feasibility in India of recycling spent LIBs.

    *Activity 2.*5.2: Based on pre-defined criteria, select and engage aggregators/ disassemblers/ recyclers for the pilot projects.

    Activity 2.5.3: Implement pilot for safe handling of spent LIBs to prevent explosion. Design of replication plan with replication implemented and results assessed.

Component 3. Improvement of baseline systems and infrastructures for POPs and UPOPs reduction in e-waste processing.

Outcome 3: Systems changed and Infrastructures for reduction of POPs and UPOPs & recovery of key materials improved

Output 3.1: Circularity gender-responsive infrastructure for eco-design in OEM facilities (3) assessed and improvements' feasibility determined.

63. Eco-design based feasibility assessment for Circularity infrastructure adaptation in OEM facilities: Circularity infrastructure (such as production machinery) and gender-sensitive knowledge capacities will be assessed in at least 3 OEM facilities. Pilots with 3 OEMs facilities will be deployed to address potential production machinery adaptations or modifications to incorporate Eco-design measures for more Circularity (More circular meaning e.g., adaptations to produce easier to disassemble EEE, easier to repair, easier to upgrade, etc.), including gender-sensitive knowledge capacities. As a result of the assessment, scope and dimension of the required infrastructure adaptations for a more circularized operation of the facilities will be determined. Feasibility study and cost-benefit analysis of the facility will then be realized. This pilot can also be combined with other stage of the value chain, that is, large retailers which distribute the OEM's brand, refurbisher's workshops, etc. In this way, the extension of circularity can include logistics measures.

64. As a result of the pilot projects, three measures eco-design measures for increased Circularity along the value chain will be identified, assessed and with feasibility determined.

    Activity 3.1.1: Shortlist OEMs and their feasible and easily adoptable eco-design measures that can be integrated in EEE production and assembly.

    Activity 3.1.2: Infrastructure changes selection based on Eco-design, assessment of potential implementation, and feasibility study and implementation plan.

Output 3.2: Review of baselines and BAT/BEP in process for metal and valuable material extraction from e-waste tested in one (1) pilot site.

65. Metal extraction from e-waste pilot facility and tested: An E-waste pilot processing unit will be designed and built at an existing facility for metals extraction from the final products of the E-waste processors. This will be a

support for the national capacities improvement and minimize export of the valuable parts, such as Printed Circuit Boards (PCBs) and/or Lithium-ion batteries. It is meant to process these materials obtained by micro and small enterprises of the sector. Feed capacity would be 500 kg/day. Process can be either Pyrometallurgical or Hydrometallurgical. This pilot project will be deployed to recover not only gold, silver and platinum group metals, or alternatively also strategically valuable metals such as Lithium, Cobalt and Nickel from E-waste batteries. In this extraction process, standard commodity metals such as copper and aluminum will also be recovered. Process can be developed in partnership with a private sector company. An important aspect to be evaluated is the feasibility of the sustainable model, so recovered metals can generate the value and compensate for the cost of removal of all PBDEs from metals and plastics containing these chemicals in the E-waste. Feasibility study for a plant of 800 tons/day (about 20,000 tons/year) will be developed.

Activity 3.2.1: Develop a recovered metal re-use strategy for pilot test. Define the process type, location, , scope and type of partnership. Select and engage consulting designer and plant developer. Define type of partnership.

Activity 3.2.2:.Design, procure and start-up the pilot processing unit for metal extraction from end-of-life (EoL) materials sourced from downstream recyclers and MSEs. Processing unit tested and put into operation.

Output 3.3: Gender-responsive Feasibility study(ies) and strategic roadmap developed for replication of 3.2.

66. Gender-responsive Feasibility study(ies) will be conducted and strategic roadmap developed to replicate positive results generated under Output 3.2

Activity 3.3.1: Develop a sustainable scale-up strategy to replicate the model in multiple locations.

Activity 3.3.2: Identify areas of gender inclusion in proposed pilot and develop strategy to enhance their livelihood. (social security, leadership opportunities, skill development, access to finance etc.).

Output 3.4: Process for PBDEs removal from e-waste' plastics designed, assessed and pilot scale tested in one site.

67. **PBDEs removal from e-waste' plastics pilot facility designed and tested:** An E-waste pilot processing unit will be designed, needs based, built and tested for PBDEs and other potentially existing POPs, to be removed from the end-of-life materials from the E-waste processor. This will be set in an existing location where E-waste processors or disassemblers are located, to minimize the risk in transport. Approximate feed capacity would be 500 kg/day and can be developed in partnership with a Producer (OEM), to best fulfil EPR from E-waste (Management) Rules, 2022. In the design, processing stages will be assessed, from identification and segregation to processing, including preparation as crushing and grinding, through to chemical or thermal processing. Considering the potential hazards of chemical recycling/neutralization of the plastics, the physical segregation route for plastics in e-waste was considered a viable and implementable approach.

68. The pilot projects will also adopt an inclusive approach to avoid any gender discrimination and ensure the participation of women, youth groups, and vulnerable groups while mainstreaming the gender aspect through the empowerment and participation of diverse groups of women and men in e-waste management.

69. The pilot will result in one pilot size processing unit designed and tested in operation for removal/neutralization of flame retardants (PBDEs and other POPs) contained in E-waste plastics. 10,500 tons of plastics containing PBDE will be removed and eliminated.

Activity 3.4.1: Define the process type, location, scope and type of partnership. Selection and engagement of consulting designer and plant developer. Define type of partnership.

Activity 3.4.2: Based on pre-defined selection criteria, which will include compliance with UNDP SES, identify, select and engage large collector/aggregator for the pilot project.

Activity 3.4.3: Design, procure and start-up the processing unit for PBDEs and other potentially existing POPs reduction from end-of-life (EoL) materials sourced from e-waste processor. Processing unit tested and put into operation. Assessment of operation conducted.

Component 4. Knowledge management, Global coordination & cooperation, and monitoring & evaluation (M&E)

Outcome 4.1: Global, regional cooperation improved, and capacities enhanced

Output 4.1.1: Coordination established with Global Programmes and Initiatives for knowledge management, information exchange and gender equality action.

70. An interactive information and knowledge platform will be established, firstly through known means such as internet, but also making use of social networks. Platform will include a board of experts from universities and CSOs, who will manage it and implement other activities to disseminate their topics among others: most importantly, as a tracking system, peer reviewed and grey literature, policy, accountability, experiences in all life cycle, knowledge on best practices, tool kit, institutional and legal framework, management decisions, etc. This will entail preparation and implementation of a gender-sensitive communication strategy and plan that would focus on sharing knowledge.

71. This component will support the collection of findings and experiences from Components 1 and 2 on the work with Manufacturers and develop guidelines on how reporting on EPR schemes, CE interventions and systems change can be incorporated in ESG Reports and track the reporting of stakeholders to identify Champions by campaigning (awareness) with these upstream actors. In particular, efforts will be made to identify best practices (that promote gender equality so as to provide specific guidance and examples for mainstreaming gender perspectives across the lifecycle of the project) – to achieve greater effectiveness, better outcomes and stronger co-benefits.

72. Coordination with other present or future initiatives, at regional or global scales will be implemented through collaboration for knowledge and lessons learnt exchange, participation in regional or global platforms, participation in other countries projects, sharing of project's results, financing aspects, and other.

73. At global level the project will seek collaboration for knowledge and lessons learnt exchange through knowledge management component, including the global Gender Action Plan, and harmonize gender-sensitive approaches between components.

    Activity 4.1.1: Develop a knowledge-sharing mechanism strategy for the project with detailed SOPs. Actively engage in regional and global dialog and an efficient mechanism for exchanging knowledge and experience.

Output 4.1.2: Gender-responsive cross collaboration, including web-based MIS system and communication platform established and aligned with global programmes or initiatives on EEE Sector

    Activity 4.1.2: Integrate an online MIS on the EPR portal dashboard. Conduct knowledge and experience exchanges sessions and roundtables to share lessons learnt and insights from the pilot projects.

Outcome 4.2: Awareness, training and robust mechanism for monitoring and evaluation developed

Output 4.2.1: Gender-sensitive awareness and training programme(s) for stakeholders, consumers, recyclers and dismantlers launched. Women are empowered to lead and participate in awareness and training activities.

74. At national level the project intents to coordinate with the most relevant ongoing initiatives of the government and private sector. Through this coordination, the project will be able to identify gaps in the current interventions and possible paths for joint interventions, as well as build on the past executed work. An efficient and gender sensitive knowledge sharing mechanism will be established under Component 4 of the project. The mechanism will promote effective stakeholder collaboration and coordination as well as provide a platform for dissemination of knowledge and project impact to the wider set of stakeholders.

    Activity 4.2.1: Conduct gender sensitization training sessions for all project stakeholder before project inception.

Output 4.2.2: Gender-sensitive Guidelines on incorporating EPR/CE principles and results, metrics and impacts into ESG Reports launched and Champions on ESG reporting identified through a manufacturer's driven awareness programme.

Activity 4.2.2: Develop a playbook for Micro and Small EEE OEMs and Producers to guide them on how to integrate EPR relate metrics and results into their sustainability reporting regime.

Output 4.2.3: Gender-sensitive Project Monitoring & Evaluation established and ongoing throughout project cycle.

75. M&E and adaptive management in response to necessities and results from the intermediate evaluation and final findings with lessons learned applied.

Activity 4.2.3: Develop a gender-sensitive Monitoring and Evaluation (M&E) plan for continuous and periodic progress review for each activity, drawing from the project's M&E plan.

Selection Criteria for Pilot Projects

76. The selection criteria for the pilot projects were developed based on the extensive stakeholder consultations conducted during PPG phase. The criteria have been designed in a manner to enable maximum participation of entities and ensure the sustainability of the project outcomes.

S. No	Selection Criteria	Rationale
Mandatory / Necessary-to-have		
1	**Geographic Location:** The facility/site of intervention will not be located in a 'No-go Area' as defined by the Social and Environmental Screening Procedure (SESP) of the project.	The SESP is a mandatory requirement of UNDP that helps ensure that projects maximize social and environmental benefits while minimizing potential adverse impacts. It involves a thorough screening process to identify opportunities and risks early in the project design and implementation phases. To minimize operational risks of the project, it is important to abide by the SESP requirements.
2	**Registration in India:** The entity should be a registered legal entity under the Companies Act, 2013 and be lawfully allowed to operate in India.	As the project outcomes target the Indian economy at large, selection of Indian entities would be crucial to maximize project impact.
3	**Regulatory Compliance:** The entity should have obtained necessary permits and licenses as required by the CPCB and SPCB/PCC under the Consent to Establish (CTE) and the Consent to Operate (CTO).	Selection of entities with full regulatory compliance will minimize the operational and reputational risks of the project.
4	**Absence of legal litigations:** The entity should not have any ongoing legal litigations that may impact the project's implementation and sustainability or the reputation of the implementation agencies.	Presence of legal litigations will have associated reputational, operational, and financial risks that may impact the sustainability of the project.
5	**Registration with the CPCB:** The entity should be registered under one or more of the four categories (Producer, Manufacturer, Recycler, Refurbisher) on the CPCB e-waste portal. The registration should cover all of their operations and product categories.	Selecting entities registered with the CPCB will enable an additional layer of transparency, validation and ground truthing as the CPCB mandates compliance with all necessary regulations for registration.
6	**Financial Stability:** The entity should demonstrate financial stability and the ability to fund the project without relying solely on external funding.	Financial stability ensures that a company has the resources to complete the project without interruptions. It reduces the risk of delays and enhances the overall reliability and credibility of the project implementation. Additionally, a financially stable entity is more likely to sustain the project

		beyond its initial phase, ensuring long-term success and sustainability.
7	**Compliance with SESP:** The entity should comply with all the requirements set forth by the project's SESP.	The SESP is a mandatory requirement of UNDP that helps ensure that projects maximize social and environmental benefits while minimizing potential adverse impacts. It involves a thorough screening process to identify opportunities and risks early in the project design and implementation phases. To minimize operational risks of the project, it is important to abide by the SESP requirements.
Negotiable / Good-to-have		
8	**Certifications/Sustainability Reporting initiatives:** The entity should have certifications like ISO 14001 or R2v3 and should already be reporting its sustainability initiatives or have plans in place to initiate reporting in the near/medium term.	Entities with certifications or sustainability reporting plans reflect the farsightedness and proactiveness of the entity in adhering to internationally recognized standards and best practices for environmental management and responsible recycling.
9	**Managerial Capacity:** The entity should have a minimum of 01 personnel responsible for obtaining environmental clearances and ensuring compliance with the E-waste Management rules.	Presence of skilled personnel with expertise and domain knowledge in responsible e-waste management and a know-how of how to navigate the regulatory landscape of India will minimize legal, operational and reputational risks for the project.
10	**Technical Capacity:** The entity must be willing to adopt BAT/BEP under the project and continue the intervention after the project duration in a sustainable manner. Regular audits and compliance checks should be part of the entity's operational procedures.	Presence of necessary infrastructure and willingness of the entity to upgrade its infrastructure to adopt BAT/BEP under the project will have a direct bearing on the project's success and sustainability.

Explain the methodological approach and underlying logic to justify target levels for Core and Sub-Indicators

77. Calculations are direct result of the achievement of the project's objective (at the end of implementation) and is calculated against the project lifecycle (6 years). The reduction / elimination target of 5% of the releases or emissions estimated for 2022 is the baseline withing the total of 4,200,000 t/yr of e-waste generated in India. Hence, the project's resources will be used to achieve this target at the end of the 5th year of implementation (an average of 2.5% each year reduction will translate into a 15% of the baseline elimination amount of each pollutant), more specifically:

    - For PBDD/F: 4,200,000 *0.035 (2% weight fraction cables plus 5% metal/plastic mixtures)*12,000 µg TEQ/t = 1,764 g-TEQ/yr in PCDD/F emissions (emission factor for open burning of cables: 12,000 µg TEQ/t, UNEP Toolkit for Identification and Quantification of Releases of Dioxins, Furans and Other Unintentional POPs 2013, Cat. 2, Class m), while the uncontrolled burning of circuit boards could be responsible for: 4,200,000 MT*0.017 (1.7 % weight fraction circuit boards) *100 µg TEQ/t = 7.1 g-TEQ/yr in PBDD/F (emission factor for open burning of circuit boards: 100 µg TEQ/t, Hedlund et al. 2005). Total of estimated potential emissions then is 232.74 g-TEQ/yr, which when affected by the 6 years at the conditions specified in the first paragraph, yield a total of 265.67 g TEQ.
    - For PBDE: e-waste is considered to contain 2% plastic which contains PBDEs in a concentration of 2,000 mg/kg (see reference by Hedlund): This yields 16.8 t of PBDEs, which when affected by the 6 years at the conditions specified in the first paragraph, yields a total of 25.2 t of PBDEs.

- For Hg, assuming a base concentration of 0.65 mg/kg, for the 4,200,000 t a total potential amount of Hg contained in e-waste is 2.73 t of Hg, which when affected by the 6 years at the conditions specified in the first paragraph, yields a total of 0.41 t.
- For CO2 eq. emissions avoided, the four main materials contained in e-waste are steel, aluminium, copper and plastic (which account for about two thirds of the total mass), from own calculations with data from different reference sources (including Global E-waste Monitor Report 2024) the following arises: (from virgin minerals) 1.52 t of CO2e emissions per t of e-waste ; (through recycling of metals) 0.64 t of CO2e emissions per t of e-waste; therefore, net t 0.88 t of CO2e emissions are avoided through e-waste recycle. And assuming that the remaining third of the mass includes low energy demands materials, except for the precious and energy transition metals, a conservative 10% extra increase is considered, to give a 0.968 t of CO2e avoided per t of e-waste treated, which when affected by the 6 years at the conditions specified in the first paragraph, yields a total of 609,840 t CO2 e.
- Finally, assuming 80% collection efficiency of e-waste, from the project's goal, the processing average would be 320 t/day (from 84,000 t/yr average) @ an average 50 kg/day per worker day, of which 50% would be male and 50% female.

Pilot under Outputs	Expected GEBs (CI9.8)	Expected GEBs (CI9.6)
Output 2.1	Not known	Not known
Output 2.2	4,000 t x 0.18 = 720 t plastic	4,000 t x 0.02 = 80 t plastic with PBDE
Output 2.3	4,000 t x 0.18 = 720 t plastic	4,000 t x 0.02 = 80 t plastic with PBDE
Output 2.4	9,240 t x 0.18 = 1,663 t	9,240 t x 0.02 = 184.8 t
Output 2.5	-	4,800 t x 0.15 = 720 t
Output 3.1	Not known	Not known
Output 3.2	-	12,500 t/yr x 0.18 = 2,250 t
Totals	**3,103.2 t**	**2,594.8 t**

*Table based on my handwritten calculations and their assumptions

Analysis of Global Environmental Benefits Contributions

GEB	PIF	CEO ER	Pilots	Pilots % of project target[26]
Core Indicator 6. Greenhouse Gas Emissions Mitigated	508,200 t CO_2e	609,840 t CO_2e	20,124.72 tCO2e	3.3%
Core Indicator 9.1: Persistent Organic Pollutants (POPs) removed or disposed (POPs type) Decabromodiphenyl ether (commercial mixture, c-decaBDE)	16.8 t	25.2 t	6.22 t	24.7%
Core Indicator 9.2 Quantity of mercury reduced	2.625 t	0.41 t	0.101 t	24.7%
Core Indicator 9.6 POPs/Mercury containing materials and products directly avoided	10,500 t	12,600 t	2,594.8 t	20.6%
Core Indicator 9.8 Avoided residual plastic waste	94,500 t	94,500 t	3,103.2 t	3.3%
Core Indictor 10: Persistent organic pollutants to air reduced	232.74 g	265.67 g	65.62 g	24.7%

Climate Risk Screening

78. There could be increased consumption of resources (and GHG emission) and other emissions due to migration from informal to formal recycling activities. Furthermore, as a result of climate adverse issues driven by climate change, there could be the potential risk of flooding or structure damage to recycling / temporary e-waste (and its materials') storage facilities. It is considered that, through project interventions, pilot projects and the

[26] The remaining of the project target is anticipated to be achieved through replication and policy interventions during the project duration.

replication efforts, the project will promote relevant enterprises to save energy and reduce consumption, thus reducing CO^2 emissions.

79. In accordance with the Social and Environmental Standards (SES), a pre-Social and Environmental Screening Procedure (pre-SESP) carried out which rated the climate risk as Low. The SESP prepared at PPG phase also indicated that in the selection of BAT/BEP and design of the pilot projects will take into consideration of energy consumption and level of GHG emissions will be one of the criteria to be evaluated for best environmental practice and UNDP's SES requirements will be followed where applicable.

Agreement on intellectual property rights and use of the logo on the project's deliverables and disclosure of information:

80. To accord proper acknowledgement to the GEF for providing grant funding, the GEF logo will appear together with the UNDP logo on all promotional materials, other written materials like publications developed by the project, and project hardware. Any citation on publications regarding projects funded by the GEF will also accord proper acknowledgement to the GEF. Information will be disclosed per relevant policies, notably the UNDP Disclosure Policy[27] and the GEF policy on public involvement[28].

Resources required to achieve the expected result:

81. The project is supported with a GEF grant in the amount of USD 15,000,000 to be administered by UNDP. An additional support of USD 108,647,058 in cash and in-kind co-financing will be from contributors as listed in the table below. GEF grant will be efficiently and effectively utilized to support the project activities as described in the four components, as well as resources (Project Management Costs) required to support effective and orderly implementation of the project interventions. Project budget allocation GEF grant of USD 15,000,000 is allocated to support project interventions under the four components:

    - USD 2,500,000 is allocated to support Component 1 covering deployment of national and international consultants, subcontractors, institutions and entities, academia and also costs of travel to conduct studies, undertake collection of data, conduct evaluation and assessment, development of technical standards and guidelines to implement project interventions to strengthen national capacities and facilitate an enabling environment for sustainable EEE production and e-waste management. An amount of USD 12,000,000 from the co-financing contributors (governmental entities, private sector and GEF Implementing Agency) will provide in-kind and/or grant as complementary support to achieve the project outcome for this component.

    - For Component 2, GEF grant in the amount of USD 6,100,000 will be allocated to conduct pilot projects and related project interventions to facilitate environmental and economically sound EEE production and e-waste management with support from financial models and promotion of BAT/BEP . Project interventions will be implemented through engagement of national and international technical experts and technology providers. Grant will be allocated to implementing the pilot projects in partnership with and engagement of OEMs/producers, e-waste collectors, aggregators, disassemblers, recyclers and the involvement of educational facilities. Co-financing contributors have earmarked an amount of USD 48,000,000 of in-kind and/or grant support to complement the GEF grant support, and some stakeholders will be engaged in and/or being the direct beneficiaries of the project.

    - Through engagement of national and international consultants, subcontractors, institutions and entities, and in partnership with OEMs/producers, e-waste collectors, aggregators, disassemblers, recyclers, CSOs and NGOs, an amount of GEF grant of USD 4,750,000 is allocated to support pilots projects and project interventions to enable systems change and infrastructure support to generate POPs and UPOPs reduction, and facilitate the recovery of key materials from e-waste streams and accomplishing environmentally sound management of e-waste. Co-financing in the amount of USD 36,051,000 has been committed to support and complement the interventions under this component.

[27] See http://www.undp.org/content/undp/en/home/operations/transparency/information_disclosurepolicy/
[28] See https://www.thegef.org/gef/policies_guidelines

- GEF grant in the amount of USD 950,000 has been allocated to cover budgetary requirement to facilitate knowledge sharing, regional and global coordination and cooperation of programmes and initiatives on EEE sector, awareness and training and monitoring and evaluation activities to environmental and social safeguards, ensuring efficient and effective project implementation and timely progress of project interventions. National and international consultants, subcontractors, institutions and entities will be engaged to support smooth and orderly project implementation and timely achievement of project results. An amount of USD 7,647,058 will be available to support and complement GEF grant activities.
- Finally, an amount of USD 700,000 has been budgeted to support a Project Management Unit (PMU) with engagement of a Project Manager and a Project Finance and Administrative Assistant to undertake the day-to-day overall project implementation, with necessary related technical and management support, travel costs and facilities for efficient and effective functioning. Similarly, an amount of USD 4949,000 has been earmarked to support and complement the GEF grant.

82. The co-financing of USD 108,647,058 has been committed by the contributors indicated in the table below, with their respective contributions and the relevant outputs the co-financing will support.

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount ($)	Included in project results?
Recipient Country Government	Ministry of Electronics and Information Technology (MeitY)	In-kind	Recurrent expenditures	10,000,000	Yes
Private Sector	Circularity Solutions Private Limited	Grant	Investment mobilized	19,411,765	Yes
		In-kind	Recurrent expenditures	2,117,647	
Private Sector	Karo Sambhav Private Limited	Grant	Investment mobilized	20,000,000	Yes
		In-kind	Recurrent expenditures	2,352,941	
Private Sector	Attero Recycling Private Limited	Grant	Investment mobilized	10,000,000	Yes
		In-kind	Recurrent expenditures	10,000,000	
Private Sector	Pegasus Waste Management Private Limited	Grant	Investment mobilized	3,000,000	Yes
		In-kind	Recurrent expenditures	20,000,000	
Private Sector	Inclusive Recycling Foundation	Grant	Investment mobilized	294,118	Yes
		In-kind	Recurrent expenditures	294,117	
Private Sector	Eco Recycling Ltd	Grant	Investment mobilized	5,000,000	Yes
Private Sector	MiniMines Cleantech Solutions Pvt Ltd	In-kind	Recurrent expenditures	1,176,470	Yes
GEF Agency	UNDP	In-kind	Recurrent expenditures	1,000,000	Yes
		Grant	Investment mobilized	4,000,000	
Total co-financing				**108,647,058**	

Partnerships

83. The project will work with different partners from both the public and private sector to achieve the above-mentioned project results. During the PPG phase, a series of consultations, interviews, telephone review, on-site visits and focus group discussions were undertaken with all types of different stakeholders who provided valuable insights and offered abundant suggestions that deepened the understanding of the actual on-the-ground information that has been taken into consideration in framing the project design and defining the project activities. The partnership established and the engagement fostered will continue and coordination and engagement further solidified during project implementation.

84. Private Sector will participate in project activities, carry out investment on pilot projects to achieve environmentally sound management of e-waste and POPs, UPOPs, Mercury, toxic chemicals and heavy metals reduction, and comply with national and local environmental policies and standards. The private sector will actively participate in the project activities implementing pilot projects, gaining knowledge and experience to ensure ESM of e-waste processes and to achieve reduction of POPLs and CO2 emissions. On the one hand, they can obtain some economic incentives. On the other hand, it is conducive to the improvement of corporate pollution prevention technology and environmental management capabilities and enhances the competitiveness of the enterprises.

85. The roles and responsibilities of various partners that may be directly or indirectly involved in project implementation are described below.

Partners	Relevance to the Project and Description of Roles and Responsibilities
Government Agencies and Departments	Government ministries and regulatory bodies have regulatory oversight of the EEE sector and are the proposed implementation partners for this project.
Industry Associations	Industry Associations represent all the key players in the EEE value and their nuanced insights stemming from deep sectoral expertise would facilitate the ground-truthing of the project. The different associations will contribute to the project goal by improving the project team's understanding of the as-is situation of the EEE sector in India, bottlenecks and opportunities, and the sector maturity in embedding circularity in the value chain. The associations will also aid in establishing connections with individual OEMs for potential pilot projects implementation.
Private Sector	The upstream private players would be crucial to understand the type of interventions that could be carried out to embed circularity in the design phase and how to ensure safe End-of-life disposal of the products in collaboration with them.
Civil Society Organizations, Think Tanks, Academia	Engagement with academia, think tanks and research institutions would enable the identification of BAT/BEP in the sector and granular insights on the sectoral landscape.
Recycling/ Dismantler/ Refurbished Organizations	Registered recyclers will be instrumental in improving the project team's understanding of the as-is e-waste recycling techniques, EPR modalities, and conventional practices for e-waste collection, segregation, material recovery, and disposal of the remaining material in collaboration with them.
Financial Institutions	Engagement with financial institutions would enable the identification of co-financing sources and areas of convergence for implementation of the pilots.
Informal Sector	Engagement with civil society organizations would establish channels of connection with informal waste workers. It would also provide field-level insights to ensure the designing of realistic project activities.

Risks and Assumptions

86. In addition to the Social and Environmental pre-screening process conducted at the PIF phase which rated the risks identified as Medium or Low, in line with UNDP SES Policy, through investigation and survey activities, the UNDP Social and Environmental Screening Procedures (SESP) was conducted during the PPG phase, and identified risks that may threaten the achievement of project results, or risks of non-compliance with UNDP Social and Environmental Standards (SES). The SESP is attached as Annex 5 to this UNDP Project Document. The SESP identified nine risks, six (6) of them are rated as "Moderate Risk" and three (3) are rated as "Low Risk". The project's overall risk is rated as "Moderate", the overall rating being taken from the highest individual identified risk. In assessing these risks, mitigation measures are included in the activities of the various project components, with corresponding budget allocated for such activities.

87. The SESP has been conducted on the basis of the broad scope of project activities, and the allocated significance for each identified risk is based on an initial screening and a precautionary approach. While the overall nature of the pilot projects is established, site-specific activities and exact locations of physical footprints for on-the-ground activities have not been specified at the present stage of project development. The relevance of the currently identified risks may vary across sites, and the significance or likelihood of the risks or impacts identified by the current SESP will not necessarily be uniform across at all locations. Some sites may present risks not hitherto identified. Further screening on a site-specific basis will take place to identify risks' site-specific significance, and to effectively target any required additional impact assessment or management. As partners, sites, and activities are proposed or specified, additional on-site screening with the SESP, adapted where appropriate, will be undertaken. Risks identified will inform the choice of site, activity, and partner selection during the first year of the project, and will determine whether additional social and environmental impacts may be present that will require further assessment and management. Additional assessment, in the form of a targeted assessment, may be prescribed where necessary. Impact management will adhere to the "mitigation hierarchy" model. Where possible, adverse impacts will be "designed out" – i.e. the 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, in conjunction with stakeholders, to reduce, minimize, mitigate or manage those impacts.

88. The project will develop guidelines for safe operations in the pilot subprojects. These will be incorporated into the SOPs and Guidelines under Activity 1.3.1, the guidelines for Indian laboratories under Activity 1.5.1, and will be fully reflected in the blueprint produced under 1.7.1. Each pilot site will develop plans which will include, where relevant, procedures for:

    - Safe chemicals disposal
    - Pollution/Spill Prevention and Management
    - Occupational Health and Safety
    - Application of International Standards for Hazardous Substances Packing, Transport and Disposal
    - Guidelines on best available techniques and provisional guidance on best environmental practices relevant to Article 5 and Annex C of the Stockholm Convention on Persistent Organic Pollutants
    - Updated general technical guidelines for the environmentally sound management of wastes consisting of, containing or contaminated with persistent organic pollutants (POPs) of the Basel Convention
    - Guidelines for adherence to the Rotterdam Convention on the Prior Informed Consent (PIC) Procedure for Certain Hazardous Chemicals and Pesticides in International Trade

89. The project budget makes provision for appointment of a dedicated Social and Environmental Safeguards Officer (SESO) who will be responsible for ensuring compliance with the SES, monitoring impacts, and ensuring that appropriate adaptive management is put in place when relevant to ensure that all local communities and vulnerable people, including women, are meaningfully involved in project implementation and have access to a feedback mechanism to ensure full transparency and accountability.

90. "Upstream" project activities (i.e. those activities without a physical footprint) will be conducted in accordance with the SES. The project will identify key relevant UNDP Principles and Standards to be reflected in the policy-

level work in Component 1, ensuring that resulting policies and procedures produced are consistent with UNDP Social and Environmental Standards. This will be written into the Terms of Reference for the Component 1 activities and will include: (a) identification of social and environmental priorities to be embedded in the policies and plans, (b) assessment of gaps in the existing legislative/policy framework for the Circular Economy in the EEE Sector; (c) identifying potential adverse social and environmental impacts associated with policy options; (d) ensuring that all relevant partners/groups are represented in the planning/management teams and that decision makers and stakeholders are engaged in line with the project's Stakeholder Engagement Plan and Gender Action Plan to achieve a common understanding of the identified issues.

91. Component 1 includes a full survey and costing of the externalities associated with recycling, encompassing both the formal and informal sectors, and with specific gender-related aspects. Output 1.2, Activity 1.2.3 consists of a comprehensive socio-environmental and gender assessment of the impact of informal e-waste recycling, a sector dominated by marginalized groups who are most affected by the informal industry. The Material Flow Analysis under Activity 1.2.4 will specifically track emissions, losses, and associated wastes of all POPs, UPOPs, PBDEs, hazardous metals and restricted substances associated with e-waste, and quantify and assess their environmental and health impacts, and seek practical and effective methods of managing them in accordance with Best Environmental Practice, identifying the locations, and types of communities that might be affected, whilst Activity 3.3.2 is specifically targeted at the interests of women working in the e-waste sector.

92. The Gender Analysis and Gender Action Plan will be regularly reviewed and updated to account for gender differentiated impacts. The design and execution of project activities will also specifically incorporate approaches that will contribute to gender empowerment and equality.

93. The project contains the following exclusions:

    i) The project will not require any physical displacement, evictions, or changes to land tenure arrangements/rights, whether legal or customary. Nobody will be required to vacate homes or businesses, nor will the project undertake any activity which indirectly causes such displacement. Site-specific SESP assessment will be conducted at all sites with a physical footprint, and any proposed activities which risk causing physical displacement will not be permitted to proceed.

    ii) Although no activity is envisaged that might affect the rights, lands, resources, or cultures, of groups or communities that fit the definition of "Indigenous peoples" under UNDP Standard 6, any proposed project activities that are found to adversely impact any such peoples will not proceed. This will be verified at site-specific SESP screenings.

94. As per standard UNDP requirements, the Project Manager will monitor risks quarterly and report on the status of risks to the UNDP Country Office. The UNDP Country Office will record progress in the UNDP ATLAS risk log. Risks will be reported as critical when the impact and probability are high (i.e. when impact is rated as 5, and when impact is rated as 4 and probability is rated at 3 or higher). Management responses to critical risks will also be reported to the GEF in the annual PIR.

95. The risks that might prevent the project objectives from being achieved, during the project implementation, are listed as follows:

Risk Table

#	Description	Risk Category	Impact & Likelihood	Risk Treatment / Management Measures	Risk Owner
1	Improper handling, transport, storage and processing of e-waste can lead to potential leakages and emissions of	Social and Environmental	I=3 L= 2 **Moderate**	A combination of measures, including risk-proof design of project activities, site-specific on-site identification of risks, and targeted risk management procedures for each site.	Project Social and Environmental Safeguards Officer, Gender Officer.

#	Description	Risk Category	Impact & Likelihood	Risk Treatment / Management Measures	Risk Owner
	mercury, POPs and other heavy metals and plastics, potentially impacting project workers, local populations, and surrounding areas. This risk applies particularly to: Schemes for e-waste collection and BEP; The Centre of Excellence for outreach to informal recyclers and demonstrations of BEP under Output 2.4; Pilot project with schools under Output 2.3; Activity 2.5.3 for the safe handling of spent lithium-ion batteries; Processing units for PBDEs, metals and valuable materials extraction under Activities 3.2.1 and 3.4.4. These risks incorporate Standards 1, 3, 7, 8 and the Principles of Gender Equality and Women's Empowerment and Accountability.			Measures incorporated in PRODOC: Output 2.4; Output 2.3; Activities 3.2.1 and 3.4.4. The project will develop guidelines for safe operations in the pilot subprojects, incorporated into the SOPs and Guidelines under Activity 1.3.1, the guidelines for Indian laboratories under Activity 1.5.1, and the blueprint produced under 1.7.1. The project will appoint a dedicated Social and Environmental Safeguards Officer (SESO), responsible for ensuring compliance with the SES, monitoring impacts, and ensuring that appropriate adaptive management is put in place when relevant to ensure that all local communities and vulnerable people, including women, are meaningfully involved in project implementation and have access to a feedback mechanism to ensure transparency and accountability. The SESO will also oversee the screening of selected Project sites and support application of the targeted assessments and risk management plans. Targeted Assessment and Targeted Management Plans post Project Endorsement and before initiation of field activities: All project sites to be selected under the above-mentioned Outputs/Activities which could have a physical footprint (i.e. where e-waste is handled or treated) will undergo a targeted assessment screening with the SESP at the outset, modified as applicable to the site and proposed activity. Screening will take place at all proposed sites and will inform the final site and activity selection. Where screening identifies an environmental and/or social risk, a targeted management plan will be prepared	

#	Description	Risk Category	Impact & Likelihood	Risk Treatment / Management Measures	Risk Owner
				commensurate with the likelihood and magnitude of the risk(s). Each pilot site will develop a targeted management plan that addresses Pollution Prevention and Occupational Health and Safety. The plans will adopt Best International Practice and adhere to Indian national legislation, the Stockholm Convention on POPs, the Minamata Convention on Mercury (UNEP/Minamata Convention Guidelines on the Management of Contaminated Sites), and IFC Health and Safety Guidelines. Where on-site and activity-specific targeted assessment identifies that risk management would benefit from additional stand-alone plans with impact-specific risk management measures, these will be developed. These may include, as appropriate, scoped Spill Prevention and Management Plans, site-specific plans for Hazardous Materials Disposal, Health and Safety Plans and Transport Plans, to assure safe handling, transport, and disposal of e-wastes. International Standards for Hazardous Substances Packing, Transport and Disposal will be applied.	
2	"Upstream" policy level work on the e-waste baseline, assessments of environmental externalities, and the impacts of informal sector recycling under Component 1, may be conducted without due attention to the particular impacts on women, vulnerable groups and informal sector workers, leading to their interests being marginalized or ignored. This may also be reflected in the national-level business	Social and Environmental	I= 3 L= 2 **Moderate**		Project Social and Environmental Safeguards Officer, Gender Officer.

#	Description	Risk Category	Impact & Likelihood	Risk Treatment / Management Measures	Risk Owner
	blueprint for recycling in India, under Activity 1.7.1. The development of "upstream" policy that does not take into account the particular needs of women and vulnerable groups, can result in downstream impacts relating to: Human Rights; Gender Equality and Women's Empowerment; Sustainability and Resilience; UNDP Standards 7 and 8.				
3	Risk of exclusion of women, informal sector and marginalized groups from fully participating in decisions affecting them, and access to grievance mechanisms and consequent risk of inequitable or discriminatory impacts on affected populations. Additionally, there is a risk of adverse impacts on gender equality, reproducing gender-based discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits. These risks relate particularly to Human Rights, Gender Equality and Women's Empowerment, Accountability, and UNDP Standard 7.	Social and Environmental	I =3 L= 3 **Moderate**	Additional Targeted Assessment/ Targeted Management Plans. Impacts to women and girls were assessed in the Gender Analysis, which informed the Gender Action Plan (Annex 10), which highlights the specific risk attached to each project activity. A Project Gender Officer will be employed. The GAP actively promotes the role of women and girls in the project activities, and the overall project management systems. Gender disaggregated indicators in the Monitoring Plan provide the basis for monitoring and evaluation of the project's impact on promoting gender equity and empowerment of women. The project has also developed a Stakeholders Engagement Plan (Annex 8), which establishes specific engagement with women as a requirement. In conjunction with the measures under the (identified) Risk 1, Site- and activity-specific targeted assessment, and where required targeted risk management plan(s), will further incorporate the Risk 3 analysis. In addition, the proper Strategic Environmental and Social Assessment (SESA) for the upstream (Policy) actions under Outputs 1.3; 1.5 and 1.6	Project Social and Environmental Safeguards Officer, Gender Officer.

#	Description	Risk Category	Impact & Likelihood	Risk Treatment / Management Measures	Risk Owner
				to assess any potential adverse impacts of these Policy measures on the groups identified in Risk 3. A project-level Grievance Redress Mechanism (GRM), in line with UNDP Guidance, will be established to provide accessible means for affected stakeholders to raise concerns and/or grievances when activities may adversely impact them. Under Component 3, the project will integrate and engage the informal sector with the official recognition of their central role for safe and sound e-waste management. These actors will receive assistance and training and will join pilot activities to improve their practices on collection and dismantling to make it environmentally sound. The Gender Analysis and GAP will be regularly reviewed and updated to account for gender differentiated impacts. The design and execution of project activities will also specifically incorporate approaches that will contribute to gender empowerment and equality. These are described in the Project Document in the section on Results and Partnerships.	
4	Duty-bearers (e.g. sub-national government Officers) may not be equipped/capacitated to fulfill their roles within the project outcomes	Social and Environmental	I=3 L = 1 **Low**	Risk will be addressed by Project Design: the project will include targeted capacity-building and awareness activities to support the full deployment of guidelines designed by project so these can be used, and enforced, by the Duty-bearers.	Project Social and Environmental Safeguards Officer, Gender Officer.
5	Risk 5: Workers at partner facilities may be exposed to working conditions that contravene national labour standards, principles and standards of ILO fundamental conventions, or UNDP SES. Human Rights: P3	Social and Environmental	I =3 L= 3 **Moderate**	Project design and additional Targeted Assessment/Targeted Management Plans. The project design incorporates activities for managing/avoiding this risk since partner site, co-financier or Contractors to be engaged in services for transportation, storage and handling of hazardous chemicals will have to comply with local regulations on hazardous waste management as well as provide proof of	Project Social and Environmental Safeguards Officer, Gender Officer.

#	Description	Risk Category	Impact & Likelihood	Risk Treatment / Management Measures	Risk Owner
	Accountability: P14 Gender and Women's Empowerment: P9, P10. Standard 7: 1-6			qualification/alignment to International Standards listed by the Stockholm and Minamata Conventions (in addition to applying the due Environmental Licenses and Workers certification and training to deliver the services required by the project and meet Basel Convention transport requirements). Additional targeted risk assessment at prospective partner organizations will be screened, on-site and at the project outset, for adherence to national labour laws, including written labour management procedures, documentation of pay (paid directly to employees), hours of work, overtime rates, benefits, rest periods, sick pay, maternity pay, social security benefits, non-discrimination and equal opportunity, policies on violence, harassment and intimidation, workers' freedom to organize, and a workplace grievance mechanism. Child labour and forced labour, including indentured labour, will be prohibited. Full compliance with Standard 7 will be required of all partners. Screening of potential partner organizations will take place prior to the start of any project activity such that the activity will not start before the associated assessment has been undertaken and management plans are in place. Selection criteria will include adherence to both UNDP Standards and Indian Labour Law, and, where entities' institutional practices do not comply with requirements, their willingness and ability to adopt the required standards. The SESO and Gender Officer will be responsible for ensuring Principles and Standards are fully complied with. If a prospective Partner does not fulfill the requirements above, the engagement will not be concretized, hence the risk will be avoided.	

#	Description	Risk Category	Impact & Likelihood	Risk Treatment / Management Measures	Risk Owner
6	Safety risks to community from incidents.	Social and Environmental	I = 2 L = 1 **Low**	This risk is addressed by project design and can be complemented, if needed, by additional Targeted Assessment/Targeted Management Plans. Community Health and Safety issues will be an integral part of the guidelines for safe operations in the pilot subprojects and will be incorporated into the SOPs and Guidelines under Activity 1.3.1, the guidelines for Indian laboratories under Activity 1.5.1, and will be fully reflected in the blueprint produced under 1.7.1. The Material Flow Analysis under Activity 1.2.4 will specifically track emissions, losses, and associated wastes of all POPs, UPOPs, PBDEs, hazardous metals and restricted substances associated with e-waste, and quantify and assess their environmental and health impacts, and seek practical and effective methods of managing them in accordance with Best Environmental Practice. The review of BAT/BEP under Output 3.2 will also encompass issues relating to Community Health and Safety, as will the socio-environmental and gender assessment of the impacts of informal e-waste recycling under Output 1.2 and Activity 1.2.3. Incorporation of the guidelines and SOPs, which are strongly rooted in BEP and international standards, into the practices of existing recycling operators, will represent a reduction of any community health and safety risks that may be associated with those facilities, hence the risk of the project itself causing any such impact, is Low. The project may develop (and apply) a Scoped Spill Prevention and Management Plan (SPMP) if any targeted assessment conducted in Risk 1 (which is related to Risk 6) concludes that targeted risk management plan is needed for Risk 6.	

#	Description	Risk Category	Impact & Likelihood	Risk Treatment / Management Measures	Risk Owner
7	Increased consumption of resources (and GHG emission) and other emissions due to migration from informal to formal recycling activities		I = 2 L = 2 **Low**	During project implementation, GHG emissions data will be collected and monitored to ascertain the emissions balance, as the new BAT/BEP processes, though expected to be mechanized at a certain extent, still can result in negative net emissions if compared to current baseline recycling methods utilized by the informal sector.	Project Social and Environmental Safeguards Officer, Gender Officer.
8	Potential risk of flooding or structure damage to recycling / temporary e-waste (and its materials') storage facilities	Social and Environmental	I =3 L= 2 **Moderate**	This Risk is expected to be fully addressed by Project Design: This risk is to be managed by project design, with the selection of locations with less risk (or no risk) to potential flooding and application of International Guidelines and use of Best Techniques on e-waste management and hazardous materials containment to avoid leakages. The locations of potential storage facilities will be screened in in terms of vulnerability to weather/seismic events during the PPG phase, so to reduce/avoid be at risk of flooding or susceptibility to natural events (that may happen mostly due to increased weather events as result of increased Climate Change).	Project Social and Environmental Safeguards Officer.
9	Potential risk to workers' income and opportunities, particularly women and marginalized communities, in the course of the transition from informal to formal sector and the implementation of BAT/BEP for recycling practices.	Social and Environmental Health	I = 3 L = 2 **Moderate**	Project design and additional Targeted Assessment/Targeted Management Plans. The risk will be further examined through the comprehensive Strategic Environmental and Social Assessment (SESA) and complemented by the Gender Action Plan (GAP) in relation to the impact of informal e-waste recycling, (Activity 1.2.3) which will include examination of the impacts of mechanization in the sector, and through the stakeholder consultation arrangements, ensuring that adverse impacts on the livelihoods of formal and informal sector workers are not adversely impacted by project outputs.	Project Social and Environmental Safeguards Officer.

#	Description	Risk Category	Impact & Likelihood	Risk Treatment / Management Measures	Risk Owner
				Where required, strategies will be developed to avoid, minimize or manage such impacts. Where economic displacement is found to be significant, a targeted management plan (such as Labor Management Procedures (LMP)) will be developed under close consultation with stakeholders to ensure the project causes no loss of income for workers involved in the collection, transportation, recycling and disposal of e-waste.	

Stakeholder Engagement Plan

96. The stakeholders in the national government, local government, private sector, NGOs/CSOs, and development partners were identified and analyzed under the two key sectors covered in the Project. The key information assessed under stakeholder identification and mapping includes:

    (i) Details of the stakeholders consulted during the identified and engaged in the PIF and PPG stages;

    (ii) Relevant stakeholders in both in the agriculture sector and the healthcare sector and their specific mandates, roles and responsibilities, present activities, issues, constraints, challenges and risks;

    (iii) Roles and responsibilities of various stakeholders in the project implementation;

    (iv) Private sector engagement, including investments, partnerships, and co-financing; and

    (v) Roles and entry points of NGOs.

97. A comprehensive Stakeholders Engagement Plan (SEP) and mapping is presented in Annex 8 to the UNDP Project Document. Further, the governance structure and mechanism of the Project is presented in this document. Governance and Management Arrangements describing the stakeholders and their roles and responsibilities.

98. Stakeholder identification, engagement and assessment during PPG stage, which provided the foundation for the development of the Stakeholder Engagement Plan (SEP) Identification and mapping of all relevant stakeholders in the EEE sector were conducted at the PPG Stage, their specific mandates, roles and responsibilities, present activities and progress, issues, constraints, challenges and risks are summarized in the table below:

Stakeholder Group	Stakeholder Name	Roles and Responsibilities	Co-benefits for stakeholders	Current Initiatives' Progress and way forward
Government Agencies and Departments	Ministry of Environment, Forest, and Climate Change of India (MoEF&CC)	1. Develop and implement policies and schemes promoting circular economy and e-waste management. 2. Regulatory oversight and monitoring of environmental compliance. 3. Coordinating with other ministries and departments to ensure better impacts from shared outcomes. 4. Participate in data and	1. Contribute towards nation's Multilateral Environmental Agreements and achieve ministry level environmental targets. 2. Enhance policy landscape and harmonize regulations for non-fragmented approach towards	MoEF&CC has been involved in developing and implementing rules and regulations related to the e-waste management. However, enforcement in limited capacity along with lack of updated data has impeded effective implementation.

Stakeholder Group	Stakeholder Name	Roles and Responsibilities	Co-benefits for stakeholders	Current Initiatives' Progress and way forward
		knowledge sharing to enhance M&E progress.	circular economy and sustainable development.	
	Ministry of Electronics and Information Technology, Government of India (MeitY)	1. Develop and implement policies and schemes promoting circular economy and e-waste management. 2. Coordinating with other government agencies and institutes to ensure technological and sustainable development. 3. Participate in data and knowledge sharing to enhance M&E progress.		Beyond regulatory oversight, MeitY has been at the forefront of promoting Research and Development (R&D) for e-waste management and promoting circularity and resource efficiency in EEE production. Limited technical know-how and the high capital investment has slowed down implementation of BAT/BEP in the sector.
	Central Pollution Control Board (CPCB)	1. Strict monitoring and enforcement of regulations to ensure RoHS and EPR compliance in the EEE and e-waste sectors. 2. Enhance the inventorization of e-waste with improved granularity and accuracy. 3. Coordinating with other ministries and departments for project activities. 4. Participate in data and knowledge sharing to enhance M&E progress.		CPCB has launched an online portal for the four key stakeholders: Producers, Manufacturers, Recyclers, and Refurbishers and mandates EPR requirements for 4 end-products. However, enforcement in limited capacity and lack of audit mechanisms limits effective implementation.
Industry Associations	Associations of upstream and downstream value chain partners of the EEE sector.	1. Promote BAT/BEP among association members. 2. Coordinating with government agencies in institutionalizing industry best practices. 3. Advocate for industry-wide adoption of circular economy practices, capacity building of members and facilitate collaboration among stakeholders. 4. Participate in data and knowledge sharing to enhance M&E progress.	1. Improved coordination among associate members in efforts to achieve sustainability 2. Improved representation of the association in public and among other associations.	Industry Associations bring together the different players in the value chain on the same platform for concerted dialogue, knowledge exchange, and driving momentum in policy changes. They play an important role in facilitating connections with upstream and downstream private players for implementation of pilot projects. However, limited means of knowledge dissemination and limited outreach channels impedes their potential of being an affective medium between policy and implementation.

Stakeholder Group	Stakeholder Name	Roles and Responsibilities	Co-benefits for stakeholders	Current Initiatives' Progress and way forward
Private Sector	OEMs for Pilot	1. Wider adoption of eco-design and eco-labeling with improved EPR compliance and responsible e-waste management. 2. Innovate product design to minimize e-waste generation during manufacturing, use and End of Life (EoL) phase. 3. Support in R&D and technology transfer in the EEE sector. 4. Participate in data and knowledge sharing to enhance M&E progress.	1. Incentives from government on implementing BAP/BET 2. Better environmental and social compliance, avoiding compensations 3. Enhanced public perception of the brand.	Upstream EEE Producers/ Manufacturers are crucial in driving resource efficiency and circularity in the design phase of the life cycle. However, limited technical know-how and requirement of high capital limits incorporation of these aspects in their products.
Civil Society Organizations, Think Tanks, Academia, Financial Institutions	Think tanks like, Council on Energy, Environment and Water (CEEW) Centre for Science and Environment (CSE), Toxics Links	1. Advocate for sustainable practices, engage communities and monitor project impact through CSO's networks. 2. Conduct research topics aligned with the project, provide technical expertise in project activities and support in policy development. 3. Collaborate on public awareness campaigns on e-waste management and circular economy. 4. Partner in research with other relevant stakeholders involved in the project to develop knowledge and innovative solutions in the EEE sector. 5. Participate in data and knowledge sharing to enhance M&E progress.	1. Broadens their scope of interventions in sustainability and environmental and social safeguarding 2. Opportunities to collaborate with diverse sectors can enhance their range of specialties. 3. Increased recognition among the sector	Civil Society Organizations and Think Tanks play an important role in facilitating connections with the downstream informal sector involved in e-waste management as well as drive targeted discussions through their leadership and expertise. However, limited means of knowledge dissemination and limited outreach channels impedes their potential of being an affective medium between policy and implementation.
Recycling / Dismantler / Refurbishers	Formal recyclers for pilot	1. Implement environmentally sound recycling technologies and ensure integrity in regulatory compliance. 2. Safe management of POPs, UPOPs and other hazardous chemicals in pilots for Li-ion batteries and e-waste recycling. 3. Coordinating with the working group in enhancing and updating the outcomes from project activities. 4. Improve inventorization accuracy and transparency. 5. Participate in data and	1. Technology transfer and associated economic and environmental improvement 2. Increased recognition among sector and related exposure to new markets	Recyclers registered with the CPCB are crucial in effective e-waste management and recovery of precious metals. However, limited technical know-how and the high capital investment to upgrade recycling technology has slowed down implementation of BAT/BEP in the sector.

Stakeholder Group	Stakeholder Name	Roles and Responsibilities	Co-benefits for stakeholders	Current Initiatives' Progress and way forward
		knowledge sharing to enhance M&E progress.		

99. Effective Stakeholder engagement is the basis for achieving sustainable project implementation. In this regard, a wide range of relevant stakeholders have been consulted during the PPG phase to ensure active project participation and commitments. Specific discussions with key stakeholders such as MoEF&CC, CPCB, MeitY, related industry associations, private sector, recycling/dismantler/refurbished organizations, financial institutions, civil society and academia, were held to shape project design and activities, and to ensure goal alignment in support of the project.

100. Based on the stakeholder analysis, the project's key stakeholders are identified and categorized in a table attached as Annex 8 with their respective roles and responsibilities detailed. Furthermore, the objectives of engaging each individual key stakeholder have also been developed for implementation..

101. The Project will establish and implement a transparent, fair, and free-to-access project-level Grievance Redress Mechanism (GRM), approved by stakeholders, which will be put in place at the start of implementation. The project-level GRM will be supplemented by UNDP's Accountability Mechanism, which includes a Stakeholder Response Mechanism – to be accessed when the GRM cannot resolve an issue, and/or a Compliance Review where compliance with UNDP's SES Policy is a concern

South-South and Triangular Cooperation (SSC/TrC)

102. E-waste is one of the fastest growing waste streams in many counites as a result of improved standards of living that has opened opportunities and driven the increased demand for consumer electrical and electronic equipment. The project's approach, and the practical pilot projects will generate positive results for which knowledge and experience can be replicated in many neighbouring countries and some regions around the world. Results from the project will be crucial for future proposals in many selected countries.

103. In addition, to bring the voice of India to global and regional fora, the project will explore opportunities for meaningful participation in specific events where UNDP could support engagement with the global development discourse on environmentally sound management of e-waste. The project will provide regional cooperation opportunities with countries implementing initiatives on e-waste management and POPs, UPOPs and toxic chemicals reduction in geopolitical, social and environmental contexts relevant to the proposed project in India and the neighbouring countries.

Gender equality and Women's Empowerment

104. In line with the gender equality policies and strategies of both UNDP and the GEF, a Gender Action Plan (GAP) has been developed. This GAP is meant to serve as a strategic framework to ensure gender equality. It will support in mainstreaming gender concerns and equality throughout and across the project components. The document provides an overview of the various relevant gender-related policies, plans, tools and resources existing in India; as well as an analysis of the status of e- waste workers, both men and women. It also identifies opportunities where gender inequalities can be addressed and women better empowered through the recognition of their work, knowledge, contributions and needs in the recycling value- chain of e- waste.

105. The purpose of having GAP is to institutionalize the commitment to gender equality across every stage of this project, and create a roadmap that outlines specific goals, actions, and measurable outcomes to address gender disparities.

106. The GAP includes strategies and actions to promote women's and men's equal participation in, make contribution to, and benefit from the project which considers different roles, needs, priorities, power, and responsibilities of relevant women and men. It covers:

- An introduction to the policy landscape existing in India to address gender inequality at various levels, including the international frameworks and conventions that India is party to, constitutional provisions, and various other laws.
- It is further followed by gender assessment, highlighting roles, responsibilities, and various challenges face by the women in formal and informal e- waste sectors. A comprehensive action plan is then detailed out laying out gender action and target against each project activity.

107. The GAP developed is included as Annex 10 to the Project Document. The GAP put forth the desired gender-related impact and outcomes of the project and commends concrete actions on how gender can be mainstreamed in various project activities. The Plan will be revisited at the onset of project implementation.

Knowledge

108. Experience and knowledge gained, lessons-learned from the project, in particular the assessment of the pilot project results, will be documented and shared nationally within and beyond the project intervention zones through a number of existing information dissemination networks and for a. The project, under Component 4, has built in output (Output 4.1.1) to establish a coordination and cooperation mechanism with regional and global programme and initiative- for knowledge management, information exchange and gender equity action. The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation through lessons-learned.

109. The pilot projects being implemented under this project will generate abundant experience, technical know-ho and lessons-learned that will, through national replications, will create rippling effects to entice non-pilot enterprises and entities and facilitate an enabling environment for environmental sound management of EEE. Furthermore, awareness raising events will also enable a deeper understanding of the dangers of POPs from e-waste stream.

110. The project will identify, analyze, and share and exchange on lessons-learned that may be beneficial to the design and implementation of similar future projects.

Innovativeness, Sustainability and Potential for Scaling Up

111. The project design deployed a comprehensive approach to address EEE clean production and environmentally sound management of e-waste, covering necessary pre-requisites legislative and institutional set-ups and capacities to facilitate an enabling environment, and supporting infrastructure. While not exactly innovative in nature, the project's design of an extensive number of pilot projects that will not only generate reduction of POPs, UPOPs and hazardous substances, but is also designed to assess project results to, knowledge and experience that will be documented and disseminated to promote replication. The project will achieve the GEF Core Indicator targets through reduction generated with the pilot projects, and subsequent national replications.

112. With the interactions of the types of stakeholders and beneficiaries, financial sustainability of the project results is not a major issue. With the government's mandate on e-waste management, social-political and environmental sustainability is also ensured.

Digital Solutions

113. Governmental entities and many industry entities have vastly deployed digitalization in their daily transactional activities. Central Pollution Control Board (CPCB), in particular, has established online portal utilized in the management and control of e-waste activities. The portal covers four key stakeholders: Producers, Manufacturers, Recyclers and Refurbishers. The EPR portal maintains a real-time public database of the number of registered Producers, Manufacturers, Refurbishers and Recyclers along with the number of applications received. The project has proposed interventions that will make sus of and take advantage of the functionality of the portal.

VI. PROJECT MANAGEMENT

Cost Efficiency and Effectiveness

114. The overall project strategy is to blend GEF funding into the overall EEEE clean production and environmentally sound e-waste management through a comprehensive strategy approach to address the issues and principle barriers to achieving the targeted overall improvement in the environmental performance of the EEE production sector and e-waste management process. Overall, interventions through GEF resources can be considered as efficiently and effectively deployed in ensuring the targets are achieved, specifically ensuring that international best practice experience and technology options will be considered and potential for national, regional and perhaps global replication id ensure through the output in establishing coordination and cooperation with Global programmes and Initiatives for knowledge management, information exchange and gender equity action.

115. Considering the extensive arrays of project interventions, in particular the many proposed pilot projects to provide specific assistance areas where GEF assistance will facilitate BAT/BEP and technology transfer, that will focus to enhancing the country's efforts in e-waste management, and to achieving incremental/addition results of POPLs, UPPs and hazardous substances reduction that will contribute to global environmental benefits, the GEF resource of the intervention should be considered as cost-effective.

Project Management

116. The responsibility for the execution of the project under the national implementation modality is with the Implementing Partner (IP). The Implementing Partner for this project is the Ministry of Electronics and Information Technology (MeitY) who will work closely with other relevant stakeholders. A Project Management Unit (PMU) will be established for the overall coordination as well as resource management of this Project. PMU will be financially supported and structured to include the services of the Project Manager, the Project Finance and Administrative Assistant. The PMU will be located in New Delhi.

117. The PMU will provide management services and is responsible for the overall day-to-day management of the project on behalf of the Implementing Partner, including the mobilization of all project inputs, supervision over project staff, responsible parties, consultants and sub-contractors. The project manager typically presents key deliverables and documents to the board for their review and approval, including progress reports, annual work plans, adjustments to tolerance levels and risk registers.

118. While the PMU will perform the supportive role, the Project Manager is responsible for:

- Managing the overall conduct of the project
- Implementing activities by mobilizing goods and services
- Checking on progress and watch for plan deviations
- Ensuring that changes are controlled, and problems addressed
- Monitoring progress and risks
- Reporting on progress including measures to address challenges and opportunities.

119. The Project Manager should coordinate with the pertinent programme and operational units of the of MeitY and the UNDP Country Office on the follow up of disbursements against obligations and other matters in relation to project implementation and management.

120. In addition to activities at national and provincial level, pilot project activities will be implemented in various potential locations to be finalized during project inception, based on defined criteria.

VII. PROJECT RESULTS FRAMEWORK

Contribution to the Sustainable Development Goal (s):

SDG 3: Good Health and Well-being

SDG 5: Gender Equality

SDG *9: Industry Innovation and Infrastructure*

SDG 11: Sustainable Cities and Communities

SDG *12: Responsible Consumption and Production*

SDG *13: Climate Action*

SDG *17: Partnerships for the Goals*

Intended Outcome as stated in the UNSDCF/Country [or Regional] Programme Results and Resource Framework:

Country programme document for India (2023-2027): Output:3.1: Institutional and policy frameworks developed and strengthened to address climate change, enhance green recovery, prevent environmental degradation and promote conservation and circular economy.

Indicator 3.1.1. Number of climate and gender-responsive development strategies (policies, schemes, programmes, and action plans) informed, through technical / advisory support, for achieving national priorities and global commitments under multilateral environmental agreements (global, national, subnational level) [SP IRRF: 3.1.1]

Baseline (2022): 7

Target (2027): 14

UNSDCF (2023-2027) – Outcome 5: By 2027, Government of India, state governments, communities' private sector and other actors take informed actions to address climate change, pollution, biodiversity loss and restore ecological integrity through improved knowledge, capacity and mainstreaming of relevant actions across sectoral programmes, policies and plans

Output 5.4: Enhanced circularity and resource efficiency across sectors

Indicator: 5.4.1: Amount of waste channeled into circular economy

Baseline: 158,517 tons

Target: 250,000 tons

Applicable Output(s) from the UNDP Strategic Plan:

2.1: Open, agile, accountable and future-ready governance systems in place to co-create and deliver solutions to accelerate SDG achievement

2.3: Responsive governance systems and local governance strengthened for socio economic opportunity, inclusive basic service delivery, community security, and peacebuilding

4.1: Natural resources protected and managed to enhance sustainable productivity and livelihoods

4.2: Public and private investment mechanisms mobilized for biodiversity, water, oceans, and climate solutions

6.1: Country-led measures implemented to achieve inclusive economies and to advance economic empowerment of women in all their diversity, including in crisis contexts

6.2: Women's leadership and participation advanced through implementing affirmative measures, strengthening institutions and civil society, and addressing structural barriers, in order to advance gender equality, including in crisis contexts

6.3: National capacities to prevent and respond to gender-based violence (GBV) and address harmful gender social norms strengthened, including in crisis contexts

Project title and Quantum Project Number: Accelerating transition to a circular economy in India's electrical and electronic sector through sustainable integrated approaches. Project No. 01004081

Objective and Outcome Indicators		Data Source	Baseline	Mid-term Target	End of Project Target	Data Collection Methods[29]	Risks/Assumptions
Project Objective: The objective of the Project is to reduce (and/or eliminate) the adverse impacts of POPs, UPOPs and heavy metal (such as mercury) on human health and environment by making strategic interventions across the life cycle of electrical	**The objective of the Project is to reduce (and/or eliminate) the adverse impacts of POPs, UPOPs and heavy metals (such as mercury) on human health and the environment by making strategic interventions across the life cycle of electrical and electronic equipment and strengthening India's capacity for the environmentally sound management of electrical and electronic wastes (e-waste) through integrated approaches**						
	Objective Indicator 1: Number of direct project beneficiaries disaggregated by gender (individual people)	Baseline data from PIF and PPG phase reports, collected through desk studies, investigation, studies, interviews and on-site visits. For verification, data to be collected from training progress and annual reports	0	3,200 direct project beneficiaries (1,600 female, 1,600 male)	6,400 direct project beneficiaries (3,200 female, 3,200 male)	Training and workshop reports	**Risks**: - Lack of interest of participation or unable to attract sufficient female workers to participate **Assumptions**: - Public awareness events to increase awareness of dangers on human health and efforts to identify and promote participation

[29] *Data collection methods should outline specific tools used to collect data and additional information as necessary to support monitoring. The PIR cannot be used as a source of verification.*

and electronic equipment and strengthening India's capacity for the environmentally sound management of electrical and electronic wastes (e-waste) through integrated approaches.	**Objective Indicator 2:** Quantity of POPs and UPOPs reduction	Baseline data from PIF and PPG phase reports, collected through desk studies, investigation, studies For verification, data to be collected from evaluation and annual reports, National Implementation Plan (NIP)	0	5.8 tons of PBDEs eliminated; 2,800 tons of toxic heavy metals (Hg, Cd, Ni, Cr etc.) avoided disposal 3,675 tons of plastic with PBDEs eliminated; and 0.1 ton of Hg avoided.	25.2 tons of PBDEs eliminated; 8,000 tons of toxic heavy metals (Hg, Cd, Ni, Cr etc.) disposal of; 12,600 tons of plastic with PBDEs eliminated; and 0.41 tons of Hg avoided.	Project progress reports; Site visits and monitoring reports; Annual government report	**<u>Risks</u>:** • Insufficient funds generated to adequately attract process facilities and associated infrastructure investment. • Limited capacity and know-how to track and monitor POPs, UPOPs, and Heavy Metals release. **<u>Assumptions</u>:** • Prior commitments secured during project formulation and design. • BAT/BEP technologies suitable and applicable to context of Indian EEE industry • Supportive regulatory environment and strong enforcement efforts • Cooperative stakeholders
	Objective Indicator 3: GEF Core Indicator 6.2: Quantity of POPs emission to air avoided	Baseline data from PIF and PPG phase reports, collected through desk studies, investigation, studies For verification, data to be collected from evaluation and annual reports, National Implementation Plan (NIP)	0	77.5 g TEQ/yr of PCDD/F and PBDD/F emission avoided	265.67 g TEQ/yr of PCDD/F and PBDD/F emission avoided	Government Report	

	Objective Indicator 4: Number of facilities establishing or replicating BAT/BEP resulted in achieving POPs UPOPs reduction in e-waste processing under the pilot projects	Baseline data from PPG phase reports For verification, data to be collected from evaluation and annual reports.	0	*2*	5	Site visits and Verification Reports	**Risks:** • Insufficient funds generated to adequately attract process facilities and associated infrastructure investment. • Limited capacity and know-how to track and monitor POPs, UPOPs, and Heavy Metals release. **Assumptions:** • Cooperative stakeholders • Prior commitments secured during project formulation and design. • BAT/BEP technologies suitable and applicable to context of Indian EEE industry • Supportive regulatory environment and strong enforcement efforts
	Objective Indicator 5: *Number of OEMs/Producers engaged during the project implementation*	Baseline data from PPG phase reports For verification, data to be collected from evaluation and annual reports.	0	*70*	70	Site visits and Verification Reports	**Risks:** • Limited interest from OEMs for eco-design/chemical reduction measures implementation • Limited financial support to attract participants **Assumptions:** • Stakeholder's availability and willingness to participate in

							knowledge/technology sharing mechanisms and pilots. • No infringement or legal implications due to IP restrictions for technology sharing.
	Objective Indicator 6: Number of officials and decision-makers trained under all sub-projects	Assumption of participation of 15 officials per year under various components.	0	*38*	75	Workshop and training reports Minutes of the Meetings	**Risks:** • Willingness of concerned stakeholders participate in knowledge/technology sharing mechanisms and pilots. • Limited relevant knowledge material available for the training sessions. **Assumptions:** • Stakeholder's availability and willingness to participate in knowledge/technology sharing mechanisms and pilots.
Project Component 1	**Strengthen institutional mechanisms and develop knowledge-based interventions including design of innovative economic models**						
Outcome 1: Enabling environment enhanced for sustainable EEE production and e-waste management	**Outcome Indicator 1**: Percentage of the 106 EEE products covered under MFA studies	Baseline data from PIF and PPG reports and CPCB database	0	12	30	Evaluation Report	**Risks:** • Limited capacity and know-how to track and monitor EEE products for MFA. • Resistance in compliance and inadequate enforcement effort **Assumptions:**
	Outcome Indicator 2: Number of technical standards/ guidelines/ frameworks/ sector guidance documents developed and published	Baseline data from PPG phase reports For verification, data to be collected from evaluation and annual reports	0	2	5	Technical standards/ guidelines/ frameworks/sector guidance documents drafted and/or published	

Outputs to achieve Outcome 1	**Output 1.1**: Circular Economy baseline for EEE eco-design and cleaner production established. **Output 1.2**: Inventories of e-waste generation and assessment on externalities established, cost of e-waste management estimated, and value chain of key materials mapped taking into consideration specific gender-related aspects. **Output 1.3**: E-waste rules' enforcement, including EPR monitoring, harmonized between national and subnational level and coordination mechanism and guidelines for e-waste management established. **Output 1.4**: Frameworks for audit of e-waste recycling facilities developed. **Output.1.5**: Recommendations to strengthen implementation of India's RoHS for imported and manufactured EEE. **Output 1.6**: Gender-sensitive Eco-design and eco-labelling standards and guidelines proposed at targeted industries. **Output 1.7**: Economically sustainable management model for e-waste designed and piloted.						• Adequate traceability of EEE products value chain for analysis • Stakeholder's availability and willingness to participate in FGDs/consultations.
Project Component 2	**EEE Manufacturing, Supply Chain and End of Life (EOL) Ecosystem Improvement through prevention measures and socio-technical ESM models/pilots for replication**						
Outcome 2: POPs and other highly hazardous releases and emissions from EEE's unsound production and e-waste's management reduced with support from financial models and BAT/BEP piloted	**Outcome Indicator 3:** Number of OEMs engaged for eco-design/chemicals reduction measures	Baseline data from PIF and PPG reports For verification, data to be collected from evaluation and annual reports	*0*	*1*	*4*	Site visits and Verification Reports Demonstration progress and completion report; meeting and workshop reports	**Risks:** • Presence of elaborate informal networks for e-waste processing and resistance from their end for formalization • Limited interest from OEMs for eco-design/chemical reduction measures implementation • Limited financial support to attract participants **Assumptions:** • No infringement or legal implications due to IP restrictions for technology sharing. • Stakeholder's availability and willingness to participate in knowledge/technology sharing mechanisms and pilots.
	Outcome Indicator 4: Number of e-waste collection and recycling facilities piloted	Baseline data from PIF and PPG phase reports For verification, data to be collected from evaluation, annual and workshop reports	*0*	*2*	*5*	Site visits and Verification Reports Demonstration progress and completion report; meeting and workshop reports	
	Outcome Indicator 5 Number of schools and educational institutes engaged with OEMs for e-waste offsetting through education and awareness	Baseline data from PPG phase reports For verification, data to be collected from evaluation and annual reports	*0*	200	1,200	Site visits and Verification Reports	
Outputs to achieve Outcome 2	**Output 2.1:** Initiate the transformation of the EEE production and assembly in at least two (2) Original Equipment Manufacturers (OEMs) through eco-design and other inputs/materials/chemicals reduction measures piloted. **Output 2.2:** At least two (2) Feasibility Studies for replacement/rebate models of used EEE developed with manufacturers (OEMs) and/or large retailers to support strengthening of EPR schemes. **Output 2.3:** At least one (1) gender-responsive economically sustainable model with OEMs for education and public engagement on e-waste collection (offsetting) and supply chains piloted.						

	Output 2.4: At least four (4) gender-responsive schemes for e-waste collection and BEP for transforming or upgrading informal processing facilities developed and piloted. **Output 2.5:** Lithium-ion scrap batteries management pilot (1), developed and tested, linked to upstream electric car production to manage their off-spec batteries, with ESM model and guidelines prepared.						
Project component 3	**Improvement of baseline systems and infrastructures for POPs and UPOPs reduction in e-waste processing**						
Outcome 3: Systems changed and infrastructures for reduction of POPs and UPOPs & recovery of key materials improved	**Outcome Indicator 6:** Number of techno-economic assessments of BAT/BEP conducted	Baseline data from PPG phase reports For verification, data to be collected from evaluation and annual reports	0	1	3	Techno-economic assessment reports	**Risks:** • Lack of infrastructure for eco-design or chemicals reduction measures at Indian facilities of OEMs. • Non-availability or unsuitable facility to host pilot processing units **Assumptions:** • No infringement or legal implications due to IP restrictions for data sharing. • OEM's availability and willingness to participate in data sharing for feasibility assessments
	Outcome Indicator 7: Number of pilot processing units designed, assessed and pilot scale tested, and quantities of POPs reduction achieved	Baseline data from PPG phase reports For verification, data to be collected from evaluation and annual reports	0	1	2	Pilot progress and completion reports; Site visits and meeting reports	
Outputs to achieve Outcome 3	**Output 3.1:** Circularity gender-responsive infrastructure for eco-design in OEM facilities (3) assessed and improvements' feasibility determined. **Output 3.2:** Review of baselines and BAT/BEP in process for metal and valuable material extraction from e-waste tested in one (1) pilot site. **Output 3.3:** Gender-responsive Feasibility study(ies) and strategic roadmap developed for replication of 3.2. **Output 3.4:** Process for PBDEs removal from e-waste' plastics designed, assessed and pilot scale tested in one (1) site.						
Project component 4	**Knowledge management, Global coordination & cooperation, and monitoring & evaluation (M&E)**						
Outcome 4.1: Global, regional cooperation improved, and capacities enhanced	**Outcome Indicator 8:** Lessons learnt and experience documented and disseminated	Baseline data from PPG phase reports For verification, data to be collected from evaluation, annual and workshop reports	0	4	10	Knowledge products, technical reports, resource documents, published materials	**Risks:** • Low participation rate on training and public awareness activities • Failure to exercise timely and effective M&E activities due to capacity issue. **Assumptions:**
	Outcome Indicator 9: Number of national, regional or global experience exchange sessions conducted	Baseline data from PPG phase reports For verification, data to be collected from evaluation,	0	2	5	Travel and meeting reports, Training and workshop reports	

		annual and workshop reports					• Efficient M&E to facilitate achievement of project outcomes and objectives.
Outputs to achieve Outcome 4.1	**Output 4.1.1:** Coordination established with Global Programmes and Initiatives for knowledge management, information exchange and gender equality action. **Output 4.1.2:** Gender-responsive cross collaboration, including web-based MIS system and communication platform established and aligned with global programmes or initiatives on EEE Sector						
Outcome 4.2: Awareness, training and robust mechanism for monitoring and evaluation developed	**Outcome Indicator 10:** Number of training sessions and/or public awareness workshops conducted	Baseline data from PPG phase reports For verification, data to be collected from evaluation, annual and workshop reports	0	3	10	Training, public awareness and experience exchange reports	
	Outcome Indicator 11: Number of M&E studies conducted throughout project duration	Baseline data from PPG phase reports For verification, data to be collected from evaluation, annual and workshop reports	0	13	30	Mid-Term Review, Final Project Report and Terminal Evaluation reports	
Outputs to achieve Outcome 4.2	**Output 4.2.1:** Gender-sensitive Awareness and training Programme(s) for stakeholders, consumers, recyclers and dismantlers launched. Women are empowered to lead and participate in awareness and training activities. **Output 4.2.2:** Gender-sensitive Guidelines on incorporating EPR/CE principles and results, metrics and impacts into ESG Reports launched and Champions on ESG reporting identified through a manufacturer's driven awareness programme. **Output 4.2.3:** Gender-sensitive Project Monitoring & Evaluation established and ongoing throughout project cycle.						

VIII. MONITORING AND EVALUATION (M&E) PLAN

The project results as outlined in the project results framework will be monitored annually and evaluated periodically during project implementation to ensure the project effectively achieves these results. Supported by Component 4 - Knowledge Management, Global Coordination & cooperation, and Monitoring & evaluation (M&E), the project monitoring and evaluation plan will also facilitate learning and ensure knowledge is shared and widely disseminated to support the scaling up and replication of project results.

Project-level monitoring and evaluation will be undertaken in compliance with UNDP requirements as outlined in the UNDP POPP (including guidance on GEF project revisions) and UNDP Evaluation Policy **The UNDP Country Office is responsible for ensuring full compliance with all UNDP project M&E requirements including project monitoring, UNDP quality assurance requirements, quarterly risk management, and evaluation requirements.**

Additional mandatory GEF-specific M&E requirements will be undertaken in accordance with the GEF Monitoring Policy and the GEF Evaluation Policy and other relevant GEF policies[30]. The M&E plan and budget included below will guide the GEF-specific M&E activities to be undertaken by this project.

In addition to mandatory UNDP and GEF M&E requirements, other M&E activities deemed necessary to support project-level adaptive management will be agreed upon – including during the Project Inception Workshop - and will be detailed in the Inception Report. This will include the exact role of project target groups and other stakeholders in project M&E activities including the GEF Operational Focal Point and national/regional institutes assigned to undertake project monitoring. The GEF Operational Focal Point will strive to ensure consistency in the approach taken to the GEF-specific M&E requirements (notably the GEF Tracking Tools) across all GEF-financed projects in the country. This could be achieved for example by using one national institute to complete the GEF Tracking Tools for all GEF-financed projects in the country, including projects supported by other GEF Agencies.[31]

M&E Oversight and monitoring responsibilities:

Project Manager: The Project Manager is responsible for day-to-day project management and regular monitoring of project results and risks, including social and environmental risks. The Project Manager will ensure that all project staff maintain a high level of transparency, responsibility and accountability in M&E and reporting of project results. The Project Manager will inform the Project Board, the UNDP Country Office and the UNDP-GEF RTA of any delays or difficulties as they arise during implementation so that appropriate support and corrective measures can be adopted.

The Project Manager will develop annual work plans based on the multi-year work plan included in Annex 4, including annual output targets to support the efficient implementation of the project. The Project Manager will ensure that the standard UNDP and GEF M&E requirements are fulfilled to the highest quality. This includes, but is not limited to, ensuring the results framework indicators are monitored annually in time for evidence-based reporting in the GEF PIR, and that the monitoring of risks and the various plans/strategies developed to support project implementation (e.g., ESMP, gender action plan, stakeholder engagement plan etc.) occur on a regular basis.

Project Board: The Project Board will take corrective action as needed to ensure the project achieves the desired results. The Project Board will hold project reviews to assess the performance of the project and appraise the Annual Work Plan for the following year. In the project's final year, the Project Board will hold an end-of-project review to capture lessons learned and discuss opportunities for scaling up and to highlight project results and lessons learned with relevant audiences. This final review meeting will also discuss the findings outlined in the project terminal evaluation report and the management response.

Project Implementing Partner: The Implementing Partner is responsible for providing all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary. The Implementing Partner will strive to ensure project-level M&E is undertaken by national institutes and is aligned with national systems so that the data used and generated by the project supports national systems.

[30] See https://www.thegef.org/projects-operations/policies-guidelines
[31] See https://www.thegef.org/gef/gef_agencies

UNDP Country Office: The UNDP Country Office will support the Project Manager as needed, including through annual supervision missions. The annual supervision missions will take place according to the schedule outlined in the annual work plan. Supervision mission reports will be circulated to the project team and Project Board within one month of the mission. The UNDP Country Office will initiate and organize key GEF M&E activities including the annual GEF PIR, the independent mid-term review and the independent terminal evaluation. The UNDP Country Office will also ensure that the standard UNDP and GEF M&E requirements are fulfilled to the highest quality.

The UNDP Country Office is responsible for complying with all UNDP project-level M&E requirements as outlined in the UNDP POPP. This includes ensuring the UNDP Quality Assurance Assessment during implementation is undertaken annually; that annual targets at the output level are developed and monitored and reported using UNDP corporate systems; the regular updating of the ATLAS risk log; and the updating of the UNDP gender marker on an annual basis based on gender mainstreaming progress reported in the GEF PIR and the UNDP ROAR. Any quality concerns flagged during these M&E activities (e.g., annual GEF PIR quality assessment ratings) must be addressed by the UNDP Country Office and the Project Manager.

The UNDP Country Office will retain all M&E records for this project for up to seven years after project financial closure to support ex-post evaluations undertaken by the UNDP Independent Evaluation Office (IEO) and/or the GEF Independent Evaluation Office (IEO).

UNDP-GEF Unit: Additional M&E and implementation quality assurance and troubleshooting support will be provided by the UNDP-GEF Regional Technical Advisor and the UNDP-GEF Directorate as needed.

Minimum project monitoring and reporting requirements as required by the GEF:

Inception Workshop and Report: A project inception workshop will be held within 2 months from the First disbursement date, with the aim to:

a. Familiarize key stakeholders with the detailed project strategy and discuss any changes that may have taken place in the overall context since the project idea was initially conceptualized that may influence its strategy and implementation.
b. Discuss the roles and responsibilities of the project team, including reporting lines, stakeholder engagement strategies and conflict resolution mechanisms.
c. Review the results framework and monitoring plan.
d. Discuss reporting, monitoring and evaluation roles and responsibilities and finalize the M&E budget; identify national/regional institutes to be involved in project-level M&E; discuss the role of the GEF OFP and other stakeholders in project-level M&E.
e. Update and review responsibilities for monitoring project strategies, including the risk log; SESP report, Social and Environmental Management Framework (where relevant) and other safeguard requirements; project grievance mechanisms; gender strategy; knowledge management strategy, and other relevant management strategies.
f. Review financial reporting procedures and budget monitoring and other mandatory requirements and agree on the arrangements for the annual audit.
g. Plan and schedule Project Board meetings and finalize the first-year annual work plan. Finalize the TOR of the Project Board.
h. Formally launch the Project.

GEF Project Implementation Report (PIR):

The annual GEF PIR covering the reporting period July (previous year) to June (current year) will be completed for each year of project implementation. UNDP will undertake quality assurance of the PIR before submission to the GEF. The PIR submitted to the GEF will be shared with the Project Board. UNDP will conduct a quality review of the PIR, and this quality review and feedback will be used to inform the preparation of the subsequent annual PIR.

GEF Core Indicators:

The GEF Core indicators included as Annex 16 will be used to monitor global environmental benefits and will be updated for reporting to the GEF prior to MTR and TE. Note that the project team is responsible for updating the core indicators status. The updated monitoring data must be shared with MTR/TE consultants prior to required

evaluation missions, so these can be used for subsequent ground truthing. The methodologies to be used in data collection have been defined by the GEF and are available on the GEF.

Independent Mid-term Review (MTR):

An independent mid-term review (MTR) will be completed by the mid-point of the project. The terms of reference, the MTR process and the final MTR report will follow the standard templates and MTR guidance for UNDP-supported GEF-financed projects available on the UNDP Evaluation Resource Center. The MTR must be submitted to the GEF by the mid-point of the project but no later than 48 months after CEO Endorsement.

Provisions must be taken to complete and submit the MTR within the submission deadline. Therefore, the MTR process must start no later than 8 months before the expected date of submission of the MTR.

The MTR will be 'independent, impartial and rigorous'. The evaluator(s) that UNDP will hire to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be reviewed. Equally, the evaluators should not be in a position where there may be the possibility of future contracts regarding the project under review.

The GEF Operational Focal Point and other stakeholders will be actively involved and consulted during the MTR process. Additional quality assurance support is available from BPPS/NCE.

The final MTR report will be publicly available in English and will be posted on the UNDP ERC by the MTR submission date included on cover page of this project document. A management response to MTR recommendations will be posted in the ERC within six weeks of the MTR report's submission to the GEF.

Terminal Evaluation (TE):

An independent terminal evaluation (TE) will take place upon completion of all major project outputs and activities. The terms of reference, the evaluation process and the final TE report will follow the standard templates and TE guidance for UNDP-supported GEF-financed projects available on the UNDP Evaluation Resource Center. TE must be submitted to the GEF no later than 6 months after the Completion Date. This is a hard deadline that, if not met, can only be extended through a formal extension request.

Provisions must be taken to complete and submit the TE within the submission deadline. Therefore, TE must start no later than 8 months before the expected date of submission of the TE (or 11 months prior to the estimated operational closure date).

The evaluation will be 'independent, impartial and rigorous'. The evaluator(s) that UNDP will hire to undertake the assignment will be independent from organizations that were involved in designing, executing or advising on the project to be evaluated. Equally, the evaluators should not be in a position where there may be the possibility of future contracts regarding the project being evaluated.

The GEF Operational Focal Point and other stakeholders will be actively involved and consulted during the terminal evaluation process. Additional quality assurance support is available from BPPS NCE.

The final TE report will be publicly available in English and posted on the UNDPHY ERC by the TE submission date included on cover page of this project document. A management response to the TE recommendations will be posted to the ERC within six weeks of the TE report submission to the GEF.

Per the GEF Terminal Evaluation requirements, for cancelled full-sized projects, Terminal Evaluations are required if the GEF grant expenditure exceeds more than US$ 2 million.

Final Report:

The project's final GEF PIR along with the terminal evaluation (TE) report and corresponding management response will serve as the final project report package. The final project report package shall be discussed with the Project Board during an end-of-project review meeting to discuss lesson learned and opportunities for scaling up.

In accordance with UNDP's programming policies and procedures, the project will be monitored through the following monitoring and evaluation plans**.**

Monitoring Plan: The project results, corresponding indicators and mid-term and end-of-project targets in the project results framework will be monitored by the Project Management Unit annually, and will be reported in the GEF PIR every year, and will be evaluated periodically during project implementation. If baseline data for some of the results indicators is not yet available, it will be collected during the first year of project implementation. Project risks, as outlined in the risk register, will be monitored quarterly.

Monitoring Activity							
	Results Monitoring	**Indicators**	**Targets**	**Description of indicators and targets**	**Frequency**	**Responsible for data collection**	**Means of verification**
Track results progress	To reduce (and/or eliminate) the adverse impacts of POPs, UPOPs and heavy metal (such as mercury) on human health and environment by making strategic interventions across the life cycle of electrical and electronic equipment and strengthening India's capacity for the environmentally sound management of electrical and electronic wastes (e-waste) through	**Objective Indicator 1** Number of direct project beneficiaries desegregated by gender (individual people)	6,400 direct project beneficiaries (3,200 female, 3,200 male)	Project beneficiaries categorized by gender, directly receiving economic benefits from project interventions	Annually, Mid-term, Project closure	Project Manager, Workshop organizers	Project progress reports, site visits, monitoring, training, capacity and awareness workshop reports
		Objective Indicator 2 Quantity of POPs and uPOPs reduction	25.2 tons of PBDEs emission eliminated. 8,000 tons of toxic heavy metals (Hg, Cd, Ni, Cr etc.) disposal avoided. 12,600 tons of plastic with PBDEs eliminated. 0.41 tons of Hg disposal avoided.	Quantity of POPs and uPOPs emission reduction through the implementation of project pilots identified		Project Manager, Project consultants	Project progress reports Site visits and monitoring reports Annual government report
		Objective Indicator 3 GEF Core Indicator 6.2: Quantity of POPs emission to air avoided	265.67 gTEQ/yr of PBDD/F and PCDD/F	Quantity of POPs (PBDD/F and PCDD/F) emission avoided from environmentally sound e-waste		Project Manager, Project consultants	Project progress reports Site visits and monitoring reports

Monitoring Activity							
	Results Monitoring	**Indicators**	**Targets**	**Description of indicators and targets**	**Frequency**	**Responsible for data collection**	**Means of verification**
	integrated approaches		emission avoided	management under the project pilots.			Annual government report.
		Objective Indicator 4 Number of facilities establishing or replicating BAT/BEP resulted in achieving POPs, uPOPs reduction in e-waste processing under the pilot projects	5	Facilities replicating or establishing BAT/BEP identified to reduce POPs, uPOPs, and hazardous chemicals from e-waste management.		Project manager, Project consultants	Site visits and Verification Reports
		Objective Indicator 5 Number of OEMs/Producers engaged during the project implementation	70	Number of OEMs / Producers engaged during project implementation		Project Manager, Project consultants	Site visits and Verification Reports
		Objective Indicator 6 Number of officials and decision makers trained under this project	75	Number of officials and decision makers, trained and involved in workshops on capacity building and gender sensitization		Project Manager, Project consultants	Evaluation Report
	Outcome 1 Enabling environment enhanced for sustainable EEE production and e-waste management	**Outcome Indicator 1:** Percentage of the 106 EEE products covered under MFA studies	30	Proportion of EEE products out of 106 identified products under E-waste Management Rules subjected to MFA under the project.		Project Manager, Project consultants	Evaluation Report
		Outcome Indicator 2: Number of technical standards/guidelines/ frameworks/sector guidance documents published	5	Number of technical standards/guidelines/ framework/ sector guidance developed and published as part of project results		Project Manager and Project consultants	Technical standards/guidelines/ frameworks/sector guidance documents prepared and published
	Outcome 2 POPs and other highly	**Outcome Indicator 3:** Number of OEMs engaged for eco-design/chemicals reduction measures	4	OEMs engaged to incorporate eco-design/ chemical		Project Manager and	Site visits and Verification Reports

Monitoring Activity							
	Results Monitoring	**Indicators**	**Targets**	**Description of indicators and targets**	**Frequency**	**Responsible for data collection**	**Means of verification**
	hazardous releases and emissions from EEE's unsound production and e-waste's management reduced with support from financial models and BAT/BEP piloted			reduction BAT/ BEP as a result of project engagement.		Project consultants	Demonstration progress and completion report; meeting and workshop reports
		Outcome Indicator 4: Number of e-waste collection and recycling facilities piloted	5	Number of e-waste facilities set up as a result of project engagement and financing.		Project Manager and Project consultants	Site visits and Verification Reports Demonstration progress and completion report; meeting and workshop reports
		Outcome Indicator 5: Number of schools and educational institutes engaged with OEMs for e-waste offsetting through education and awareness.	1,200	Engaging OEMs to scale-up awareness generation and public engagement in schools/universities formally by OEMs.		Project Manager and Project consultants	Site visits and Verification Reports
	Outcome 3 Systems changed and infrastructures for reduction of POPs and uPOPs & recovery of key materials improved	**Outcome Indicator 6:** Number of techno-economic assessments of BAT/BEP conducted	3	Number of techno-economic assessments conducted on BAT/BEP for reducing POPs, uPOPs and hazardous chemical emission and improving recovery rate of key materials from e-waste.		Project Manager, Project consultants	Techno-economic assessment reports
		Outcome Indicator 7: Number of pilot processing units designed, assessed and pilot scale tested, and quantities of POPs reduction achieved	3	Number of feasibility assessments conducted for identifying BAT/BEP for reducing POPs, uPOPs and hazardous chemical emission		Project Manager, Project consultants	Feasibility assessment reports, Progress Reports

Monitoring Activity							
	Results Monitoring	**Indicators**	**Targets**	**Description of indicators and targets**	**Frequency**	**Responsible for data collection**	**Means of verification**
				and improving recovery rate of key materials from e-waste.			
	Outcome 4.1 Global, regional cooperation improved, and capacities enhanced*)*	**Outcome Indicator 8:** Lessons learnt and experience documented and disseminated	10	Knowledge and lessons-learned shared among the stakeholders and national and global audience.		Project Manager, Project consultants	Knowledge products like circulars, flyers, documentaries
		Outcome Indicator 9: Number of national, regional or global experience exchange sessions conducted	5	Experience exchange sessions for communicating the project outcomes among participating stakeholders and national and global audience.		Project Manager, Project consultants	Training and workshop reports
	Outcome 4.2 Awareness, training and robust mechanism for monitoring and evaluation developed	**Outcome Indicator 10:** Number of training sessions and/or public awareness workshops conducted	10	Training workshops and awareness programmes conducted to sensitise key stakeholders and/or the public to achieve project objectives.		Project Manager, Project consultants	Training and experience exchange reports
		Outcome Indicator 11: Number of M&E studies conducted throughout project duration	30	M&E studies conducted to ensure effective project implementation through continuous monitoring and comprehensive result evaluation.		Project Manager, Project consultants	Mid-Term Review, Final Project Report and Terminal Evaluation reports

Monitoring Activity	Frequency/Timeframe	Expected Action	Partners (if joint)
Inception Workshop and Report	Inception Workshop within 2 months of the First Disbursement	As per above description	MeitY, MoEF&CC, CPCB, UNDP
Track results progress (see above table for details)	Annually and at mid-point and closure	Slower than expected progress will be addressed by project management.	MeitY, MoEF&CC, UNDP
Monitor and Manage Risk	Quarterly	Risks are identified by project management and actions are taken to manage risk. The risk log is actively maintained to keep track of identified risks and actions taken.	MeitY, MoEF&CC, CPCB, UNDP
Monitoring of safeguards management frameworks, environmental and social risks, gender action plans, and coordinating management plan, as relevant	Ongoing		MeitY, MoEF&CC, UNDP, CPCB
Supervision Missions	Annually		MeitY, UNDP
Learning and Learning Missions	As needed	Relevant lessons are captured by the project team and used to inform management decisions.	MeitY, MoEF&CC, UNDP, CPCB
Annual Project Quality Assurance	Annually	Areas of strength and weakness will be reviewed by project management and used to inform decisions to improve project performance.	MeitY, UNDP
Review and Make Course Corrections	At least annually	Performance data, risks, lessons and quality will be discussed by the project board and used to make course corrections.	MeitY, MoEF&CC, CPCB, UNDP
Annual GEF Project Implementation Report (PIR)	Annually typically between June-September	Mandatory contribution by Project Team, CO and RTA. Strengths and weaknesses will be reviewed by project management and used to inform decisions to improve project performance	MeitY, MoEF&CC, UNDP
Project Review (Project Board)	At minimum annually	Any quality concerns or slower than expected progress should be discussed by the project board and management actions agreed to address the issues identified.	MeitY, MoEF&CC, CPCB, UNDP

Evaluation Plan

Evaluation Title	Partners (if joint)	Related Strategic Plan Output	UNSDCF/CPD Outcome	Planned Completion Date	Key Evaluation Stakeholders
Independent Mid-Term Review (MTR)	None	2.1, 2.3, 4.1, 4.2, 6.1, 6.2, 6.3	*UNSDCF output 5.4/ CPD output 3.1*	By the MTR submission date included on cover page of Project Document	Implementation Partner, Beneficiaries, GEF agency, PMU
Independent Terminal Evaluation (TE)	None	2.1, 2.3, 4.1, 4.2, 6.1, 6.2, 6.3	*UNSDCF output 5.4/ CPD output 3.1*	By the TE submission date included on cover page of Project Document	Implementation Partner, Beneficiaries, GEF agency, PMU

Monitoring and Evaluation Budget for project execution:	
GEF M&E requirements to be undertaken by Project Management Unit (PMU)	**Indicative costs (US$)**
Inception Workshop and Report	10,000
M&E activities required to report on progress made in reaching GEF core indicators and project results included in the project results framework, including Project Board meetings	50,000
Preparation of the annual GEF Project Implementation Report (PIR)	None
Monitoring of safeguards management frameworks, environmental and social risks, gender action plans, and coordinating management plan, as relevant	50,000
Supervision missions	35,000
Learning missions	25,000
Independent Mid-term Review (MTR)	50,000
Independent Terminal Evaluation (TE)	60,000
TOTAL indicative COST	**280,000**

IX. GOVERNANCE AND MANAGEMENT ARRANGEMENTS

Section 1: General roles and responsibilities of the project's governance mechanism:

Implementing Partner: The Implementing Partner (IP) for this project is the Ministry of Electronics and Information Technology (MeitY). The designated division in MeitY entrusted with the implementation, monitoring, and oversight of the project is in MeitY's R&D in Electronics Group.

MeitY is the designated Ministry in India responsible for all-inclusive and sustainable growth of the Electronics and IT & ITeS industries by adopting a multipronged approach, including formulation and enforcement of policies, development of human resources, and promoting Research and Development (R&D) and innovation in the sector.

MeitY spearheads e-waste management in India by formulating policies, enforcing regulations, fostering innovative research, and promoting a circular economy within the sector. In collaboration with the Ministry of Environment, Forest, and Climate Change (MoEF&CC), MeitY has been instrumental in drafting and implementing the E-Waste (Management) Rules, which provide a comprehensive framework for the proper handling, recycling, and disposal of e-waste.

Beyond regulatory oversight, MeitY has been at the forefront of promoting R&D in e-waste management. Its R&D in the Electronics Division supports R&D initiatives to develop innovative solutions for e-waste management.

The Implementing Partner, MeitY, 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:

- Project planning, coordination, management, monitoring, evaluation and reporting. This includes providing all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary. The Implementing Partner will strive to ensure project-level M&E is undertaken by national institutes and is aligned with national systems so that the data used and generated by the project supports national systems.
- Overseeing the management of project risks as included in this project document and new risks that may emerge during project implementation.
- Procurement of goods and services, including human resources.
- Financial management, including overseeing financial expenditures against project budgets.
- Approving and signing the multiyear workplan.
- Approving and signing the combined delivery report at the end of the year; and,
- Signing the financial report or the funding authorization and certificate of expenditures.

Responsible Parties

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

Responsible Party A: Responsible Party A are private sector partners (OEMs/producers/recyclers/dismantlers/ refurbishers), industry associations, research institutions, NGOs and academia 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 B: The Responsible Party B are sub-national governments. Guided by the Implementing Partner, they are responsible for facilitating project and pilot activities to promote and facilitate pollution prevention and control, emission reduction, monitoring, supervision and enforcement actions. They will be instrumental in assisting in the promotion and awareness raising activities to achieve emission reduction and sound e-waste management.

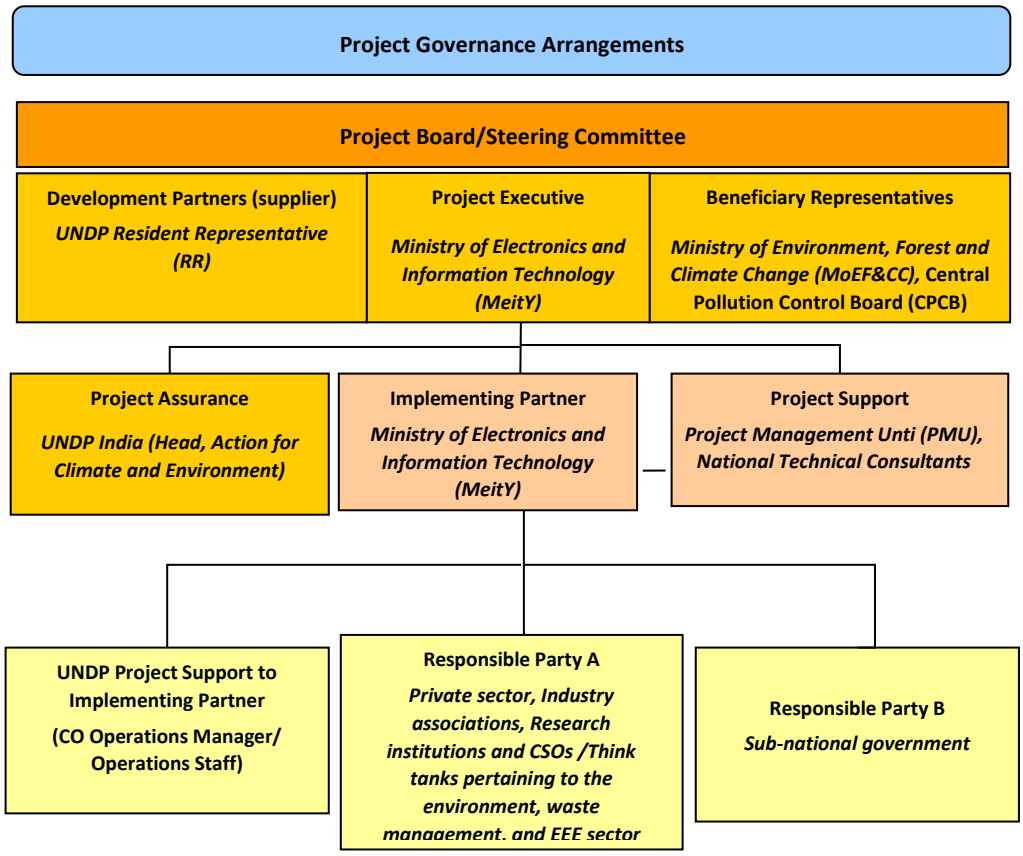
Project stakeholders and target groups

Key stakeholders and targeted project beneficiaries have been extensively consulted during the PIF and PPG phases. Their comments and suggestions have been significantly valuable in contributing to a rich and well-thought out project design. Stakeholders and targeted project beneficiaries will continued to be consulted, their cooperation and collaboration will be sought during project implementation.

UNDP: UNDP is accountable to the GEF for the implementation of this project. This includes overseeing project execution undertaken by the Implementing Partner to ensure that the project is being carried out in accordance with UNDP and GEF policies and procedures and the standards and provisions outlined in the Delegation of Authority (DOA) letter for this project. **The UNDP GEF Executive Coordinator, in consultation with UNDP Bureaus and the Implementing Partner, retains the right to revoke the project DOA, suspend or cancel this GEF project.** UNDP is responsible for the Project Assurance function in the project governance structure and presents to the Project Board and attends Project Board meetings as a non-voting member.

A firewall will be maintained between the delivery of project oversight and quality assurance performed by UNDP and charged to the GEF Fee and any support to project execution performed by UNDP (as requested by and agreed to by both the Implementing Partner and GEF) and may be charged to the GEF project management costs (only if approved by GEF). The segregation of functions and firewall provisions for UNDP in this case is described in the next section.

Section 2: Project governance structure for Supported National Implementation Modality (NIM) for National Project



First line of defense

- Person providing oversight of execution support (COS) cannot report to UNDP staff providing project assurance or providing programmatic oversight support to the RR.

Second line of defense

- Regional Bureau overseas RR and Country Office compliance at portfolio level.
- BPPS NCE RTA overseas technical quality assurance and GEF compliance. BPPS NCE PTA overseas RTA function.
- UNDP GEF Executive Coordinator and Regional Bureau Deputy Director can revoke DOA/cancel/suspend project or provide enhanced oversight.

The UNDP Resident Representative assumes full responsibility and accountability for oversight and quality assurance of this Project and ensures its timely implementation in compliance with the GEF-specific requirements and UNDP's Programme and Operations Policies and Procedures (POPP), its Financial Regulations and Rules and Internal Control

Framework. A representative of the UNDP Country Office will assume the assurance role and will present assurance findings to the Project Board, and therefore attends Project Board meetings as a non-voting member.

UNDP project support:*:* The Implementing Partner and GEF OFP have requested UNDP to provide support services in the amount of US$59,819 for the full duration of the project, and the GEF has agreed for UNDP to provide such execution support services provided however that such costs will not be charged to the project budget but will be fully covered by non-GEF resources. The execution support services – whether financed from the project budget or other sources - have been set out in detail and agreed between UNDP Country Office and the Implementing Partner in a Letter of Agreement (LOA). This LOA is attached as Annex 12 to this Project Document.

To ensure the strict independence required by the GEF and in accordance with the UNDP Internal Control Framework, these execution services will be delivered independent from the GEF-specific oversight and quality assurance services.

Section 3: Segregation of duties and firewalls vis-à-vis UNDP representation on the project board:

As noted in the Minimum Fiduciary Standards for GEF Partner Agencies, in cases where a GEF Partner Agency (i.e. UNDP) carries out both implementation oversight and execution of a project, the GEF Partner Agency (i.e. UNDP) must separate its project implementation oversight and execution duties, and describe in the relevant project document a: 1) Satisfactory institutional arrangement for the separation of implementation oversight and executing functions in different departments of the GEF Partner Agency; and 2) Clear lines of responsibility, reporting and accountability within the GEF Partner Agency between the project implementation oversight and execution functions.

In this case, UNDP's implementation oversight role in the project – as represented in the project board and via the project assurance function – is performed by UNDP Deputy Resident Representative and the Head (Action for Climate and Environment). UNDP's execution role in the project (as requested by the implementing partner and approved by the GEF) is performed by the CO Operations Manager and Operations Staff.

Section 4: Roles and Responsibilities of the Project Organization Structure:

a) Project Board: All UNDP projects must be governed by a multi-stakeholder board or committee established to review performance based on monitoring and evaluation, and implementation issues to ensure quality delivery of results. The Project Board (also called the Project Steering Committee) is the most senior, dedicated oversight body for a project.

The two main (mandatory) roles of the project board are as follows:

1) **High-level oversight of the execution of the project by the Implementing Partner** (as explained in the "Provide Oversight" section of the POPP). This is the primary function of the project board and includes annual (and as-needed) assessments of any major risks to the project, and decisions/agreements on any management actions or remedial measures to address them effectively. The Project Board reviews evidence of project performance based on monitoring, evaluation and reporting, including progress reports, evaluations, risk logs and the combined delivery report. The Project Board is responsible for taking corrective action as needed to ensure the project achieves the desired results.
2) **Approval of strategic project execution decisions of the Implementing Partner** with a view to assess and manage risks, monitor and ensure the overall achievement of projected results and impacts and ensure long term sustainability of project execution decisions of the Implementing Partner (as explained in the "Manage Change" section of the POPP).

Requirements to serve on the Project Board:

- ✓ Agree to the Terms of Reference of the Board and the rules on protocols, quorum and minuting.
- ✓ Meet annually; at least once.
- ✓ Disclose any conflict of interest in performing the functions of a Project Board member and take all measures to avoid any real or perceived conflicts of interest. This disclosure must be documented and kept on record by UNDP.

- ✓ Discharge the functions of the Project Board in accordance with UNDP policies and procedures.
- ✓ Ensure highest levels of transparency and ensure Project Board meeting minutes are recorded and shared with project stakeholders.

Responsibilities of the Project Board:

- ✓ Consensus decision making:
  - The project board provides overall guidance and direction to the project, ensuring it remains within any specified constraints, and providing overall oversight of the project implementation.
  - Review project performance based on monitoring, evaluation and reporting, including progress reports, risk logs and the combined delivery report.
  - The project board is responsible for making management decisions by consensus.
  - 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 representative on the board will mediate to find consensus and, if this cannot be found, will take the final decision to ensure project implementation is not unduly delayed.
- ✓ Oversee project execution:
  - Agree on project manager's tolerances as required, within the parameters outlined in the project document, and provide direction and advice for exceptional situations when the project manager's tolerances are exceeded.
  - Appraise annual work plans prepared by the Implementing Partner for the Project; review combined delivery reports prior to certification by the implementing partner.
  - Address any high-level project issues as raised by the project manager and project assurance.
  - Advise on major and minor amendments to the project within the parameters set by UNDP and the donor and refer such proposed major and minor amendments to the UNDP BPPS Nature, Climate and Energy Executive Coordinator (and the GEF, as required by GEF policies).
  - Provide high-level direction and recommendations to the project management unit to ensure that the agreed deliverables are produced satisfactorily and according to plans.
  - Track and monitor co-financed activities and realisation of co-financing amounts of this project.
  - Approve the Inception Report, GEF annual project implementation reports, mid-term review and terminal evaluation reports.
  - Ensure commitment of human resources to support project implementation, arbitrating any issues within the project.
- ✓ Risk Management:
  - Provide guidance on evolving or materialized project risks and agree on possible mitigation and management actions to address specific risks.
  - Review and update the project risk register and associated management plans based on the information prepared by the Implementing Partner. This includes risks related that can be directly managed by this project, as well as contextual risks that may affect project delivery or continued UNDP compliance and reputation but are outside of the control of the project. For example, social and environmental risks associated with co-financed activities or activities taking place in the project's area of influence that have implications for the project.
  - Address project-level grievances.
- ✓ Coordination:
  - Ensure coordination between various donor and government-funded projects and programmes.
  - Ensure coordination with various government agencies and their participation in project activities.

Composition of the Project Board: The composition of the Project Board must include individuals assigned to the following three roles:

1. **Project Executive:** This is an individual who represents ownership of the project and chairs (or co-chairs) the Project Board. The Executive usually is the senior national counterpart for nationally implemented projects (typically from the same entity as the Implementing Partner), and it must be UNDP for projects that are direct implementation (DIM). In exceptional cases, two individuals from different entities can co-share this role and/or co-chair the Project Board. If the project executive co-chairs the project board with representatives of another category, it typically does so with a development partner representative. The Project Executive is: Additional Secretary, Ministry of Electronics and Information Technology.
2. **Beneficiary Representative(s):** Individuals or groups representing the interests of those groups of stakeholders 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 representatives from civil society, industry associations, or other government entities benefiting from the project can fulfil this role. There can be multiple beneficiary representatives in a Project Board. The Beneficiary representative (s) is/are:
    - Ministry of Environment, Forest & Climate Change (MoEF&CC)
    - Central Pollution Control Board (CPCB)
3. **Development Partner(s):** Individuals or groups representing the interests of the parties concerned that provide funding, strategic guidance and/or technical expertise to the project. The Development Partner(s) is UNDP Deputy Resident Representative (UNDP DRR).

b) **Project Assurance:** Project assurance is the responsibility of each project board member; however, UNDP has a distinct assurance role for all UNDP projects in carrying out objective and independent project oversight and monitoring functions. UNDP performs quality assurance and supports the Project Board (and Project Management Unit) by carrying out objective and independent project oversight and monitoring functions, including compliance with the risk management and social and environmental standards of UNDP. The Project Board cannot delegate any of its quality assurance responsibilities to the Project Manager. Project assurance is totally independent of project execution.

A designated representative of UNDP playing the project assurance role is expected to attend all board meetings and support board processes as a non-voting representative. It should be noted that while in certain cases UNDP's project assurance role across the project may encompass activities happening at several levels (e.g., global, regional), at least one UNDP representative playing that function must, as part of their duties, specifically attend board meeting and provide board members with the required documentation required to perform their duties. The UNDP representative playing the main project assurance function is/are:

- Head (Action for Climate and Environment)

c) **Project Management – Execution of the Project:** The Project Manager (PM) (also called project coordinator) is the senior most representative of the Project Management Unit (PMU) and is responsible for the overall day-to-day management of the project on behalf of the Implementing Partner, including the mobilization of all project inputs, supervision over project staff, responsible parties, consultants and sub-contractors. The project manager typically presents key deliverables and documents to the board for their review and approval, including progress reports, annual work plans, adjustments to tolerance levels and risk registers.

A designated representative of the PMU is expected to attend all board meetings and support board processes as a non-voting representative. The primary PMU representative attending board meetings is the National Project Manager for the project (to be hired). The Project Management Unit (PMU) will be located at the Research & Development, Electronics Division, Ministry of Electronics and Information Technology (MeitY) in New Delhi, under the Additional Secretary who is also the National Project Director for the project. The PMU will consist of one national Project Manager, one Technical Advisor, one Project Officer, two Project Associates and one Gender Officer.

The primary PMU representative attending board meetings is The National Project Manager.

X. FINANCIAL PLANNING AND MANAGEMENT

The total cost of the project is **USD 123,647,058**. This is financed through a **GEF grant of USD 15,000,000** administered by UNDP, and additional support of **USD 108,647,058** in cash and in-kind co-financing. UNDP, as the GEF Implementing Agency, is responsible for the oversight of the GEF resources and the cash co-financing transferred to UNDP bank account only.

Co-financing: The actual realization of project co-financing amounts will be monitored by the UNDP Country Office and the PMU on an annual basis in the GEF PIR and will be reported to the GEF during the mid-term review and terminal evaluation process as follows:

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount ($)
Recipient Country Government	Ministry of Electronics and Information Technology (MeitY)	In-kind	Recurrent expenditures	10,000,000
Private Sector	Circularity Solutions Private Limited	Grant	Investment mobilized	19,411,765
		In-kind	Recurrent expenditures	2,117,647
Private Sector	Karo Sambhav Private Limited	Grant	Investment mobilized	20,000,000
		In-kind	Recurrent expenditures	2,352,941
Private Sector	Attero Recycling Private Limited	Grant	Investment mobilized	10,000,000
		In-kind	Recurrent expenditures	10,000,000
Private Sector	Pegasus Waste Management Private Limited	Grant	Investment mobilized	3,000,000
		In-kind	Recurrent expenditures	20,000,000
Private Sector	Inclusive Recycling Foundation	Grant	Investment mobilized	294,118
		In-kind	Recurrent expenditures	294,117
Private Sector	Eco Recycling Ltd	Grant	Investment mobilized	5,000,000
Private Sector	MiniMines Cleantech Solutions Pvt Ltd	In-kind	Recurrent expenditures	1,176,470
GEF Agency	UNDP	In-kind	Recurrent expenditures	1,000,000
		Grant	Investment mobilized	4,000,000
Total co-financing				108,647,058

Budget Revision and Tolerance: As per UNDP POPP, the project board may agree with the project manager on a tolerance level for each detailed plan under the overall multi-year workplan. The agreed tolerance should be written in the project document or approved project board meeting minutes. It should normally not exceed 10 percent of the agreed annual budget at the activity level, but within the overall approved multi-year workplan at the activity level. Within the agreed tolerances, the project manager can operate without intervention from the project board. Restrictions apply as follows:

Should the following deviations occur, the Project Manager/IP through UNDP Country Office will seek the approval of the BPPS/NCE-VF team to ensure accurate reporting to the GEF. It is **strongly encouraged** to maintain the expenditures within the approved budget at the budgetary account and at the component level:

a) Budget reallocations must prove that the suggested changes in the budget will not lead to material changes in the results to be achieved by the project. A strong justification is required and will be approved on an exceptional basis. Budget re-allocations among the components (including PMC) of the approved Total Budget and Work Plans (TBWP) that represent a value greater than 10% of the total GEF grant.
b) Introduction of new outputs/activities (i.e., budget items) that were not part of the agreed project document and TBWP that represent a value greater than 5% of the total GEF grant. The new budget items must be eligible as per the GEF and UNDP policies.
c) Project management cost (PMC): budget under PMC component is capped and cannot be increased.

UNDP is not in a position to increase the total budget above the amount approved by the donor, therefore any over-expenditure would have to be absorbed from non-GEF resources by the Implementing Partner (GEF Executing Entity)

Project extensions: The UNDP-BPPS-NCE team Executive Coordinator must approve all requests for extension of the Project Completion Date and for other milestone extensions with hard deadlines. All extensions impose additional time and cost burdens at all levels and the GEF project budget cannot be increased beyond its originally approved amount. A single extension may be granted on an exceptional basis and subject to the conditions and maximum durations set out in the UNDP POPP. The project management costs during the extension period must remain within the originally approved amount, and any increase in PMC costs shall be covered by non-GEF resources; the additional UNDP oversight costs during the extension period must be covered by non-GEF resources, in accordance with UNDP's policy as set out in UNDP POPP.

For any extension request, UNDP CO and IP will consult and jointly present a clear plan indicating how and from which specific sources the additional oversight costs that will be incurred by UNDP will be covered during the extended period. The BPPS-NCE Executive Coordinator will consult the Regional Bureaux (RBX) and may reject the extension request if no (external co-financing by the IP or internal UNDP CO resources) can be identified.

All extension requests, along with all supporting documentation, shall be submitted by the IP to the UNDP CO in line with the requirements and within the deadlines set out in the UNDP SOPs and policies in UNDP POPP.

Audit: The project will be audited as per UNDP Financial Regulations and Rules and applicable audit policies. Audit cycle and process must be discussed during the Inception workshop. If the Implementing Partner is an UN Agency, the project will be audited according to that Agencies applicable audit policies.

Transfer or disposal of assets: In consultation with the Implementing Partner and other parties of the project, UNDP is responsible for deciding on the transfer or other disposal of assets. Transfer or disposal of assets is recommended to be reviewed and endorsed by the project board following UNDP rules and regulations. Assets may be transferred to the government for project activities managed by a national institution at any time during the life of a project, however, **must be done before the operational closure date**. In all cases of transfer, a transfer document must be prepared and kept on file[32]. The transfer should be done before Project Management Unit complete their assignments.

Completion Date: The project completion date is the date of Project Document Signature plus project duration. This date can only be extended through a formal extension request. Prior to completion date, all UNDP-financed inputs must be provided and related activities for the Project completed. No activities, except for the final clearance of the

[32] See https://popp.undp.org/ https://popp-prod.acquia.undp.org/policy-page/close-and-transition.

Terminal Evaluation Report and the corresponding management response and the end-of-project review Project Board Meeting should take place after the Completion Date.

Project Closure: Project closure will be conducted as per UNDP requirements outlined in the UNDP POPP. All costs incurred to close the project must be included in the project closure budget and reported as final project commitments presented to the Project Board during the final project review. The only costs a project may incur following the final project review are those included in the project closure budget.

- **Operational Closure**: **Operational closure must happen within 9 months from project completion date.** Prior to operational closure, the Terminal Evaluation must have been submitted and the corresponding TE management response and the end-of-project review Project Board meeting must have been completed. The Implementing Partner through a Project Board decision will notify the UNDP Country Office when operational closure has been completed. Before Operational Closure, the project must have completed the transfer or disposal of any equipment that is still the property of UNDP.
- **Financial Closure: Financial closure must happen within 6 months of operational closure or after the date of cancellation.** The project will be financially closed when the following conditions have been met: a) the project is operationally completed or has been cancelled; b) the Implementing Partner has reported all financial transactions to UNDP; c) UNDP has closed the accounts for the project; d) UNDP and the Implementing Partner have certified a final Combined Delivery Report (which serves as final budget revision).
  Between operational and financial closure, the implementing partner will identify and settle all financial obligations and prepare a final expenditure report. The UNDP Country Office will send the final signed closure documents including confirmation of final cumulative expenditure and unspent balance to BPPS/NCE for confirmation before the project will be financially closed in Quantum by the UNDP Country Office.

Cancellation and Suspension: All projects considering going through cancellation or suspension must follow UNDP and GEF requirements. Guidance can be found in the UNDP POPP (SOPs for management actions of Vertical Fund projects escalated to the Executive Coordinator and Guidance for GEF project revisions).

Refund to GEF: Should a refund of unspent funds to the GEF be necessary, this will be managed directly by the BPPS/NCE team Directorate in New York. No action is required by the UNDP Country Office on the actual refund from UNDP project to the GEF. Unspent project balance is not permitted to be transferred to any other projects.

XI. TOTAL BUDGET AND WORK PLAN

Total Budget and Work Plan			
Quantum Business Unit	UNDP-IND10		
Quantum Project ID:	01004081	Quantum Project Title:	Accelerating transition to a circular economy in India's electrical and electronic sector through sustainable integrated approaches
Quantum Award ID:	1382296	Quantum Award Title:	Accelerating transition to a circular economy in India's electrical and electronic sector through sustainable integrated approaches
UNDP-GEF PIMS No.	9664		
Implementing Partner	Ministry of Electronics and Information Technology (MeitY)		

Quantum Outcome (GEF Component)	Quantum Output (GEF Outcome)	Quantum Activity (GEF Output)	Quantum Responsible Party (UNDP, IP, or Responsible Party)	Quantum Fund ID	Quantum Donor ID	Quantum Budgetary Account Code	Quantum Budget Account Description	Amount Year {2025} (USD)	Amount Year {2026} (USD)	Amount Year {2027} (USD)	Amount Year {2028} (USD)	Amount Year {2029} (USD)	Total (USD)	See Budget Note
Component 1: Strengthen institutional mechanisms and develop knowledge-based interventions including design of innovative economic models	**Outcome 1:** Enabling environment enhanced for sustainable EEE production and e-waste management	**Outcome 1:** Enabling environment enhanced for sustainable EEE production and e-waste management	MeitY	62000	010003	71600	Travel	2,714	1,250	-	-	-	3,964	1
				62000	010003	72100	Contractual Services - Companies	1,150,000	300,000	-	-	-	1,450,000	2
				62000	010003	72200	Equipment	500,000	185,086	-	-	-	685,086	3
				62000	010003	75700	Training, Workshops and Conferences	29,250	19,000	7,500	-	-	55,750	4
			Sub-Total MeitY					**1,681,964**	**505,336**	**7,500**			**2,194,800**	
			UNDP	62000	010003	71300	Local Consultant	156,800	99,600	35,600	13,200	-	305,200	5
			Sub-Total UNDP					**156,800**	**99,600**	**35,600**	**13,200**	**-**	**305,200**	
		Total Outcome 1						**1,838,764**	**604,936**	**43,100**	**13,200**	**-**	**2,500,000**	
Total Component 1								**1,838,764**	**604,936**	**43,100**	**13,200**	**-**	**2,500,000**	
Component 2: EEE Manufacturing, Supply Chain and End of Life (EOL) Ecosystem improvement through prevention measures and socio-technical ESM models/pilots for replication Improve practices, systems and technologies for EEE Manufacturing and its Supply Chain through prevention methods and	**Outcome 2:** POPs and other highly hazardous releases and emissions from EEE's unsound production and e-waste's management reduced with support from financial models and BAT/BEP piloted	**Outcome 2:** POPs and other highly hazardous releases and emissions from EEE's unsound production and e-waste's management reduced with support from financial models and BAT/BEP piloted	MeitY	62000	010003	71600	Travel	9,000	27,000	27,000	27,000	27,000	117,000	6
				62000	010003	72100	Contractual Services - Companies	459,440	477,440	409,440	409,440	409,440	2,165,200	7
				62000	010003	72200	Equipment	2,612,300	200,000	200,000	200,000	200,000	3,412,300	8
				62000	010003	75700	Training, Workshops and Conferences	16,000	16,000	16,000	23,500	16,000	87,500	9
			Sub-Total MeitY					**3,096,740**	**720,440**	**652,440**	**659,940**	**652,440**	**5,782,000**	
			UNDP	62000	010003	71300	Local Consultant	63,600	63,600	63,600	63,600	63,600	318,000	10

socio-technical ESM models/pilots aimed for future replication.			**Sub-Total UNDP**					**63,600**	**63,600**	**63,600**	**63,600**	**63,600**	**318,000**	
	Total Outcome 2							**3,160,340**	**784,040**	**716,040**	**723,540**	**716,040**	**6,100,000**	
Total Component 2								**3,160,340**	**784,040**	**716,040**	**723,540**	**716,040**	**6,100,000**	
Component 3: Improvement of baseline systems and infrastructures for POPs and UPOPs reduction in e-waste processing	**Outcome 3:** Systems changed and Infrastructures for reduction of POPs and UPOPs & recovery of key materials improved	**Outcome 3:** Systems changed and Infrastructures for reduction of POPs and UPOPs & recovery of key materials improved	MeitY	62000	010003	71600	Travel	21,600	21,600	21,600	25,200	27,000	117,000	11
				62000	010003	72100	Contractual Services - Companies	181,000	302,500	282,500	282,500	282,500	1,331,000	12
				62000	010003	72200	Equipment	-	1,544,125	1,124,125	-	-	2,668,250	13
				62000	010003	75700	Training, Workshops and Conferences	8,000	14,400	8,000	16,000	13,850	60,250	14
			Total MeitY					**210,600**	**1,882,625**	**1,436,225**	**323,700**	**323,350**	**4,176,500**	
			UNDP	62000	010003	71300	Local Consultants	114,700	114,700	114,700	114,700	114,700	573,500	15
			Total UNDP					**114,700**	**114,700**	**114,700**	**114,700**	**114,700**	**573,500**	
	Total Outcome 3							**325,300**	**1,997,325**	**1,550,925**	**438,400**	**438,400**	**4,750,000**	
Total Component 3								**325,300**	**1,997,325**	**1,550,925**	**438,400**	**438,400**	**4,750,000**	
Component 4 Knowledge management, Global coordination & cooperation, and monitoring & evaluation (M&E)	**Outcome 4.1:** Global, regional cooperation improved, and capacities enhanced	**Outcome 4.1:** Global, regional cooperation improved, and capacities enhanced	MeitY	62000	010003	71600	Travel	5,400	7,200	7,200	7,200	9,000	36,000	16
				62000	010003	72100	Contractual Services - Companies	32,000	32,000	32,000	32,000	32,000	160,000	17
				62000	010003	75700	Training, Workshops and Conferences	2,000	4,000	7,200	7,200	4,720	25,120	18
			Sub-Total MeitY					**39,400**	**43,200**	**46,400**	**46,400**	**45,720**	**221,120**	
			UNDP	62000	010003	71300	Local Consultants	8,000	8,000	8,000	8,000	8,000	40,000	19
			Total UNDP					**8,000**	**8,000**	**8,000**	**8,000**	**8,000**	**40,000**	
	Total Outcome 4.1							**47,400**	**51,200**	**54,400**	**54,400**	**53,720**	**261,120**	
	Outcome 4.2: Awareness, training and robust mechanism for monitoring and evaluation developed	**Outcome 4.2:** Awareness, training and robust mechanism for monitoring and evaluation developed	MeitY	62000	010003	71600	Travel	7,200	9,000	9,000	9,000	10,800	45,000	20
				62000	010003	72100	Contractual Services - Companies	50,850	50,850	50,850	50,850	50,850	254,250	21
				62000	010003	75700	Training, Workshops and Conferences	5,800	5,800	5,800	5,800	4,430	27,630	22
			Sub-Total MeitY					**63,850**	**65,650**	**65,650**	**65,650**	**66,080**	**326,880**	
			UNDP	62000	010003	71300	Local Consultants	16,400	16,400	16,400	16,400	16,400	82,000	23
			Sub-Total UNDP					**16,400**	**16,400**	**16,400**	**16,400**	**16,400**	**82,000**	
	Total Outcome 4.2							**80,250**	**82,050**	**82,050**	**82,050**	**82,480**	**408,880**	
			MeitY	62000	010003	71600	Travel	15,550	15,550	15,550	15,550	15,550	77,750	24

Monitoring and Evaluation (M&E)	Monitoring and Evaluation (M&E)	Monitoring and Evaluation (M&E)		62000	010003	75700	Training, Workshops and Conferences	17,000	7,000	7,000	7,000	7,000	45,000	25
			Sub-Total MeitY					**32,550**	**22,550**	**22,550**	**22,550**	**22,550**	**122,750**	
			UNDP	62000	010003	71200	International Consultants	21,000	-	30,000	-	35,000	86,000	26
				62000	010003	71300	Local Consultants	5,250	5,250	25,250	5,250	30,250	71,250	27
			Sub-Total UNDP					**26,250**	**5,250**	**55,250**	**5,250**	**65,250**	**157,250**	
Total M&E								**58,800**	**27,800**	**77,800**	**27,800**	**87,800**	**280,000**	
Total Component 4								**186,450**	**161,050**	**214,250**	**164,250**	**224,000**	**950,000**	
Project Management Component	PMC	PMC	UNDP	62000	010003	71400	Contractual Services - Individual	93,000	93,000	93,000	93,000	93,000	465,000	28
				62000	010003	71600	Travel	10,000	10,000	10,000	10,000	10,000	50,000	29
				62000	010003	72500	Supplies	2,000	2,000	2,000	2,000	2,000	10,000	30
				62000	010003	72800	Information Technology Equipmt	20,000	2,500	2,500	2,500	2,500	30,000	31
				62000	010003	73100	Rental & Maintenance-Premises	14,000	14,000	14,000	14,000	14,000	70,000	32
				62000	010003	74100	Professional Services	5,000	5,000	5,000	5,000	5,000	25,000	33
				62000	010003	74200	Audio Visual&Print Prod Costs	10,000	10,000	10,000	10,000	10,000	50,000	34
			Sub-Total UNDP					**154,000**	**136,500**	**136,500**	**136,500**	**136,500**	**700,000**	
	Total Project Management Cost							**154,000**	**136,500**	**136,500**	**136,500**	**136,500**	**700,000**	
Total Project Grant								**5,664,854**	**3,683,851**	**2,660,815**	**1,475,890**	**1,514,590**	**15,000,000**	

Budget Notes

Budget Note No.	Budget Note (Description)
COMPONENT 1: Strengthen institutional mechanisms and develop knowledge-based interventions including design of innovative economic models.	
1	Travel costs of officials, experts, consultants, and key stakeholders for review and strengthening of national policy, regulatory and institutional frameworks for management and disposal of EEE with POPs, UPOPs and other hazardous chemicals and heavy metals, and strengthen regulatory enforcement mechanisms for: a) Outputs 1.1, $850 (year 1) b) Output 1.2, $500 (year 1); c) Output 1.3, $550 (years 1 and 2); d) Output 1.4, $550 (years 1 and 2); e) Output 1.5, $500 (years 1 and 2); f) Output 1.6, $514 (years 1 and 2); and g) Output 1.7, $500 (years 1 and 2), **Total $3,964**

Budget Note No.	Budget Note (Description)
2	Subcontracts with entity or institute: a) one subcontracts to establish a CE baseline (Activity 1.1.1), $150,000; b) one subcontract to conduct national e-waste inventory assessment (Activity 1.2.1), $100,000; c) one subcontract to conduct a study to estimate the cost burden of e-waste management (Activity 1.2.2), $100,000; d) one subcontract to conduct a socio-environmental and gender assessment of the impact of informal recycling (Activity 1.2.3), $100,000; e) one direct agreement to undertake a Material Flow Analysis (MFA) to map the life cycle of the 106 EEE included in the e-waste management rules (Activity 1.2.4), $100,000; f) one subcontract to develop guidelines/SOPs for sub-national (state and city-level) e-waste inventory development, management and enforcement (Activity 1.3.1), $100,000; g) one subcontract to conduct a feasibility study to extend the scope of the EPR certificate regime beyond the 4 key metals (Activity 1.3.2), $100,000; h) one subcontract to streamline and effectively implement the auditing of e-waste recycling facilities in accordance to the E-waste management rules provisions audit certifications (Activity 1.4.1), $100,000; i) direct agreement to develop product-wise testing protocol and guidelines (Activity 1.5.1), $100,000; j) one subcontract Activity 1.5.2 to develop a Monitoring, Reporting and Verification (MRV) framework for CPCB to facilitate efficient post-market surveillance of RoHS certified products (Activity 1.5.2), $100,000; k) one subcontract each to identify critical EEE product categories with increased potential for eco-design and eco-labeling incorporation (Activity 1.6.1), $100,000; to develop a roadmap to facilitate adoption of the new Eco mark rules, 2024 for each EEE category (Activity 1.6.2), $100,000; and to conduct a Readiness Assessment study to gauge India's readiness to adopt a policy akin to the EU's Eco-design for Sustainable Products Regulation (ESPR) (Activity 1.6.4), $100,000; l) one subcontract to develop a prototype of an "ideal" business model based on the assessed existing business models (Activity 1.7.1), $100,000; **Total $1,450,000**
3	Equipment procurement for Activity 1.5.1 to develop product-wise testing protocol and guidelines including testing infrastructure development/upgradation for RoHS compliance aligned with global, **$685,086**
4	a) Review workshops conducted for the overall coordination of stakeholders and progress stock taking (Output 1.1), $5,000; b) Inventorization of e-waste generation and assessment of its externalities and cost of management, three meetings at $2,500 each (Output 1.2), total $7,500; c) One technical workshop at $3,150 to take suggestions on the findings of the study and brainstorm on feasible implementation modalities (Output 1.2); d) Enhanced enforcement of regulations and guidelines being harmonized at national and sub-national level at $2,500 each, 3 meetings each for Outputs 1.3, 1.4, 1.5, total for 9 meetings total $22,500; e) One technical workshops to take suggestions on the findings of the study and brainstorm on feasible implementation modalities (Output 1.5) at $2,900; f) Gender sensitization for eco-design and eco-labelling standards and guidelines (Output 1.6), 3 meetings at $2,400 each, $7,200; g) Develop and pilot an economically sustainable management model for e-waste (Output 1.7), 3 meetings at $2,500 each, $7,500; **Total $55,750**
5	a) Local consultants of EEE expert and knowledge management for baselining CE scenario in EEE production (46 working days); b) LCA expert to assist in developing MFA, gender expert and knowledge management expert for inventorization (97 working days); c) Technical advisor to analyze feasibility on expanding EPR end products, e-waste management expert to assess e-waste management harmonization at national and sub-national level and policy expert (178 working days); d) Technical advisor for assessing audit framework and policy expert to support audit guidelines (78 working days); e) EEE expert to study on EEE product categories for incorporating enhanced RoHS regulations; policy expert to analyze existing policies and incorporate better standards; and Gender & Social expert (132 working days); f) Policy expert and gender expert (132 working days); and Technical advisor to assist in developing the ESM and e-waste expert (100 working days) Total 763 working days at $400/day, **Total 305,200**
COMPONENT 2: EEE Manufacturing, Supply Chain and End of Life (EOL) Ecosystem improvement through prevention measures and socio-technical ESM models/pilots for replication.	
6	Travel costs of officials, experts, consultants and other key stakeholders over 5 years to provide support to:

Budget Note No.	Budget Note (Description)
	a) To Initiate and monitor the transformation of the EEE production and assembly in at least two OEMs through eco-design and other inputs/materials/chemicals reduction measures piloted (Output 2.1), $23,400; b) To monitor and conduct assessment of at least 2 pilots for replacement/rebate models of used EEE developed with OEMs and/or large retailers to support strengthening of EPR schemes (Output 2.2), $23,400; c) To facilitate and monitor at least one gender-responsive economically sustainable model with OEMs for education and public engagement on e-waste collection (offsetting) and supply chains piloted (Output 2.3), $23,400; d) To support at least three (3) gender-responsive schemes for e-waste collection and BEP for transforming or upgrading processing facilities working with informal sector developed and piloted (Output 2.4), $23,400; e) To support the lithium-ion scrap batteries management pilot (1), developed and tested, linked to upstream electric car production to manage their off-spec batteries, with ESM model and guidelines prepared (Output 2.5) $23,400. **Total $117,000**
7	Subcontract(s) with entities or institutes to: a) Define feasible and easily adoptable eco-design measures that can be integrated in EEE production and assembly by conducting a pre-feasibility assessment, design interventions and implementation plan with identified OEMs/producers (Output 2.1), $100,000; b) With two OEMs/Producers in implementing the pilot project at $503,300 each (Output 2.1), sub-total $1,006,600; c) To conduct two feasibility studies for replacement/rebate models of used EEE (Output 2.2) at $18,000 each, sub-total $36,000; d) To select OEM and/or large retailer, based on pre-defined selection criteria in identify types of intervention and design two business models for replacement/rebate of large EEE goods and implement pilot projects to support strengthening of EPR scheme (Output 2.2) at $200,300 each, sub-total $400,600; e) To pilot at least one gender-responsive economically sustainable model with OEMs for education and public engagement on e-waste collection (offsetting) and supply chains (Output 2.3), $174,000; f) Direct agreement with one institution to implement the pilot schemes through an agile model of offsetting through education by engaging CSOs and SME to collaborate with the offset pilot to achieve at least one gender-responsive economically sustainable model piloted with OEMs for education and public engagement on e-waste collection (offsetting) and supply chains (Output 2.3), $100,000; g) To support at least four gender-responsive schemes for e-waste collection and BEP for transforming or upgrading processing facilities working with informal sector developed and piloted (Output 2.4), $174,000: h) To support lithium-ion scrap batteries management pilot, developed and tested, linked to upstream electric car production to manage their off-spec batteries, with ESM model and guidelines prepared (Output 2.5), $174,000; Total $2,165,200
8	a) Equipment procurement to establish four (4) Centre of Excellence (Output 2.4) for at least three gender-responsive schemes for e-waste collection and BEP for transforming or upgrading processing facilities working with informal sector developed and piloted, $1,819,370: b) Equipment procurement for Lithium-ion scrap battery management under (Output 2.5), $1,592,930 **Total $3,412,300**
9	a) Two training, monitoring and review workshops conducted each year over 5 years at $2,000 per workshop (Output 2.1), $20,000; b) Five annual review meetings for the coordination of stakeholders (Output 2.2) at $2,000 each, $10,000; c) Five annual review meetings for the coordination of stakeholder (Output 2.3) at $2,000 each, $10,000; d) Two monitoring, coordination and review meetings per year conducted (Output 2.4) over 5 years at $2,000 each, $20,,000; e) One technical workshop conducted for the coordination of stakeholders and capacity building for BAT/BEP incorporation into e-waste management (at its preparatory stages: collection, classification, disassembly, segregation, etc.) to a group of micro or small aggregators/ disassemblers/ recyclers and linking the recycling facility with OEMs to ensure uptake (Output 2.4), $7,500; f) Two review meetings per year for the coordination of stakeholder (Output 2.5) at $2,000 each, $20,000; **Total $87,500**

Budget Note No.	Budget Note (Description)
10	a) Local consultants including technical expert for assessment and guiding the pilot implementation and EEE expert (Output 2.1), 25 working days per year over 5 years total 125 working days at $400/day, $50,000; b) Local consultants including technical expert, EEE expert and policy expert to support Output 2.2, 40 working days per year for 5 years at $400/day, total 200 working days, $80,000; c) Local consultants including technical expert, EEE expert and policy expert to support Output 2.3, 27 working days per year for 5 years at $400/day, total 135 working days, $54,000; d) Local consultants including technical expert, EEE expert and policy expert to support in overall coordination and management (Output 2.4), 35 working days per year at $400/day, total 175 working days, $70,000; e) Local consultants including technical expert, EEE expert and policy expert to support in overall coordination and management support for Output 2.5, 32 working days per year for 5 years at $400/day, total 160 working days, $64,000; Grand Total 795 working days, **$318,000**
COMPONENT 3: Improvement of baseline systems and infrastructures for POPs and uPOPs reduction in e-waste processing	
11	Travel costs of officials, experts, consultants, and other key stakeholders to support in activities pertaining to Outputs 3.1, 3.2, 3.3 and 3.41, $5,400/year for years 1 to 3, $6,300 for year 4, $6,750 for year 5, $29,250 for each Output, Total for 4 Outputs **$117,000**
12	Subcontract of an entity or institute: a) To assess technology and finalize process intervention for eco-design in EEE manufacturing and PBDE removal from e-waste. Circularity gender-responsive infrastructure for eco-design in OEM facilities assessed and improvements' feasibility determined (Output 3.1), $151,000; b) Process for PBDE removal from e-waste plastics designed, assessed and pilot scale tested in one site (Output 3.4), $170,000; c) To support Output 3.2 on review of baselines and BAT/BEP in process for metal and valuable material extraction from e-waste tested in one pilot site, $170,000; d) To conduct gender-responsive Feasibility study(ies) and strategic roadmap (Output 3.3) developed for replication of 3.2, $170,000; e) To assess technology and finalize process intervention for PBDE removal from e-waste(Output 3.4), process for PBDE removal from e-waste plastics designed, assessed and pilot scale tested in one site, $170,000; f) Direct agreement on process for PBDE removal from e-waste plastics designed, assessed and pilot scale tested in one site , $500,000. **Total $1,331,000**
13	a) Equipment procurement for establishing metal Extraction pilot to achieve Output 3.2, $1,124,125; b) Equipment procurement for establishing PBDE removal pilot to achieve Output 3.4, $1,544,125; **Total $2,668,250**
14	Annual review workshops conducted for: a) Coordination of stakeholders, Output 3.1 at $2,800/workshop, total five workshops $14,000; b) Coordination of stakeholders, Output 3.2 at $2,800/workshop, total five workshops $14,000; c) One technical workshop conducted in second year for the coordination of stakeholders and capacity building (Output 3.2) for review of baselines and BAT/BEP in process for metal and valuable material extraction from e-waste tested in one pilot site at $6,400; d) Coordination of stakeholders, Output 3.3 at $2,800/workshop, total five workshops $14,000; e) Coordination of stakeholders at $2,370/workshop, $11,850; **Total $60,250**
15	Local consultants including a technical expert, EEE expert and gender expert at $400/day to support in overall coordination and management of: a) Output 3.1 to assist in the study for identifying applicable interventions, conducting a feasibility study, and developing an implementation plan, 69 working days per year, total 345 working days, $138,000; b) Output 3.2, 89 working days per year, total 445 working days, $178,000; c) Output 3.3, 75 working days per year, total 375 working days, $150,000; d) Output 3.4, 54 working days per year, total 270 working days, rounded down to $107,500 **Total $573,500**

Budget Note No.	Budget Note (Description)
COMPONENT 4: Knowledge management, Global coordination & cooperation, and monitoring & evaluation (M&E)	
16	Travel costs of officials, experts, consultants, and other key stakeholders to support in project activities: a) Output 4.1.1, $18,000; b) Output 4.1.2, $18,000; **Total $36,000**
17	a) One subcontract of an entity or institute to support Output 4.1.1 to develop a knowledge-sharing mechanism strategy for the project with detailed SOPs and actively engage in regional and global dialog and an efficient mechanism for exchanging knowledge and experience with coordination established with Global Programmes and Initiatives for knowledge management, information exchange and gender equality action, $80,000: b) One subcontract of an entity or institute to support in project Output 4.1.2 to integrate an online MIS on the EPR portal dashboard and conduct knowledge and experience exchanges sessions and roundtables to share lessons learnt and insights from the pilot projects**, $80,000;**
18	a) Annual review workshops conducted for the overall coordination of stakeholders and progress stock taking (Output 4.1.1) at $2,000 per workshop for years 2, 3 and 4, $3,360 per workshop for year 5, Total $9,360; b) Annual review workshops conducted for the overall coordination of stakeholders and progress stock taking (Output 4.1.2) at $2,000 per workshop for years 2, 3 and 4, $3,360/workshop for year 5, $9,360; c) Two technical workshops conducted per second and third year for the coordination of stakeholders and capacity building for achieving Output 4.1.2 gender-responsive cross collaboration, including web-based MIS system and communication platform established and aligned with global programmes or initiatives on EEE Sector at $3,200/workshop, $6,400: Grand **Total $25,120**
19	a) Local consultant including gender expert and knowledge management expert to support to support for overall coordination and management (Output 4.1.1), 10 working days per year for 5 years at $400/day, total 50 working days $20,000; b) Local consultant including gender expert and knowledge management expert to support to support for overall coordination and management of outcomes, 10 working days per year for 5 years at $400/working day, total 50 working hours $20,000; Grand **Total $40,000**
20	Travel costs of officials, experts, consultants, and other key stakeholders to support project activities over a 5 year period: a) Output 4.2.1, $16,200; b) Output 4.2.2, $18,000; c) Output 4.2.3, $10,800; **Total $45,000**
21	a) One subcontract of an entity or institute to support Output 4.2.1 to conduct gender sensitization training sessions for all the project stakeholders before project inception, $84,750; b) One subcontract of an entity or institute to support Output 4.2.2 to develop a playbook for Micro and Small EEE OEMs and Producers to guide them on how to integrate EPR related metrics and results into their sustainability reporting regime, $84,750; c) One subcontract of an entity or institute to support in Activity 4.2.3. Develop a gender-sensitive Monitoring and Evaluation (M&E) plan for continuous and periodic progress review for each activity, drawing from the project's M&E plan, $84,750: **Total $254,250**

Budget Note No.	Budget Note (Description)
22	a) Annual review workshops conducted for the overall coordination of stakeholders and progress stock taking (Output 4.2.1) at $2,000 per workshop for years 2, 3 and 4, $3,360/workshop for year 5, Total $9,360; b) Annual review workshops conducted for the overall coordination of stakeholders and progress stock taking (Output 4.2.2) at $2,000 per workshop for years 2, 3 and 4, $3,360/workshop for year 5, Total $9,360; c) Annual review workshops conducted for the overall coordination of stakeholders and progress stock taking (Output 4.2.3) at $1,800 per workshop for years 1-4 and $1,710 for year 5, $8,910; **Total $27,630**
23	a) Local consultant including gender expert and knowledge management expert to support the overall coordination and management of outcomes (Output 4.2.1), 10 working days per y at $400/day, total 50 working days, $20,000; b) Local consultant including gender expert and knowledge management expert to support the overall coordination and management of outcomes (Output 4.2.2), 10 working days per year at $400/day, total 50 working days, $20,000; c) Local consultants to support gender-sensitive Project Monitoring & Evaluation established and ongoing throughout project cycle (Output 4.2.3), 21 working days per year at $400/day, total 105 working days, $$42,000; **Grand Total 205 working days, $82,000**
Project Monitoring and Evaluation (M&E)	
24	a) Monitoring visits for tracking project progress, GEF core indicators and Implementation of ESMPs and ESIAs report and protocols at $6,000/year for 5 years = $30,000; b) Travel of safeguard experts at $2,550/year for 5 years =$12,750; c) Supervision missions for monitoring project progress at $7,000/year for 5 years = $35,000; **Total $77,750**
25	a) Organize Inception Workshop $10,000; b) Learning missions and workshops at $5,000/year for 5 years = $25,000; c) Project Board Meetings at $2,000/year for 5 years = $10,000; **Total $45,000**
26	a) One International Consultant for Development of SESA(s), ESIA(s), ESMP(s) as applicable, for a period of 7 weeks over 6 months at $600/day, $600 x5 x 7 -= $21,000; b) One International Consultant for Mid-term Review and one for Terminal Evaluation, 30 working days each over a period of 3 months plus travel costs for MTR $30,000. for TE $35,000. **Total $86,000**
27	a) One Safeguards Expert for operationalization of the ESMF and Safeguards Capacity-Building Plan, and monitoring of the Environmental and Social Safeguards at $12,500/year for 15 weeks per year for period 5 years = $350/week x 15 x 5 =$26,250; b) One National Consultant for conducting Mid-term Review and one for Terminal Evaluation plus lump sum travel costs, 30 working days over a period of 3 moths each for MTR and TE, MTR $20,000; TE $25,000; **Total $71,250**
Project Management Cost	

Budget Note No.	Budget Note (Description)

28	PMU personnel for 5 years project duration:
	a) One National Project Manager at $17,500/year = $87,500;
	b) One Technical Advisor at $17,000/year = $85,000;
	c) One Project Officer at $13,500/year = $67,500;
	d) One Project Associate for upstream circular interventions at $11,000/year = $55,000;
	e) One Project Associate for downstream circular interventions at $11,000/year = $55,000:
	f) One Gender Expert for GAP implementation and reporting at $12,000/year= $60,000;
	g) One Finance and admin associate to support PMU at $11,000/year = $55,000.
	Total $465,000

29	Travel costs for technical and administrative guidance, monitoring and supervision at $10,000 per year, total **$50,000**
30	Office and miscellaneous supplies incl. stationery, printer cartridges, paper, $2,000 per year (Y1-Y5) **$10,000**
31	Information Technology Equipment, Laptops, tablets and printers (Y1-Y5), **$30,000**
32	Rental and maintenance for premises of PMU, $14,000 per year (Y1-Y5), **$70,000**
33	UNDP Annual audit costs at $5,000/year, **Total $25,000**
34	Audio Visual & Print Prod Costs etc. at $10,000 per year, total = **$50,000**

XII. LEGAL CONTEXT

The project document shall be the instrument envisaged and defined in the Supplemental Provisions to the Project Document, attached hereto and forming an integral part hereof, as "the Project Document".

This project will be implemented by the Ministry of Electronics and Information Technology (MeitY, "Implementing Partner") in accordance with its financial regulations, rules, practices and procedures only to the extent that they do not contravene the principles of the Financial Regulations and Rules of UNDP. Where the financial governance of an Implementing Partner does not provide the required guidance to ensure best value for money, fairness, integrity, transparency, and effective international competition, the financial governance of UNDP shall apply.

XIII. RISK MANAGEMENT

Implementing Partner is a Government Entity (NIM)

1. Consistent with the Article III of the SBAA *[or the Supplemental Provisions to the Project Document]*, the responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP's property in the Implementing Partner's custody, rests with the Implementing Partner. To this end, the Implementing Partner shall:

    a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried.
    b) assume all risks and liabilities related to the Implementing Partner's security, and the full implementation of the security plan.

2. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the Implementing Partner's obligations under this Project Document.

3. The Implementing Partner agrees to undertake all reasonable efforts to ensure that no UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the United Nations Security Council Consolidated Sanctions List, and that no UNDP funds received pursuant to the Project Document are used for money laundering activities. The United Nations Security Council Consolidated Sanctions List can be accessed via https://www.un.org/securitycouncil/content/un-sc-consolidated-list.

4. The Implementing Partner acknowledges and agrees that UNDP will not tolerate sexual harassment and sexual exploitation and abuse of anyone by the Implementing Partner, and each of its responsible parties, their respective sub-recipients and other entities involved in Project implementation, either as contractors or subcontractors and their personnel, and any individuals performing services for them under the Project Document.

    (a) In the implementation of the activities under this Project Document, the Implementing Partner, and each of its sub-parties referred to above, shall comply with the standards of conduct set forth in the Secretary General's Bulletin ST/SGB/2003/13 of 9 October 2003, concerning "Special measures for protection from sexual exploitation and sexual abuse" ("SEA").

    (b) Moreover, and without limitation to the application of other regulations, rules, policies and procedures bearing upon the performance of the activities under this Project Document, in the implementation of activities, the Implementing Partner, and each of its sub-parties referred to above, shall not engage in any form of sexual harassment ("SH"). SH is defined as any unwelcome conduct of a sexual nature that might reasonably be expected or be perceived to cause offense or humiliation, when such conduct interferes with work, is made a condition of employment or creates an intimidating, hostile or offensive work environment. SH may occur in the workplace or in connection with work. While typically involving a pattern of conduct, SH may take the form

of a single incident. In assessing the reasonableness of expectations or perceptions, the perspective of the person who is the target of the conduct shall be considered.

5. a) In the performance of the activities under this Project Document, the Implementing Partner shall (with respect to its own activities), and shall require from its sub-parties referred to in paragraph 4 (with respect to their activities) that they, have minimum standards and procedures in place, or a plan to develop and/or improve such standards and procedures in order to be able to take effective preventive and investigative action. These should include: policies on sexual harassment and sexual exploitation and abuse; policies on whistleblowing/protection against retaliation; and complaints, disciplinary and investigative mechanisms. In line with this, the Implementing Partner will and will require that such sub-parties will take all appropriate measures to:

   i. Prevent its employees, agents or any other persons engaged to perform any services under this Project Document, from engaging in SH or SEA;

   ii. Offer employees and associated personnel training on prevention and response to SH and SEA, where the Implementing Partner and its sub-parties referred to in paragraph 4 have not put in place its own training regarding the prevention of SH and SEA, the Implementing Partner and its sub-parties may use the training material available at UNDP;

   iii. Report and monitor allegations of SH and SEA of which the Implementing Partner and its sub-parties referred to in paragraph 4 have been informed or have otherwise become aware, and status thereof;

   iv. Refer victims/survivors of SH and SEA to safe and confidential victim assistance; and

   v. Promptly and confidentially, record and investigate any allegations credible enough to warrant an investigation of SH or SEA. The Implementing Partner shall advise UNDP of any such allegations received and investigations being conducted by itself or any of its sub-parties referred to in paragraph 4 with respect to their activities under the Project Document, and shall keep UNDP informed during the investigation by it or any of such sub-parties, to the extent that such notification (i) does not jeopardize the conduct of the investigation, including but not limited to the safety or security of persons, and/or (ii) is not in contravention of any laws applicable to it. Following the investigation, the Implementing Partner shall advise UNDP of any actions taken by it or any of the other entities further to the investigation.

   b) The Implementing Partner shall establish that it has complied with the foregoing, to the satisfaction of UNDP, when requested by UNDP or any party acting on its behalf to provide such confirmation. Failure of the Implementing Partner, and each of its sub-parties referred to in paragraph 4, to comply of the foregoing, as determined by UNDP, shall be considered grounds for suspension or termination of the Project.

6. Social and environmental sustainability will be enhanced through application of the UNDP Social and Environmental Standards (http://www.undp.org/ses) and related Accountability Mechanism (http://www.undp.org/secu-srm).

7. The Implementing Partner shall: (a) conduct project and programme-related activities in a manner consistent with the UNDP Social and Environmental Standards, (b) implement any management or mitigation plan prepared for the project or programme to comply with such standards, and (c) engage in a constructive and timely manner to address any concerns and complaints raised through the Accountability Mechanism. UNDP will seek to ensure that communities and other project stakeholders are informed of and have access to the Accountability Mechanism.

8. All signatories to the Project Document shall cooperate in good faith with any exercise to evaluate any programme or project-related commitments or compliance with the UNDP Social and Environmental Standards. This includes providing access to project sites, relevant personnel, information, and documentation.

9. The Implementing Partner will take appropriate steps to prevent misuse of funds, fraud or corruption, by its officials, consultants, responsible parties, subcontractors and sub-recipients in implementing the project or using UNDP funds.

10. In the implementation of the activities under this Project Document, UNDP places reasonable reliance upon the Implementing Partner for it to apply its laws, regulations and processes, and applicable international laws regarding anti money laundering and countering the financing of terrorism, to ensure consistency with the principles of then in force the UNDP Anti-Money Laundering and Countering the Financing of Terrorism Policy.

11. The Implementing Partner will ensure that its financial management, anti-corruption, anti-fraud and anti-money laundering and countering the financing of terrorism policies are in place and enforced for all funding received from or through UNDP.

12. The requirements of the following documents, then in force at the time of signature of the Project Document, apply to the Implementing Partner: (a) UNDP Policy on Fraud and other Corrupt Practices and (b) UNDP Office of Audit and Investigations Investigation Guidelines. The Implementing Partner agrees to the requirements of the above documents, which are an integral part of this Project Document and are available online at www.undp.org.

13. In the event that an investigation is required, UNDP has the obligation to conduct investigations relating to any aspect of UNDP projects and programmes in accordance with UNDP's regulations, rules, policies and procedures. The Implementing Partner shall provide its full cooperation, including making available personnel, relevant documentation, and granting access to the Implementing Partner's (and its consultants', responsible parties', subcontractors' and sub-recipients') premises, for such purposes at reasonable times and on reasonable conditions as may be required for the purpose of an investigation. Should there be a limitation in meeting this obligation, UNDP shall consult with the Implementing Partner to find a solution.

14. The signatories to this Project Document will promptly inform one another in case of any incidence of inappropriate use of funds, or credible allegation of fraud or corruption with due confidentiality.

    Where the Implementing Partner becomes aware that a UNDP project or activity, in whole or in part, is the focus of investigation for alleged fraud/corruption, the Implementing Partner will inform the UNDP Resident Representative/Head of Office, who will promptly inform UNDP's Office of Audit and Investigations (OAI). The Implementing Partner shall provide regular updates to the head of UNDP in the country and OAI of the status of, and actions relating to, such investigation.

15. UNDP shall be entitled to a refund from the Implementing Partner of any funds provided that have been used inappropriately, including through fraud, corruption or other financial irregularity, or otherwise paid other than in accordance with the terms and conditions of the Project Document. Such amount may be deducted by UNDP from any payment due to the Implementing Partner under this or any other agreement. Recovery of such amount by UNDP shall not diminish or curtail the Implementing Partner's obligations under this Project Document.

    Where such funds have not been refunded to UNDP, the Implementing Partner agrees that donors to UNDP (including the Government) whose funding is the source, in whole or in part, of the funds for the activities under this Project Document, may seek recourse to the Implementing Partner for the recovery of any funds determined by UNDP to have been used inappropriately, including through fraud, corruption or other financial irregularity, or otherwise paid other than in accordance with the terms and conditions of the Project Document.

    Note: The term "Project Document" as used in this clause shall be deemed to include any relevant subsidiary agreement further to the Project Document, including those with responsible parties, subcontractors and sub-recipients.

16. Each contract issued by the Implementing Partner in connection with this Project Document shall include a provision representing that no fees, gratuities, rebates, gifts, commissions or other payments, other than those shown in the proposal, have been given, received, or promised in connection with the selection process or in contract execution, and that the recipient of funds from the Implementing Partner shall cooperate with any and all investigations and post-payment audits.

17. Should UNDP refer to the relevant national authorities for appropriate legal action any alleged wrongdoing relating to the project, the Government will ensure that the relevant national authorities shall actively

investigate the same and take appropriate legal action against all individuals found to have participated in the wrongdoing, recover and return any recovered funds to UNDP.

18. The Implementing Partner shall ensure that all of its obligations set forth under this section entitled “Risk Management” are passed on to each responsible party, subcontractor and sub-recipient and that all the clauses under this section entitled “Risk Management Standard Clauses” are included, mutatis mutandis, in all sub-contracts or sub-agreements entered into further to this Project Document.

XIV. ANNEXES

1. GEF Budget Template (available from BPPS NCE team)
2. Project Map and geospatial coordinates of the project area
3. GEF Execution Support Letter
4. Multiyear Workplan
5. UNDP Social and Environmental Screening Procedure (SESP)
6. UNDP Risk Register
7. Overview of technical consultants/subcontracts
8. Stakeholder Engagement Plan
9. Environmental Social Management Framework (ESMF)
10. Gender Analysis and Gender Action Plan
11. Procurement Plan
12. Signed LOA between UNDP and IP requesting UNDP Support Services
13. Letters of financial commitments
14. List of Relevant Regulations
15. Terms of Reference for Project Board and Project Team
16. GEF Core indicators
17. GEF Taxonomy
18. Results of the Partners Capacity Assessment Tool (PCAT) and HACT Micro Assessment
19. UNDP Project Quality Assurance Report

Annex 1: GEF Budget Template

Expenditure Category	Detailed Description	Component (USDeq.)					Sub-Total	Monitoring and Evaluation (M&E)	Project Management Cost (PMC)	Total (USDeq.)	Responsible Entity (Executing Entity receiving funds from the GEF Agency)[1]
		Component 1.	Component 2.	Component 3	Component 4						
		Outcome 1.	Outcome 2.	Outcome 3:	Outcome 4.1	Outcome 4.2		Monitoring and Evaluation (M&E)			
Equipment	Equipment procurement for Activity 1.5.1 to develop product-wise testing protocol and guidelines including testing infrastructure development/upgradation for RoHS compliance aligned with global**, $685,086**	685,086					**685,086**			**685,086**	**MeitY**
Equipment	**E**quipment procurement to establish four (4) Centre of Excellence (Output 2.4) for at least three gender-responsive schemes for e-waste collection and BEP for transforming or upgrading processing facilities working with informal sector developed and piloted, **$1,819,370:**		1,819,370				**1,819,370**			**1,819,370**	**MeitY**
	Equipment procurement for Lithium-ion scrap battery management under (Output 2.5), $1,592,930 ~~**Total $3,412,300**~~		1,592,930				**1,592,930**			**1,592,930**	**MeitY**
Equipment	Equipment procurement for establishing metal Extraction pilot to achieve Output 3.2**, $1,124,125;**			1,124,125			**1,124,125**			**1,124,125**	**MeitY**
	Equipment procurement for establishing PBDE removal pilot to achieve Output 3.4, $1,544,125; ~~**Total $2,668,250**~~			1,544,125			**1,544,125**			**1,544,125**	**MeitY**
Equipment	Information Technology Equipment, Laptops, tablets and printers (Y1-Y5), $30,000						-		30,000	**30,000**	**UNDP**
Contractual services-Individual	**PMU personnel for 5 years project duration:** a) One National Project Manager at $17,500/year = $87,500;						-		87,500	**87,500**	**UNDP**
	PMU personnel for 5 years project duration: b) One Technical Advisor at $17,000/year = $85,000;						-		85,000	**85,000**	
	PMU personnel for 5 years project duration: c) One Project Officer at $13,500/year = $67,500;						-		67,500	**67,500**	
	PMU personnel for 5 years project duration: d) One Project Associate for upstream circular interventions at $11,000/year = $55,000;						-		55,000	**55,000**	
	PMU personnel for 5 years project duration: e) One Project Associate for downstream circular interventions at $11,000/year = $55,000:						-		55,000	**55,000**	
	PMU personnel for 5 years project duration: f) One Gender Expert for GAP implementation and reporting at $12,000/year= $60,000;						-		60,000	**60,000**	
	PMU personnel for 5 years project duration: g) One Finance and admin associate to support PMU at $11,000/year = $55,000.						-		55,000	**55,000**	
Contractual services-Company	**One Contract with entity or institute:** a) one subcontract (Deliverable) to establish a CE baseline (Activity 1.1.1), $150,000; b) one subcontract (Deliverable) to conduct national e-waste inventory assessment (Activity 1.2.1), $100,000;	550,000					**550,000**			**550,000**	**MeitY**

Expenditure Category	Detailed Description	Component (USDeq.)					Sub-Total	Monitoring and Evaluation (M&E)	Project Management Cost (PMC)	Total (USDeq.)	Responsible Entity (Executing Entity receiving funds from the GEF Agency)[1]
		Component 1.	Component 2.	Component 3	Component 4						
		Outcome 1.	Outcome 2.	Outcome 3:	Outcome 4.1	Outcome 4.2		Monitoring and Evaluation (M&E)			
	c) one subcontract(Deliverable) to conduct a study to estimate the cost burden of e-waste management (Activity 1.2.2), $100,000; d) one subcontract (Deliverable) to conduct a socio-environmental and gender assessment of the impact of informal recycling (Activity 1.2.3), $100,000; e) one subcontract to develop guidelines/SOPs for sub-national (state and city-level) e-waste inventory development, management and enforcement (Activity 1.3.1), $100,000;										
Contractual services-Company	One direct Agreement to undertake a Material Flow Analysis (MFA) to map the life cycle of the 106 EEE included in the e-waste management rules (Activity 1.2.4), $100,000;	100,000					**100,000**			**100,000**	**MeitY**
Contractual services-Company	One Direct Agreement to develop product-wise testing protocol and guidelines (Activity 1.5.1), $100,000;	100,000					**100,000**			**100,000**	**MeitY**
Contractual services-Company	**One Contract with entity or institute:** **a) o**ne subcontract (Deliverable) to conduct a feasibility study to extend the scope of the EPR certificate regime beyond the 4 key metals (Activity 1.3.2), $100,000; b) one subcontract (Deliverable) to streamline and effectively implement the auditing of e-waste recycling facilities in accordance to the E-waste management rules provisions audit certifications (Activity 1.4.1)**,** $100,000; c) one subcontract (Deliverable) Activity 1.5.2 to develop a Monitoring, Reporting and Verification (MRV) framework for CPCB to facilitate efficient post-market surveillance of RoHS certified products (Activity 1.5.2), $100,000; d) one subcontract (Deliverable) each to identify critical EEE product categories with increased potential for eco-design and eco-labeling incorporation (Activity 1.6.1), $100,000; 3) one subcontract (Deliverable) to develop a roadmap to facilitate adoption of the new Eco mark rules, 2024 for each EEE category (Activity 1.6.2), $100,000; and to conduct a Readiness Assessment study to gauge India's readiness to adopt a policy akin to the EU's Eco-design for Sustainable Products Regulation (ESPR) (Activity 1.6.4), $100,000; e) one subcontract (Deliverable) to develop a prototype of an "ideal" business model based on the assessed existing business models (Activity 1.7.1), $100,000; ~~**Total $1,450,000**~~	700,000					**700,000**			**700,000**	**MeitY**
Contractual services-Company	**One Contract with entities or institutes to:** a) Define feasible and easily adoptable eco-design measures that can be integrated in EEE production and assembly by conducting a pre-feasibility assessment, design interventions		100,000				**100,000**			**100,000**	**MeitY**

Expenditure Category	Detailed Description	Component (USDeq.)					Sub-Total	Monitoring and Evaluation (M&E)	Project Management Cost (PMC)	Total (USDeq.)	Responsible Entity (Executing Entity receiving funds from the GEF Agency)[1]
		Component 1.	Component 2.	Component 3	Component 4						
		Outcome 1.	Outcome 2.	Outcome 3:	Outcome 4.1	Outcome 4.2		Monitoring and Evaluation (M&E)			
	and implementation plan with identified OEMs/producers (Output 2.1), $100,000;										
Contractual services-Company	**One Contract with entities or institutes to:** b) With two OEMs/Producers in implementing the pilot project at $503,300 each (Output 2.1), sub-total $1,006,600; c) To conduct two feasibility studies for replacement/rebate models of used EEE (Output 2.2) at $18,000 each, sub-total $36,000; d) To select OEM and/or large retailer, based on pre-defined selection criteria in identify types of intervention and design two business models for replacement/rebate of large EEE goods and implement pilot projects to support strengthening of EPR scheme (Output 2.2) at $200,300 each, sub-total $400,600; e) To pilot at least one gender-responsive economically sustainable model with OEMs for education and public engagement on e-waste collection (offsetting) and supply chains (Output 2.3), $174,000;		1,617,200				**1,617,200**			**1,617,200**	**MeitY**
Contractual services-Company	Direct Agreement with one institution to implement the pilot schemes through an agile model of offsetting through education by engaging CSOs and SME to collaborate with the offset pilot to achieve at least one gender-responsive economically sustainable model piloted with OEMs for education and public engagement on e-waste collection (offsetting) and supply chains (Output 2.3), $100,000;		100,000				**100,000**			**100,000**	**MeitY**
Contractual services-Company	Contract with consultancy to support at least four gender-responsive schemes for e-waste collection and BEP for transforming or upgrading processing facilities working with informal sector developed and piloted (Output 2.4), $174,000:		174,000				**174,000**			**174,000**	**MeitY**
Contractual services-Company	**One Contract with entitie or institutes to:** To support lithium-ion scrap batteries management pilot, developed and tested, linked to upstream electric car production to manage their off-spec batteries, with ESM model and guidelines prepared (Output 2.5), $174,000; ~~**Total $2,165,200**~~		174,000				**174,000**			**174,000**	**MeitY**

Expenditure Category	Detailed Description	Component (USDeq.)					Sub-Total	Monitoring and Evaluation (M&E)	Project Management Cost (PMC)	Total (USDeq.)	Responsible Entity (Executing Entity receiving funds from the GEF Agency)[1]
		Component 1.	Component 2.	Component 3	Component 4						
		Outcome 1.	Outcome 2.	Outcome 3:	Outcome 4.1	Outcome 4.2		Monitoring and Evaluation (M&E)			
Contractual services-Company	**One Contract with an entity or institute:** a) To assess technology and finalize process intervention for eco-design in EEE manufacturing and PBDE removal from e-waste. Circularity gender-responsive infrastructure for eco-design in OEM facilities assessed and improvements' feasibility determined (Output 3.1), $151,000; b) Process for PBDE removal from e-waste plastics designed, assessed and pilot scale tested in one site (Output 3.4), $170,000; c) To support Output 3.2 on review of baselines and BAT/BEP in process for metal and valuable material extraction from e-waste tested in one pilot site, $170,000; d) To conduct gender-responsive Feasibility study(ies) and strategic roadmap (Output 3.3) developed for replication of 3.2, $170,000; e) To assess technology and finalize process intervention for PBDE removal from e-waste(Output 3.4), process for PBDE removal from e-waste plastics designed, assessed and pilot scale tested in one site, $170,000;			831,000			**831,000**			**831,000**	**MeitY**
Contractual services-Company	**Direct agreement** on process for PBDE removal from e-waste plastics designed, assessed and pilot scale tested in one site , $500,000. ~~**Total $1,331,000**~~			500,000			**500,000**			**500,000**	**MeitY**
Contractual services-Company	**One Contract with an entity or institute:** a) subcontract (Deliverable) to support Output 4.1.1 to develop a knowledge-sharing mechanism strategy for the project with detailed SOPs and actively engage in regional and global dialog and an efficient mechanism for exchanging knowledge and experience with coordination established with Global Programmes and Initiatives for knowledge management, information exchange and gender equality action, $80,000: b) subcontract (Deliverable) to support in project Output 4.1.2 to integrate an online MIS on the EPR portal dashboard and conduct knowledge and experience exchanges sessions and roundtables to share lessons learnt and insights from the pilot projects, **$80,000;**				160,000		**160,000**			**160,000**	**MeitY**
Contractual services-Company	**One Contract with an entity or institute:** a) One subcontract (Deliverable) under Output 4.2.1 to conduct gender sensitization training sessions for all the project stakeholders before project inception, $84,750; b) One subcontract o (Deliverable) under Output 4.2.2 to develop a playbook for Micro and Small EEE OEMs and Producers to guide them on how to integrate EPR related metrics and results into their sustainability reporting regime, $84,750; c) One subcontract (Deliverable) under Activity 4.2.3. Develop a					254,250	**254,250**			**254,250**	**MeitY**

Expenditure Category	Detailed Description	Component (USDeq.)					Sub-Total	Monitoring and Evaluation (M&E)	Project Management Cost (PMC)	Total (USDeq.)	Responsible Entity (Executing Entity receiving funds from the GEF Agency)[1]
		Component 1.	Component 2.	Component 3	Component 4						
		Outcome 1.	Outcome 2.	Outcome 3:	Outcome 4.1	Outcome 4.2		Monitoring and Evaluation (M&E)			
	gender-sensitive Monitoring and Evaluation (M&E) plan for continuous and periodic progress review for each activity, drawing from the project's M&E plan, $84,750: **Total $254,250**										
International Consultants	One International Consultant for Development of SESA(s), ESIA(s), ESMP(s) as applicable, for a period of 7 weeks over 6 months at $600/day, $600 x5 x 7 -= $21,000;						-	21,000		**21,000**	**UNDP**
	One International Consultant for Mid-term Review - USD 1,000/day X 30 working days each over a period of 3 months plus travel costs for $30,000.						-	30,000		**30,000**	**UNDP**
	One International Consultant Terminal Evaluation - USD 1,000/day X 35 working days each over a period of 3 months plus travel costs for $35,000 ~~**Total $86,000**~~						-	35,000		**35,000**	**UNDP**
Local Consultants	Local consultants of EEE expert and knowledge management for baselining CE scenario in EEE production (46 working days);	18,400					**18,400**			**18,400**	**UNDP**
	LCA expert to assist in developing MFA, gender expert and knowledge management expert for inventorization (97 working days);	38,800					**38,800**			**38,800**	**UNDP**
	Technical advisor to analyze feasibility on expanding EPR end products, e-waste management expert to assess e-waste management harmonization at national and sub-national level and policy expert (178 working days);	71,200					**71,200**			**71,200**	**UNDP**
	Technical advisor for assessing audit framework and policy expert to support audit guidelines (78 working days);	31,200					**31,200**			**31,200**	**UNDP**
	EEE expert to study on EEE product categories for incorporating enhanced RoHS regulations; policy expert to analyze existing policies and incorporate better standards; and Gender & Social expert (132 working days);	52,800					**52,800**			**52,800**	**UNDP**
	Policy expert and gender expert (132 working days);	52,800					**52,800**			**52,800**	**UNDP**
	Technical advisor to assist in developing the ESM and e-waste expert (100 working days)	40,000					**40,000**			**40,000**	**UNDP**
Local Consultants	Local consultants including technical expert for assessment and guiding the pilot implementation and EEE expert (Output 2.1), 25 working days per year over 5 years total 125 working days at $400/day, $50,000;		50,000				**50,000**			**50,000**	**UNDP**

Expenditure Category	Detailed Description	Component (USDeq.)					Sub-Total	Monitoring and Evaluation (M&E)	Project Management Cost (PMC)	Total (USDeq.)	Responsible Entity (Executing Entity receiving funds from the GEF Agency)[1]
		Component 1.	Component 2.	Component 3	Component 4						
		Outcome 1.	Outcome 2.	Outcome 3:	Outcome 4.1	Outcome 4.2		Monitoring and Evaluation (M&E)			
	Local consultants including technical expert, EEE expert and policy expert to support Output 2.2, 40 working days per year for 5 years at $400/day, total 200 working days, $80,000		80,000				**80,000**			**80,000**	**UNDP**
	Local consultants including technical expert, EEE expert and policy expert to support Output 2.3, 27 working days per year for 5 years at $400/day, total 135 working days, $54,000		54,000				**54,000**			**54,000**	**UNDP**
	Local consultants including technical expert, EEE expert and policy expert to support in overall coordination and management (Output 2.4), 35 working days per year at $400/day, total 175 working days, $70,000		70,000				**70,000**			**70,000**	**UNDP**
	Local consultants including technical expert, EEE expert and policy expert to support in overall coordination and management support for Output 2.5, 32 working days per year for 5 years at $400/day, total 160 working days, $64,000		64,000				**64,000**			**64,000**	**UNDP**
Local Consultants	Local consultants including a technical expert, EEE expert and gender expert at $400/day to support in overall coordination and management of: Output 3.1 to assist in the study for identifying applicable interventions, conducting a feasibility study, and developing an implementation plan, 69 working days per year, total 345 working days, $138,000;			138,000			**138,000**			**138,000**	**UNDP**
	Local consultants including a technical expert, EEE expert and gender expert at $400/day to support in overall coordination and management of: Output 3.2, 89 working days per year, total 445 working days, $178,000;			178,000			**178,000**			**178,000**	**UNDP**
	Local consultants including a technical expert, EEE expert and gender expert at $400/day to support in overall coordination and management of: Output 3.3, 75 working days per year, total 375 working days, $150,000			150,000			**150,000**			**150,000**	**UNDP**
	Local consultants including a technical expert, EEE expert and gender expert at $400/day to support in overall coordination and management of: Output 3.4, 54 working days per year, total 270 working days, rounded down to $107,500			107,500			**107,500**			**107,500**	**UNDP**
Local Consultants	Local consultant including gender expert and knowledge management expert to support to support for overall coordination and management (Output 4.1.1), 10 working days per year for 5 years at $400/day, total 50 working days $20,000;				20,000		**20,000**			**20,000**	**UNDP**
	Local consultant including gender expert and knowledge management expert to support to support for overall coordination and management of outcomes, 10 working days per year for 5 years at $400/working day, total 50 working hours $20,000				20,000		**20,000**			**20,000**	**UNDP**

Expenditure Category	Detailed Description	Component (USDeq.)					Sub-Total	Monitoring and Evaluation (M&E)	Project Management Cost (PMC)	Total (USDeq.)	Responsible Entity (Executing Entity receiving funds from the GEF Agency)[1]
		Component 1.	Component 2.	Component 3	Component 4						
		Outcome 1.	Outcome 2.	Outcome 3:	Outcome 4.1	Outcome 4.2		Monitoring and Evaluation (M&E)			
Local Consultants	Local consultant including gender expert and knowledge management expert to support the overall coordination and management of outcomes (Output 4.2.1), 10 working days per y at $400/day, total 50 working days, $20,000					20,000	**20,000**			**20,000**	**UNDP**
	Local consultant including gender expert and knowledge management expert to support the overall coordination and management of outcomes (Output 4.2.2), 10 working days per year at $400/day, total 50 working days, $20,000					20,000	**20,000**			**20,000**	**UNDP**
	Local consultants to support gender-sensitive Project Monitoring & Evaluation established and ongoing throughout project cycle (Output 4.2.3), 21 working days per year at $400/day, total 105 working days, $$42,000					42,000	**42,000**			**42,000**	**UNDP**
Local Consultants	One Safeguards Expert for operationalization of the ESMF and Safeguards Capacity-Building Plan, and monitoring of the Environmental and Social Safeguards at $12,500/year for 15 weeks per year for period 5 years = $350/week x 15 x 5 =$26,250						**-**	**26,250**		**26,250**	**UNDP**
	One National Consultant for conducting Mid-term Review and one for Terminal Evaluation plus lump sum travel costs, 30 working days over a period of 3 moths each for MTR and TE, MTR $20,000; TE $25,000						**-**	**45,000**		**45,000**	**UNDP**
Training, Workshops, Meetings	Review workshops conducted for the overall coordination of stakeholders and progress stock taking (Output 1.1), $5,000;	5,000					**5,000**			**5,000**	**MeitY**
	Inventorization of e-waste generation and assessment of its externalities and cost of management, three meetings at $2,500 each (Output 1.2), total $7,500;	7,500					**7,500**			**7,500**	**MeitY**
	One technical workshop at $3,150 to take suggestions on the findings of the study and brainstorm on feasible implementation modalities (Output 1.2);	3,150					**3,150**			**3,150**	**MeitY**
	Enhanced enforcement of regulations and guidelines being harmonized at national and sub-national level at $2,500 each, 3 meetings each for Outputs 1.3, 1.4, 1.5, total for 9 meetings total $22,500;	22,500					**22,500**			**22,500**	**MeitY**
	One technical workshops to take suggestions on the findings of the study and brainstorm on feasible implementation modalities (Output 1.5) at $2,900;	2,900					**2,900**			**2,900**	**MeitY**
	Gender sensitization for eco-design and eco-labelling standards and guidelines (Output 1.6), 3 meetings at $2,400 each, $7,200;	7,200					**7,200**			**7,200**	**MeitY**
	Develop and pilot an economically sustainable management model for e-waste (Output 1.7), 3 meetings at $2,500 each, $7,500; ~~**Total $55,750**~~	7,500					**7,500**			**7,500**	**MeitY**
	Two training, monitoring and review workshops conducted each year over 5 years at $2,000 per workshop (Output 2.1), $20,000;		20,000				**20,000**			**20,000**	**MeitY**

Expenditure Category	Detailed Description	Component (USDeq.)					Sub-Total	Monitoring and Evaluation (M&E)	Project Management Cost (PMC)	Total (USDeq.)	Responsible Entity (Executing Entity receiving funds from the GEF Agency)[1]
		Component 1.	Component 2.	Component 3	Component 4						
		Outcome 1.	Outcome 2.	Outcome 3:	Outcome 4.1	Outcome 4.2		Monitoring and Evaluation (M&E)			
	Five annual review meetings for the coordination of stakeholders (Output 2.2) at $2,000 each, $10,000;		10,000				**10,000**			**10,000**	**MeitY**
	Five annual review meetings for the coordination of stakeholder (Output 2.3) at $2,000 each, $10,000;		10,000				**10,000**			**10,000**	**MeitY**
	Two monitoring, coordination and review meetings per year conducted (Output 2.4) over 5 years at $2,000 each, $20,,000;		20,000				**20,000**			**20,000**	**MeitY**
Training, Workshops, Meetings	One technical workshop conducted for the coordination of stakeholders and capacity building for BAT/BEP incorporation into e-waste management (at its preparatory stages: collection, classification, disassembly, segregation, etc.) to a group of micro or small aggregators/ disassemblers/ recyclers and linking the recycling facility with OEMs to ensure uptake (Output 2.4), $7,500;		7,500				**7,500**			**7,500**	**MeitY**
	f) Two review meetings per year for the coordination of stakeholder (Output 2.5) at $2,000 each, $20,000; ~~**Total $87,500**~~		20,000				**20,000**			**20,000**	**MeitY**
Training, Workshops, Meetings	Annual review workshops conducted for Coordination of stakeholders, Output 3.1 at $2,800/workshop, total five workshops $14,000;			14,000			**14,000**			**14,000**	**MeitY**
	Annual review workshops conducted for Coordination of stakeholders, Output 3.2 at $2,800/workshop, total five workshops $14,000+B62:B68			14,000			**14,000**			**14,000**	**MeitY**
	One technical workshop conducted in second year for the coordination of stakeholders and capacity building (Output 3.2) for review of baselines and BAT/BEP in process for metal and valuable material extraction from e-waste tested in one pilot site at $6,400;			6,400			**6,400**			**6,400**	**MeitY**
	Annual review workshops conducted for Coordination of stakeholders, Output 3.3 at $2,800/workshop, total five workshops $14,000;			14,000			**14,000**			**14,000**	**MeitY**
	Annual review workshops conducted for Coordination of stakeholders at $2,370/workshop, $11,850; ~~**Total $60,250**~~			11,850			**11,850**			**11,850**	**MeitY**
Training, Workshops, Meetings	Annual review workshops conducted for the overall coordination of stakeholders and progress stock taking (Output 4.1.1) at $2,000 per workshop for years 2, 3 and 4, $3,360 per workshop for year 5, Total $9,360;				9,360		**9,360**			**9,360**	**MeitY**
	Annual review workshops conducted for the overall coordination of stakeholders and progress stock taking (Output 4.1.2) at $2,000 per workshop for years 2, 3 and 4, $3,360/workshop for year 5, $9,360;				9,360		**9,360**			**9,360**	**MeitY**

Expenditure Category	Detailed Description	Component (USDeq.)					Sub-Total	Monitoring and Evaluation (M&E)	Project Management Cost (PMC)	Total (USDeq.)	Responsible Entity (Executing Entity receiving funds from the GEF Agency)[1]
		Component 1.	Component 2.	Component 3	Component 4						
		Outcome 1.	Outcome 2.	Outcome 3:	Outcome 4.1	Outcome 4.2		Monitoring and Evaluation (M&E)			
	Two technical workshops conducted per second and third year for the coordination of stakeholders and capacity building for achieving Output 4.1.2 gender-responsive cross collaboration, including web-based MIS system and communication platform established and aligned with global programmes or initiatives on EEE Sector at $3,200/workshop, $6,400: ~~**Grand Total $25,120**~~				6,400		**6,400**			**6,400**	**MeitY**
Training, Workshops, Meetings	Annual review workshops conducted for the overall coordination of stakeholders and progress stock taking (Output 4.2.1) at $2,000 per workshop for years 2, 3 and 4, $3,360/workshop for year 5, Total $9,360;					9,360	**9,360**			**9,360**	**MeitY**
	Annual review workshops conducted for the overall coordination of stakeholders and progress stock taking (Output 4.2.2) at $2,000 per workshop for years 2, 3 and 4, $3,360/workshop for year 5, Total $9,360;					9,360	**9,360**			**9,360**	**MeitY**
	Annual review workshops conducted for the overall coordination of stakeholders and progress stock taking (Output 4.2.3) at $1,800 per workshop for years 1-4 and $1,710 for year 5, $8,910; ~~**Total $27,630**~~					8,910	**8,910**			**8,910**	**MeitY**
Training, Workshops, Meetings	Inception Workshop $10,000;						**-**	10,000		**10,000**	**MeitY**
	Learning missions and workshops at $5,000/year for 5 years = $25,000;						**-**	25,000		**25,000**	**MeitY**
	Project Board Meetings at $2,000/year for 5 years = $10,000; ~~**Total $45,000**~~						**-**	10,000		**10,000**	**MeitY**
Travel	Travel costs of Project Personnel (consultants, Officials) under the Outcome 1 for execution activities Output 1.1, $850 (year 1)	850					**850**			**850**	**MeitY**
	Travel costs of Project Personnel (consultants, Officials) under the Outcome 1 for execution activities Output 1.2, $500 (year 1);	500					**500**			**500**	**MeitY**
	Travel costs of Project Personnel (consultants, Officials) under the Outcome 1 for execution activities Output 1.3, $550 (years 1 and 2);	550					**550**			**550**	**MeitY**
	Travel costs of Project Personnel (PMC, consultants, Officials) under the Outcome 1 for execution activities Output 1.4, $550 (years 1 and 2);	550					**550**			**550**	**MeitY**
	Travel costs of Project Personnel (consultants, Officials) under the Outcome 1 for execution activities Output 1.5, $500 (years 1 and 2);	500					**500**			**500**	**MeitY**
	Travel costs of Project Personnel (consultants, Officials) under the Outcome 1 for execution activities Output 1.6, $514 (years 1 and 2); and	514					**514**			**514**	**MeitY**

Expenditure Category	Detailed Description	Component (USDeq.)					Sub-Total	Monitoring and Evaluation (M&E)	Project Management Cost (PMC)	Total (USDeq.)	Responsible Entity (Executing Entity receiving funds from the GEF Agency)[1]
		Component 1.	Component 2.	Component 3	Component 4						
		Outcome 1.	Outcome 2.	Outcome 3:	Outcome 4.1	Outcome 4.2		Monitoring and Evaluation (M&E)			
	Travel costs of Project Personnel (consultants, Officials) under the Outcome 1 for execution activities: g) Output 1.7, $500 (years 1 and 2), ~~Total $3,964~~	500					**500**			**500**	**MeitY**
Travel	Travel costs for Project Personnel (experts, consultants and other key stakeholders) over 5 years to provide support to Component 2 to Initiate and monitor the transformation of the EEE production and assembly in at least two OEMs through eco-design and other inputs/materials/chemicals reduction measures piloted (Output 2.1), $23,400;		23,400				**23,400**			**23,400**	**MeitY**
	Travel costs for Project Personnel (experts, consultants and other key stakeholders) over 5 years to provide support to Component 2 To monitor and conduct assessment of at least 2 pilots for replacement/rebate models of used EEE developed with OEMs and/or large retailers to support strengthening of EPR schemes (Output 2.2), $23,400;		23,400				**23,400**			**23,400**	**MeitY**
	Travel costs for Project Personnel (experts, consultants and other key stakeholders) over 5 years to provide support to Component 2 To facilitate and monitor at least one gender-responsive economically sustainable model with OEMs for education and public engagement on e-waste collection (offsetting) and supply chains piloted (Output 2.3), $23,400;		23,400				**23,400**			**23,400**	**MeitY**
	Travel costs for Project Personnel (experts, consultants and other key stakeholders) over 5 years to provide support to Component 2 To support at least three (3) gender-responsive schemes for e-waste collection and BEP for transforming or upgrading processing facilities working with informal sector developed and piloted (Output 2.4), $23,400;		23,400				**23,400**			**23,400**	**MeitY**
	Travel costs for Project Personnel (experts, consultants and other key stakeholders) over 5 years to provide support to Component 2 To support the lithium-ion scrap batteries management pilot (1), developed and tested, linked to upstream electric car production to manage their off-spec batteries, with ESM model and guidelines prepared (Output 2.5) $23,400. **~~Total $117,000~~**		23,400				**23,400**			**23,400**	**MeitY**
Travel	Travel costs of officials, experts, consultants, and other key stakeholders to support of combined Activities pertaining to Outputs 3.1, 3.2, 3.3 and 3.4, $5,400/year for years 1 to 3, $6,300 for year 4, $6,750 for year 5, $29,250 for each Output**, Total $117,000**			117,000			**117,000**			**117,000**	**MeitY**
Travel	Travel costs for Project Personnel (experts, consultants and other key stakeholders) over 5 years to provide support to Outcome 4.1, Output 4.1.1, $18,000;				18,000		**18,000**			**18,000**	**MeitY**

Expenditure Category	Detailed Description	Component (USDeq.)					Sub-Total	Monitoring and Evaluation (M&E)	Project Management Cost (PMC)	Total (USDeq.)	Responsible Entity (Executing Entity receiving funds from the GEF Agency)[1]
		Component 1.	Component 2.	Component 3	Component 4						
		Outcome 1.	Outcome 2.	Outcome 3:	Outcome 4.1	Outcome 4.2		Monitoring and Evaluation (M&E)			
	Travel costs for Project Personnel (experts, consultants and other key stakeholders) over 5 years to provide support to Outcome 4.1) Output 4.1.2, $18,000; ~~**Total $36,000**~~				18,000		**18,000**			**18,000**	**MeitY**
Travel	Travel costs for Project Personnel (experts, consultants and other key stakeholders) over 5 years to provide support to Outcome 4.2, Output 4.2.1, $16,200;					16,200	**16,200**			**16,200**	**MeitY**
	Travel costs for Project Personnel (experts, consultants and other key stakeholders) over 5 years to provide support to Outcome 4.2, Output 4.2.2, $18,000;					18,000	**18,000**			**18,000**	**MeitY**
	Travel costs for Project Personnel (experts, consultants and other key stakeholders) over 5 years to provide support to Outcome 4.2, Output 4.2.3, $10,800; ~~**Total $45,000**~~					10,800	**10,800**			**10,800**	**MeitY**
Travel	Monitoring visits for tracking project progress, GEF core indicators and Implementation of ESMPs and ESIAs report and protocols at $6,000/year for 5 years = $30,000;						-	30,000		**30,000**	**MeitY**
	Official Travel of safeguard experts at $2,550/year for 5 years =$12,750;						-	12,750		**12,750**	**MeitY**
	Supervision missions for monitoring project progress at $7,000/year for 5 years = $35,000; ~~**Total $77,750**~~						-	35,000		**35,000**	**MeitY**
Travel	Travel costs for technical and administrative guidance, monitoring and supervision at $10,000 per year**, total $50,000**						-		50,000	**50,000**	**UNDP**
Office Supplies	Office and miscellaneous supplies incl. stationery, printer cartridges, paper, $2,000 per year (Y1-Y5) **$10,000**						-		10,000	**10,000**	**UNDP**
Other Operating Costs	Rental and maintenance for premises of PMU, $14,000 per year (Y1-Y5), **$70,000**						-		70,000	**70,000**	**UNDP**
Other Operating Costs	UNDP Annual audit costs at $5,000/year, **Total $25,000**						-		25,000	**25,000**	**UNDP**
Other Operating Costs	Audio Visual & Print Prod Costs etc. at $10,000 per year, **total = $50,000**						-		50,000	**50,000**	**UNDP**
Grand Total		2,500,000	6,100,000	4,750,000	261,120	408,880	**14,020,000**	280,000	700,000	**15,000,000**	

Annex 2: Project Map and geospatial coordinates of the project area

Project participants, in particular, participants in the pilot projects, and locations of pilot projects will be identified and selected based on pre-defined selection criteria. Meanwhile, several potential participants have been identified below, but final selection will be determined during early part of project implementation.

Geo Name ID *Required field if the location is not an exact site*	**Location Name** *Required field*	**Latitude** *Required field*	**Longitude** *Required field*	**Location Description** *Optional text field*	**Activity Description** *Optional text field*
	Main Karawal Nagar Thana road, Kamal Vihar, Delhi (Karo Sambhav)	28.702857	77.265053		
	No. 21, MCHS Colony, BTM 2nd stage, Bengaluru (Saahas Zero Waste)	12.911327	77.611649		
	Thane, Maharashtra (TP-Link)	19.407021	72.828369		
	Dwarka Phase 1, New Delhi (IRG Systems South Asia Pvt. Ltd.)	28.586985	77.060028		

Annex 3: GEF Execution Support Letter

राजश्री रे
RAJASREE RAY

आर्थिक सलाहकार
पर्यावरण, वन एवं जलवायु परिवर्तन मंत्रालय
भारत सरकार
ECONOMIC ADVISER
MINISTRY OF ENVIRONMENT, FOREST
AND CLIMATE CHANGE
GOVERNMENT OF INDIA

No.4(2)/15/2023-IC.GEF Dated: 1st April, 2025

To,

Ms. Nancy Bennet
Executive Coordinator and Director – Environmental Finance
Vertical Funds Programming Support, Oversight, and Compliance Hub
Bureau for Policy and Programme Support
United Nations Development Programme
New York

Subject: ***Letter of Support to request GEF Agency Execution for "Accelerating transition to a circular economy in India's electrical and electronic sector through sustainable integrated approaches" [GEF ID 11405] – reg.***

Dear

In my capacity as GEF Operational Focal Point for India, I hereby request UNDP, the GEF Implementing Agency for the aforementioned project, to carry out execution support services for the above project, on an exceptional basis.

2. The Execution Support Services to be provided by UNDP are expected to include:

i. **Recruitment of staff personnel management for technical experts / assistants:** UNDP to support hiring of high-quality technical experts/assistants, as per the request of the government on a time bound and deliverable basis.
ii. **Procurement of consultants, goods and services:** High value and complex procurement of goods / consultants through a competitive and transparent procurement process, as per the request of the government on a time bound and deliverable basis.

3. The Ministry of Electronics and Information Technology (MeitY) will be responsible for implementing the project. Specific tasks of the implementing partner will include:

i. Project planning, coordination, management, monitoring, evaluation and reporting. This includes providing all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary. The IP will carry out project-level M&E, thus ensuring that this is undertaken by national institutes and is aligned with national systems – so that the data used and generated by the project supports national systems.
ii. Risk management, overseeing the management of project risks and new risks that may emerge during project implementation.
iii. Procurement of select goods and services, including consulting agencies.

Contd…2/-

ए-650, अग्नि विंग, इंदिरा पर्यावरण भवन, जोर बाग रोड़, नई दिल्ली-110 003, फोन : 011-20819197, 20819329
A-650, Agni Wing, Indira Paryavaran Bhawan, Jor Bagh Road, New Delhi-110 003, Ph. : 011-20819197, 20819329
E-mail : rajasree.r@nic.in

iv. Financial management, including overseeing financial expenditures against project budgets.
v. Approving and signing the multiyear work plan as well as combined delivery report at the end of the year.
vi. Signing the financial report or the funding authorization and certificate of expenditures.

4. Execution activities, including those provided by UNDP, will be described in detail in the GEF CEO Endorsement Request and accompanying project document including the project budget.

With regards,

Yours sincerely,

Rajasree

(Rajasree Ray)
Economic Adviser, MOEFCC
& GEF-OFP India

Copy to:

1. Mr. Carlos Manuel Rodrigues, CEO and Chairperson, GEF, Washington D.C.
2. Ms. Geetu Joshi, Ministry of Finance, Department of Economic Affairs, North Block, New Delhi.
3. Ms. Sunita Verma, Scientist G and Group Coordinator, Ministry of Electronics and Information Technology (MeitY), New Delhi.
4. Ms. Angela Lusigi, Resident Representative, UNDP

[On Letter Head]

F.No. xxxxx
Dated: xx January 2024

To

Ms. Nancy Bennet
Executive Coordinator and Director – Environmental Finance
Vertical Funds Programming Support, Oversight, and Compliance Hub
Bureau for Policy and Programme Support
United Nations Development Programme
New York

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i. Project planning, coordination, management, monitoring, evaluation and reporting. This includes providing all required information and data necessary for timely, comprehensive and evidence-based project reporting, including results and financial data, as necessary. The IP will carry out project-level M&E, thus ensuring that this is undertaken by national institutes and is aligned with national systems – so that the data used and generated by the project supports national systems.
ii. Risk management, overseeing the management of project risks and new risks that may emerge during project implementation.
iii. Procurement of select goods and services, including consulting agencies.

iv. Financial management, including overseeing financial expenditures against project budgets.
v. Approving and signing the multiyear workplan as well as combined delivery report at the end of the year.
vi. Signing the financial report or the funding authorization and certificate of expenditures.

4. Execution activities, including those provided by UNDP, will be described in detail in the GEF CEO Endorsement Request and accompanying project document including the project budget.

With regards,

Yours Sincerely,

(Neelesh Kumar Sah)
Joint Secretary and GEF OFP India

Copy to:

1. Mr. Carlos Manuel Rodrigues, CEO and Chairperson, GEF, Washington D.C.
2. Ms. Geetu Joshi, Ministry of Finance, Department of Economic Affairs, North Block, New Delhi.
3. Ms. Sunita Verma, Scientist G and Group Coordinator, Ministry of Electronics and Information Technology (MeitY), New Delhi.
4. Ms. Angela Lusigi, Resident Representative, UNDP

Annex 4: Multi Year Work Plan

	Outcomes	Outputs	Year 1				Year 2				Year 3				Year 4				Year 5			
			Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
Component 1: Strengthen institutional mechanisms and develop knowledge-based interventions including design of innovative economic models.	**Outcome 1:** Enabling environment enhanced for sustainable EEE production and e-waste management.	**Output 1.1:** Circular Economy (CE) baseline for EEE eco-design and cleaner production established.																				
		Output 1.2: Inventories of e-waste generation and assessment on externalities established, cost of e-waste management estimated, and value chain of key materials mapped taking into consideration specific gender-related aspects.																				
		Output 1.3: E-waste rules' enforcement, including EPR monitoring, harmonized between national and subnational level and coordination mechanism and guidelines for e-waste management established..																				
		Output 1.4: Frameworks for audit of e-waste recycling facilities developed.																				
		Output 1.5: India's RoHS for																				

		imported and manufactured EEE assessed and gender-sensitive recommendations proposed to strengthen its implementation and aligned for the national/subnational action																					
		Output 1.6: Gender-sensitive Eco-design and eco-labelling standards and guidelines proposed at targeted industries.																					
		Output 1.7: Economically sustainable management model for e-waste ("first prototype") designed and piloted																					
Component 2: EEE Manufacturing, Supply Chain and EOL Ecosystem improvement through prevention measures and socio-technical ESM models/pilots for replication	**Outcome 2:** POPs and other highly hazardous releases and emissions from EEE's unsound production and e-waste's management reduced with support from financial models and BAT/BEP piloted	**Output 2.1:** Initiate the transformation of the EEE production and assembly in at least two (2) Original Equipment Manufacturers (OEMs) through eco-design and other inputs/materials/chemicals reduction measures piloted.																					
		Output 2.2: At least two (2) pilot projects for replacement/ rebate models of used EEE developed with																					

		manufacturers (OEMs) and/or large retailers to support strengthening of EPR schemes.																				
		Output 2.3: At least one (1) gender-responsive economically sustainable model with OEMs for education and public engagement on e-waste collection (offsetting) and supply chains piloted.																				
		Output 2.4: At least four (4) gender-responsive schemes for e-waste collection and BEP for transforming or upgrading processing facilities working with informal sector developed and piloted.																				
		Output 2.5: Lithium-ion scrap batteries management pilot (1), developed and tested, linked to upstream electric car production to manage their off-spec batteries, with ESM model and guidelines prepared.																				
Component 3: Improvement of baseline systems and infrastructures	**Outcome 3:** Systems changed and infrastructures for	**Output 3.1:** Circularity gender-responsive infrastructure for eco-																				

for PLOPs and uPOPs reduction in e-waste processing	reduction of POPs and uPOPs & recovery of key materials improved	design in OEM facilities (3) assessed and improvements' feasibility determined.																				
		Output 3.2: Review of baselines and BAT/BEP in process for metal and valuable material extraction from e-waste tested in one (1) pilot site																				
		Output 3.3: Gender-responsive Feasibility study(ies) and strategic roadmap developed for replication of 3.2..																				
		Output 3.4: Process for PBDEs removal from e-waste' plastics designed, assessed and pilot scale tested in one (1) site.																				
Component 4: Knowledge management, Global coordination & cooperation, and monitoring & evaluation (M&E)	**Outcome 4.1:** Global, regional cooperation improved, and capacities enhanced	**Output 4.1.1:** Coordination established with Global Programmes and Initiatives for knowledge management, information exchange and gender equality action.																				
		Output 4.1.2: Gender-responsive cross collaboration, including web-based																				

		MIS system and communication platform established and aligned with global programmes or initiatives on EEE Sector																			
	Outcome 4.2: Awareness, training and robust mechanism for monitoring and evaluation developed	**Output 4.2.1:** Gender-sensitive Awareness and training Programme(s) for stakeholders, consumers, recyclers and dismantlers launched. Women are empowered to lead and participate in awareness and training activities																			
		Output 4.2.2: Gender-sensitive Guidelines on incorporating EPR/CE principles and results, metrics and impacts into ESG Reports launched and Champions on ESG reporting identified through a manufacturer's driven awareness programme.																			
		Output 4.2.3: Gender-sensitive Project Monitoring & Evaluation established and ongoing throughout project cycle.																			

Annex 5: UNDP Social and Environmental Screening Procedure (SESP)

Social and Environmental Screening Template

Project Information

Project Information	
1. Project Title	Accelerating Transition to a Circular Economy in India's Electrical and Electronic Sector Through Sustainable Integrated Approaches
2. Project Number (i.e. Atlas project ID, PIMS+)	PIMS No. 9664
3. Location (Global/Region/Country)	India
4. Project stage (Design or Implementation)	PPG
5. Date	7/12/2024

Part A. Integrating Programming Principles to Strengthen Social and Environmental Sustainability

QUESTION 1: How Does the Project Integrate the Programming Principles in Order to Strengthen Social and Environmental Sustainability?

Briefly describe in the space below how the project mainstreams the human rights-based approach

UNDP consistently applies the Human Rights Based approach (HRBA) in all project programming, taking into account the responsibilities of duty-bearers and the obligations of the rights-holders. The project will support India in addressing significant challenges related to electrical and electronic waste (e-waste) management. Currently, insufficient use is made of environmental strategies such as eco-design and green chemistry by Indian Electric and Electronic Equipment (EEE) Original Equipment Manufacturers (OEMs) in their production processes. 95% of e-waste is managed by the informal sector in an environmentally unsound and hazardous manner. The project aims to deliver an integrated series of activities to reduce the use and release of toxic substances, including persistent organic pollutants, mercury and other heavy metals.

The human rights-based approach for this project is premised on the recognition that human rights, health, safety, and environmental degradation are closely interrelated and mutually reinforcing, and that there is a clear cause-and-effect relationship between poverty, unsafe working practices and environmental pollution. This means that tangible social, economic, health and environmental benefits are possible only when human rights are respected and upheld.

Based on Article 25, of the UN Human Right Declaration "Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family….", all project outputs will be consistent with a human rights-based approach, in accordance with the principles of non-discrimination, equal participation, transparency, accountability, and "do no harm".

The project will focus on integrating human rights through specific activities and measures that avoid discrimination and inequality, ensure participation and inclusion, and uphold transparency and accountability. The project will focus on empowering stakeholders in the e-waste sector through an inclusive and participatory project-wide approach that will be implemented in accordance with the project's Stakeholder Engagement and Gender Action Plans (Annexes 7 and 8 to the Prodoc) as well as environmental and social safeguards specified in Annex 4.

The project will conduct on-site, activity-specific screening and assessment to ensure compliance with relevant Indian law and the UNDP Social and Environmental Standards, and which are based on UNDP's Human Rights centred approach, ensuring that any potential impacts of the project on the human rights of project affected individuals and communities are fully managed, and risk-mitigation measures employed during project implementation. These measures will, where required, include scoped and site-specific ESIAs (as detailed in Annex 4) and the development of Environmental and Social Management Plans which will be incorporated into the design of activities and pilots. Specifically, the project is built on the following principles:

- **Non-discrimination:** The project will ensure women and men have equal access to participate in decision-making processes and to benefit from economic opportunities, natural resources, and environmental benefits for their health and well-being. By taking into consideration the varied interests and needs of people of different genders, ethnicities, ages, and abilities, the project seeks to reduce inequality and support economic and social development for all Indians.
- **Inclusion and participation with special attention to the most vulnerable and to gender equality:** The project will ensure

that involved actors have the right and ability to participate freely in decision-making and in activities that affect them and their environment. Special attention will be paid to the poor and marginalized, including women and girls, who are among the most vulnerable to environmental degradation and often face inequalities in economic opportunities. The project will consult fully with stakeholders, including those working in the informal sector, to ensure that everyone involved is fully informed about, and accepting of, the activities that may affect them.

- **Transparency:** The project will ensure accessible and timely provision of information related to the project activities.
- **Accountability:** The project will promote results-oriented management, which centers on effective monitoring of, and systems for, direct feedback about project implementation. This allows for early identification and correction of problems and strengthens the accountability of all actors.
- **Do No Harm:** The project is designed to reflect the cultural, socio-economic and political aspects of the local context, and to anticipate possible unintended and negative consequences deriving from the interaction between the project activities, targeted beneficiaries, and the context.

Briefly describe in the space below how the project is likely to improve gender equality and women's empowerment

The project has been designed to be consistent with the core principles and priorities of the UNDP approach to gender equality and empowerment, and the GEF Policy on Gender Mainstreaming. The project carries a GEN2 rating.

Although a majority of workers in the e-waste recycling sector are men, women have increasingly been becoming part of the disassembly workforce, and might be at greatest risk from close proximity to e-waste processing facilities and POPs-contaminated areas. To ensure that the project design and activities fully incorporate and reflect the views of women and provide meaningful opportunities for women and girls to benefit from their involvement, a Gender Analysis was undertaken during the PPG phase. Based on this, a comprehensive Gender Action Plan has been developed (See Prodoc Annex 8) with specific activities and a linked budget to ensure gender is mainstreamed in all project components, and that the project contributes towards improving gender equality and women's empowerment at the project sites.

To mainstream gender and equality issues, the project incorporates several strategies and actions which aim to ensure inclusion and involvement in relevant decision-making processes related to the project, as well as to ensure equitable sharing of its economic, environmental, and public health benefits. These strategies and actions include:

1. Enabling involved actors to exercise the right and ability to participate freely in making decisions and in implementing activities that affect them and their environment. Special attention is paid to the poor and marginalized, including women and girls, who are among the most vulnerable;
2. Incorporating gender and vulnerability perspectives in the development of awareness and education materials, and in training and capacity-building activities, by including women and the physically disabled, as well as ethnic minorities;
3. Developing employment opportunities along with targeted capacity-building support that recognizes and enhances the capabilities and strengths of women and vulnerable groups as equal to other groups;
4. Developing business models and support mechanisms that enhance the capability of women and vulnerable groups and address their needs;
5. The project will collect gender disaggregated data in order to better tackle gender related issues throughout the lifecycle of electronics, enabling special attention to be paid to ensure women's inclusion and full participation in decision-making processes and to focus attention on the differentiated impacts of e-waste on men, women and children;
6. The project budget includes provision for a part-time Gender Officer, to oversee gender-related impacts and to ensure that the project proactively promotes gender equality and women's empowerment.

Briefly describe in the space below how the project mainstreams sustainability and resilience

The project's aim is overall sustainability, and the promotion of a circular economy in the EEE sector, hence sustainability and resilience are central to the project's outputs. The project will approach the task of reducing adverse environmental and health impacts in an integrated manner through: a) reduction in the use of POPs and other highly hazardous substances at the source, thereby reducing overall waste quantities, and b) improved e-waste management across the waste value chain.

Component three entails the design and piloting of a process for processing of printed circuit boards (PCBs), the most difficult, but at the same time most valuable component of e-waste for precious metals recovery, and a process for the elimination of PBDEs in e-waste plastics.

Component four also includes a strategy for coordination with other initiatives at global scale for knowledge management, information exchange and potential cooperation. These mechanisms assure the establishment of constant knowledge-building exercises, technology transfer and information mainstreaming that can pave the road towards improved EEE production and minimizing the potential adverse effects of e-wastes.

The project aims to build and strengthen inclusive structures, regulatory measures, human resources, and financing mechanisms to ensure future sustainability beyond the project's end. It will include:

- **Institutional capacity building/strengthening:** The project will strengthen the institutional capacities and regulatory frameworks to enforce the E-waste Rules 2022 and to identify and control the import of EEE and used electronics and e-waste at international borders, and to strengthen inter-state coordination mechanisms for e-waste management.
- **Financing mechanisms:** The project further focuses on Extended Producer Responsibility (EPR) as the main mechanism to attain financial sustainability by mobilizing adequate financing in support for effective collection and treatment of e-waste to prevent the generation of POPs, mercury, and other toxic substances emissions.
- **Environmental sustainability:** The project will address the drivers of environmental degradation and the growing volume of e-waste in India, and future projections (including solar and electric vehicle batteries) of e-waste generation, along with population, income, and consumer growth, which are forecast to have increasingly negative impacts on the environment and human health. Enforcement of obligations for EEE producers/importers, and the potential for recovery of valuable resources will contribute to the sustainability of the outcomes generated by the project.

Additional on-site SESP screening will be carried out by the Social and Environmental Standards Officer (SESO), to ground-truth the risks identified in this SESP on a site-specific basis, and identify any additional risks, and to determine the scope of any further environmental and social assessments required for downstream activities with a physical footprint. This approach will firmly embed safeguards risk avoidance and mitigation that is compliant with UNDP SES Policy. Any changes in the safeguards risks associated with the development or implementation of these outputs will be monitored by the SESO who will be part of the Project Management Unit.

Briefly describe in the space below how the project strengthens accountability to stakeholders

The project will strengthen accountability to stakeholders by:

- Ensuring effective interaction and participation of all stakeholders (including government, private sector, formal and informal e-waste collectors, civil society and international partners) from the design stage;
- Raising awareness among project stakeholders through dedicated communication channels;
- Disseminating information through online and printed media for relevant stakeholders to access in all relevant languages to ensure that everyone is updated on project developments.
- The project will also operate a project-level, fair and transparent Grievance Redress Mechanism, freely available to all stakeholders.

Local communities and other stakeholders who might be affected by the project have already been engaged in the preparation of this project idea. This included:

- **Consultations with National Government:** India's Ministry of Environment, Forestry and Climate Change (MoEF&CC); the Ministry of Electronics and Information Technology (MeitY) and the Central Pollution Control Board.
- **Consultations with potential private sector partners:** Including OEMs, Research institutions and e-waste recyclers.
- **Consultations with local communities:** These include potentially-affected local communities which engage with e-waste management, largely in the informal sector.

Part B. Identifying and Managing Social and Environmental Risks

QUESTION 2: What are the Potential Social and Environmental Risks? *Note: Complete SESP Attachment 1 before responding to Question 2.*	**QUESTION 3: What is the level of significance of the potential social and environmental risks?** *Note: Respond to Questions 4 and 5below before proceeding to Question 5*			**QUESTION 6: Describe the assessment and management measures for each risk rated Moderate, Substantial or High**
Risk Description (broken down by event, cause, impact)	***Impact and Likelihood (1-5)***	***Significance (Low, Moderate Substantial, High)***	***Comments (optional)***	***Description of assessment and management measures for risks rated as Moderate, Substantial or High***
Risk 1: Improper handling, transport, storage and processing of e-waste can lead to accidental spillages and potential leakages and emissions of mercury, POPs and other heavy metals and plastics, potentially impacting project workers, local populations, and surrounding areas. This risk applies particularly to: Schemes for e-waste collection and BEP; The Centre of Excellence for outreach to informal recyclers and demonstrations of BEP under Output 2.4; Pilot project with schools under Output 2.3; Activity 2.5.3 for the safe handling of spent lithium-ion batteries; Processing units for PBDEs, metals and valuable materials extraction under Activities 3.2.1 and 3.4.4. These risks incorporate: Standard 1: 1, 7. Standard 3: 2, 5 Standard 7: All Standard 8: 1, 2, 3	I = 3 L = 2	**Moderate**	Currently, recovery, recycling and disposal of e-waste is undertaken in an environmentally unsound manner by the informal sector and already has serious detrimental environmental and social impacts such as pollution and emissions. Hence, the proposed project will support the Government and the Stakeholders to improve their recycling practices and storage of specific e-waste streams (such as lithium batteries and lead batteries, electronic equipment, electric bulbs, etc.).	Management of these risks will be addressed through a combination of measures, including risk-proof design of project activities, the identification of risks on a site-specific basis, and targeted risk management procedures for each site, as elaborated in the project Environmental and Social Management Framework. **Measures incorporated in PRODOC**: Output 2.4; Output 2.3; Activities 3.2.1 and 3.4.4. The project will develop guidelines for safe operations in the pilot subprojects. These will be incorporated into the SOPs and Guidelines under Activity 1.3.1, the guidelines for Indian laboratories under Activity 1.5.1, and will be fully reflected in the blueprint produced under 1.7.1. The project budget makes provision for appointment of a dedicated Social and Environmental Safeguards Officer (SESO) who will be responsible for ensuring compliance with the SES, monitoring impacts, and ensuring that appropriate adaptive management is put in place when relevant to ensure that all local communities and vulnerable people, including women, are meaningfully involved in project implementation and have access to a feedback mechanism to ensure full transparency and accountability. The SESO will also oversee the screening of the selected Project sites and support the application of the targeted

Gender Equality and Women's Empowerment: 10 Accountability: 14				assessments/risk management plans. **Targeted Assessment and Targeted Management Plans post Project Endorsement and before initiation of field activities:** All project sites to be selected under the above-mentioned Outputs/Activities could have a physical footprint (i.e. where e-waste is handled or treated) hence will undergo a targeted assessment screening with the SESP at the outset, modified as applicable to the site and proposed activity. Screening will take place at all proposed sites and will inform the final site and activity selection. Where screening identifies the presence of an environmental and/or social risk, a targeted management plan will be prepared commensurate with the likelihood and magnitude of the risk(s), will be conducted. Each pilot site will develop a targeted management plan that addresses Pollution Prevention and Occupational Health and Safety. The plans will adopt Best International Practice and adhere to Indian national legislation, the Stockholm Convention on POPs, the Minamata Convention on Mercury (UNEP/Minamata Convention Guidelines on the Management of Contaminated Sites), and IFC Health and Safety Guidelines. Where on-site and activity-specific targeted assessment identifies that risk management would benefit from additional stand-alone plans with impact-specific risk management measures, these will be developed. These may include, as appropriate, scoped Spill Prevention and Management Plans, site-specific plans for Hazardous Materials Disposal, Health and Safety Plans and Transport Plans, to assure safe handling, transport, and disposal of e-wastes. International Standards for Hazardous Substances Packing, Transport and Disposal will be applied.
Risk 2. "Upstream" policy level work on the e-waste baseline, assessments of environmental externalities, and the impacts of informal sector recycling under Component 1, may be conducted without due attention to the particular impacts on women,	I = 3 L = 2	**Moderate**		**This risk is addressed by project design, ensuring that the principles of Strategic Environmental and Social Assessment (SESA) are incorporated in the policies, procedures and plans, and by additional Targeted Assessment/Targeted Management Plans.** The project will incorporate key relevant UNDP Principles and Standards to be reflected in the policy-level work in

vulnerable groups and informal sector workers, leading to their interests being marginalized or ignored. This may also be reflected in the national-level business blueprint for recycling in India, under Activity 1.7.1. The development of "upstream" policy that does not take into account the particular needs of women and vulnerable groups, can result in downstream impacts relating to: Human Rights: P5 Gender Equality and Women's Empowerment: 9, 10; Sustainability and Resilience: 14 Standard 7: All Standard 8: 1,2, 3				Component 1, ensuring that resulting policies and procedures produced are consistent with UNDP Social and Environmental Standards. Terms of Reference for the Component 1 activities will reflect the principles of SESA, and will include: (a) identification of social and environmental priorities to be embedded in the policies and plans, (b) assessment of gaps in the existing legislative/policy framework for the Circular Economy in the EEE Sector; (c) identifying potential adverse social and environmental impacts associated with policy options; (d) ensuring that all relevant partners/groups are represented in the planning/management teams and that decision makers and stakeholders are engaged in line with the project's Stakeholder Engagement Plan and Gender Action Plan to achieve a common understanding of the identified issues. In addition, Component 1 includes a full survey and costing of the externalities associated with recycling, encompassing both the formal and informal sectors, and with specific gender-related aspects. Under Output 1.2, Activity 1.2.3 consists of a comprehensive socio-environmental and gender assessment of the impact of informal e-waste recycling, a sector dominated by marginalized groups who are most affected by the informal industry. The Material Flow Analysis under Activity 1.2.4 will specifically track emissions, losses, and associated wastes of all POPs, UPOPs, PBDEs, hazardous metals and restricted substances associated with e-waste, and quantify and assess their environmental and health impacts, and seek practical and effective methods of managing them in accordance with Best Environmental Practice, identifying the locations, and types of communities that might be affected, whilst Activity 3.3.2 is specifically targeted at the interests of women working in the e-waste sector. Additional risk management will be via the implementation of the Stakeholder Engagement Plan (SEP), the Gender Analysis and Action Plan (GAP), and gender sensitive/responsive actions incorporated in project design. The Stakeholder Engagement Plan will ensure that the particular needs of vulnerable groups, including the informal waste sector, will be considered in the project.

Risk 3: Risk of exclusion of women, informal sector and marginalized groups from fully participating in decisions affecting them, and access to grievance mechanisms and consequent risk of inequitable or discriminatory impacts on affected populations. Additionally, there is a risk of adverse impacts on gender equality, reproducing gender-based discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits. These risks relate particularly to: Human Rights: P3, P5 Gender Equality and Women's Empowerment: P9, P10. Accountability: P13 Standard 7: 3, 5	I = 3 L = 3	**Moderate**	E-waste management is undertaken mostly by the informal sector in an environmentally unsound manner. Among these, it is clear that a high proportion of women (if not the majority) are involved in the e-waste recycling industry, particularly in waste separation and in the sorting of PCB components and dismantling of electronic equipment. Women represent a significant portion of the informal workforce and are directly exposed to some harmful substances that are released in this process. As women and children are most vulnerable to pollution from e-waste and e-waste processing, the participation of women in the decision-making process and in the project activities is critical for its success.	**This risk is addressed by project design and by additional Targeted Assessment/Targeted Management Plans** During the PPG phase, particular impacts to women and girls were assessed in the Gender Analysis, which informed the Gender Action Plan (Annex 8). The GAP highlights the specific risk attached to each project activity, and the project budget includes provision for a Project Gender Officer. The GAP has been developed to actively promote the role of women and girls in the project activities, and the overall project management systems. Gender disaggregated indicators in the Monitoring Plan provide the basis for monitoring and evaluation of the project's impact on promoting gender equity and empowerment of women. The project has also developed a Stakeholders Engagement Plan (Annex 7), which establishes specific engagement with women as a requirement. In conjunction with the measures under the (identified) Risk 1, Site- and activity-specific targeted assessment, and where required targeted risk management plan(s), will further incorporate the Risk 3 analysis. In addition, the upstream (Policy) actions under Outputs 1.3; 1.5 and 1.6 which will inform and guide the activities with a physical footprint, will incorporate the Principles of Strategic Environmental and Social Assessment, ensuring that activities are conducted with due regard to impacts on women and vulnerable groups. A project-level Grievance Redress Mechanism (GRM), in line with UNDP Guidance, will be established to provide accessible means for affected stakeholders to raise concerns and/or grievances when activities may adversely impact them. Under Component 3, the project will integrate and engage the informal sector with the official recognition of their central role for safe and sound e-waste management. These actors will receive assistance and training and will join pilot activities to improve their practices on collection and

				dismantling to make it environmentally sound. The Gender Analysis and Gender Action plan will be regularly reviewed and updated to account for gender differentiated impacts. The design and execution of project activities will also specifically incorporate approaches that will contribute to gender empowerment and equality. These are described in the Project Document in the section on Results and Partnerships.
Risk 4: Duty-bearers (e.g. sub-national government Officers) may not be equipped/capacitated to fulfill their roles within the project outcomes. Human Rights: P3	I = 3 L = 1	**Low**	The E-waste Rules (2022) assign responsibility to the Federal government. However, e-waste management and transport are regulated by State Governments.	**This Risk is expected to be fully addressed by Project Design**: the project will include targeted capacity-building and awareness activities to support the full deployment of guidelines designed by project so these can be used, and enforced, by the duty-bearers.
Risk 5: Workers at partner facilities may be exposed to working conditions that contravene national labour standards, principles and standards of ILO fundamental conventions, or UNDP SES. Human Rights: P3 Accountability: P14 Gender and Women's Empowerment: P9, P10. Standard 7: 1-6	I = 3 L = 3	**Moderate**		**This risk is addressed by project design and by additional Targeted Assessment/Targeted Management Plans** The project design incorporate activities for managing/avoiding this risk since partner site, co-financier or Contractor to be engaged in which services for transportation, storage and handling of hazardous chemicals will have to comply with local regulations on hazardous waste management as well as provide proof of qualification/alignment to International Standards listed by the Stockholm and Minamata Conventions (in addition to applying the due Environmental Licenses and Workers certification and training to deliver the services required by the project and meet Basel Convention transport requirements). Additional **targeted risk assessment** at prospective partner organizations will be screened, on-site and at the project outset, for adherence to national labour laws, including written labour management procedures, documentation of pay (paid directly to employees), hours of work, overtime rates, benefits, rest periods, sick pay, maternity pay, social security benefits, non-discrimination and equal opportunity, policies on violence, harassment and intimidation, workers' freedom to organize, and a workplace grievance mechanism. Child labour and forced labour, including indentured labour,

				will be prohibited. Full compliance with Standard 7 will be required of all partners. Screening of potential partner organizations will take place prior to the start of any project activity such that the activity will not start before the associated assessment has been undertaken and management plans are in place. Selection criteria will include adherence to both UNDP Standards and Indian Labour Law, and, where entities' institutional practices do not comply with requirements, their willingness and ability to adopt the required standards. The SESO and Gender Officer will be responsible for ensuring Principles and Standards are fully complied with. **If a prospective Partner does not full the requirements above, the engagement will not be concretized, hence the risk will be avoided**.
Risk 6: Safety risks to community from incidents. Standard 3: 2, 5	I = 2 L = 1	**Low**		**This risk is addressed by project design and can be complemented, if needed, by additional Targeted Assessment/Targeted Management Plans** Community Health and Safety issues will be an integral part of the guidelines for safe operations in the pilot subprojects and will be incorporated into the SOPs and Guidelines under Activity 1.3.1, the guidelines for Indian laboratories under Activity 1.5.1, and will be fully reflected in the blueprint produced under 1.7.1. The Material Flow Analysis under Activity 1.2.4 will specifically track emissions, losses, and associated wastes of all POPs, UPOPs, PBDEs, hazardous metals and restricted substances associated with e-waste, and quantify and assess their environmental and health impacts, and seek practical and effective methods of managing them in accordance with Best Environmental Practice. The review of BAT/BEP under Output 3.2 will also encompass issues relating to Community Health and Safety, as will the socio-environmental and gender assessment of the impacts of informal e-waste recycling under Output 1.2 and Activity 1.2.3. Incorporation of the guidelines and SOPs, which are strongly

				rooted in BEP and international standards, into the practices of existing recycling operators, will represent a reduction of any community health and safety risks that may be associated with those facilities, hence the risk of the project itself causing any such impact, is Low. The project may develop (and apply) a Scoped Spill Prevention and Management Plan (SPMP) if any targeted assessment conducted in Risk 1 (which is related to Risk 6) concludes that targeted risk management plan is needed for Risk 6.
Risk 7: Increased consumption of resources (and GHG emission) and other emissions due to migration from informal to formal recycling activities. Standard 2: 4	I = 2 L = 2	**Low**	An increase in the use of mechanical PCB separation methods, could result in slightly higher emissions than manual processes. However, emissions from mechanization would be more than offset by reduced CO2 emissions resulting from improvements in final waste and disposal practices.	**This Risk is expected to be fully addressed by Project Design**: During project implementation, GHG emissions data will be collected and monitored to ascertain the emissions balance, as the new BAT/BEP processes, though expected to be mechanized at a certain extent, still can result in negative net emissions if compared to current baseline recycling methods utilized by the informal sector.
Risk 8. Potential risk of flooding or structure damage to recycling / temporary e-waste (and its materials') storage facilities. Standard 2: 1, 2	I = 3 L = 2	**Moderate**	Interim storage / management facility for e-waste may be at risk of flooding due to increased weather events or collapse of building and susceptibility to natural events exposing the local community and workers at the facility to safety hazards.	**This Risk is expected to be fully addressed by Project Design**: This risk is to be managed by project design, with the selection of locations with less risk (or no risk) to potential flooding and application of International Guidelines and use of Best Techniques on e-waste management and hazardous materials containment to avoid leakages. The locations of potential storage facilities will be screened in in terms of vulnerability to weather/seismic events during the PPG phase, so to reduce/avoid be at risk of flooding or susceptibility to natural events (that may happen mostly due to increased weather events as result of increased Climate Change).

Risk 9. Potential risk to workers' income and opportunities, particularly women and marginalized communities, in the course of the transition from informal to formal sector and the implementation of BAT/BEP for recycling practices. Standard 5: 5.2	I= 3 L= 2	**Moderate**	Certain BAT tested by the project may result in a phasing-in of automated technologies to improve recycling processes, which could reduce employment in the informal sector, albeit while simultaneously creating new job opportunities.	**This risk is addressed by project design and by additional Targeted Assessment/Targeted Management Plans** The risk will be further examined through the incorporation of the principles of SESA, and complemented by the Gender Action Plan (GAP) in relation to the impact of informal e-waste recycling, (Activity 1.2.3) which will include examination of the impacts of mechanization in the sector, and through the stakeholder consultation arrangements, ensuring that adverse impacts on the livelihoods of formal and informal sector workers are not adversely impacted by project outputs. Where required, strategies will be developed to avoid, minimize or manage such impacts. Where economic displacement is found to be significant, a targeted management plan (such as a Livelihood Restoration Plan) will be developed under close consultation with stakeholders to ensure the project causes no loss of income for workers involved in the collection, transportation, recycling and disposal of e-waste.

QUESTION 4: What is the overall project risk categorization?		
Low Risk	☐	
Moderate Risk	✓	The Screening has identified 9 risks related to this project: 3 categorized as LOW and 6 categorized as MODERATE. Most of the risks pre-identified are largely of impacts of medium magnitude, limited in scale (site-specific) and duration (temporary), can be avoided, managed and/or mitigated with relatively uncomplicated measures. The risks to both human health (workers and communities) and the environment, are inherent in any handling, transport and processing of e-waste, and require management. During PPG, it has not been possible to specify some exact project activities and locations, and this will be done at the project's outset. Each location, and each activity with a physical footprint, will undergo on-site screening, tailored to the site and the proposed activity, and the current categorization of MODERATE may be revised up or down. Site-specific assessment with the SESP will inform the development of risk management plans to ensure that the risks identified in this screening, and subsequent screenings, are adequately managed. Additional targeted assessment where required, and specific stand-alone plans such as Spill Prevention, Pollution Prevention, and

			Occupational Health and Safety, will strengthen the risk mitigation or avoidance framework in a comprehensive and integrated manner. An Environmental and Social Management Framework has been developed for the project, and will form the basis for impact management over the project lifetime. During project implementation, certain circumstances require the revision of the completed design-stage screening (SESP). 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), (c) when additional activities are being defined including small grants, or (d) 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.
	Substantial Risk	☐	
	High Risk	☐	

	QUESTION 5: Based on the identified risks and risk categorization, what requirements of the SES are triggered? (check all that apply)				
	Question only required for Moderate, Substantial and High Risk projects				
	Is assessment required? (check if "yes")	**Yes**	**No**		**Status?**
	if yes, indicate overall type and status	Site- and activity-specific SESP screening Targeted assessment(s):			✓
	Are management plans required? (check if "yes)	**Yes**	**No**		
	If yes, indicate overall type	✓		Environmental and Social Management Framework	Completed during PPG
		✓		Site-specific ESMPs	Planned
		✓		Gender Action Plan	Completed during PPG
		✓		Stakeholders Engagement Plan	Completed during PPG
		✓		Spill Prevention and Management Plans	Planned
		✓		Hazardous Materials Disposal Plans	Planned
		✓		Transport Plans	Planned
		✓		Livelihood Restoration Plans	As required
		✓		Pollution Prevention and Management Plan	Planned
		✓		Occupational Health and Safety Plan	Planned
		✓		Livelihood Restoration Plan	If needed
		✓		Project Grievance Redress Mechanism	Planned
	Based on identified <u>risks</u>, which Principles/Project-level Standards triggered?		**Comments (not required)**		
	Overarching Principle: Leave No One Behind				
	Human Rights	✓			
	Gender Equality and Women's Empowerment	✓			
	Accountability	✓			
	1. Biodiversity Conservation and Sustainable Natural Resource Management				
	2. Climate Change and Disaster Risks	✓			

	3. Community Health, Safety and Security	✓	
	4. Cultural Heritage	☐	The Project will work in urban areas, will not claim new areas nor entertain construction. In principle, is expected that targeted urban areas are of industrial/mixt zoning with no issues or claims related to cultural heritage The project will not make use of any cultural knowledge or appropriate cultural practices.
	5. Displacement and Resettlement	☐	Project will work in urban areas, will not claim new areas nor conduct or support new construction.
	6. Indigenous Peoples	☐	The project contains an exclusion that it will not undertake activities which, directly or indirectly, affect lands, rights, territories or cultures of people who fit the description of "Indigenous People" under Standard 6.
	7. Labour and Working Conditions	✓	
	8. Pollution Prevention and Resource Efficiency	✓	

Final Sign Off

Final Screening at the design-stage is not complete until the following signatures are included

Signature	***Date***	***Description***
QA Assessor		UNDP staff member responsible for the project, typically a UNDP Programme Officer. Final signature confirms they have "checked" to ensure that the SESP is adequately conducted.
QA Approver		UNDP senior manager, typically the UNDP Deputy Country Director (DCD), Country Director (CD), Deputy Resident Representative (DRR), or Resident Representative (RR). The QA Approver cannot also be the QA Assessor. Final signature confirms they have "cleared" the SESP prior to submittal to the PAC.
PAC Chair		UNDP chair of the PAC. In some cases, PAC Chair may also be the QA Approver. Final signature confirms that the SESP was considered as part of the project appraisal and considered in recommendations of the PAC.

SESP Attachment 1. Social and Environmental Risk Screening Checklist

Checklist Potential Social and Environmental Risks	
INSTRUCTIONS: The risk screening checklist will assist in answering Questions 2-6 of the Screening Template. Answers to the checklist questions help to (1) identify potential risks, (2) determine the overall risk categorization of the project, and (3) determine required level of assessment and management measures. Refer to the SES toolkit for further guidance on addressing screening questions.	
Overarching Principle: Leave No One Behind **Human Rights**	**Answer (Yes/No)**
P.1 Have local communities or individuals raised human rights concerns regarding the project (e.g. during the stakeholder engagement process, grievance processes, public statements)?	*No*
P.2 Is there a risk that duty-bearers (e.g. government agencies) do not have the capacity to meet their obligations in the project?	Yes
P.3 Is there a risk that rights-holders (e.g. project-affected persons) do not have the capacity to claim their rights?	*Yes*
Would the project potentially involve or lead to:	
P.4 adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of marginalized groups?	No
P.5 inequitable or discriminatory impacts on affected populations, particularly people living in poverty or marginalized or excluded individuals or groups, including persons with disabilities? [1]	No
P.6 restrictions in availability, quality of and/or access to resources or basic services, in particular to marginalized individuals or groups, including persons with disabilities?	No
P.7 exacerbation of conflicts among and/or the risk of violence to project-affected communities and individuals?	No
Gender Equality and Women's Empowerment	
P.8 Have women's groups/leaders raised gender equality concerns regarding the project, (e.g. during the stakeholder engagement process, grievance processes, public statements)?	No
Would the project potentially involve or lead to:	
P.9 adverse impacts on gender equality and/or the situation of women and girls?	Yes
P.10 reproducing discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits?	Yes
P.11 limitations on women's ability to use, develop and protect natural resources, taking into account different roles and positions of women and men in accessing environmental goods and services? *For example, activities that could lead to natural resources degradation or depletion in communities who depend on these resources for their livelihoods and well being*	No
P.12 exacerbation of risks of gender-based violence? *For example, through the influx of workers to a community, changes in community and household power dynamics, increased exposure to unsafe public places and/or transport, etc*.	No
Sustainability and Resilience: Screening questions regarding risks associated with sustainability and resilience are encompassed by the Standard-specific questions below	

[1] Prohibited grounds of discrimination include race, ethnicity, sex, age, language, disability, sexual orientation, gender identity, religion, political or other opinion, national or social or geographical origin, property, birth or other status including as an indigenous person or as a member of a minority. References to "women and men" or similar is understood to include women and men, boys and girls, and other groups discriminated against based on their gender identities, such as transgender and transsexual people.

Accountability	
Would the project potentially involve or lead to:	
P.13 exclusion of any potentially affected stakeholders, in particular marginalized groups and excluded individuals (including persons with disabilities), from fully participating in decisions that may affect them?	Yes
P.14 grievances or objections from potentially affected stakeholders?	Yes
P.15 risks of retaliation or reprisals against stakeholders who express concerns or grievances, or who seek to participate in or to obtain information on the project?	No
Project-Level Standards	
Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management	
Would the project potentially involve or lead to:	
1.1 adverse impacts to habitats (e.g. modified, natural, and critical habitats) and/or ecosystems and ecosystem services? *For example, through habitat loss, conversion or degradation, fragmentation, hydrological changes*	Yes
1.2 activities within or adjacent to critical habitats and/or environmentally sensitive areas, including (but not limited to) legally protected areas (e.g. nature reserve, national park), areas proposed for protection, or recognized as such by authoritative sources and/or indigenous peoples or local communities?	No
1.3 changes to the use of lands and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods? (Note: if restrictions and/or limitations of access to lands would apply, refer to Standard 5)	No
1.4 risks to endangered species (e.g. reduction, encroachment on habitat)?	No
1.5 exacerbation of illegal wildlife trade?	No
1.6 introduction of invasive alien species?	No
1.7 adverse impacts on soils?	Yes
1.8 harvesting of natural forests, plantation development, or reforestation?	No
1.9 significant agricultural production?	No
1.10 animal husbandry or harvesting of fish populations or other aquatic species?	No
1.11 significant extraction, diversion or containment of surface or ground water? *For example, construction of dams, reservoirs, river basin developments, groundwater extraction*	No
1.12 handling or utilization of genetically modified organisms/living modified organisms?[2]	No
1.13 utilization of genetic resources? (e.g. collection and/or harvesting, commercial development)[3]	No
1.14 adverse transboundary or global environmental concerns?	No
Standard 2: Climate Change and Disaster Risks	
Would the project potentially involve or lead to:	
2.1 areas subject to hazards such as earthquakes, floods, landslides, severe winds, storm surges, tsunami or volcanic eruptions?	No
2.2 outputs and outcomes sensitive or vulnerable to potential impacts of climate change or disasters?	Yes

[2] See the Convention on Biological Diversity and its Cartagena Protocol on Biosafety.

[3] See the Convention on Biological Diversity and its Nagoya Protocol on access and benefit sharing from use of genetic resources.

	For example, through increased precipitation, drought, temperature, salinity, extreme events, earthquakes	
2.3	increases in vulnerability to climate change impacts or disaster risks now or in the future (also known as maladaptive or negative coping practices)? *For example, changes to land use planning may encourage further development of floodplains, potentially increasing the population's vulnerability to climate change, specifically flooding*	No
2.4	increases of greenhouse gas emissions, black carbon emissions or other drivers of climate change?	Yes
Standard 3: Community Health, Safety and Security		
Would the project potentially involve or lead to:		
3.1	construction and/or infrastructure development (e.g. roads, buildings, dams)? (Note: the GEF does not finance projects that would involve the construction or rehabilitation of large or complex dams)	No
3.2	air pollution, noise, vibration, traffic, injuries, physical hazards, poor surface water quality due to runoff, erosion, sanitation?	Yes
3.3	harm or losses due to failure of structural elements of the project (e.g. collapse of buildings or infrastructure)?	No
3.4	risks of water-borne or other vector-borne diseases (e.g. temporary breeding habitats), communicable and noncommunicable diseases, nutritional disorders, mental health?	No
3.5	transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	Yes
3.6	adverse impacts on ecosystems and ecosystem services relevant to communities' health (e.g. food, surface water purification, natural buffers from flooding)?	No
3.7	influx of project workers to project areas?	No
3.8	engagement of security personnel to protect facilities and property or to support project activities?	No
Standard 4: Cultural Heritage		
Would the project potentially involve or lead to:		
4.1	activities adjacent to or within a Cultural Heritage site?	No
4.2	significant excavations, demolitions, movement of earth, flooding or other environmental changes?	No
4.3	adverse impacts to sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	No
4.4	alterations to landscapes and natural features with cultural significance?	No
4.5	utilization of tangible and/or intangible forms (e.g. practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?	No
Standard 5: Displacement and Resettlement		
Would the project potentially involve or lead to:		
5.1	temporary or permanent and full or partial physical displacement (including people without legally recognizable claims to land)?	No
5.2	economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	Yes

5.3	risk of forced evictions?[4]	No
5.4	impacts on or changes to land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources?	No
Standard 6: Indigenous Peoples		
Would the project potentially involve or lead to:		
6.1	areas where indigenous peoples are present (including project area of influence)?	No
6.2	activities located on lands and territories claimed by indigenous peoples?	No
6.3	impacts (positive or negative) to the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples (regardless of whether indigenous peoples possess the legal titles to such areas, whether the project is located within or outside of the lands and territories inhabited by the affected peoples, or whether the indigenous peoples are recognized as indigenous peoples by the country in question)? *If the answer to screening question 6.3 is "yes", then the potential risk impacts are considered significant and the project would be categorized as either Substantial Risk or High Risk*	No
6.4	the absence of culturally appropriate consultations carried out with the objective of achieving FPIC on matters that may affect the rights and interests, lands, resources, territories and traditional livelihoods of the indigenous peoples concerned?	No
6.5	the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	No
6.6	forced eviction or the whole or partial physical or economic displacement of indigenous peoples, including through access restrictions to lands, territories, and resources? *Consider, and where appropriate ensure, consistency with the answers under Standard 5 above*	No
6.7	adverse impacts on the development priorities of indigenous peoples as defined by them?	No
6.8	risks to the physical and cultural survival of indigenous peoples?	No
6.9	impacts on the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices? *Consider, and where appropriate ensure, consistency with the answers under Standard 4 above.*	No
Standard 7: Labour and Working Conditions		
Would the project potentially involve or lead to: (note: applies to project and contractor workers)		
7.1	working conditions that do not meet national labour laws and international commitments?	Yes
7.2	working conditions that may deny freedom of association and collective bargaining?	Yes
7.3	use of child labour?	Yes
7.4	use of forced labour?	Yes
7.5	discriminatory working conditions and/or lack of equal opportunity?	Yes
7.6	occupational health and safety risks due to physical, chemical, biological and psychosocial hazards (including violence and harassment) throughout the project life-cycle?	Yes
Standard 8: Pollution Prevention and Resource Efficiency		
Would the project potentially involve or lead to:		

[4] Forced eviction is defined here as the permanent or temporary removal against their will of individuals, families or communities from the homes and/or land which they occupy, without the provision of, and access to, appropriate forms of legal or other protection. Forced evictions constitute gross violations of a range of internationally recognized human rights.

8.1	the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	Yes
8.2	the generation of waste (both hazardous and non-hazardous)?	Yes
8.3	the manufacture, trade, release, and/or use of hazardous materials and/or chemicals?	Yes
8.4	the use of chemicals or materials subject to international bans or phase-outs? *For example, DDT, PCBs and other chemicals listed in international conventions such as the Montreal Protocol, Minamata Convention, Basel Convention, Rotterdam Convention, Stockholm Convention*	No
8.5	the application of pesticides that may have a negative effect on the environment or human health?	No
8.6	significant consumption of raw materials, energy, and/or water?	No

Annex 6: UNDP Risk Register

Project Title: Accelerating transition to a circular economy in India's electrical and electronic sector through sustainable integrated approaches	**Project Number:** 1382296	**Date: Click or tap to enter a date.**

Risks identified in this project and associated mitigation measures are presented in the table below.

#	Description	Risk Category	Impact & Likelihood	Risk Treatment / Management Measures	Risk Owner
1	Improper handling, transport, storage and processing of e-waste can lead to potential leakages and emissions of mercury, POPs and other heavy metals and plastics, potentially impacting project workers, local populations, and surrounding areas. This risk applies particularly to: Schemes for e-waste collection and BEP; The Centre of Excellence for outreach to informal recyclers and demonstrations of BEP under Output 2.4; Pilot project with schools under Output 2.3; Activity 2.5.3 for the safe handling of spent lithium-ion batteries; Processing units for PBDEs, metals and valuable materials extraction under Activities 3.2.1 and 3.4.4. These risks incorporate Standards 1, 3, 7, 8	Social and Environmental	I=3 L= 2 **Moderate**	A combination of measures, including risk-proof design of project activities, site-specific on-site identification of risks, and targeted risk management procedures for each site. Measures incorporated in PRODOC: Output 2.4; Output 2.3; Activities 3.2.1 and 3.4.4. The project will develop guidelines for safe operations in the pilot subprojects, incorporated into the SOPs and Guidelines under Activity 1.3.1, the guidelines for Indian laboratories under Activity 1.5.1, and the blueprint produced under 1.7.1. The project will appoint a dedicated Social and Environmental Safeguards Officer (SESO), responsible for ensuring compliance with the SES, monitoring impacts, and ensuring that appropriate adaptive management is put in place when relevant to ensure that all local communities and vulnerable people, including women, are meaningfully involved in project implementation and have access to a feedback mechanism to ensure transparency and accountability. The SESO will also oversee the screening of selected Project sites and support application of the targeted assessments and risk management plans. Targeted Assessment and Targeted Management Plans post Project	Project Social and Environmental Safeguards Officer, Gender Officer.

	and the Principles of Gender Equality and Women's Empowerment and Accountability.			Endorsement and before initiation of field activities: All project sites to be selected under the above-mentioned Outputs/Activities which could have a physical footprint (i.e. where e-waste is handled or treated) will undergo a targeted assessment screening with the SESP at the outset, modified as applicable to the site and proposed activity. Screening will take place at all proposed sites and will inform the final site and activity selection. Where screening identifies an environmental and/or social risk, a targeted management plan will be prepared commensurate with the likelihood and magnitude of the risk(s). Each pilot site will develop a targeted management plan that addresses Pollution Prevention and Occupational Health and Safety. The plans will adopt Best International Practice and adhere to Indian national legislation, the Stockholm Convention on POPs, the Minamata Convention on Mercury (UNEP/Minamata Convention Guidelines on the Management of Contaminated Sites), and IFC Health and Safety Guidelines. Where on-site and activity-specific targeted assessment identifies that risk management would benefit from additional stand-alone plans with impact-specific risk management measures, these will be developed. These may include, as appropriate, scoped Spill Prevention and Management Plans, site-specific plans for Hazardous Materials Disposal, Health and Safety Plans and Transport Plans, to assure safe handling, transport, and disposal of e-wastes. International Standards for Hazardous Substances Packing, Transport and Disposal will be applied.	
2	"Upstream" policy level work on the e-waste baseline, assessments of environmental externalities, and the	Social and Environmental	I= 3 L= 2 **Moderate**		Project Social and Environmental Safeguards Officer, Gender Officer.

	impacts of informal sector recycling under Component 1, may be conducted without due attention to the particular impacts on women, vulnerable groups and informal sector workers, leading to their interests being marginalized or ignored. This may also be reflected in the national-level business blueprint for recycling in India, under Activity 1.7.1. The development of "upstream" policy that does not take into account the particular needs of women and vulnerable groups, can result in downstream impacts relating to: Human Rights; Gender Equality and Women's Empowerment; Sustainability and Resilience; UNDP Standards 7 and 8.				
3	Risk of exclusion of women, informal sector and marginalized groups from fully participating in decisions affecting them, and access to grievance mechanisms and consequent risk of inequitable or discriminatory impacts on affected populations. Additionally, there is a risk of adverse impacts on gender equality, reproducing gender-based discriminations against women based on gender, especially regarding participation in design and implementation or	Social and Environmental	I =3 L= 3 **Moderate**	Additional Targeted Assessment/ Targeted Management Plans. Impacts to women and girls were assessed in the Gender Analysis, which informed the Gender Action Plan (Annex 10), which highlights the specific risk attached to each project activity. A Project Gender Officer will be employed. The GAP actively promotes the role of women and girls in the project activities, and the overall project management systems. Gender disaggregated indicators in the Monitoring Plan provide the basis for monitoring and evaluation of the project's impact on promoting gender equity and empowerment of women. The project has also developed a Stakeholders Engagement Plan (Annex 8), which establishes specific engagement with women as a requirement.	Project Social and Environmental Safeguards Officer, Gender Officer.

	access to opportunities and benefits. These risks relate particularly to Human Rights, Gender Equality and Women's Empowerment, Accountability, and UNDP Standard 7.			In conjunction with the measures under the (identified) Risk 1, Site- and activity-specific targeted assessment, and where required targeted risk management plan(s), will further incorporate the Risk 3 analysis. In addition, the proper Strategic Environmental and Social Assessment (SESA) for the upstream (Policy) actions under Outputs 1.3; 1.5 and 1.6 to assess any potential adverse impacts of these Policy measures on the groups identified in Risk 3. A project-level Grievance Redress Mechanism (GRM), in line with UNDP Guidance, will be established to provide accessible means for affected stakeholders to raise concerns and/or grievances when activities may adversely impact them. Under Component 3, the project will integrate and engage the informal sector with the official recognition of their central role for safe and sound e-waste management. These actors will receive assistance and training and will join pilot activities to improve their practices on collection and dismantling to make it environmentally sound. The Gender Analysis and GAP will be regularly reviewed and updated to account for gender differentiated impacts. The design and execution of project activities will also specifically incorporate approaches that will contribute to gender empowerment and equality. These are described in the Project Document in the section on Results and Partnerships.	
4	Duty-bearers (e.g. sub-national government Officers) may not be equipped/capacitated to fulfill their roles within the project outcomes	Social and Environmental	I=3 L = 1 **Low**	Risk will be addressed by Project Design: the project will include targeted capacity-building and awareness activities to support the full deployment of guidelines designed by project so these can be used, and enforced, by the Duty-bearers.	Project Social and Environmental Safeguards Officer, Gender Officer.
5	Risk 5: Workers at partner facilities may be exposed to working conditions that	Social and Environmental	I =3 L= 3	Project design and additional Targeted Assessment/Targeted Management Plans. The project design incorporates activities for	Project Social and Environmental Safeguards

	contravene national labour standards, principles and standards of ILO fundamental conventions, or UNDP SES. Human Rights: P3 Accountability: P14 Gender and Women's Empowerment: P9, P10. Standard 7: 1-6		**Moderate**	managing/avoiding this risk since partner site, co-financier or Contractors to be engaged in services for transportation, storage and handling of hazardous chemicals will have to comply with local regulations on hazardous waste management as well as provide proof of qualification/alignment to International Standards listed by the Stockholm and Minamata Conventions (in addition to applying the due Environmental Licenses and Workers certification and training to deliver the services required by the project and meet Basel Convention transport requirements). Additional targeted risk assessment at prospective partner organizations will be screened, on-site and at the project outset, for adherence to national labour laws, including written labour management procedures, documentation of pay (paid directly to employees), hours of work, overtime rates, benefits, rest periods, sick pay, maternity pay, social security benefits, non-discrimination and equal opportunity, policies on violence, harassment and intimidation, workers' freedom to organize, and a workplace grievance mechanism. Child labour and forced labour, including indentured labour, will be prohibited. Full compliance with Standard 7 will be required of all partners. Screening of potential partner organizations will take place prior to the start of any project activity such that the activity will not start before the associated assessment has been undertaken and management plans are in place. Selection criteria will include adherence to both UNDP Standards and Indian Labour Law, and, where entities' institutional practices do not comply with requirements, their willingness and ability to adopt the required standards. The SESO and Gender Officer will be responsible for ensuring Principles	Officer, Gender Officer.

				and Standards are fully complied with. If a prospective Partner does not fulfill the requirements above, the engagement will not be concretized, hence the risk will be avoided.	
6	Safety risks to community from incidents.	Social and Environmental	I = 2 L = 1 **Low**	This risk is addressed by project design and can be complemented, if needed, by additional Targeted Assessment/Targeted Management Plans. Community Health and Safety issues will be an integral part of the guidelines for safe operations in the pilot subprojects and will be incorporated into the SOPs and Guidelines under Activity 1.3.1, the guidelines for Indian laboratories under Activity 1.5.1, and will be fully reflected in the blueprint produced under 1.7.1. The Material Flow Analysis under Activity 1.2.4 will specifically track emissions, losses, and associated wastes of all POPs, UPOPs, PBDEs, hazardous metals and restricted substances associated with e-waste, and quantify and assess their environmental and health impacts, and seek practical and effective methods of managing them in accordance with Best Environmental Practice. The review of BAT/BEP under Output 3.2 will also encompass issues relating to Community Health and Safety, as will the socio-environmental and gender assessment of the impacts of informal e-waste recycling under Output 1.2 and Activity 1.2.3. Incorporation of the guidelines and SOPs, which are strongly rooted in BEP and international standards, into the practices of existing recycling operators, will represent a reduction of any community health and safety risks that may be associated with those facilities, hence the risk of the project itself causing any such impact, is Low. The project may develop (and apply) a Scoped Spill Prevention and Management Plan (SPMP) if any targeted assessment conducted in Risk 1 (which is related to Risk 6) concludes that targeted risk	

				management plan is needed for Risk 6.	
7	Increased consumption of resources (and GHG emission) and other emissions due to migration from informal to formal recycling activities		I = 2 L = 2 **Low**	During project implementation, GHG emissions data will be collected and monitored to ascertain the emissions balance, as the new BAT/BEP processes, though expected to be mechanized at a certain extent, still can result in negative net emissions if compared to current baseline recycling methods utilized by the informal sector.	Project Social and Environmental Safeguards Officer, Gender Officer.
8	Potential risk of flooding or structure damage to recycling / temporary e-waste (and its materials') storage facilities	Social and Environmental	I =3 L= 2 **Moderate**	This Risk is expected to be fully addressed by Project Design: This risk is to be managed by project design, with the selection of locations with less risk (or no risk) to potential flooding and application of International Guidelines and use of Best Techniques on e-waste management and hazardous materials containment to avoid leakages. The locations of potential storage facilities will be screened in in terms of vulnerability to weather/seismic events during the PPG phase, so to reduce/avoid be at risk of flooding or susceptibility to natural events (that may happen mostly due to increased weather events as result of increased Climate Change).	Project Social and Environmental Safeguards Officer.
9	Potential risk to workers' income and opportunities, particularly women and marginalized communities, in the course of the transition from informal to formal sector and the implementation of BAT/BEP for recycling practices.	Social and Environmental Health	I = 3 L = 2 **Moderate**	Project design and additional Targeted Assessment/Targeted Management Plans. The risk will be further examined through the comprehensive Strategic Environmental and Social Assessment (SESA) and complemented by the Gender Action Plan (GAP) in relation to the impact of informal e-waste recycling, (Activity 1.2.3) which will include examination of the impacts of mechanization in the sector, and through the stakeholder consultation arrangements, ensuring that adverse impacts on the livelihoods of formal and informal sector workers are not adversely impacted by project outputs.	Project Social and Environmental Safeguards Officer.

				Where required, strategies will be developed to avoid, minimize or manage such impacts. Where economic displacement is found to be significant, a targeted management plan (such as Labor Management Procedures (LMP)) will be developed under close consultation with stakeholders to ensure the project causes no loss of income for workers involved in the collection, transportation, recycling and disposal of e-waste.	

Annex 7: Overview of Technical Consultancies/Subcontracts

Consultant	Time Input	Tasks, Inputs and Outputs
For Project Management		
Local / National contracting		
Project Manager/ Coordinator	Over 5 years	The Implementing Partner for this project is the Ministry of Electronics and Information Technology (MeitY) who will work closely with other relevant stakeholders. A Project Management Unit (PMU) will be established for the overall coordination as well as resource management of this Project. PMU will be financially supported and structured to include the services of the Project Manager, the Project Finance and Administrative Assistant. The PMU will be located in New Delhi. <u>Duties and Responsibilities</u> • Manage the overall conduct of the project. • Plan the activities of the project and monitor progress against the approved workplan. • Execute activities by managing personnel, goods and services, training and low-value grants, including drafting terms of reference and work specifications, and overseeing all contractors' work. • Coordinate with the pertinent programme and operational units of the of MeitY and the UNDP Country Office on the follow up of disbursements against obligations and other matters in relation to project implementation and management. • Monitor events as determined in the project monitoring plan, and update the plan as required. • Provide support for completion of assessments required by UNDP, spot checks and audits. • Manage requests for the provision of UNDP financial resources through funding advances, direct payments or reimbursement using FACE form. • Monitor financial resources and accounting to ensure the accuracy and reliability of financial reports. • Monitor progress, watch for plan deviations and make course corrections when needed within project board-agreed tolerances to achieve results. • Ensure that changes are controlled and problems addressed. • Present key deliverables and documents to the board for their review and approval, including progress reports, annual work plans, adjustments to tolerance levels, measures to address challenges and opportunities, and risk registers. • Prepare and submit financial reports to UNDP on a quarterly basis. • Manage and monitor the project risks – including social and environmental risks - initially identified and submit new risks to the Project Board for consideration and decision on possible actions if required; update the status of these risks by maintaining the project risks log. • Capture lessons learned during project implementation. • Prepare revisions to the multi-year workplan, as needed, as well as annual and quarterly plans if required. • Prepare the inception report no later than one month after the inception workshop.

Consultant	Time Input	Tasks, Inputs and Outputs
		• Ensure that the indicators included in the project results framework are monitored annually in advance of the GEF PIR submission deadline so that progress can be reported in the GEF PIR. • Prepare the GEF PIR. • Assess major and minor amendments to the project within the parameters set by UNDP-GEF. • Monitor implementation plans including the gender action plan, stakeholder engagement plan, and any environmental and social management plans. • Monitor and track progress against the GEF Core indicators. • Support in preparing Mid-term review and Terminal Evaluation process. • Reporting on progress including measures to address challenges and opportunities.
Project Assistant	Over 5 years	Duties and Responsibilities Under the guidance and supervision of the Project Manager, the Project Assistant will carry out the following tasks: • Assist the Project Manager in day-to-day management and oversight of project activities; • Assist the M&E officer in matters related to M&E and knowledge resources management; • Assist in the preparation of progress reports; • Ensure all project documentation (progress reports, consulting and other technical reports, minutes of meetings, etc.) are properly maintained in hard and electronic copies in an efficient and readily accessible filing system, for when required by PB, TAC, UNDP, project consultants and other PMU staff; • Provide PMU-related administrative and logistical assistance.
Project Accountant/Finance Assistant/Finance officer	Over 5 years	Duties and Responsibilities • Keep records of project funds and expenditures, and ensure all project-related financial documentation are well maintained and readily available when required by the Project Manager; • Review project expenditures and ensure that project funds are used in compliance with the Project Document and GoI financial rules and procedures; • Validate and certify FACE forms before submission to UNDP; • Provide necessary financial information as and when required for project management decisions; • Provide necessary financial information during project audit(s); • Review annual budgets and project expenditure reports, and notify the Project Manager if there are any discrepancies or issues; • Consolidate financial progress reports submitted by the responsible parties for implementation of project activities; • Liaise and follow up with the responsible parties for implementation of project activities in matters related to project funds and financial progress reports.
For Technical Assistance		
Outcome 1: Enabling environment enhanced for sustainable EEE production and e-waste management		
Local / National contracting		

Consultant	Time Input	Tasks, Inputs and Outputs
National Contracting	From year 1-2	• Six subcontracts to technical entities or institutes to support in achieving Output 1.1, 1.2, 1.3, 1.4, 1.5, and 1.6 to enable an enhanced environment for improving EEE production and e-waste management. The subcontracts undertake the following project activities; a. Activity 1.1.1. Establish a CE baseline among EEE OEMs/producers in India via primary data collection by using established indicators. b. Activity 1.2.1 Conduct national e-waste inventory assessment with improved granularity at national and sub-national levels, aligned to global methodologies. c. Activity 1.2.2 Conduct a study to estimate the cost burden of e-waste management and adoption of BAT/BEPs on different stakeholders (producers, recyclers, manufacturers, refurbishers) d. Activity 1.2.3 Conduct a socio-environmental and gender assessment of the impact of informal recycling, its nature of operation, collection network, modus operandi and identifying informal hubs in the country. e. Activity 1.5.2 Develop a Monitoring, Reporting and Verification (MRV) framework for CPCB to facilitate efficient post-market surveillance of RoHS certified products. f. Activity 1.6.1 Identify critical EEE product categories with increased potential for eco-design and eco-labelling incorporation. g. Activity 1.6.2 Develop a strategy and provide recommendations to facilitate adoption of the new Eco mark rules, 2024 for each EEE category along with identification of replicable BEPs in the Indian context. h. Activity 1.6.3 Conduct a Readiness Assessment study to gauge India's readiness to adopt a national eco-design policy akin to the EU's Eco-design for Sustainable Products Regulation (ESPR)
Direct Agreement	From year 1-3	• Direct agreement with an institute to support in following activities a. Activity 1.3.1 Develop guidelines/SOPs for sub-national (state and city-level) e-waste inventory development, management and enforcement. b. Activity 1.3.2 Conduct a feasibility study to extend the scope of the EPR certificate regime beyond the 4 key metals (Gold, Aluminium, Copper, Iron). c. Activity 1.4.1 Develop an SOP to streamline and effectively implement the auditing of e-waste recycling facilities in accordance to the E-waste management rules provisions with insights from global waste audit certifications. d. Activity 1.7.1 Based on the assessed existing business models, at its different stages, a first prototype of an "ideal" business model is to be developed.
Local Consultants	19 days, over first year	• Engaging local consultants through PMU to support in achieving Output 1.6 Gender-sensitive Eco-design and eco-labelling standards and guidelines proposed at targeted industries. • The team will consist of Technical Advisor, EEE Expert, Policy Expert, Gender Expert and Knowledge Management Expert to undertake the following project activities a. Activity 1.6.1 Identify critical EEE product categories with increased potential for eco-design and eco-labelling incorporation. b. Activity 1.6.2 Develop a strategy and provide recommendations to facilitate adoption of the new Eco mark rules, 2024 for each EEE category along with identification of replicable BEPs in the Indian context.

Consultant	Time Input	Tasks, Inputs and Outputs
		c. Activity 1.6.3 Conduct a Readiness Assessment study to gauge India's readiness to adopt a national eco-design policy akin to the EU's Eco-design for Sustainable Products Regulation (ESPR) • The consultants will be responsible for; - Conduct on-site strategic assessment of EEE production technology and identify areas of intervention - Coordinating with PMU on project related activities
For Technical Assistance		
Outcome 2: POPs and other highly hazardous releases and emissions from EEE's unsound production and e-waste's management reduced with support from financial models and BAT/BEP piloted		
Local / National contracting		
National Contracting	Over 5 years	• Five subcontracts to technical entities or institutes to support the delivery of Output 2.1, 2.2, 2.3, 2.4, and 2.5 through the following activities; a. Activity 2.1.1 Pre-feasibility assessment of potential intervention developed. Define feasible and easily adoptable eco-design measures that can be integrated in EEE production and assembly by conducting a pre-feasibility assessment. b. Activity 2.1.2. Design the implementation of the intervention with the participating OEMs. c. Activity 2.1.3. Implementation and final assessment. d. Activity 2.2.1 Based on pre-defined selection criteria, select OEMs and identify types of intervention, design two business models for replacement-rebate of large EEE goods. Implement pilot projects, conduct assessment and document pilot results. e. Activity 2.3.2 Design detailed intervention and engage a CSO or SME which will operate the offsetting model, with schools/universities or youth communities interested to participate in pilot projects f. Activity 2.4.1 Based on pre-defined selection criterial, identify and Select (with due diligence) micro or small aggregators/disassemblers/ recyclers for pilot projects, design and implement the pilot projects, assess results and design replication plan. g. Activity 2.4.2 BAT/BEP implementation of e-waste management (at its preparatory stages: collection, classification, disassembly, segregation, etc. to a group of micro or small aggregators/ disassemblers/ recyclers and linking the recycling facility with OEMs to ensure uptake. h. Activity 2.5.1 Conduct study on technology landscape and economic feasibility in India of recycling spent LIBs from non-automotive sectors (IT/ITES, Telecom). i. Activity 2.5.2 Selection and engagement of aggregators/ disassemblers/recyclers for pilot projects j. Activity 2.5.3 Implement pilot for safe handling of spent LIBs to prevent explosion. Design of replication plan with replication implemented and results assessed.
Direct Agreement		• Direct engagement with OEMs or an institution under MeitY to implement the pilot schemes through an agile model of offsetting through education to implement Activity 2.3.3
Local Consultant	19 days, over 5 years	• Engaging local consultants through PMU to support in achieving Output 2.5 Lithium-ion scrap batteries management pilot (1), developed and tested,

Consultant	Time Input	Tasks, Inputs and Outputs
		linked to upstream electric car production to manage their off-spec batteries, with ESM model and guidelines prepared • The team will consist of Technical Advisor, EEE Expert, Policy Expert, Gender Expert and Knowledge Management Expert to support the following project activities a. Activity 2.5.2 Selection and engagement of aggregators/ disassemblers/ recyclers for pilot projects b. Activity 2.5.3 Implement pilot for safe handling of spent LIBs. Design of replication plan with replication implemented and results assessed. • The local consultant will be responsible for; - Conducting site visits and local verification of technology and practices followed by identified aggregators/ disassemblers/recyclers for the pilot for safe handling of LIBs. - Coordinating with PMU on project related activities
For Technical Assistance		
Outcome 3: Systems changed and Infrastructures for reduction of POPs and UPOPs & recovery of key materials improved		
Local / National contracting		
National Contracting	Over 5 years	• Four subcontracts to technical entities or institutes to support the delivery of Output 3.1, 3.2, 3.3, and 3.4 through the following activities; a. Activity 3.1.1 Shortlist OEMs and their feasible and easily adoptable eco-design measures that can be integrated in EEE production and assembly. b. Activity 3.1.2 Infrastructure changes selection based on Eco-design, assessment of potential implementation, and feasibility study and implementation plan. c. Activity 3.2.2 Design, procure and start-up the pilot processing unit for metal extraction from end-of-life (EoL) materials sourced from informal recyclers or MSEs. d. Activity 3.3.1 Develop a sustainable scale-up strategy to replicate the model in multiple locations. This activity would be a continuation of Output 3.2. e. Activity 3.3.2 Identify areas of gender inclusion in proposed pilot and develop strategy to enhance their livelihood. (Social security, leadership opportunities, skill development, access to finance etc.) f. Activity 3.4.1 Define the process type, location, scope and type of partnership. Selection and engagement of consulting designer and plant developer. g. Activity 3.4.3 Design, procure and start-up the processing unit for PBDEs and other potentially existing POPs reduction from end-of-life (EoL) materials sourced from e-waste processor. Processing unit tested and put into operation. Assessment of operation conducted.
Direct Agreement		• Direct contract with one organization to implement Activity 3.4.2, which involves identifying and selecting a large collector/aggregator for the pilot project under Output 3.4.
Local Consultants	36 days, over 5 years	• Engaging local consultants through PMU to support in achieving Output 3.4. Process for PBDEs removal from e-waste' plastics designed, assessed and pilot scale tested in one (1) site. • The team will consist of Technical Advisor, EEE Expert, Policy Expert, Gender Expert and Knowledge Management Expert to support in Activity

Consultant	Time Input	Tasks, Inputs and Outputs
		3.4.1 Define the process type, location, scope and type of partnership. Selection and engagement of consulting designer and plant developer. • The local consultants will be responsible for; - Identifying and evaluating the site for the pilot implementation, considering all necessary safeguards and potential risks. - Coordinating with PMU on project related activities
For Technical Assistance		
Outcome 4.1: Global, regional cooperation improved, and capacities enhanced		
Local / National contracting		
National Contracting	Over 5 years	• Two subcontracts to technical entities or institutes to support the delivery of Output 4.1.1 Coordination established with Global Programmes and Initiatives for knowledge management, information exchange and gender equality action and 4.1.2 Gender-responsive cross collaboration, including web-based MIS system and communication platform established and aligned with global programmes or initiatives on EEE Sector through the following activities; a. Activity 4.1.1.1 Develop a knowledge-sharing mechanism strategy for the project with detailed SOPs. Actively engage in regional and global dialog and an efficient mechanism for exchanging knowledge and experience. b. Activity 4.1.2.1 Integrate an online MIS on the EPR portal dashboard. Conduct knowledge and experience exchanges sessions and roundtables to share lessons learnt and insights from the pilot projects.
For Technical Assistance		
Outcome 4.2: Awareness, training and robust mechanism for monitoring and evaluation developed		
Local / National contracting		
National Contracting	Over 5 years	• Three subcontracts to technical entities or institutes to support the delivery of Output 4.2.1. Gender-sensitive Awareness and training Programme(s) for stakeholders, consumers, recyclers and dismantlers launched. Women are empowered to lead and participate in awareness and training activities, Output 4.2.2 Gender-sensitive Guidelines on incorporating EPR/CE principles and results, metrics and impacts into ESG Reports launched and Champions on ESG reporting identified through a manufacturer's driven awareness programme, and Output 4.2.3 Gender-sensitive Project Monitoring & Evaluation established and ongoing throughout project cycle through the following activities; a. Activity 4.2.1.1 Conduct gender sensitization training sessions for all the project stakeholders before project inception. b. Activity 4.2.2.1 Develop a playbook for Micro and Small EEE OEMs and Producers to guide them on how to integrate EPR related metrics and results into their sustainability reporting regime. c. Activity 4.2.3.1 Develop a gender-sensitive Monitoring and Evaluation (M&E) plan for continuous and periodic progress review for each activity, drawing from the project's M&E plan.
Local Consultants	Over 5 years	• Engaging local consultants to support in achieving Output 4.2.3 Gender-sensitive Project Monitoring & Evaluation established and ongoing throughout project cycle. • The team will consist of Technical Advisor, EEE Expert, Policy Expert, Gender Expert and Knowledge Management Expert to support in Activity

Consultant	Time Input	Tasks, Inputs and Outputs
		4.2.3.1 Develop a gender-sensitive Monitoring and Evaluation (M&E) plan for continuous and periodic progress review for each activity, drawing from the project's M&E plan. • The local consultants will be responsible for local site verifications as part of M&E and coordinating the progress with PMU
International / Regional and global contracting		
Lead Technical Advisor	Over 5 years	The Lead Technical Adviser will be responsible for providing overall technical backstopping and management support to the Project Manager.
Project Gender Officer	Over 5 years	Duties and Responsibilities • Monitor progress in implementation of the project Gender Action Plan ensuring that targets are fully met and the reporting requirements are fulfilled; • Oversee/develop/coordinate implementation of all gender-related work; • Review the Gender Action Plan annually, and update and revise corresponding management plans as necessary; • Work with the M&E officer and Safeguards Officer to ensure reporting, monitoring and evaluation fully address the gender issues of the project
Project Monitoring and Evaluation Officer	Over 5 years	Duties and Responsibilities • Monitor project progress and participate in the production of progress reports ensuring that they meet the necessary reporting requirements and standards; • Ensure project's M&E meets the requirements of the Government, the UNDP Country Office, and UNDP-GEF; develop project-specific M&E tools as necessary; • Oversee and ensure the implementation of the project's M&E plan, including periodic appraisal of the Project's Theory of Change and Results Framework with reference to actual and potential project progress and results; • Oversee/develop/coordinate the implementation of the stakeholder engagement plan; • Oversee and guide the design of surveys/ assessments commissioned for monitoring and evaluating project results; • Facilitate mid-term and terminal evaluations of the project; including management responses; • Facilitate annual reviews of the project and produce analytical reports from these annual reviews, including learning and other knowledge management products; • Support project site M&E and learning missions; • Visit project sites as and when required to appraise project progress on the ground and validate written progress reports.
Project Social and Environmental Safeguards Officer	Over 5 years	Duties and Responsibilities • Monitor progress in development/implementation of the project ESMP/ESMF ensuring that UNDPs SES policy is fully met and the reporting requirements are fulfilled; • Oversee/develop/coordinate implementation of all safeguard related plans; • Ensure social and environmental grievances are managed effectively and transparently;

Consultant	Time Input	Tasks, Inputs and Outputs
		• Review the SESP annually, and update and revise corresponding risk log; mitigation/management plans as necessary; • Ensure full disclosure with concerned stakeholders; • Ensure environmental and social risks are identified, avoided, mitigated and managed throughout project implementation; • Work with the M&E officer to ensure reporting, monitoring and evaluation fully address the safeguard issues of the project

Annex 8: Stakeholder Engagement Plan

1. Introduction

Stakeholder engagement is the process of actively involving individuals, groups, or organizations, who have an interest in a project in the project or the ability to influence the project outcomes, either positively or negatively. It encompasses stakeholder identification and mapping, planning of stakeholder engagement, effective disclosure of information, consultation and participation, monitoring, evaluation and learning throughout a project cycle, addressing grievances, and on-going reporting to stakeholders. Effective stakeholder engagement aims to build trust, foster transparency, and achieve the intended project outcomes.

Thus, stakeholder engagement is a fundamental requirement for the success of the proposed project on "Accelerating Transition to a Circular Economy in India's Electrical and Electronic Sector through Sustainable Integrated Approaches".

Effective stakeholder engagement enhances the transparency, accountability, integrity, effectiveness, and sustainability of GEF governance and operations by, among others, strengthening the design and implementation of GEF-Financed Activities, reducing risks, and addressing the social and economic needs of affected parties. In addition, effective stakeholder engagement promotes country ownership by forging stronger partnerships, particularly with national and local government agencies, the private sector, civil society, and communities, and by harnessing the competencies and resources of a wide range of stakeholders, including affected and interested individuals and groups.

In fact, the scope of activities of the project involves integrated and complex social, economic, and environmental aspects that are linked to divergent attributes such as functions, values, rights, interests, power, needs and expectations of a broad range of stakeholders. Thus, the comprehension of stakeholder perspective of project through in-depth stakeholder mapping, followed by effective communication with stakeholders, are the vehicles through which the project proposal has been formulated and planned to implement, monitor, appraise and review.

Stakeholder mapping and engagement is to be conducted in an inclusive manner, ensuring that priorities and concerns of the potentially affected stakeholders, particularly vulnerable and marginalized groups, are identified and provided them with opportunities to express their views at all points in the programme and/or project decision-making process on matters that affect them. Measures are undertaken to ensure that effective stakeholder engagement occurs where conditions for inclusive participation are unfavourable, gender-responsive, and culturally sensitive.

Accordingly, this part of the project document (Annex 8) presents a summary of the stakeholder mapping conducted and the Stakeholder Engagement Plan (SEP) developed. The SEP details the stakeholder engagement process during three phases: the PIF stage, the PPG phase, and implementation phase. These are essentially aligned with the GEF Policy on Stakeholder Engagement and the Guidelines on the Implementation of the Policy.

2. THE STAKEHOLDER IDENTIFICATION AND CONSULTATION PROCESS

Further to stakeholder analysis and mapping performed during the PIF stage, a more comprehensive analysis was undertaken during the PPG stage, with the assistance of a consultant team selected to conduct baseline survey and data collection. The main modes of information collection could be categorized under the following:

- The data and information available in open sources, particularly related institutions, policies, legislations, and action plans
- The data and information available in internal publications and unpublished records of relevant stakeholders
- The data and information collected from consultation of stakeholders through physical sessions, virtual meetings, Focused Group Discussions (FGDs), interviews, questionnaires, and field visits.

The key information assessed under stakeholder identification and mapping includes:

(i) Details of the stakeholders consulted during the identified and engaged in the PIF and PPG stages.

(ii) Relevant stakeholders in the Electrical and Electronics Equipment (EEE) sector and their specific mandates, roles and responsibilities, present activities, issues, constraints, challenges and risks.

(iii) Roles and responsibilities of various stakeholders in the project implementation.

(iv) Private sector engagement, including investments, partnerships, and co-financing; and

(v) Roles and entry points of NGOs.

Stakeholder identification, engagement and assessment during PPG stage were conducted during August to October 2024, which provided the foundation for the development of SEP.

3. STAKEHOLDER ANALYSIS

A comprehensive stakeholder analysis and mapping is presented in Section V. RESULTS AND PARTNERSHIPS, particularly under subsections on Partnerships, Private sector engagement, Stakeholder engagement and south-south cooperation, and NGOs. Further, the governance structure and mechanism of the project presented in Section IX. Governance and Management Arrangements described the stakeholders and their roles and responsibilities.

Table 3.1 presents a summary of the above results of the key stakeholder analysis in relation to their mandate to, and role of the project.

Table 3.1: Summary of Key Stakeholder Analysis

Key Stakeholders	Mandate Relevant to the project	Roles in the project
Government Agencies and Departments		
Ministry of Electronics and Information Technology, Government of India (MeitY)	MeitY is the nodal government department for all policy matters and Research and Development (R&D) in the EEE sector. For this project, the R&D, Electronics Group is proposed to be the implementing agency.	The Implementing Partner of the project responsible for executing the project, including: Project planning, coordination, management, monitoring, evaluation and reporting; Overseeing the management of project risks; Procurement of goods and services, including human resources; Approving the multiyear work plan, the combined delivery report at the end of the year; and Financial management, including overseeing financial expenditures against project budgets, authorization and certificate of expenditures. To appoint technical sub-committees to assist such committee in the performance of its functions. Provide co-financing.
The Ministry of Environment, Forest, and Climate Change (MoEF&CC)	The MoEF&CC is the nodal agency for the planning, promotion, co-ordination and overseeing the implementation of India's environmental and forestry policies and programmes. It is entrusted with overseeing the implementation of several international agreements as well as multilateral bodies such as the Global Environment Facility (GEF). It is also the nodal agency for environmentally sound management	The key Responsible Party (RP) of the project responsible for executing the few of the project outputs. To appoint technical sub-committees to assist such committee in the performance of its functions. Provide co-financing.

Key Stakeholders	Mandate Relevant to the project	Roles in the project
	of e-waste in India and for the management of chemicals related to Stockholm and Minamata Conventions as well as the related Basel Convention on Transboundary Movement of Hazardous Waste in India under the Environment Protection Act (1986). The Hazardous Substances Management Division of the ministry is proposed as the key responsible party for this project.	
Ministry of Mines	Ministry of Mines is responsible for survey and exploration of all minerals, other than natural gases, petroleum and atomic minerals, for mining and metallurgy of non-ferrous metals and administers Mines and Minerals (Regulation and Development) Act. They would be relevant for the regulatory and technology-related aspects of critical minerals used in the EEE value chain.	Provide technical support and consultations to facilitate project implementation and decision making of governance and management pertaining to critical minerals recovery.
Ministry of MSME	Ministry of MSME supports circular economy through policies and schemes like the MSE Scheme for Promotion and Investment in Circular Economy (MSE SPICE Scheme)	Provide technical support and consultations to facilitate project implementation and decision making of governance and management pertaining to cluster formation in informal recycling hubs to facilitate the uptake of safe recycling practices and technologies.
Central Pollution Control Board (CPCB)	CPCB is the nodal agency for ensuring environmental compliance of producers, manufacturers, recyclers, and refurbishers registered on the EPR portal through mandatory checks. As per the Ecomark rules (2024), CPCB has been entrusted with the responsibility to review and develop the criteria for Ecomark as well as develop initiatives to incentivize its adoption.	Provide technical support and consultations to facilitate project implementation and decision making of governance and management. Collaborate for specific project activities to achieve intended project outcomes. Timely coordination with relevant project stakeholders and sub-national/state level regulatory bodies (SPCB). Deploy a centralized digitized information management system for improved EPR compliance (proposed under component 4 of the project). Support to conduct training and capacity building programmes in the pilot sites and other subnational government and private sector medical establishments. Provide co-financing.

Key Stakeholders	Mandate Relevant to the project	Roles in the project
State Pollution Control Boards (SPCBs)	State Pollution Control Boards (SPCB) constituted under the Water (Prevention and Control of Pollution) Act, 1974 to grant and renew authorization, to monitor the compliance of the various provisions and conditions of authorization, to forward the application for imports by importers and to review matters pertaining to identification and notification of disposal sites.	To coordinate with the CPCB for effective project implementation. To facilitate the provision of mandated environmental clearances to pilot sites set up under the project.
Centre for Materials for Electronics Technology (CMET)	CMET is an autonomous scientific society under MeitY, Govt. of India envisioned for the attainment of self-sufficiency in electronic materials, components and devices to cater to India's strategic and industrial applications and are invested in R&D of electronic waste and RoHS.	To facilitate demonstration and technology transfer under specific project activities as a means to promote and facilitate the uptake of environmentally sound recycling technologies. To facilitate the upgradation of RoHS testing laboratory facilities.
Sub-national government agencies (Urban Local Bodies)	To facilitate timely establishment of pilot sites in selected states.	Allocation of land and other resources to setup the pilot sites and ensure necessary regulatory clearances.
Port Authorities and Customs Authorities	Port Authorities and Customs Authorities under the customs Act, 1962 verify the documents and inform the MoEF&CC of any illegal traffic and analyze wastes permitted for imports and exports and also train officials on the provisions of the Hazardous Wastes Rules and in analysis of hazardous wastes	Stricter enforcement of regulation of imports of e-waste.
Industry Associations		
Associations of upstream value chain players	Facilitate knowledge sharing, promote best practices, aid in stakeholder outreach and coordinate with the association members in aligning them with proposed pilots.	Participate in, and contribute to, the implementation of some activities of the project such as awareness creation, knowledge sharing, communication and training. Promote BAT/BEP among association members.
Associations of downstream value chain players		
Private Sector		

Key Stakeholders	Mandate Relevant to the project	Roles in the project
OEMs for Pilot	The OEMs willing to partner for the project would be selected based on pre-defined selection criteria.	Implementation of eco-design / eco-labelling pilots. Provide co-financing.
Recyclers / Aggregators	Registered e-waste recyclers under EPR Portal with technological and knowledge capacity for environmentally sound management of e-waste and inventorizing the volume managed would be onboard for implementing the proposed pilots.	Implementation of eco-design / eco-labelling pilots. Provide co-financing.
NGOs/CSOs/Institutions		
NGOs/ Educational Institutes	Represent interests and rights of the local community/public/gender, and mobilize (consult, engage, empower) them on issues related to chemical and waste management.	Identify potential issues, gaps, opportunities and impacts of the project on stakeholders. Provide assistances for the implementation of some activities of the project such as awareness creation, communication and training, particularly among local communities/public.
Think tanks / Institutions	Represents the interests of the academic community on aspects of BAT/BEP, and current opportunities and challenges in the county to transition to Circular Economy.	Provide assistance for the implementation of certain project activities such as awareness generation, capacity building, training, and technology demonstration and transfer.
Development Partners		
United Nations Development Programme (UNDP), India	Provide assistances to achieve sustainable human development on economic, social and environmental fronts through the Country Programme, in collaboration with the Government, civil society, the private sector and communities to collectively understand development needs, priorities and responses to address gaps in meeting the SDGs.	As the GEF Implementing Agency for the project, it is responsible for oversight and monitoring project implementation and ensuring adherence to UNDP and GEF policies and procedures; Provide for south-south cooperation, to exchange international experience in import and export management, chemicals and mercury storage and disposal techniques and experience etc. Project experiences, knowledge and lessons learned will be shared nationwide and through UNDP's global networks. Provide co-financing.

4. STAKEHOLDER ENGAGEMENT PLAN

Overview

The Stakeholder Engagement Plan (SEP) is included in the Project under Component 4 on "Knowledge Management and Monitoring & Evaluation", along with Gender Mainstreaming Action Plan and Project Communication Strategy.

The SEP outlines the process through which the project will engage the different group of stakeholders, following a systematic approach for stakeholder engagement that will ensure inclusive, effective, and efficient engagement of the key stakeholders throughout the lifecycle of the project, covering the three main stages of Project development, Project preparation, and Project implementation. Thus, the SEP is built upon existing information on the context and characteristics of stakeholders and on past consultations.

Based on the findings of the comprehensive stakeholder analysis, as presented in the previous section, the SEP was developed, in order to improve project performance and impact by enhancing country ownership of, and accountability for, project outcomes; and to make use of skills, experiences and knowledge particularly from enterprises, especially the private sector, medical facilities, communities and local groups, ethnic minority peoples, male and female residents, as well as the project design team, in the design, implementation, monitoring and evaluation of project activities.

Guiding principles

The SEP is formulated based on the GEF Policy on Stakeholder Engagement (GEF/C.53/05/Rev.01, 2017), and the GEF Guidelines on the Implementation of the Policy on Stakeholder Engagement (SD/GN/01, 2018), together with number of other related documents, including GEF 2020 Strategy (2014), GEF Policy on Gender Equality (SD/PL/02, 2017), and GEF Policy on Agency Minimum Standards on Environmental and Social Safeguards (SD/PL/03, 2013) and UNDP Social and Environmental Standards (2021). Accordingly, following reflect the key guiding principles of the SEP of the Project:

- Realize effective, efficient and informed engagement, and inclusive and meaningful consultation;
- Forge stronger partnerships, particularly among government agencies (national, provincial and local), private sector, civil society, and communities;
- Harness the knowledge, expertise and resources of all the stakeholders.

Objectives

The objective of the SEP is to ensure meaningful, inclusive, effective, efficient and informed engagement of the key stakeholders throughout the lifecycle of the project in order to improve project performance and impact by enhancing the transparency, accountability, integrity, effectiveness and sustainability of GEF governance and operations by, among others, enhancing country ownership and accountability, addressing the social and economic needs of affected people, building partnerships among agencies and stakeholders, and harnessing the skills, experiences and knowledge of a wide range of stakeholders, including government agencies (national, provincial, local), professionals, NGOs/CSOs, community and local groups, and the private sector.

Scope

The key elements of, and considerations given for, the SEP include:

- Inclusion of all the stakeholders, and identification of their relevant interests, roles and responsibilities;
- The steps and actions taken to achieve meaningful consultation and inclusive participation, including those for the project mid-term review and terminal evaluation and making the evaluation reports accessible to the stakeholders;
- Build multi-stakeholder partnerships;
- Gender inclusion;
- The project related information dissemination, awareness, training and communication;
- Setting up Grievance Redress Mechanism;
- Roles and responsibilities for implementation of the SEP;
- The timing of the engagement throughout the project cycle;
- Key indicators of stakeholder engagement during project implementation, and steps that will be taken to monitor and report on progress and issues that arise including in the project annual report.

Methodology

The process of identification of the key stakeholders and their core roles, responsibilities and interests as well as the engagement of the key stakeholders has been an iterative and inclusive process during the project preparation phase. The key stakeholders were tentatively identified first based on PIF, followed by discussions with the UNDP,

MeitY who is the Implementing Partner, MoEF&CC who is the key Responsible Party and the other project preparation grant (PPG) team members for further confirmation. During PPG Phase, consultations with a wide range of relevant key stakeholders were undertaken to collect data and support activities in order to improve further the Project Document and its Strategies. During project implementation phase, main stakeholders identified and engaged in the PIF and PPG stages will continue to be actively participating and contributing to the project, as designed in the SEP.

Another important element is the partnerships among relevant stakeholders (both public and private) in performing certain tasks of the project, for example setting up a metal extraction from e-waste facility in one of the pilots. Further, stakeholders will participate in project monitoring and while conducting the Mid-term Review and Terminal Evaluation. Relevant stakeholders will be invited to participate in the Grievance Redress Mechanism that is introduced for providing meaningful means for affected stakeholders to raise concerns and/or grievances when activities may adversely impact them.

The process of identification and engagement of the key stakeholders will be an on-going and adaptation management process throughout the project lifecycle, which involves stakeholder analysis and planning, disclosure and dissemination of information, consultation and meaningful participation, dispute resolution and grievance redress, ongoing reporting to affected communities and stakeholders, and inclusion of stakeholders in monitoring and evaluation. More key stakeholders will be included whenever identified during the project implementation, monitoring and evaluation, and the SEP developed will be reviewed and revised, whenever necessary.

The SEP will be implemented within the governance structure and mechanism of the project presented in Section IX. Governance and Management Arrangements.

Stakeholder Engagement during the Project Preparation Phase

Table 4.1 presents the details of the stakeholder engagement during PPG stage of the Project, covering type of stakeholder group, objectives and means of engagement, and key outcomes of the process. The stakeholder consultations were undertaken between August-October 2024.

Table 4.1 Stakeholder engagement conducted during PPG stage

Stakeholder Group	Stakeholder Name	Engagement Objective	Means of engagement	Engagement Outcomes
Government Agencies and Departments	Ministry of Environment, Forest, and Climate Change of India	-To facilitate formal contact with the private sector by email outreach -To understand current and upcoming policy-level interventions anticipated in the country during the project cycle (2025-2030) -To gather insights on how to leverage and integrate policies into the project design to maximize impact.	• In-person consultation • Inception Meeting • Focused Group Discussion (FGD)	-Information on the current policy landscape of e-waste management -Information on critical focus areas in the sector that the project could focus on -Suggestions on the pilot sites to be chosen under the project aligned to national policy priorities.
	Ministry of Electronics and Information Technology, Government of India (MeitY)	-To facilitate formal contact with the private sector by email outreach -To understand current and upcoming policy-level interventions anticipated in the country during the project cycle (2025-2030) -To gather insights on the current technology	• In-person consultation • Inception Meeting • Focused Group Discussion (FGD)	-Facilitating formal contact with the private sector by email outreach -Information on the current policy and technology landscape of e-waste management -Information on critical focus areas in the sector that the project could focus on

		landscape vis-à-vis e-waste recycling in the country		-Suggestions on the pilot sites to be chosen under the project aligned to national policy priorities.
	Central Pollution Control Board (CPCB)	-To gather baseline information on the POPs, uPOPs, and other hazardous chemicals -To gather baseline information on the e-waste EPR portal	• In-person consultation • Inception Meeting • Focused Group Discussion (FGD)	-Information on the current level of inventorization of e-waste -Understanding of gaps and challenges in the current EPR system and audit mechanisms. -Facilitating site visits to Moradabad to understand the informal PCB recycling ecosystem.
	Centre for Materials for Electronics Technology (CMET)	-To study the Centre of Excellence of e-waste model at C-MET -To understand the ongoing and upcoming R&D activities being undertaken -To explore potential areas of collaboration and synergy with the project	• In-person consultation	-C-MET's suggestions on the project design were received -Potential areas of collaboration were discussed, especially with respect to the RoHS compliance aspect.
Industry Associations	Manufacturers' Association for Information Technology (MAIT)	-To understand the upstream value chain of EEE sector	• In-person consultation • Focused Group Discussion (FGD)	-MAIT's suggestions on the project design were received -Potential areas of collaboration were discussed, especially with respect to the alignment of Indian OEMs.
	Material Recycling Association of India (MRAI)	-To understand the downstream value chain of EEE sector (collecting, aggregation, disassembly, segregation, processing, recycling, End of Life (EoL) disposal)	• Virtual consultation	-Information on the downstream value chain -Facilitating connects with member recyclers and refurbishers.
Private Sector	OEMs/ Producers (Samsung, Google, IFB)	-To understand existing WEEE management initiatives -To understand challenges faced in the current regulatory ecosystem -To understand BAT/BEP that could be replicated. To explore potential areas of collaboration and synergy with the project	• Virtual consultation • In-person consultation (Samsung)	-Private players' suggestions and perspective on the project design were received -Potential areas of collaboration were discussed, especially with respect to the proposed pilots.
	Recyclers (Attero, Karo Sambhav, Lohum, Pegasus, Polyprotic, PWL Ventures, RecycleKaro)	-To understand challenges faced in the current regulatory ecosystem -To understand BAT/BEP that could be replicated. -To explore potential areas of collaboration and synergy with the project	• Virtual consultation • In-person consultation (Attero)	

Civil Society Organizations, Think Tanks, Academia, Financial Institutions	NGOs (Chintan, Haqdarshak, Saahas, SeWa, Shakti Foundation, ALEAP) Think tanks (CEEW, Toxic links) Donor Agencies (GIZ India, WBCSD)	-To understand current bottlenecks and challenges to facilitate the transition to a circular approach -Insights on the level of gender sensitivity throughout the value chain, for example, insights on gendered implications of e-waste management in the downstream value chain -To explore potential areas of collaboration and synergy with the project	• Virtual consultation • In-person consultation (Saahas)	-Information on occupational health and safety hazards of the workers at the sites (working conditions, access to basic infrastructure, etc.) -Information on women workers and their challenges (health safety, working conditions, access to basic amenities, *etc.*) -Information on the current trends in assessing circularity penetration in the upstream private sector operations.

Stakeholder Engagement during the Project Implementation Phase

This period of project implementation is the third major opportunity for effective engagement of stakeholders in the project, after the previous phases of PIF and PPG. During this period, the projects activities identified in the PPG phase (the ProDoc) will be implemented on the ground, managed and monitored, which in turn will be affected the particular circumstances, which are in general not the same as anticipated in project development. New circumstances and opportunities may arise that indicate a need for adjustment and course correction to fully achieve the objectives and best results of the project. Thus, stakeholder engagement is essential at this stage to identify issues and opportunities arisen and the best way to address them.

Accordingly, the SEP for the project implementation phase has been developed, as presented in Table 4.2, covering details related to means of engagement, objectives, details related to means of engagement, objectives, Stakeholders to be engaged, main responsible agencies, location, time and resources required.

Table 4.2: Stakeholder Engagement Plan

Means of Engagement	Objectives	Stakeholders to be engaged	Main responsible agencies	Location	Time	Resources
1. Pre- project implementation						
Dissemination of the project document on websites	To provide public access to the project information	All the stakeholders and partners of the project Any interested individual and organization	MoEF&CC MeitY Project Management Unit (PMU) GEF agency (UNDP)	Disclosed on websites of UNDP India, MoEF&CC, and MeitY	Before and throughout the project implementation	The project budget
Dissemination of specific project information to project stakeholders	To inform the key stakeholders and partners on the project activities and plans To obtain information on evolving situation	All the pilot implementation entities	PMU	To be decided (TBD)	Before the project implementation	The project budget
2. Engagement in project implementation						
▪ Project inception						
Focused Group Discussions (FGDs) Meetings	To mobilize the project partners	Government agencies (MoEF&CC, MeitY, CPCB, SPCB(s), Private sector partners selected for pilots NGOs/ Institution partners	PMU, UNDP	TBD	Project Inception Period	The project budget
Inception workshop	To present the details of the project implementation plan and reach consensus. To assign roles and responsibilities.	All the key project stakeholders	PMU, UNDP	TBD	Project Inception Period	The project budget

For Component 1: Strengthen institutional mechanisms and develop knowledge-based interventions including design of innovative economic models.						
Consultation workshops, Focused Group Discussions (FGDs), Interviews, and Surveys.	To review baseline regulations and assess inventory of e-waste To collect primary data for EEE eco-design/cleaner production baseline To strengthen enforcement of e-waste regulations, including further enhancement of the modalities associated with the EPR portal.	CPCB Technology Partner Upstream private players Consultant team	Project Management Unit (PMU) GEF agency (UNDP)	TBD	During the first year of the project implementation period.	The project budget
For Component 2: EEE Manufacturing, Supply Chain and End of Life (EOL) Ecosystem improvement through prevention measures and socio-technical ESM models/pilots for replication						
Focused Group Discussions (FGDs), Consultation meetings, Interviews, Demonstrations, Training workshops	To ensure implementation of eco-design/cleaner production, replacement-rebate model, lithium-ion scrap batteries management and e-waste collection through educational institutes pilots Conduct training workshops to build capacity of project personnel of partner entities.	Upstream private partners Downstream LIB aggregators/recyclers Consultant team Partner Educational Institute	Project Management Unit (PMU) GEF agency (UNDP)	TBD	During the project implementation	The project budget
For Component 3: Improvement of baseline systems and infrastructures for POPs and UPOPs reduction in e-waste processing						
Focused Group Discussions (FGDs), Consultation meetings, Interviews, Demonstrations, Training workshops	To ensure implementation of eco-design at OEM facilities, material extraction from e-waste, PBDE removal pilots.	Technology Partner Downstream SME aggregators/recyclers Consultant team Upstream OEM partner Partner NGO	Project Management Unit (PMU) GEF agency (UNDP)	TBD	During the project implementation	The project budget
For Component 4: Knowledge management, Global coordination & cooperation, and monitoring & evaluation (M&E)						

Distance learning tools, Online communication, Knowledge products, Seminars & workshops	To raise awareness and enhance knowledge of the workforce of EEE sector in the country by the use of effective knowledge management tools on lessons learned and best practices from the Project, from other relevant GEF projects implemented, as well as international best practices. To build an Information management system.	All interested EEE stakeholders in the country.	MoEF&CC MeitY Project Management Unit (PMU) GEF agency (UNDP)	Websites, media (print, electronic, social) and other platforms	During the project implementation	The project budget
3. Participation in project monitoring						
Monitoring the project progress	Smooth implementation of project activities to achieve project objectives and outputs	Project direct beneficiaries and implementation agencies	Project Management Unit (PMU) GEF agency (UNDP) Project M&E Officer	Sites of the project activities located	During project implementation	Project budget for M&E
Consultation with women and men in the piloting agencies/sites	Gender equality in the project monitoring	Project direct beneficiaries and implementation agencies	Project Management Unit (PMU) GEF agency (UNDP) Project Gender Officer	Suitable places and/or channels identified during the monitoring	During project implementation	Project budget for M&E
Consultation with academic and research institutions, relevant governments, and other stakeholders	Experiences and suggestions from the stakeholders obtained for effectively implementation of the project	Relevant academic, Research institutions etc.	Project Management Unit (PMU) GEF agency (UNDP) Project M&E Officer	Suitable places and/or channels identified during the monitoring	During project implementation	Project budget for M&E
4. Mid-term review and terminal evaluation						
Consultation with relevant stakeholders	Evaluation done effectively and adaptive management instituted	Key stakeholders	Project Management Unit (PMU) GEF agency (UNDP) Project M&E Officer	Suitable places and/or channels identified during the evaluation	During the evaluations	Project budget for M&E

Dissemination of the evaluation reports	Make information accessible to all stakeholders and the public	All stakeholders, Any interested individual and organization	GEF Project Management Unit (PMU) GEF agency (UNDP) MoEF&CC MeitY	Disclosed on websites of the GEF, UNDP, MoEF&CC, MeitY	4 weeks after the evaluation reports finalized	Project budget for M&E
5. Information request procedure for broad public						
Publicizing contact details for information requests from public	Project non-confidential information accessible to public.	Any individual and organization interested in the project	Project Management Unit (PMU) GEF agency (UNDP) MoEF&CC MeitY	Disclosed on websites of the project and MoEF&CC	Immediately after inception workshop	Project budget for communications
Public request information to the contacts by email or by written document	Institution/individual request needed information	individual and organization requested project information		Emails or written documents to relevant project office	Any time during the project implementation	Project budget for communications
The Project's reply to the information requests	The requests were replied	individual and organization requested project information, relevant project agencies		same way replying to the request	Within 2 weeks after received the request	Project budget for communications
6. Grievance redress mechanism						
Step 1: Affected people submit grievance, if any, to the contacts of the relevant entity (Pilot sites)	Express grievance	People or organizations submitted grievance	Relevant entity (Implementation agency)	Written grievance	Any time during the project implementation	Project budget for M&E
Step 2: Relevant entity (Pilot sites) addresses the grievance	Address grievance	People or organizations submitted grievance	PMU Relevant entity (Implementation agency)	Suitable ways	Two weeks after received the complaint	Project budget for M&E
Step 3: If dissatisfied, the affected people or organizations submit his/her grievance to the PMU	Address grievance	People or organizations submitted grievance	PMU	Suitable ways	Two weeks after received the complaint	Project budget for M&E

Step 4: If still dissatisfied, the affected people or organizations can appeal to relevant administrative authorities (E.g., MoEF&CC, MeitY)	Address grievance	People or organizations submitted grievance	Relevant administrative authorities (MoEF&CC, MeitY)	Suitable ways	Two weeks after received the complaint	Project budget for M&E
Means of Engagement	**Objectives**	**Stakeholders to be engaged**	**Main responsible agencies**	**Location**	**Time**	**Resources**
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For Component 1: Strengthen institutional mechanisms and develop knowledge-based interventions including design of innovative economic models.						

Consultation workshops, Focused Group Discussions (FGDs), Interviews, and Surveys.	To review baseline regulations and assess inventory of e-waste To collect primary data for EEE eco-design/cleaner production baseline To strengthen enforcement of e-waste regulations, including further enhancement of the modalities associated with the EPR portal.	CPCB Technology Partner Upstream private players Consultant team	Project Management Unit (PMU) GEF agency (UNDP)	TBD	During the first year of the project implementation period.	The project budget
For Component 2: EEE Manufacturing, Supply Chain and End of Life (EOL) Ecosystem improvement through prevention measures and socio-technical ESM models/pilots for replication						
Focused Group Discussions (FGDs), Consultation meetings, Interviews, Demonstrations, Training workshops	To ensure implementation of eco-design/cleaner production, replacement-rebate model, lithium-ion scrap batteries management and e-waste collection through educational institutes pilots Conduct training workshops to build capacity of project personnel of partner entities.	Upstream private partners Downstream LIB aggregators/recyclers Consultant team Partner Educational Institute	Project Management Unit (PMU) GEF agency (UNDP)	TBD	During the project implementation	The project budget
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For Component 4: Knowledge management, Global coordination & cooperation, and monitoring & evaluation (M&E)						

Distance learning tools, Online communication, Knowledge products, Seminars & workshops	To raise awareness and enhance knowledge of the workforce of EEE sector in the country by the use of effective knowledge management tools on lessons learned and best practices from the Project, from other relevant GEF projects implemented, as well as international best practices. To build an Information management system.	All interested EEE stakeholders in the country.	MoEF&CC MeitY Project Management Unit (PMU) GEF agency (UNDP)	Websites, media (print, electronic, social) and other platforms	During the project implementation	The project budget
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Consultation with women and men in the piloting agencies/sites	Gender equality in the project monitoring	Project direct beneficiaries and implementation agencies	Project Management Unit (PMU) GEF agency (UNDP) Project Gender Officer	Suitable places and/or channels identified during the monitoring	During project implementation	Project budget for M&E
Consultation with academic and research institutions, relevant governments, and other stakeholders	Experiences and suggestions from the stakeholders obtained for effectively implementation of the project	Relevant academic, Research institutions etc.	Project Management Unit (PMU) GEF agency (UNDP) Project M&E Officer	Suitable places and/or channels identified during the monitoring	During project implementation	Project budget for M&E
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Consultation with relevant stakeholders	Evaluation done effectively and adaptive management instituted	Key stakeholders	Project Management Unit (PMU) GEF agency (UNDP) Project M&E Officer	Suitable places and/or channels identified during the evaluation	During the evaluations	Project budget for M&E

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Step 4: If still dissatisfied, the affected people or organizations can appeal to relevant administrative authorities (E.g., MoEF&CC, MeitY)	Address grievance	People or organizations submitted grievance	Relevant administrative authorities (MoEF&CC, MeitY)	Suitable ways	Two weeks after received the complaint	Project budget for M&E

Annex 9: Environmental Social Management Framework (ESMF)

Environmental and Social Management Framework (ESMF)

Project title: Accelerating Transition To A Circular Economy In India's Electrical And Electronic Sector Through Sustainable Integrated Approaches		
Country: India	**Implementing Partner:** Ministry of Environment, Forests, and Climate Change (MoEF&CC)	**Execution Modality***:* Supported National Implementation Modality (NIM) for National Project
Contributing Outcome (UNDAF/CPD, RPD, GPD)*:* UNSDCF Outcome 1: Health and well-being Outcome 4: Economic growth and decent work Outcome 5: Environment, climate, WASH and resilience Outcome 6: Empowering people, communities and institutions		
UNDP Social and Environmental Screening Category: MODERATE	**UNDP Gender Marker:** GEN2	
Atlas Award ID: 1382296	**Atlas Project/Output ID:** 01004081	
UNDP-GEF PIMS ID number: 9664	**GEF Project ID number:** 110405	

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Executive Summary

This Environmental and Social Management Framework (ESMF) has been developed for the UNDP-supported, GEF-financed project "Accelerating Transition to a Circular Economy in India's Electrical and Electronic Sector Through Sustainable Integrated Approaches". It has been prepared for the submission of the UNDP project proposal to the GEF for the purpose of assisting in the assessment and management of the project's potential environmental and social impacts.

Preliminary analysis and screening conducted during the project development phase via UNDP's Social and Environmental Screening Procedure (SESP) identified potential social and environmental risks associated with project activities. This screening resulted in the identification of nine risks, six rated as "Moderate" and one as "Low" significance, resulting in an overall social and environmental risk categorization of "Moderate" for the Project. Identified risks are:

Risk 1: Improper handling, transport, storage and processing of e-waste could lead to accidental spillages and potential leakages and emissions of mercury, POPs and other heavy metals and plastics, potentially impacting project workers, local populations, and surrounding areas.

Risk 2. "Upstream" policy level work on the e-waste baseline, assessments of environmental externalities, and the impacts of informal sector recycling under Component 1, may be conducted without due attention to the particular impacts on women, vulnerable groups and informal sector workers, leading to their interests being marginalized or ignored.

Risk 3: Risk of exclusion of women, informal sector and marginalized groups from fully participating in decisions affecting them, and access to grievance mechanisms and consequent risk of inequitable or discriminatory impacts on affected populations. Additionally, there is a risk of adverse impacts on gender equality, reproducing gender-based discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits.

Risk 4: Duty-bearers (e.g. sub-national government Officers) may not be equipped/capacitated to fulfil their roles within the project outcomes.

Risk 5: Workers at partner facilities may be exposed to working conditions that contravene national labour standards, principles and standards of ILO fundamental conventions, or UNDP SES.

Risk 6: There could be safety risks to local communities from accidental incidents at pilot projects.

Risk 7: Increased consumption of resources (and GHG emission) and other emissions due to migration from informal to formal recycling activities.

Risk 8. Potential exists for a risk of flooding or structural damage to recycling / temporary e-waste and storage facilities, due to susceptibility to weather or other natural events, which could expose local communities and workers at the facility to safety hazards.

Risk 9. A potential risk exists to workers' incomes and opportunities, particularly women and marginalized communities, in the course of the transition from informal to formal sector and the implementation of BAT/BEP for recycling practices.

This ESMF has been developed based on this project risk categorization to specify the processes that will be undertaken by the Project Management Unit for the additional assessment of potential impacts and identification and development of appropriate risk management measures, in line with UNDP's Social and Environmental Standards.

At the current stage, precise on-the-ground activities have not been fully designed in terms of exact locations and interventions, so cannot be fully assessed for all potential social and environmental risks and impacts. As such, this ESMF has been prepared to set out the principles, rules, guidelines, and procedures for screening, assessing, and managing the potential social and environmental impacts of the project as activities are developed and designed.

The document sets out the additional safeguards measures that apply to the project, including but not limited to:

i. Ensuring the incorporation of the principles of Strategic Environmental and Social Assessment into the "upstream" aspects of the project (i.e. project activities that do not have a direct physical footprint), to ensure that SES requirements are fully reflected in project outputs.

ii. On-site, activity-specific screening of proposed project activities and specific interventions/outputs not yet fully specified, to "ground truth" the existing assessment (as identified during project planning) of risks associated with the project, and to ensure that associated impacts are adequately managed. The current assessment will be verified at all proposed project sites, to establish how the risks associated with project activities are manifest in their particular locations, and to establish whether the current screening has adequately identified and rated all risks and impacts at specific sites. If additional risks are found, or their site-specific significance differs, the risk is to be re-assessed, based on its significance in the particular location, and management strategies developed in accordance with the requirement detailed herein.

iii. Developing site- and activity-specific impact mitigation mechanisms, targeted at the identified risks.

iv. Conducting due diligence of potential project partners' compliance with relevant Indian environmental and employment legislation and UNDP Social and Environmental Standards, identifying any gaps developing strategies for filling any such gaps in conjunction with the prospective project partner.

v. Ensuring that no project activities are undertaken which would necessitate, or lead to, people being required to relocate their homes or businesses, or adversely affect the rights, lands, resources, or cultures, of indigenous people, as defined in UNDP Standard 6.

vi. Establishing a project-level Grievance Redress Mechanism and raising stakeholder awareness of it and UNDP's Accountability Mechanism.

In addition, a Stakeholder Engagement Plan (SEP) has been prepared to ensure that all affected people will be engaged throughout the project. A Gender Action Plan (GAP) has also been prepared to mitigate the identified risks and to take actions to ensure that women and men are equally represented in decision-making on project activities and are included in capacity building activities.

This ESMF also details the roles and responsibilities for its implementation and includes a budget and monitoring and evaluation plan.

Abbreviations and Acronyms

EEE	Electronic and Electrical Equipment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
FSP	Full Sized Project (GEF)
GAP	Gender Action Plan
GEF	Global Environment Facility
GRM	Grievance Redress Mechanisms
MSME	Micro, small and medium sized
PIR	GEF Project Implementation Report
PMU	Project Management Unit
PPG	Project Preparation Grant (GEF)
SECU	Social and Environmental Compliance Review Unit (UNDP)
SEP	Stakeholder Engagement Plan
SES	Social and Environmental Standards (UNDP)
SESA	Strategic Environmental and Social Assessment
SESP	Social and Environmental Screening Procedure (UNDP)
SRM	Stakeholder Response Mechanism (UNDP)
UNDP	United Nations Development Programme
UNDP-GEF	UNDP Global Environmental Finance Unit
WEEE	Waste Electrical and Electronic Equipment

Introduction

This Environmental and Social Management Framework (ESMF) has been prepared for the UNDP-supported project "Accelerating Transition to a Circular Economy in India's Electrical and Electronic Sector Through Sustainable Integrated Approaches".

UNDP is the GEF Agency for the project to which this ESMF applies. The UNDP Social and Environmental Standards are the applicable standards for this management framework.

Project description

A variety of metals, heavy metals, plastics and hazardous chemicals is used by the electronics industry in the production, consumption and disposal of electric and electronics equipment (EEE). Their use has led to the generation of large quantities of waste (e-waste) across the value chain, posing hazards to humans, the environment and to sustainable economic growth.

In India e-waste is mostly processed by the informal sector using precarious manual and often hazardous processes, including open burning, resulting in high emissions of toxic chemicals and heavy metals. Therefore the objective of this project is to reduce and/or eliminate the adverse impacts of Persistent Organic Pollutants (POPs), Unintentional Persistent Organic Pollutants (known as UPOPs - POPs created as unintentional byproducts and which have no commercial use purpose or function) and heavy metals such as mercury and lead, on human health and the environment. The project aims to achieve this by making strategic interventions across the life cycle and the value chain of electrical and electronic equipment, and by strengthening India's capacity for the environmentally sound management e-waste through integrated approaches.

The project is intended to be transformative in nature as it will integrate Circular Economy principles into the electrical and electronic manufacturing sector by implementing measures throughout the entire value chain of products till their end-of-life, including recycling and disposal, through the proposed interventions. The project consists of four interlinking Components:

Component 1: aims to strengthen the institutional mechanisms and develop knowledge-based interventions including the design of innovative economic models.

Component 2: will improve practices, systems and technologies for EEE Manufacturing and its supply chain through prevention methods and socio-technical ESM models/pilots for future replication.

Component 3: aims to improve the e-waste management ecosystem by deploying investments, prevention measures, infrastructures and technologies for managing POPs and UPOPs and heavy metals emissions/releases in e-waste processing.

Component 4: will make information and knowledge accessible, raise awareness and build networks and partnerships to facilitate knowledge sharing among the EEE sector stakeholders, national and subnational Governments, with links to international and global programmes on e-waste.

A broad overview of the project components, outcomes, and indicative activities is given in Table 1 below:

Table 2 Overview of Project Components, Outcomes, Outputs, and Indicative Activities

Component	Outcomes	Output	Activities
1. Strengthen institutional mechanisms and develop knowledge-based interventions including design of innovative economic models.	1. Enabling environment enhanced for sustainable EEE production and e-waste management	1.1 Circular Economy (CE) baseline for EEE eco-design and cleaner production established	1.1.1 Establish a CE baseline among EEE OEMs/producers in India via primary data collection by using established indicators
		1.2 Inventories of e-waste generation and assessment on externalities established, cost of e-waste management mapped, and value chain of key materials identified taking into consideration specific gender-related aspects.	1.2.1 Conduct national e-waste inventory assessment with improved granularity at national and sub-national levels, aligned to global methodologies.
			1.2.2 Conduct a study to estimate the cost burden of e-waste management and adoption of BAT/BEPs on different stakeholders (producers, recyclers, manufacturers, refurbishers)
			1.2.3 Conduct a socio-environmental and gender assessment of the impact of informal recycling, its nature of operation, collection network, modus operandi and identifying informal hubs in the country.
			1.2.4 Undertake a Material Flow Analysis (MFA) to map the life cycle of the 106 EEE included in the e-waste management rules and assess the emissions of POPs, U-POPs, and hazardous metals.
		1.3 E-waste rules' enforcement, including EPR monitoring, harmonized among national and subnational level and coordination mechanism and guidelines for management e-waste established.	1.3.1 Develop guidelines/SOPs for sub-national (state and city-level) e-waste inventory development, management and enforcement.
			1.3.2 Conduct a feasibility study to extend the scope of the EPR certificate regime beyond the 4 key metals (Gold, Aluminium, Copper, Iron).
		1.4 Frameworks for audit of e-waste recycling facilities developed.	1.4.1 Develop an SOP to streamline and effectively implement the auditing of e-waste recycling facilities in accordance to the E-waste management rules provisions with insights from global waste audit certifications.
		1.5 Recommendations to strengthen implementation of India's RoHS for imported and manufactured EEE	1.5.1 Develop product-wise testing protocol and guidelines for Indian laboratories for EEE products aligned with global laboratory standards.
			1.5.2 Develop a Monitoring, Reporting and Verification (MRV) framework for CPCB to facilitate efficient post-market surveillance of RoHS certified products.
		1.6 Gender-sensitive Eco-design and eco-labelling standards and guidelines proposed at targeted industries.	1.6.1 Identify critical EEE product categories with increased potential for eco-design and eco-labelling incorporation.
			1.6.2 Develop a strategy and provide recommendations to facilitate adoption of the new Ecomark rules, 2024 for each EEE category along with identification of replicable BEPs in the Indian context.
			1.6.3 Conduct a Readiness Assessment study to gauge India's readiness to adopt a national eco-design policy akin to the EU's Eco-design for Sustainable Products Regulation (ESPR)

		1.7 Economically sustainable management model for e-waste ("first prototype") designed.	1.7.1 Based on the assessed existing business models, at its different stages, a first prototype of and "ideal" business model is to be developed.
2. Improve practices, systems and technologies for EEE Manufacturing and its Supply Chain through prevention methods and socio-technical ESM models/pilots aimed for future replication.	2. EEE Manufacturing, Supply Chain and EOL Ecosystem improvement through prevention measures and socio-technical ESM models/pilots for replication.	2.1 Initiate the transformation of the EEE production and assembly in at least two (2) Original Equipment Manufacturers (OEMs) through eco-design and other inputs/materials/chemicals reduction measures piloted.	2.1.1 Pre-feasibility assessment of potential intervention developed. Define feasible and easily adoptable eco-design measures that can be integrated in EEE production and assembly by conducting a pre-feasibility assessment.
			2.1.2. Design the implementation of the intervention with the participating OEMs.
			2.1.3. Implementation and final assessment.
		2.2 At least two (2) pilot projects for replacement/rebate models of used EEE developed with manufacturers (OEMs) and/or large retailers to support strengthening of EPR schemes.	2.2.1 Based on pre-defined selection criteria, select OEMs and identify types of intervention, design two business models for replacement-rebate of large EEE goods. Implement pilot projects, conduct assessment and document pilot results.
		2.3 At least one (1) gender-responsive economically sustainable model with OEMs for education and public engagement on e-waste collection (offsetting) and supply chains piloted.	2.3.1 Select and engage 2 OEMs interested in participation
			2.3.2 Design detailed intervention and engage a CSO or SME which will operate the offsetting model, with schools/universities or youth communities interested to participate in pilot projects
			2.3.3 Implement the pilot schemes through an agile model of offsetting through education.
		2.4 At least three (3) gender-responsive schemes for e-waste collection and BEP for transforming or upgrading processing facilities working with informal sector developed and piloted.	2.4.1 Based on pre-defined selection criterial, identify and Select (with due diligence) micro or small aggregators/disassemblers/recyclers for pilot projects, design and implement the pilot projects, assess results and design replication plan.
			2.4.2 BAT/BEP implementation of e-waste management (at its preparatory stages: collection, classification, disassembly, segregation, etc. to a group of micro or small aggregators/ disassemblers/ recyclers and linking the recycling facility with OEMs to ensure uptake.
		2.5 Lithium-ion scrap batteries management pilot (1), developed and tested, linked to upstream electric car production to manage their off-spec batteries, with ESM model and guidelines prepared.	2.5.1 Conduct study on technology landscape and economic feasibility in India of recycling spent LIBs from non-automotive sectors (IT/ITES, Telecom).
			2.5.2 Selection and engagement of aggregators/ disassemblers/recyclers for pilot projects.
			2.5.3 Implement pilot for safe handling of spent LIBs to prevent explosion. Design of replication plan with replication implemented and results assessed.
3. Improve the e-waste	3. Improvement of baseline systems	3.1 Circularity gender-responsive	3.1.1 Shortlist OEMs and their feasible and easily adoptable eco-design measures that can be integrated in EEE production and assembly.

management ecosystem by deploying investments, prevention measures, infrastructures and technologies for POPs, u-POPs and heavy metals reduction in processing.	and infrastructures for POPs and UPOPs reduction in e-waste processing.	infrastructure for eco-design in OEM facilities (3) assessed and improvements' feasibility determined.	3.1.2 Infrastructure changes selection based on Ecodesign, assessment of potential implementation, and feasibility study and implementation plan.
		3.2 Review of baselines and BAT/BEP in process for metal and valuable material extraction from e-waste tested in one (1) pilot site	3.2.1 Develop a recovered metal re-use strategy for pilot test. Define the process type, location, scope and type of partnership. Select and engage consulting designer and plant developer.
			3.2.2 Design, procure and start-up the pilot processing unit for metal extraction from end-of-life (EoL) materials sourced from informal recyclers or MSEs. Processing unit tested and put into operation.
		3.3 Gender-responsive Feasibility study(ies) and strategic roadmap developed for replication of 3.2.	3.3.1 Develop a sustainable scale-up strategy to replicate the model in multiple locations. This activity would be a continuation of Output 3.2.
			3.3.2 Identify areas of gender inclusion in proposed pilot and develop strategy to enhance their livelihood. (Social security, leadership opportunities, skill development, access to finance etc.)
		3.4 Process for PBDEs removal from e-waste' plastics designed, assessed and pilot scale tested in one (1) site.	3.4.1 Define the process type, location, scope and type of partnership. Selection and engagement of consulting designer and plant developer. Define type of partnership.
			3.4.2 Based on pre-defined selection criteria, identify and select large collector/aggregator for pilot project.
			3.4.3 Design, procure and start-up the processing unit for PBDEs and other potentially existing POPs reduction from end-of-life (EoL) materials sourced from e-waste processor. Processing unit tested and put into operation. Assessment of operation conducted.
4. Knowledge management, Global coordination & cooperation, and monitoring & evaluation (M&E)	4.1. Global, regional cooperation improved, and capacities enhanced	4.1.1 Coordination established with Global Programmes and Initiatives for knowledge management, information exchange and gender equality action.	4.1.1.1 Develop a knowledge-sharing mechanism strategy for the project with detailed SOPs. Actively engage in regional and global dialog and an efficient mechanism for exchanging knowledge and experience.
		4.1.2 Gender-responsive cross collaboration, including web-based MIS system and communication platform established and aligned with global programmes or initiatives on EEE Sector	4.1.2.1 Integrate an online MIS on the EPR portal dashboard. Conduct knowledge and experience exchanges sessions and roundtables to share lessons learnt and insights from the pilot projects.
	4.2. Awareness, training and robust mechanism for monitoring and evaluation developed	4.2.1. Gender-sensitive Awareness and training Programme(s) for stakeholders, consumers, recyclers and dismantlers launched. Women are empowered to lead and participate in awareness and training activities.	4.2.1.1 Conduct gender sensitization training sessions for all the project stakeholders before project inception.

		4.2.2 Gender-sensitive Guidelines on incorporating EPR/CE principles and results, metrics and impacts into ESG Reports launched and Champions on ESG reporting identified through an manufacturer's driven awareness programme.	4.2.2.1 Develop a blueprint for Micro and Small EEE OEMs and Producers to guide them on how to integrate EPR related metrics and results into their sustainability reporting regime.
		4.2.3 Gender-sensitive Project Monitoring & Evaluation established and ongoing throughout project cycle.	4.2.3.1 Develop a gender-sensitive Monitoring and Evaluation (M&E) plan for continuous and periodic progress review for each activity, drawing from the project's M&E plan.

Exclusions

The project will not support any activities which:

- Involve, or will lead to physical displacement. GEF funds will not be used for any activities which would necessitate, or lead to people being required to relocate their homes or businesses, nor any activities which render untenable their continued residency in the project area.
- Any proposed project activity which when screened and assessed, is rated as having a risk significance of "High", and hence would increase the overall project risk rating to "High".
- Although no activity is envisaged that might affect the rights, lands, resources, or cultures, of indigenous people, any proposed project activities that are found to adversely impact such lands, as defined in UNDP Standard 6, will not proceed.

Purpose and scope of this ESMF

This Environmental and Social Management Framework (ESMF) has been prepared in support of the project as a 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 (as revised, 2021). The implementing partners of the project and the relevant members of the project management unit will follow this ESMF at the start of project implementation to ensure the environmental and social risks and impacts are fully assessed and management measures are in place prior to implementation of the relevant project activities, and that SES-related activities are monitored throughout the lifespan of the project.

The document forms the basis upon which the implementing partners will develop their specific Environmental and Social Management Plans to ensure that significant adverse environmental and social impact mitigation and management measures are implemented and monitored as required. It identifies the steps required for further risk screening, detailed assessment of the project's potential 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 of this project. Its scope covers all project activities, including any co-financing in terms of in-kind contributions and grants investment by government agencies needed to accomplish the project outputs.

At the current stage, precise on-the-ground activities have not been fully designed in terms of exact locations and interventions, so cannot be fully assessed for all potential social and environmental risks and impacts. As such, this ESMF has been prepared to set out the principles, rules, guidelines, and procedures for screening, assessing, and managing the potential social and environmental impacts of the project as activities are developed and designed.

The document sets out the additional safeguards measures that apply to the project, including but not limited to:

vii. **Ensuring the incorporation of the principles of Strategic Environmental and Social Assessment** into the "upstream" aspects of the project (i.e. project activities that do not have a direct physical footprint), to ensure that SES requirements are fully reflected in project outputs.

viii. **On-site, activity-specific screening** of proposed project activities and specific interventions/outputs not yet fully specified, to "ground truth" the existing assessment (as identified during project planning) of risks associated with the project, and to ensure that associated impacts are adequately managed. The current assessment will be verified at all proposed project sites, to establish how the risks associated with project activities are manifest in their particular locations, and to establish whether the current screening has adequately identified and rated all risks and impacts at specific sites. If additional risks are found, or their site-specific significance differs, the risk is to be re-assessed, based on its significance in the particular location, and management strategies developed in accordance with the requirement detailed herein.

ix. Developing site- and activity-specific impact mitigation mechanisms, targeted at the identified risks.

x. Conducting due diligence of potential project partners' compliance with relevant Indian environmental and employment legislation and UNDP Social and Environmental Standards, identifying any gaps, and where gaps are found, developing strategies for filling any such gaps in conjunction with the prospective project partner.

xi. Ensuring that no project activities which, when screened, would cause any impacts rated as "Substantial" or "High", or which may lead to physical displacement or significant economic displacement.

xii. Establishing a project-level Grievance Redress Mechanism and raising stakeholder awareness of it and UNDP's Accountability Mechanism.

This ESMF will be publicly disclosed in line with UNDP's Information Disclosure Policy and SES, attached as an annex to this ESMF.

Legislation and Institutional Frameworks for Environmental and Social Matters

This section provides a preliminary review of the policy, legal and institutional (PLR) framework related to the potential risks and benefits of the proposed project and prospective activities to be implemented with the use of the funding received. The PLR framework underpins how social and environmental safeguards will be addressed and respected. This analysis will be further expanded in Component 1

activities, which will be conducted in accordance with the Principles of Strategic Environmental and Social Assessment, and examine in detail the relevant legislation, and compare national PLRs to the social and environmental standards as appropriate to specific project activities and indicate institutional and operational capacities and/or weaknesses, with recommendations to address identified gaps or weaknesses where appropriate.

National Legislation, Policies and Regulations

In India, the Ministry of Environment, Forest and Climate Change is responsible for planning, promotion, co-ordination and overseeing the implementation of India's environmental and forestry policies and programmes. The Ministry also serves as the nodal agency in the country for the United Nations Environment Programme (UNEP), South Asia Co-operative Environment Programme (SACEP), and for the follow-up of the United Nations Conference on Environment and Development (UNCED). The Ministry is also entrusted with issues relating to multilateral bodies such as the Commission on Sustainable Development (CSD), Global Environment Facility (GEF) and of regional bodies like Economic and Social Council for Asia and Pacific (ESCAP) and South Asian Association for Regional Co-operation (SAARC) on matters pertaining to the environment. The role of the Ministry of Electronics and Information Technology is 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; promote societal and public participation in environmental protection efforts.

The Constitution of India (especially, Articles 15,16 and 46)

The Indian Constitution (Article 15) prohibits any discrimination based on religion, race, caste, sex, and place of birth. Article 16 refers to the equality of opportunity in matters of public employment. Article 46 directs the state to promote with special care the educational and economic interests of the weaker sections of the people, particularly of the Scheduled Castes and the Scheduled Tribes and also directs the state to protect them from social injustice and all forms of exploitation.

Environment Protection Act, 1986 (to be read with The Environment Protection Rules, 1986)

The Act applies to all areas where the project activities impact the local environment. The Environment (Protection) Act, 1986 authorises the central government to protect and improve environmental quality, control and reduce pollution from all sources, and prohibit or restrict the setting and /or operation of any industrial facility on environmental grounds. The Environment (Protection) Act was enacted in 1986 with the objective of providing for the protection and improvement of the environment. It empowers the Central Government to establish authorities charged with the mandate of preventing environmental pollution in all its forms and to tackle specific environmental problems that are peculiar to different parts of the country. The Act was last amended in 1991. The Environment (Protection) Rules lay down procedures for setting standards of emission or discharge of environmental pollutants. The objective of Hazardous Waste (Management and Handling) Rules, 1989 is to control the generation, collection, treatment, import, storage, and handling of hazardous waste. The Manufacture, Storage, and Import of Hazardous Rules define the terms used in this context, and sets up an authority to inspect, once a year, the industrial activity connected with hazardous chemicals and isolated storage facilities. The Manufacture, Use, Import, Export, and Storage of hazardous Microorganisms/Genetically Engineered Organisms or Cells Rules,1989 were introduced with a view to protect the environment, nature, and health, in connection with the application of gene technology and micro-organisms.

Environment Impact Assessment 2006

The schedule of the Act lists investment activities under two categories 'A' and 'B', including expansion of existing ones and sets up the State EIA Authority. All investment activities listed under 'A' require approval from the Expert Appraisal Committee of the Ministry of Environment, Forests and Climate Change. Together with The Environment Impact Assessment (EIA) Notification, 2006, it is the governing legal instrument to grant green clearance for the establishment or expansion of an industry on the basis of the potential environmental impact of the project.

EIA has now been made mandatory under the Environmental (Protection Act, 1986 for 29 categories of developmental activities involving investments of Rs. 50 crores and above.

EIA notification on Environment Clearances, 2009

It mandates that certain projects envisaged to be polluting for the environment have to seek prior approval from the Ministry of Environment and Forests to set-up the project. A list of projects along with the procedure required to be undertaken to seek the approval from Government is clearly delineated under the law.

Right to Information Act, 2005

Provides a practical regime of right to information for citizens to secure access to information under the control of Public Authorities. The act sets out (a) obligations of public authorities with respect to provision of information; (b) requires designating of a Public Information Officer; (c) process for any citizen to obtain information/disposal of request, etc. (d) provides for institutions such as Central Information Commission/State Information Commission

Protection of Women from Domestic Violence Act, 2005

The Act covers all women who may be mother, sister, wife, widow or partners living in a shared household. The relationship may be in the nature of marriage or adoption. In addition relationships with family members living together as a joint family are also included. The act covers physical abuse, sexual abuse, verbal and emotional abuse, and economic abuse.

Labour Laws: Currently, labour law in India is governed by about 30 pieces of federal legislation, along with a number of local and state laws depending on location. These laws were passed between 1926 and 2019 and cover topics including trade unions, child labour, sexual harassment, migrant work, wages and holidays. To address this matter, the central government of India has set out to rework and reform the country's labour law. In 2019 and 2020, the bulk of Indian employment law was consolidated into four main Codes:

- The Code on Wages
- The Occupational Safety, Health, and Working Conditions Code
- The Industrial Relations Code
- The Code on Social Security

These Codes have modernized and streamlined employment law in India, and they also impose significantly steeper fines for noncompliance.
A full list of relevant national legislation, policies and regulations governing EEE, electronic and other hazardous wastes, is provided in Annex 10 to the ProDoc.

International Agreements and Treaties

Of the nine core international human rights instruments, India has ratified:

- International Convention on the Elimination of Racial Discrimination (1968),
- International Covenant on Economic, Social and Cultural Rights (1979),
- Convention on the Elimination of Discrimination Against Women (193),
- Convention on the Rights of the Child (1992),
- Convention on the Rights of Persons with Disabilities (2007)

In addition, it has signed, but not yet ratified:

- Convention against Torture and Other Cruel, Inhuman or Degrading Treatment or Punishment (1997),
- Convention for the Protection of All Persons from Enforced Disappearance (2007)

India has not ratified or signed:

- Convention on the Protection of the Rights of All Migrant Workers and Members of Their Families
- International Covenant on Civil and Political Rights (1979),

Lack of ratification or signature does not necessarily imply that the provisions of these instruments are not reflected in law, either at the State or the Federal level.

India is party to the following Conventions:

- *Montreal Protocol*,
- *Minamata Convention*,
- *Basel Convention*,
- *Rotterdam Convention*
- *Stockholm Convention,*

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).

UNDP's Social and Environmental Standards

This ESMF has been prepared in line with UNDP's Social and Environmental Standards (SES), which came into effect on 1st January 2021. These standards underpin UNDP's commitment to mainstream social and environmental sustainability in its programmes and projects to support sustainable development. They provide a structure and guidance to ensure that these activities will actually promote benefits to the beneficiaries with respect to its objectives. Through the SES, UNDP meets the requirements of the GEF's Environmental and Social Safeguards Policy.

The objectives of the SES are to:

- Strengthen the social and environmental outcomes of programmes and projects
- Avoid adverse impacts to people and the environment
- Minimize, mitigate, and manage adverse impacts where avoidance is not possible
- Strengthen UNDP and partner capacities for managing social and environmental risks
- Ensure full and effective stakeholder engagement, including through a mechanism to respond to

complaints from project-affected people

The SES, outlined in Table 2, are an integral component of UNDP's quality assurance and risk management approach to programming. This includes the Social and Environmental Screening Procedure (see the completed SESP for the project in Annex 3 to project document).

Table 3: Key Elements of UNDPs Social and Environmental Standards (SES)

Overarching Policy	Project-Level Standards	Policy Delivery Process & Accountability
Overarching Principle: Leave No-One Behind **Principle:** Human Rights **Principle:** Gender Equality and Women's Empowerment **Principle:** Sustainability and Resilience **Principle:** Accountability	Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management Standard 2: Climate Change and Disaster Risks Standard 3: Community Health, Safety and Security Standard 4: Cultural Heritage Standard 5: Displacement and Resettlement Standard 6: Indigenous Peoples Standard 7: Labour and Working Conditions Standard 8: Pollution Prevention and Resource Efficiency	Quality Assurance Screening and Categorization Assessment and Management Stakeholder Engagement and Response Mechanism Access to Information Monitoring, Reporting, Compliance review

Projects are required to comply with both the Principles and Standards. Note that while the Standards require compliance, projects are required not simply to avoid breaching the Principles, but to proactively promote them in the course of a project's execution. Principles and Standards relevant to the project are outlined below.

Principle 1: Human Rights

UNDP recognizes the centrality of human rights to sustainable development, poverty alleviation and ensuring fair distribution of development opportunities and benefits and is committed to supporting "universal respect for, and observance of, human rights and fundamental freedoms for all." UNDP adheres to the United Nations Development Group (UNDG) Statement of Common Understanding of the Human Rights-Based Approach to Development Cooperation and Programming (UN Common Understanding) which outlines that development programmes and policies should further the realization of human rights as laid down in the Universal Declaration of Human Rights and other human rights instruments. UNDP also recognizes the human rights-based approach as a key engagement principle in pursuing development outcomes. In furthering the realization of rights, UNDP shall both refrain from providing support for activities that may contribute to violations of a State's human rights obligations and the core international human rights treaties and seek to support the protection and

fulfilment of human rights. In its Programmes and Projects, UNDP will uphold the principles of accountability and the rule of law, participation and inclusion, and equality and non-discrimination, noting that prohibited grounds of discrimination include race, ethnicity, gender, age, language, disability, sexual orientation, religion, political or other opinion, national or social or geographical origin, property, birth or other status including as an indigenous person or as a member of a minority. UNDP will also ensure the meaningful, effective and informed participation of stakeholders in the formulation, implementation, monitoring and evaluation of Programmes and Projects. UNDP seeks to support State efforts to meet their human rights obligations as requested, however, UNDP does not have a monitoring role with respect to human rights. In the context of UNDP Programmes and Projects, UNDP's due diligence obligations require UNDP to monitor compliance with its policies.

Principle 2: Gender Equality & Women's Empowerment

The promotion of gender equality and the empowerment of women are central to the mandate of UNDP and intrinsic to its human rights-based approach to development programming. This effort includes advocating for women's and girls' human rights, combating discriminatory practices, and challenging the roles and stereotypes that create inequalities and exclusion. UNDP Programmes and Projects will be gender-responsive in their design and implementation. UNDP will seek to identify and integrate the different needs, constraints, contributions and priorities of women, men, girls and boys into its programming. UNDP Programmes and Projects will promote gender equality and the empowerment of women. UNDP will seek to reduce gender inequalities in access to and control over resources and the benefits of development. Programmes and Projects will ensure that both women and men are able to participate meaningfully and equitably, have equitable access to programme and project resources, and receive comparable social and economic benefits. UNDP will ensure that its programmes and projects do not discriminate against women or girls or reinforce gender-based discrimination and/or inequalities.

Principle 3: Sustainability and Resilience

Sustainable management, protection, conservation, maintenance and rehabilitation of natural habitats and their associated biodiversity and ecosystem functions are fundamental to UNDP's efforts to develop and implement sustainable development pathways. UNDP seeks to address poverty and inequality while maintaining and enhancing natural capital. Sustainable management, protection, conservation, maintenance and rehabilitation of natural habitats and their associated biodiversity and ecosystem functions are fundamental to UNDP's efforts to develop and implement sustainable development pathways. UNDP seeks to address poverty and inequality while maintaining and enhancing natural capital. UNDP will ensure that environmental sustainability is systematically mainstreamed into its Programmes and Projects. In designing development cooperation activities, UNDP will seek to support Programme Countries and Implementing Partners to address the environmental dimensions (both opportunities and constraints) of major development issues and to strengthen environmental management and protection. UNDP uses and promotes a precautionary approach (17) to natural resource conservation and reviews its development cooperation activities to ensure they do not cause negative environmental effects. UNDP requires the application of relevant social and environmental standards to avoid adverse environmental impacts, or where avoidance is not possible, to minimise, mitigate, and as a last resort, offset and compensate for potential residual adverse impacts. UNDP will

assist Programme Countries and Implementing Partners to integrate low-emission, climate-resilient objectives into national and sectoral development plans and will ensure that supported Programmes and Projects enhance climate resiliency and avoid unwarranted increases in greenhouse gas (GHG) emissions, instead enhancing efficiency and reducing GHG intensity.

Principle 4: Accountability

UNDP does not support activities that do not comply with national law and obligations under international law, whichever is the higher standard (hereinafter "Applicable Law"). UNDP promotes accountability to programme and project stakeholders by (i) enabling active local community engagement and participation in decision-making, particularly those at risk of being left behind; (ii) ensuring transparency of programming interventions through provision of timely, accessible and functional information regarding supported activities, including on potential environmental and social risks and impacts and management measures; (iii) ensuring stakeholders can communicate their concerns and have access to rights-compatible complaints redress processes and mechanisms; and (iv) ensuring effective monitoring—and where appropriate, participatory monitoring with stakeholders—and reporting on implementation of social and environmental risk management measures. UNDP's SES are underpinned by an Accountability Mechanism with two key components: (i) the Stakeholder Response Mechanism (SRM) that ensures individuals, peoples, and communities affected by projects have access to appropriate grievance resolution procedures for hearing and jointly addressing complaints and disputes related to the social and/or environmental impacts of UNDP-supported projects; and (ii) the Social and Environmental Compliance Unit (SECU) which investigates alleged non-compliance with UNDP's Social and Environmental Standards and screening procedure from project-affected stakeholders and recommends measures to address findings of non-compliance.

Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management

Conserving biodiversity, maintaining ecosystem services, and sustainably managing natural resources are fundamental to sustainable development. UNDP seeks to maintain and enhance the goods and services provided by biodiversity and ecosystems in order to secure livelihoods, food, water and health, enhance resilience, conserve threatened species and their habitats, and increase carbon storage and sequestration.

UNDP is committed to integrating biodiversity and ecosystem management into development planning and production sector activities, strengthening protected areas systems, and managing and rehabilitating ecosystems for adaptation to and mitigation of climate change. UNDP seeks to strengthen effective governance and decision-making systems affecting biodiversity and ecosystems, including strengthening the rights of affected populations including women, indigenous peoples and local communities to sustainable use of resources.

This Standard reflects the objectives of the Convention on Biological Diversity, including the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the use of genetic resources. UNDP promotes an ecosystem approach to biodiversity conservation and sustainable management of natural resources.

Standard 2: Climate Change Mitigation and Disaster risks

Climate change is a fundamental threat to sustainable development and the fight against poverty. It has the potential to stall and even reverse human development through its impacts on key development sectors and activities, including agriculture and food production, water, ecosystems and other natural resources, disaster risk management and health. Climate change may exacerbate extreme weather events, increasing the risk of high-impact disasters. Communities that are already subjected to impacts from climate change may experience an acceleration and/or intensification of impacts due to Project activities that do not integrate and anticipate climate change risks.

UNDP supports countries to integrate low-emission, climate-resilient objectives into national and sectoral development plans, identify priority mitigation and adaptation measures, implement measures to reduce vulnerability and increase adaptive capacity and resilience.

UNDP will ensure that its Projects are sensitive to climate change risks and do not contribute to increased vulnerability to climate change. UNDP mobilises resources to support Programme countries to finance their national adaptation costs.

UNDP strengthens the participation of women in decision-making processes on climate adaptation, mitigation and disaster risk reduction. UNDP supports countries to ensure that disaster risk reduction, climate mitigation and adaptation programmes specifically support women to strengthen their resilience, in part by securing rights and tenure to land, housing and other assets.

Standard 3: Community Health, Safety and Security.

The Community Health and Safety Standard recognizes that project activities, equipment, and infrastructure can increase community exposure to risks and impacts. Potential negative impacts affecting health and safety may arise from a broad range of supported activities, including from infrastructure development and construction activities, changes in the nature and volume of traffic and transportation, water and sanitation issues, use and management of hazardous materials and chemicals, impacts on natural resources and ecosystems, the influx of project labour, and potential abuses by security personnel. This Standard addresses the need to avoid or minimize the risks and impacts to community health, safety and security that may arise from project-related activities, with particular attention given to disadvantaged and marginalized groups. Measures to ensure occupational health and safety issues are addressed in Standard 7: Labour and Working Conditions.

Standard 4: Cultural Heritage.

UNDP seeks to ensure that Cultural Heritage is preserved, protected and promoted in project activities in a manner consistent with UNESCO Cultural Heritage conventions or any other national or international legal instruments that might have a bearing on the use of Cultural Heritage. Cultural Heritage resources are often unique and irreplaceable, and may be particularly fragile due to neglect, exploitation, or even destruction given their symbolism. Cultural Heritage serves a crucial role within the sustainable development process through enhancing social cohesion, diversity, well-being and the quality of life; supporting cultural rights by protecting the heritage of minority and indigenous groups; fostering socio-economic regeneration; enhancing the appeal and creativity of cities and regions; boosting long-term tourism benefits; and enhancing sustainable practices.

Standard 5: Displacement and Resettlement

UNDP will seek to avoid physical and economic displacement in its Projects. In exceptional circumstances and where avoidance is not possible, displacement may occur only with full justification, appropriate forms of legal protection and compensation, and according to the following requirements.

Activities that involve physical and economic displacement, including through land acquisition or restrictions on land use or access to resources, pose impoverishment risks. Potential impacts may include loss of livelihoods, homelessness, food insecurity, and other adverse impacts. These impacts may lead to social unrest and political instability.

Standard 6: Indigenous Peoples

Indigenous peoples, as distinct people, are equal to all other peoples. Indigenous individuals and indigenous peoples or communities are entitled to enjoy and exercise their human rights without discrimination. Indigenous peoples possess collective human rights which are indispensable for their existence, well-being and development as peoples. The special relationship that indigenous peoples have with their lands, resources, and territories is integral to their physical, spiritual and cultural survival. The promotion and protection of the rights of indigenous peoples, especially concerning their lands, territories, traditional livelihoods, cultures and resources, are necessary to achieve UNDP's goals of advancing human rights, respecting indigenous peoples' identities and improving their well-being.

Standard 7: Labour and Working Conditions

The pursuit of inclusive and sustainable economic growth, full and productive employment and decent work for all requires the protection of workers' fundamental rights, their fair treatment, and the provision of safe and healthy working conditions. Project activities seek to enhance employment promotion benefits, development outcomes and sustainability by ensuring sound worker- management relationships and cooperation in their design and implementation. The SES requirements have been guided by a number of international conventions and instruments, including those of the International Labour Organization (ILO) and the United Nations (UN).

Standard 8: Pollution Prevention and Resource Efficiency

The Pollution Prevention and Resource Efficiency Standard recognizes that increased industrial activity, urbanisation, and intensive agricultural development often generate increased levels of pollution (78) to air, water, and land, and consume finite resources in a manner that may threaten people and the environment at the local, regional, and global level. Pollution prevention and resource efficiency are core elements of a sustainable development agenda and UNDP Projects must meet good international practice in this regard.

The Standard outlines a project-level approach to pollution prevention and resource efficiency. Reduction of greenhouse gas emissions that contribute to climate change is addressed in Standard 2: Climate Change Mitigation and Adaptation.

The Standards are underpinned by an Accountability Mechanism with two key functions:

1) A Stakeholder Response Mechanism (SRM) that ensures individuals, peoples, and communities affected by UNDP projects have access to appropriate procedures for hearing and addressing project-related grievances; and
2) A Compliance Review process to respond to claims that UNDP is not in compliance with UNDP's social and environmental policies.

UNDP uses its Social and Environmental Screening Procedure (SESP, Annex 3 to the Prodoc), to identify potential social and environmental risks and opportunities associated with all 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.

Project activities that will be completed under project co-financing as parallel interventions, are subject to the cofinancers' own Safeguards policies, but UNDP is responsible for monitoring due diligence and addressing any gaps and concerns if they would affect the project.
Under the SESP, risks are rated according to their foreseen adverse impacts. Using a matrix based on a risk's impact and its likelihood of occurrence, each risk is categorized as either High, Substantial, Moderate or Low, and an overall risk rating is assigned to the project, with the overall risk category being taken from the most severe of the individual risks identified. The categories are:
High Risk: is defined by UNDP's SES[33] as "Projects that include activities with potential significant adverse social and environmental risks and impacts that are irreversible, unprecedented and/or which raise significant concerns among potentially affected communities and individuals as expressed during the stakeholder engagement process. High Risk activities may involve significant adverse impacts on physical, biological, socioeconomic, or cultural resources, and may have the potential to aggravate existing situations of fragility or conflict, adversely affect human rights, lead to extensive environmental degradation and/or contribute to cumulative impacts."
Substantial Risk: is defined as "Projects that include activities with potential adverse social and environmental risks and impacts that are more varied or complex than those of Moderate Risk projects but remain limited in scale and are of lesser magnitude than those of High Risk projects (e.g. reversible, predictable, smaller footprint, less risk of cumulative impacts). Substantial Risk projects may also include those with a varied range of risks rated as "Moderate" that require more extensive assessment and management measures. Scoping and assessment may determine that a scoped, fit-for-purpose Environmental and Social Impact Assessment (ESIA) or Strategic Environmental and Social Assessment (SESA) may be required in order to ensure that the SES requirements are appropriately addressed."
Moderate Risk: is defined by UNDP's SES as "Projects that include activities with potential adverse social and environmental risks and impacts that are limited in scale, can be identified with a reasonable degree of certainty, and can be addressed through application of standard best practice, mitigation measures and stakeholder engagement during Project implementation. Moderate Risk projects range from those with very few, well-understood social and environmental risks and impacts to those where

[33] UNDP SES, page 47.

the full extent of the limited impacts is unclear and further assessment and management planning is required."

Low Risk: "Projects that include activities with minimal or no adverse social or environmental risks and impacts. Further assessment of potential adverse social and environmental risks and impacts is not required. However, the SES Programming Principles and stakeholder engagement requirements still apply to project activities."

Gaps in policy framework

The incorporation of the Principles of Strategic Environmental and Social Assessment (see SECTION 4.3 below) will include analysis of the legal and policy frameworks that apply to the project, identifying gaps and strategies to enable the project's activities to operate with and alongside national and local jurisdictional realms.

At this stage, no gaps have been identified.

Potential Social and Environmental Impacts

During the PPG phase, the UNDP SESP was used to identify potential social and environmental risks and positive impacts associated with this Project. The project was scrutinized as to its type, location, scale, sensitivity and the magnitude of its potential social and environmental impacts. All project activities were screened, including planning support, policy advice, and capacity-building, and site-specific, physical interventions. The screening highlighted the project intentions as they related to mainstreaming human rights, gender equality and women's empowerment, accountability and environment sustainability.

Social and Environmental Benefits

The proposed project aims to promote circular economy principles in the e-waste sector, improving practices throughout the e-waste value chain, deploying pollution prevention measures, improving resource use, and reducing releases into the environment of POPs, UPOPs and heavy metals in processing. In particular, it will promote cleaner, more efficient recycling of EEE at the end of life, and introduce infrastructures and technologies to reduce the use of hazardous substances and improve EEE design and manufacturing to facilitate both clean recycling and improved product sustainability. E-waste recycling in India is currently carried out in large part in the informal sector, with damaging environmental effects as well as health consequences on informal male and female collectors and recyclers, and other workers along the value chain. The project will provide direct benefits to workers through a gender-responsive approach, working in close coordination with key stakeholders, contributing to the adoption of sustainable policies and piloting fiscal/financial incentives to encouraging waste prevention and circularity of materials in line with a circular economy.

Social and Environmental Risks

The SESP identified 9 risks for this project that could have potential negative impacts in the absence of appropriate safeguards measures (i.e. the risks are identified and assessed based on inherent, pre-mitigation values).

The following risks were identified in the screening process, and identified as being of Moderate significance.

Risk 1: Improper handling, transport, storage and processing of e-waste could lead to accidental spillages and potential leakages and emissions of mercury, POPs and other heavy metals and plastics,

potentially impacting project workers, local populations, and surrounding areas. This risk applies particularly to schemes for e-waste collection and BEP, the Centre of Excellence for outreach to informal recyclers and demonstrations of BEP under Output 2.4, Activity 2.5.3 for the safe handling of spent lithium-ion batteries, Processing units for PBDEs, metals, and valuable materials extraction under Activities 3.2.1 and 3.4.4 and the pilot project with schools under Output 2.3. Principles and Standards triggered are: Gender Equality and Women's Empowerment; Accountability; Standards 1, 3, 7 and 8.

Risk 2. "Upstream" policy level work on the e-waste baseline, assessments of environmental externalities, and the impacts of informal sector recycling under Component 1, may be conducted without due attention to the particular impacts on women, vulnerable groups and informal sector workers, leading to their interests being marginalized or ignored. This may also be reflected in the national-level business blueprint for recycling in India, under Activity 1.7.1. The development of "upstream" policy that does not take into account the particular needs of women and vulnerable groups, can result in downstream impacts. The following Principles and Standards are triggered: Human Rights; Gender Equality and Women's Empowerment; Sustainability and Resilience; Standards 7 and 8.

Risk 3: Risk of exclusion of women, informal sector and marginalized groups from fully participating in decisions affecting them, and access to grievance mechanisms and consequent risk of inequitable or discriminatory impacts on affected populations. Additionally, there is a risk of adverse impacts on gender equality, reproducing gender-based discriminations against women based on gender, especially regarding participation in design and implementation or access to opportunities and benefits.

E-waste management is undertaken mostly by the informal sector in an environmentally unsound manner. A high proportion (if not the majority) of the workforce are women, particularly those involved in waste separation, the sorting of PCB components, and the dismantling of electronic equipment. Women represent a significant portion of the informal workforce and are directly exposed to some harmful substances that are released in this process. As women and children are most vulnerable to pollution from e-waste and e-waste processing, the participation of women in the decision-making process and in the project activities is critical for its success. These risks relate particularly to: Human Rights; Gender Equality and Women's Empowerment; Accountability; Standard 7.

Risk 5: Workers at partner facilities may be exposed to working conditions that contravene national labour standards, principles and standards of ILO fundamental conventions, or UNDP SES. In India, much of the activity in e-waste recycling takes place in the informal sector where labour standards and labour laws are not applied, or in legal, registered establishments where the enforcement of labour standards, and safeguards for workers' rights, may not be applied. Principles and Standards triggered: Human Rights; Accountability; Gender and Women's Empowerment; Standard 7.

Risk 8. Potential exists for a risk of flooding or structural damage to recycling / temporary e-waste and storage facilities, due to susceptibility to weather or other natural events, which could expose local communities and workers at the facility to safety hazards. Standard 2 is triggered.

Risk 9. A potential risk exists to workers' incomes and opportunities, particularly women and marginalized communities, in the course of the transition from informal to formal sector and the implementation of BAT/BEP for recycling practices. Some Best Available Technologies tested by the project, such as the mechanized removal of electronic components from printed circuit boards, may

result in a phasing-in of automated technologies to improve recycling processes. This has the potential to reduce employment in the informal sector, albeit while simultaneously creating new job opportunities. Standard 5 is triggered.

In addition, the following risks were identified and rated as "Low", due to either their limited adverse impacts, or the low likelihood of their occurrence. As "Low" rated impacts, they do not in themselves "trigger" UNDP Principles and Standards, but are managed through standard good project management means. They are nonetheless flagged as issues to be aware of, and to include in on-going project monitoring.

Risk 4: Duty-bearers (e.g. sub-national government Officers) may not be equipped/capacitated to fulfill their roles within the project outcomes. The E-waste Rules (2022) assign responsibility to the Federal government. However, e-waste management and transport are regulated by State Governments. This Risk is expected to be fully addressed by Project Design: the project will include targeted capacity-building and awareness activities to support the full deployment of guidelines designed by project so these can be used, and enforced, by the duty-bearers.

Risk 6: There could be safety risks to local communities from accidental incidents at pilot projects. This risk is addressed by project design and can be complemented, if needed, by additional Targeted Assessment/Targeted Management Plans.

Risk 7: Increased consumption of resources (and GHG emission) and other emissions due to migration from informal to formal recycling activities. An increase in the use of mechanical PCB separation methods, could result in slightly higher emissions than manual processes. However, emissions from mechanization would be more than offset by reduced CO2 emissions resulting from improvements in final waste and disposal practices. During project implementation, GHG emissions data will be collected and monitored to ascertain the emissions balance, as the new BAT/BEP processes, though expected to be mechanized at a certain extent, still can result in negative net emissions if compared to current baseline recycling methods utilized by the informal sector.

Social and Environmental Principles and Standards Triggered

A Principle or Standard is 'triggered' when a potential risk is identified under a particular Principle or Standard using the SESP checklist, and assessed as having either a 'Moderate', 'Substantial' or 'High' risk rating based on its likelihood of occurrence and degree of impact. Risks that are assessed as 'Low' do not trigger the related principle or standard.

Nine of the Principles and Standards are triggered due to potential impacts rated as 'Moderate'. They are:

- Principle: Human Rights
- Principle: Gender Equality and Women's Empowerment
- Principle: Accountability
- Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management
- Standard 2: Climate Change and Disaster Risks
- Standard 3: Community Health, Safety and Working Conditions
- Standard 5: Displacement and Resettlement
- Standard 7: Labour and Working Conditions

- Standard 8: Pollution Prevention and Resource Efficiency

Full details on the risks and categorizations is contained in the SESP Template, which is attached as Annex 3 to the prodoc. A summary of the risk significance under each SES principle and standard, and the project-level safeguard standards triggered by each project is shown in the Table below:

Table 4: Summary of safeguards triggered based on screening conducted during project preparation

Overarching Principle / Project-level Standard	Risk rating	Risk Nos
Principle: Human Rights	✓ Moderate	2,3,5
Principle: Gender Equality and Women's Empowerment	✓ Moderate	1,2,3,5
Principle: Accountability	✓ Moderate	1,3,5
Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management	✓ Moderate	1
Standard 2: Climate Change and Disaster Risks	✓ Moderate	8
Standard 3: Community Health, Safety and Security	✓ Moderate	1
Standard 5: Displacement and Resettlement	Moderate	9
Standard 7: Labour and Working Conditions	✓ Moderate	1,2,3,5
Standard 8: Pollution Prevention and Resource Efficiency	✓ Moderate	1,2
Number of risks in each risk rating category:		
High	0	
Substantial	0	
Moderate	6	
Low	3	
Total number of project risks	9	
Overall Project Risk Categorization	Moderate	
Number of safeguard standards triggered	9	

Risks Avoided Through Project Design

Standard 1: The project does not involve activities related to biodiversity conservation, wildlife management or genetic resources, thus standards 1.2 to 1.6 and from 1.8 to 1.14 were not triggered.

Standard 2: The project won't carry on activities in areas subject to earthquakes, floods, landslides, etc., nor will it exacerbate vulnerability to climate change. This factor will be specifically assessed during the selection process for sites and activities, as part of the site- and activity-specific SESP screening. A risk of Increased consumption of resources and GHG emission, and other emissions due to migration from informal to formal recycling activities was identified. It was, however, rated as "Low", hence the Standard is not triggered.

Standard 4: demonstration activities will be limited to retrofitting of existing formal sector facilities, and one Centre of Excellence may be constructed or expanded in an already legalized established recycling establishment, under the auspices of the MoEF&CC. No influx of workers is expected in the targeted sites. Standard 4 was not triggered.

Standard 5: Pilot projects will take place in legalized locations and within already built baseline facilities, and the project will not claim any land. There is no risk of 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. One risk relating to Standard 5 was noted, that as BAT technologies become more common, some workers currently employed in the manual separation of PCBs may move to other occupations in the sector. The project contains an exclusion clause prohibiting any activity which would require land take, physical displacement, or significant economic displacement.

Standard 6: Project activities are envisaged as being within urban areas, and the project will not impact any land claimed by groups that fit the definition of "Indigenous Peoples" under Standard 6. The project contains a specific exclusion clause stating that no activities will take place in any such areas.

Standard 8: India is party to the *Montreal Protocol*, *Minamata Convention*, *Basel Convention*, *Rotterdam Convention* and *Stockholm Convention*, 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 will not use any alternative technology that is controlled by these Convention, therefore Standards 8.4 and 8.5 were not triggered. 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 uncontrolled international movement of hazardous substances nor wastes.

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

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 with the SESP template during project preparation. Based on the project risk categorization assigned to the project and its specific risks, the following procedures for screening, assessing and managing those risks must be undertaken during the project implementation.

This work will commence prior to the start of any associated project activity such that the activity will not start before the associated assessment has been undertaken and management plans are in place. These are described in the sections below along with the relevant activity.

Guiding Principles

The project will follow UNDP's requirements and procedures for screening, assessment, and management according to its Moderate Risk project categorization. The following principles will guide the procedures:

- **Mitigation Hierarchy:** the project will first seek to avoid potential adverse impacts, then minimize them; where impacts remain, it will then apply mitigation measures; the offset of impacts that have not been mitigated will be used as a last resort.
- **Precautionary Principle:** the lack of full scientific certainty shall not be used as a reason for postponing measures to prevent serious threats.
- **Direct, indirect, and cumulative impacts:** the project will consider all relevant impacts, not just in the immediate project areas but also in the project's area of influence; it will also consider cumulative impacts from the project or from other relevant past, present, and reasonably foreseeable developments in the geographic areas.
- **Polluter pays:** the cost of mitigation is borne by the agent causing the damage.

Overview

The SESP conducted during project preparation identified two broad groups of risks: those related to "downstream" activities, i.e. those with a physical footprint and; those related to "upstream" work, and the production of policies, plans and programmes without any specified physical footprint. Both require different approaches:

(i) "**Upstream" risks**, associated with project activities which do not have a physical footprint, such as those involving planning support, policy advice and reform, training and capacity building. These are primarily Component 1 activities, detailed in the SESP under Risk 2; and

(ii) Risks from **"downstream" field** activities, i.e. activities with a physical footprint.

Upstream risks will be addressed via project design and the integration of the Principals of Strategic Environmental and Social Assessment (SESA) for relevant upstream activities. Activities with a physical footprint and potential downstream impacts will be assessed via conducting on-site, activity-specific screening, and where required, via appropriately scoped, additional targeted assessments, leading to the development of site-specific Environmental and Social Management Plans.

Applying Strategic Environmental and Social Assessment Principles for "Upstream" Strategy and Plans

In Risk 2, the SESP identified a possibility that upstream policy work under Component 1 may not take full account of the impacts of informal recycling on women, vulnerable groups, and marginalized informal sector workers, leading to their interests being given insufficient priority. This risk relates particularly to the following activities:

1.1.1 Establish a CE baseline among EEE OEMs/producers in India via primary data collection by using established indicators.

1.2.2 Conduct a study to estimate the cost burden of e-waste management and adoption of BAT/BEPs on different stakeholders (producers, recyclers, manufacturers, refurbishers).

1.2.3 Conduct a socio-environmental and gender assessment of the impact of informal recycling, its nature of operation, collection network, modus operandi and identifying informal hubs in the country.

1.2.4 Undertake a Material Flow Analysis (MFA) to map the life cycle of the 106 EEE included in the e-waste management rules and assess the emissions of POPs, U-POPs, and hazardous metals.

1.3.1 Develop guidelines/SOPs for sub-national (state and city-level) e-waste inventory development, management and enforcement.

1.3.2 Conduct a feasibility study to extend the scope of the EPR certificate regime beyond the 4 key metals (Gold, Aluminum, Copper, Iron).

1.4.1 Develop an SOP to streamline and effectively implement the auditing of e-waste recycling facilities in accordance to the E-waste management rules provisions with insights from global waste audit certifications.

1.6.2 Develop a strategy and provide recommendations to facilitate adoption of the new Ecomark rules, 2024 for each EEE category along with identification of replicable BEPs in the Indian context.

1.7.1 Based on the assessed existing business models, at its different stages, a first prototype of and "ideal" business model is to be developed.

The risk is partly managed through project design. Component 1 includes a full survey and costing of the externalities associated with recycling, encompassing both the formal and informal sectors, and with specific gender-related aspects. Activity 1.2.3 consists of a comprehensive socio-environmental and gender assessment of the impact of informal e-waste recycling, a sector dominated by marginalized groups who are most affected by the informal industry. The Material Flow Analysis under Activity 1.2.4 will specifically track emissions, losses, and associated wastes of all POPs, UPOPs, PBDEs, hazardous metals and restricted substances associated with e-waste, and quantify and assess their environmental and health impacts, and seek practical and effective methods of managing them in accordance with Best Environmental Practice, identifying the locations, and types of communities that might be affected, whilst Activity 3.3.2 is specifically targeted at the interests of women working in the e-waste sector.

Additionally, it is necessary to ensure that as these plans, policies and procedures are developed, they are formulated in accordance with SES requirements. This is to be achieved by the incorporation of the principles of Strategic Environmental and Social Assessment (SESA) which will be applied during development of the above activities.

Terms of Reference for the development of the activities will be formulated that build-in the requirements of the Principles and Standards to ensure that the risk is addressed in the Operating Procedures, Guidelines, and the Circular Economy Blueprint developed under the Project. In particular, applying SESA principles will ensure that economic impacts on marginalized groups and informal waste networks are taken into consideration while developing the strategy and plans.

The project Social and Environmental Safeguards Officer will ensure that the policies, procedures and plans are developed in accordance with UNDP's SES Policy, by the inclusion in the Terms of Reference issued for the development of these plans, a requirement that they:

1. Identify critical social and environmental priorities to be included in planning and policy processes.
2. Identify potential adverse social and environmental impacts associated with policy options and guidelines.
3. Assess any gaps in the institutional, policy, and legal frameworks to address priorities, in particular gaps between national or state legal requirements and the UNDP Standards and

Principles.

4. Analyze individual and cumulative impacts of interventions proposed within the strategy, plan or guideline.
5. Participate in multicriteria decision making process (technical/economic/environmental/social) for analysis of alternative activities.
6. Recommend mitigation and enhancement measures - both for the proposed activities as well as wider/flanking measures to be integrated into the proposed recycling methodologies and activities to maximize their environmental and social benefits and reduce their adverse impacts.
7. Engage decision makers and stakeholders to ensure a common understanding and broad support for implementation.

SESA principles will be reflected in all the Upstream project components, as they will inform project outputs and outcomes, and future replication of BEP, in particular the SOPs and Guidelines under Activity 1.3.1, the guidelines for Indian laboratories under Activity 1.5.1, and are also reflected in the blueprint produced under 1.7.1.

Application of SESA principles must ensure that economic impacts on marginalized groups and informal waste networks are taken into consideration when developing the strategy and plans. The work will inform policy and institutional measures needed to close policy and legal gaps, address institutional weaknesses, avoid adverse social and environmental impacts, and ensure that the interests of informal sector workers, particularly women and marginalized groups, are fully reflected.

The Project Social and Environmental Safeguards Officer will be responsible for ensuring that the UNDP Principles and Standards are reflected, and risks of non-compliance are addressed, in the upstream project components. The critical social and environmental priorities identified, and the identified means to address them, will further inform the activities undertaken in the project.

Screening, Assessment and Management for "Downstream" Project Activities

"Downstream" activities are defined as project activities which have a physical footprint and specific project sites of operation. As such, these are activities in which instances of direct non-compliance with the SES could potentially occur if risks are not adequately managed. They include:

Output 2.1: Piloting eco-design with two OEMs. Relevant activities include the selection of OEMs the project will work with, and the design and implementation of inputs/materials/chemicals reduction measures piloted.

Output 2.2: At least two (2) pilot projects for replacement/rebate models of used EEE developed with manufacturers (OEMs) and/or large retailers to support strengthening of EPR schemes. Activities include the selection of OEMs/Producers and the implementation of the pilot projects.

Output 2.3: Design and operate an offsetting model and implementing pilot schemes with schools/universities or youth communities, in partnership with a CSO or SME. Key risks to be managed are the selection of partners – both OEMs and the CSO or SME that will operate the model, and health, safety, environmental, social and gender considerations.

Output 2.4: Three schemes for e-waste collection and BEP for upgrading processing facilities, in partnership with small aggregators or upgrading processing facilities. The project will work directly with micro or small aggregators/disassemblers/recyclers on pilot projects, introducing BAT/BEP in e-waste management.

Output 2.5: Selection and engagement of aggregators/disassemblers/recyclers for pilot projects, and implementation of a pilot project for safe handling of lithium-ion scrap batteries management pilot, linked to upstream electric car production.
Output 3.2: Design, procurement and start-up a pilot processing unit for metal extraction from e-waste, with a processing unit tested and put into operation. The project will work with an existing entity in the start-up, and will test and put into operation a processing unit for metal and valuable material extraction.
Output 3.4 Selection of partner, and design, procure and start-up a processing unit for PBDEs and/or other POPs, with a processing unit tested and put into operation. A partnership is to be established with a large collector/aggregator for a pilot project to process and remove PBDE from e-waste plastics in one site.
Risks associated with these activities will be managed by project design, and by a process of screening, assessment, and management, as described below.

Screening

While the nature of the pilot projects is broadly established, site-specific activities and exact locations of physical footprints for on-the-ground activities have not been specified at the present stage of project development. The SESP applied during project preparation, has therefore been conducted on the basis of the broad scope of project activities envisaged, and the allocated significance for each identified risk is based on an initial screening and a precautionary approach.
The relevance of the currently identified risks may vary across sites, and the significance or likelihood of the risks or impacts identified by the current SESP will not necessarily be uniform across at all locations. Further screening on a site-specific basis is required to identify risks' site-specific significance, and to effectively target any required additional impact assessment or management.
As partners, sites, and activities are proposed or specified, additional on-site screening with the SESP, adapted where appropriate, will be undertaken. Risks identified will inform the choice of site, activity, and partner selection.
Proposed locations, and project activities specific to those locations will be defined during the first year of the project, and such screening will inform the final selection of intervention sites. Once the initial project activities are fully specified and exact locations selected, further on-site screening will be required, using the SESP to ground-truth and update the existing SESP, and to determine whether additional social and environmental impacts may be present that may require further assessment and management.
Note also that individual sites and proposed project activities may present additional risks not currently identified, and screening should therefore assess all possible risks, not merely verify those currently identified by the screening during the PPG phase.
Over the course of the project, further project activities may be proposed. Any additional proposed activities will be subject to screening using a clean SESP template, impacts identified and categorized. Further adverse impacts will, as they are formulated, be subject to further study and stakeholder consultation to identify, and where possible quantify, the magnitude and severity of the impacts on the individuals/ communities affected. Measures to avoid, minimize, mitigate, or manage the impacts will be developed and implemented.
Site- and activity-specific SESPs will inform the final selection of activities, partnerships and locations. The current project rating as "Moderate" is based on the highest-rated impact currently foreseen. Should an onsite SESP indicate an impact as "Substantial" or "High", the project as a whole will require re-classification. It is therefore highly recommended that the project does not proceed with any

activities classified as "Substantial" or "High", unless absolutely necessary. Procedures for Assessment and Management, outlined below, assume that the project impact classification remains "Moderate".

Screening will be the responsibility of the PMU and the Safeguards Officer.

Assessment:

On-site, activity-specific SESP screenings will determine if and where additional assessment is required, what level of assessment is appropriate, and how it should be targeted, based on the proposed activity and the specific location. As a Moderate impact project, site-specific forms of targeted Environmental and Social Impact Assessment, scoped to identified impacts and commensurate with the level of impact envisaged, may be appropriate. Targeted assessment for the downstream activities will assess pollution risks including impacts on natural resources and community health, occupational health and safety risks and the vulnerability of the facilities to natural disasters. The targeted assessment will also include a due diligence of all the enterprises participating in the demonstration activities to ensure that working conditions there align with national legislation and ILO standards.

Requirements for additional targeted activity-specific assessment will be determined by the SESP screenings detailed above, and will be commensurate with the magnitude of the envisaged risk(s), and scoped specifically at the risks identified, especially considering risks to poor, vulnerable or marginalized communities and individuals. Full stakeholder consultation will be required at all stages.

Management

Environmental and Social Management Plans (ESMPs)

The project will create Scoped/Targeted (site-specific) Environmental and Social Management Plans for each downstream site, which will be informed by the updated SESP and any subsequent Targeted Assessments. The Plans 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.
- 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.
- Identify and engage site-specific stakeholders, and present plans for stakeholder engagement during implementation of management measures.
- Contain actions to implement mitigation measures for each identified risk and impact.
- A monitoring and reporting plan.
- Provide a summary of any identified adverse social and environmental impacts and any residual risks remaining after impact avoidance/mitigation/minimization.
- Where appropriate, detail capacity development and training.

- Defined roles and responsibilities for implementation.

Impact management 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, in conjunction with stakeholders, to reduce, minimize, mitigate or manage those impacts.

Where appropriate, ESMPs will include sub-plans for specific risks, such as:

- Scoped/Targeted (site-specific) Impact Assessment for chemicals disposal
- Spill Prevention and Management Plan (SPMP)
- Pollution Prevention and Management Plan
- Occupational Health and Safety Plan.
- Application of International Standards for Hazardous Substances Packing, Transport and Disposal
- Guidelines on best available techniques and provisional guidance on best environmental practices relevant to Article 5 and Annex C of the Stockholm Convention on Persistent Organic Pollutants
- Updated general technical guidelines for the environmentally sound management of wastes consisting of, containing or contaminated with persistent organic pollutants (POPs) of the Basel Convention
- Guidelines for adherence to the Rotterdam Convention on the Prior Informed Consent (PIC) Procedure for Certain Hazardous Chemicals and Pesticides in International Trade

Each ESMP will be dynamic and will require amending if and as new project activities are identified, screened, and assessed in accordance with the procedures described. Additional required mitigation and impact management measures must be integrated into management plans, and in some cases may require, or benefit from, input from the Project Gender Specialist.

The measures in the site-specific ESMPs may include adjustments to the design of the activities, to avoid risks where necessary and appropriate (in line with the SES). Risks that cannot be avoided will be minimized or reduced, and if not possible, compensated in line with the mitigation hierarchy adopted by UNDP SES. The site-specific ESMPs will include oversight, monitoring and reporting related to the identified risks and implementation of agreed management measures, and also include any required sub-plans such as a Pollution Prevention and Management Plan, Occupational Health and Safety Plan, or Spill Prevention and Management Plan.

Project-affected stakeholders will be consulted on the scope and parameters of the assessment processes and their findings, including proposed mitigation and management measures. It will be necessary to undertake targeted consultations to ensure that marginalized or disadvantaged groups and individuals affected by the project have the opportunity to participate.

Assessment reports and adoption of appropriate mitigation plans/measures will be completed, disclosed, and discussed with stakeholders prior to initiation of any project activities that may cause adverse social and environmental impacts.

The above required assessments and management plans must be prepared and mitigation measures in place as per those plans, prior to the initiation of any project activity that may cause adverse impacts.

An indicative template for an Environmental and Social Management Plan is provided in Annex 1.

Additional Sub-Plans

The SESP has identified requirements for additional stand-alone management sub-plans. These are:

A Comprehensive Stakeholder Engagement Plan: A SEP has been developed and will be updated (see **Annex 7 to the project document**), which will be further informed by the site- and activity-specific screenings and any additional assessments. Specific stakeholder consultations will be held to ensure that the screening and assessment processes are conducted in a participatory manner. The plan will specifically consider how to equitably and meaningfully engage marginalized and vulnerable populations including specific measures to include female stakeholders. The plan will also provide terms of reference and modalities for managing stakeholder engagement in project activities at each site and with each community.

SESPs and targeted assessment reports, ESMPs and stand-alone management plans will be disclosed via the UNDP India website and the UNDP Transparency Portal in accordance with UNDP SES policy, and ESMPs will be finalized and adopted only after the required time period for disclosure has elapsed.

A Grievance Redress Mechanism (GRM). The Project will establish and implement a transparent, fair, and free-to-access project-level Grievance Redress Mechanism (GRM), approved by stakeholders, which will be put in place at the start of implementation. The project-level GRM will be supplemented by UNDP's Accountability Mechanism, which includes a Stakeholder Response Mechanism – to be accessed when the GRM cannot resolve an issue, and/or a Compliance Review where compliance with UNDP's SES Policy is a concern. Details of the GRM are described below in Section 7.2.

Livelihood Action Plan(s). Livelihood Action Plan(s) may be necessary where/if project activities cause economic displacement, whereby the livelihoods of individuals or communities are restricted, partially or fully, and either directly or indirectly, by project activities. The SESP (in Risk 9) identified a potential risk to workers' income and opportunities, particularly women and marginalized communities, in the course of the transition from informal to formal sector and the implementation of BAT/BEP for recycling practices. Certain BAT tested by the project may result in a phasing-in of automated technologies to improve recycling processes, which could reduce employment in the informal sector (albeit while simultaneously creating new job opportunities).

This risk will be further examined through the incorporation of Strategic Environmental and Social Assessment (SESA) Principles, and on a site-specific basis through application of site-specific SESPs. It will be complemented by the Gender Action Plan (GAP) in relation to the impact of informal e-waste recycling, (Activity 1.2.3) which will include examination of the impacts of mechanization in the sector, and through the stakeholder consultation arrangements, ensuring that adverse impacts on the livelihoods of formal and informal sector workers are not adversely impacted by project outputs.

Where required, plans will be developed to avoid, minimize or manage such impacts. Where economic displacement is found to be significant, and cannot be avoided through project design modifications, a targeted management plan will be developed under close consultation with stakeholders to ensure the project causes no loss of income for workers involved in the collection, transportation, recycling and disposal of e-waste.

Livelihood Action Plans must ensure that vulnerable people are not economically disadvantaged by the project's activities. Plans must detail procedures and actions that will be undertaken in order to ensure

that the capacity, production levels, and standards of living of economically displaced people are improved, or at least restored, and that economically-displaced people are compensated adequately. An indicative template for a Livelihood Action Plan is included as Annex 3 to this document.

A Gender Action Plan. The plan is in place, and included as Annex 10 to the Project Document. Further information on stand-alone management plans can be found on the UNDP website at: https://info.undp.org/sites/bpps/SES_Toolkit/SitePages/Guidance%20and%20Templates.aspx

Ongoing Screening Requirements

During project implementation, certain circumstances may require the revision of SESP screenings. These include but are not limited to: (a) where new information becomes available such as through project monitoring, (b) where there are substantive changes to the project (e.g. changes in design, additional components), (c) when additional activities are being defined including small grants, or (d) where changes in the project context might alter the project's risk profile.

Over the course of the project, further project activities which have not yet been included in the existing SESP, nor subsequent updates, may be proposed. All additional proposed activities will be subject to screening using the SESP template, impacts identified and categorized as "High", "Moderate" or "Low".

If the revised screening results in a different risk category then the revised SESP needs to be reviewed by the Project Board.

Summary of Assessment and Management Measures

The SESP identified various environmental and social risks that require mitigation and management measures to be eliminated or reduced. Some of these measures have been incorporated into the project design or can be undertaken simply through adopting best practice. However, other risks associated with various outputs within the projects require additional assessments and management measures to be undertaken once they have been more clearly defined during project implementation. The table below presents a summary of these assessments and management procedures that are required by output.

Table 5: Summary of Assessments and Management Procedures Required

Output	Activities	SEP	SESP	TA/ ESMP	SESA Principles
Component 1: Strengthen institutional mechanisms and develop knowledge-based interventions including design of innovative economic models.					
Output 1.1: Circular Economy baseline for EEE eco-design and cleaner production established	Activity 1.1.1: Establish a CE baseline among EEE OEMs/producers in India via primary data collection by using established indicators	✓			
Output 1.2: Inventories of e-waste generation and assessment on externalities established,	Activity 1.2.1: Conduct national e-waste inventory assessment with improved granularity at national and sub-national levels, aligned to global methodologies.	✓			✓

Output	Activities	SEP	SESP	TA/ ESMP	SESA Principles
cost of e-waste management estimated, and value chain of key materials mapped taking into consideration specific gender-related aspects.	Activity 1.2.2: Conduct a study to estimate the cost burden of e-waste management and adoption of BAT/BEPs on different stakeholders (producers, recyclers, manufacturers, refurbishers)	✓			✓
	Activity 1.2.3: Conduct a socio-environmental and gender assessment of the impact of informal recycling, its nature of operation, collection network, modus operandi and identifying informal hubs in the country.	✓			✓
	Activity 1.2.4: Undertake a Material Flow Analysis (MFA) to map the life cycle of the 106 EEE included in the e-waste management rules and assess the emissions of POPs, UPOPs, and hazardous metals.	✓			✓
Output 1.3: E-waste rules' enforcement, including EPR monitoring, harmonized between national and subnational level and coordination mechanism and guidelines for e-waste management established.	Activity 1.3.1: Develop guidelines/SOPs for sub-national (state and city-level) e-waste inventory development, management and enforcement in accordance with UNDP Social and Environmental Safeguards (SES).				✓
	Activity 1.3.2: Conduct a feasibility study to extend the scope of the EPR certificate regime beyond the 4 key metals (Gold, Aluminium, Copper and Iron)	✓			
Output 1.4: Frameworks for audit of e-waste recycling facilities developed.	Activity 1.4..1: Develop an SOP to streamline and effectively implement the auditing of e-waste recycling facilities in accordance to the E-waste management rules provisions with insights from global waste audit certificationsand in accordance with UNDP SES	✓			✓
Output 1.5: India's RoHS for imported and manufactured EEE assessed and gender-sensitive recommendations proposed to strengthen its implementation and aligned for the national/subnational action.	Activity 1.5.1: Develop product-wise testing protocol and guidelines including testing infrastructure development/upgradation for RoHS compliance aligned with global laboratory standards	✓			✓
	Activity 1.5.2: Develop a Monitoring, Reporting and Verification (MRV) framework for post-market surveillance of RoHS certified products.	✓			✓
Output 1.6: Gender-sensitive Eco-design and eco-labelling standards	Activity 1.6.1: Identify critical EEE product categories with increased potential for eco-design and eco-labelling incorporation.				✓

Output	Activities	SEP	SESP	TA/ ESMP	SESA Principles
and guidelines proposed at targeted industries.	Activity 1.6.2: Develop a roadmap to facilitate adoption of the new Ecomark rules, 2024 for each EEE category	✓			✓
	Activity 1.6.3: Conduct Readiness Assessment to gauge India's readiness to adopt a policy akin to the EU's Eco-design for Sustainable Products Regulation (ESPR)				
Output 1.7: Economically sustainable management model for e-waste designed and piloted.	Activity 1.7.1: Based on the assessed existing business models, at its different stages, develop a blueprint of an "ideal" business model, including compliance with UNDP SES and reflecting relevant gender considerations	✓			✓
	Activity 1.7.2: Conduct a study of the product subscription model with the aim of diminishing e-waste generation and extending the lifespan of electronic products.	✓			
Component 2: **EEE Manufacturing, Supply Chain and End of Life (EOL) Ecosystem improvement through prevention measures and socio-technical ESM models/pilots for replication.**					
Output 2.1: Initiate the transformation of the EEE production and assembly in at least two (2) Original Equipment Manufacturers (OEMs) through eco-design and other inputs/materials/chemicals reduction measures piloted.	Activity 2.1.1: Conduct pre-feasibility and assessment of potential intervention. Define feasible and easily adoptable eco-design measures that can be integrated in EEE production and assembly by conducting a pre-feasibility assessment.	✓			
	Activity 2.1.2: Design the implementation of the intervention with the participating OEMs/Producers	✓	✓		
	Activity 2.1.3: Initiate implementation of intervention, undertake final assessment.		✓	✓	✓
Output 2.2: At least two (2) Feasibility Studies for replacement/rebate models of used EEE developed with manufacturers (OEMs) and/or large retailers to support strengthening of EPR schemes.	Activity 2.2.1: Based on pre-defined selection criteria, which will include health and safety, environmental, social and gender considerations, select OEMs and identify types of intervention, design two business models for replacement-rebate of large EEE goods. Implement pilot projects, conduct assessment and document pilot results.	✓	✓		
Output 2.3: At least one (1) gender-responsive economically sustainable model with OEMs for	Activity 2.3.1: Based on pre-defined selection criteria, including health and safety, environmental, social and gender consideration, select and engage two OEMs interested in participation.	✓	✓		

Output	Activities	SEP	SESP	TA/ ESMP	SESA Principles
education and public engagement on e-waste collection (offsetting) and supply chains piloted.	Activity 2.3.2: Design detailed intervention and engage a CSO or SME which will operate the offsetting model, with schools/universities or youth communities interested in participating in the pilot projects.	✓	✓		
	Activity 2.3.3: Implement the pilot schemes through an agile model of offsetting through education.	✓	✓		
Output 2.4: At least four (4) gender-responsive schemes for e-waste collection and BEP for transforming or upgrading informal processing facilities developed and piloted.	Activity 2.4.1: Based on pre-defined selection criterial, including health and safety, social, environmental and gender aspects, identify and select (with due diligence) micro or small aggregators/disassemblers/recyclers for pilot projects, design and implement the pilot projects, assess results and design replication plan	✓	✓	✓	✓
	Activity 2.4.2: BAT/BEP implementation of e-waste management (at its preparatory stages: collection, classification, disassembly, segregation, etc.) to a group of micro or small aggregators/disassemblers/ recyclers and linking the recycling facility with OEMs to ensure uptake	✓	✓	✓	
Output 2.5: Lithium-ion scrap batteries management pilot (1), developed and tested, linked to upstream electric car production to manage their off-spec batteries, with ESM model and guidelines prepared.	Activity 2.5.1: Conduct study on technology landscape and economic feasibility in India of recycling spent LIBs	✓	✓		✓
	Activity 2.5.2: Based on pre-defined criteria, select and engage aggregators/ disassemblers/ recyclers for the pilot projects		✓		
	Activity 2.5.3: Implement pilot for safe handling of spent LIBs to prevent explosion. Design of replication plan with replication implemented and results assessed		✓	✓	
Component 3: Improvement of baseline systems and infrastructures for POPs and uPOPs reduction in e-waste processing.					
Output 3.1: Circularity gender-responsive infrastructure for eco-design in OEM facilities (3) assessed and improvements' feasibility determined.	Activity 3.1.1: Shortlist OEMs and their feasible and easily adoptable eco-design measures that can be integrated in EEE production and assembly.		✓		
	Activity 3.1.2: Infrastructure changes selection based on Eco-design, assessment of potential implementation, and feasibility study and implementation plan.		✓		
Output 3.2: Review of baselines and BAT/BEP in process for metal and valuable material	Activity 3.2.1: Develop a recovered metal re-use strategy for pilot test. Define the process type, location, scope and type of partnership. Select and		✓		

Output	Activities	SEP	SESP	TA/ ESMP	SESA Principles
extraction from e-waste tested in one (1) pilot site.	engage consulting designer and plant developer. Define type of partnership				
	Activity 3.2.2: Design, procure and start-up the pilot processing unit for metal extraction from end-of-life (EoL) materials sourced from downstream recyclers and MSEs. Processing unit tested and put into operation		✓	✓	
Output 3.3: Gender-responsive Feasibility study(ies) and strategic roadmap developed for replication of 3.2.	Activity 3.3.1: Develop a sustainable scale-up strategy to replicate the pilot model of PCB recycling in multiple locations.		✓	✓	
	Activity 3.3.2: Identify areas of gender inclusion in proposed pilot and develop strategy to enhance their livelihood. (social security, leadership opportunities, skill development, access to finance etc.)	✓	✓	✓	
Output 3.4: Process for PBDE removal from e-waste plastics designed, assessed and pilot scale tested in one (1) site.	Activity 3.4.1: Define the process type, location, scope and type of partnership. Selection and engagement of consulting designer and plant developer. Define type of partnership		✓		
	Activity 3.4.2: Based on pre-defined selection criteria, which will include compliance with UNDP SES, identify, select and engage large collector/aggregator for the pilot project.		✓	✓	
	Activity 3.4.3: Conduct feasibility study of the pilot to compensate for the cost of removal of PBDEs in EEE plastic and value generated from value generated by metal extraction.				

Institutional arrangements and capacity building

Roles and responsibilities for implementing this ESMF

The roles and responsibilities of project staff and associated agencies in implementation of this ESMF are elaborated below.

Note: This ESMF does not cover the roles and responsibilities associated with implementation of the subsequent site-specific ESMP (and sub-plans if any); those will be defined in the site-specific ESMPs, as required per this ESMF.

Implementing Partner:

- Ensure that the required screening, targeted assessments and site-specific ESMPs (and sub-plans if any) are developed, disclosed for public consultation and approved, and management

measures are adopted and integrated during project implementation;

- Report, fairly and accurately, on project progress against agreed work plans in accordance with the reporting schedule and required formats;
- Maintain 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);
- Ensure all requirements of UNDP's SES and national regulatory/policy frameworks and relevant international standards have been addressed.

Project Board:

- Monitor implementation of this ESMF and compliance with national and international regulations, and UNDP SES;
- Decision making for the adoption of necessary measures including full integration of management measures within project Outputs and annual work plans;
- Establish and support Grievance Redress Mechanisms (GRM) to address any grievances;
- Clear site-specific ESMPs prior to implementation of demonstration activities;
- Provide strategic guidance to implementation of the Project including oversight for safeguards and the implementation of this ESMF.

Project Management Unit:

- Supervise and manage implementation of measures defined in this ESMF including preparation and implementation of screening, targeted assessments and site-specific ESMPs;
- Ensure that SESA principles are applied when developing strategies and plans;
- Assign specific responsibilities for implementation of this ESMF, including monitoring, and community consultations on the draft site-specific ESMP (and sub-plans if any) to a staff member(s) of the PMU;
- Maintain relevant records associated with management of environmental and social risks, including updated SESP, assessments, a log of grievances together with documentation of management measures implemented;
- Report to the Implementing Partner, the Project Board, and UNDP CO on the implementation of the ESMF, including escalation of emerging risks, incidents, or potential issues of non-conformance with the ESMF;
- Ensure that all service providers are informed of their responsibilities for the day-to-day compliance with the ESMF.

As noted above, the project's subsequent site-specific ESMPs (and sub-plans if any) 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.

Capacity Building

During the inception phase, training on the ESMF and relevant SES requirements will be conducted targeting all national stakeholders, with focus on the prospective private sector partners and local UNDP staff. In addition, the site-specific ESMPs will also identify capacity building activities to ensure sufficient capacities for implementation. This may include Occupational Health and Safety Training for workers, training for site supervisors on safeguard issues and training of operators on pollution control measures.

During project implementation, UNDP will provide advice to project team members as needed to support the implementation of this ESMF, preparing the site-specific ESMPs and pursuant measures. In line with their oversight role, UNDP will also review all safeguards instruments prepared for the project to ensure they are consistent with the SES.
The Project Board will have the final responsibility for integration of the site-specific ESMPs 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 ESMPs, 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 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 ESMPs.

Stakeholder engagement and information disclosure

Discussions with project stakeholders commenced during the project development phase. A list of the stakeholders engaged in these consultations has been annexed to the Project Document in Annex 8.

The project also has prepared a Stakeholder Engagement Plan and Gender Analysis and Action Plan, which are annexed to the Project Document, Annexes 8 and 10, respectively. These Plans will be followed to ensure that stakeholders have been engaged in project preparation and implementation, and particularly, in the further assessment of social and environmental impacts and the development of appropriate management measures. The project's Stakeholder Engagement Plan 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, Part C, para. 28)) stipulates that, among other disclosures specified by UNDP's policies and procedures, UNDP will ensure that the following information be made available:

- SEP and summary report of stakeholder consultations;
- Social and environmental screening report with project documentation;
- Draft environmental and social assessment documents including the site-specific ESMPs;
- Final environmental and social assessment documents including site-specific ESMPs;
- Any required social and environmental monitoring reports.

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

This ESMF (and project SESP) will be translated and disclosed via the UNDP India website in accordance with UNDP SES policy. The subsequent site-specific ESMPs will also be publicly disclosed via the UNDP India website once drafted, and finalized and adopted only after the required period for disclosure has elapsed (30 days for moderate risk projects).

These requirements for stakeholder engagement and disclosure will be adhered to during implementation of this ESMF, and the subsequent implementation of the resulting site-specific ESMPs.

Accountability and Grievance Redress Mechanisms

Interested stakeholders may raise a grievance at any time to the Project Management Unit, the Executing Agency (UNDP), Implementing Agency (Ministry of Ecology and Environment), or the GEF.

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:

1. 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
2. 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, states, CSOs, 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/

Project-level Grievance Redress Mechanism

The project will establish a project-level GRM at the start of implementation, as described in Section IV (refer to the Risks and Stakeholder Engagement sub-sections). 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 Environmental and Social Safeguards Officer and based on the details provided below.

Interested stakeholders may raise a grievance at any time to the PMU, the Implementing Partner, UNDP or the GEF.

The mandate of the GRM will be to:

(i) receive and address any concerns, complaints, notices of emerging conflicts, or grievances (collectively "*Grievance*") alleging actual or potential harm to affected person(s) (the "*Claimant(s)*") arising from Project.

(ii) assist in resolution of Grievances between and among Project Stakeholders; as well as the various government ministries, agencies, and commissions, CSOs and NGOs, and others (collectively, the "*Stakeholders*") in the context of the Project.

(iii) Conduct itself at all times in a flexible, collaborative, and transparent manner aimed at problem solving and consensus building.

The functions of the GRM will be to:

(i) Receive, Log and Track all Grievances received.

(ii) Provide regular status updates on Grievances to Claimants, Project Board (PB) members and other relevant Stakeholders, as applicable.

(iii) Engage the PB members, Government institutions and other relevant Stakeholders in Grievance resolution.

(iv) Process and propose solutions and ways forward related to specific Grievances *within a period not to exceed sixty (60) days* from receipt of the Grievance.

(v) Identify growing trends in Grievances and recommend possible measures to avoid the same.

(vi) Receive and service requests for, and suggest the use of, mediation or facilitation.

(vii) Elaborate bi-annual reports, make said reports available to the public, and more generally work to maximize the disclosure of its work (including its reports, findings, and outcomes).

(viii) Ensure increased awareness, accessibility, predictability, transparency, legitimacy, and credibility of the GRM process.

(ix) Collaborate with Partner Institutions and other NGOs, CSOs and other entities to conduct outreach initiatives to increase awareness among Stakeholders as to the existence of the GRM and how its services can be accessed.

(x) Ensure continuing education of PB members and their respective institutions about the relevant laws and policies that they will need to be aware of to participate in the development of effective resolutions to Grievances likely to come before the GRM.

(xi) Monitor follow up to Grievance resolutions, as appropriate.

During project implementation, the project will support the national GRM and capacities so that grievance procedures continue beyond the life of the project. Following is a brief summary of key steps that national and international partners can take to assess and strengthen GRMs:

- Review and analyze the historical and current context for potential project- related grievances, and characterize current grievance patterns and trends
- Assessing strengths and gaps including:
  - Transparency, accessibility and predictability
  - Legitimacy, equity, and rights compatibility
  - Stakeholder engagement and dialogue
  - Continuous learning
- Jointly develop a plan for building on strengths and closing gaps

A Sample Terms of Reference for Project-Level GRM are included in Annex 2. Further information on GRM can be found in the UNDP Guidance Note on Social and Environmental Standards - Stakeholder Engagement – Supplemental Guidance: Grievance Redress Mechanisms.

Budget for ESMF Implementation

Funding for implementation of the ESMF is included in the individual project budget. The estimated costs are indicated in Table 5 below. Costs associated with the time of PMU Staff coordinating the implementation of this ESMF are not shown. Further detail is found in the budgets of the respective Project Document.

Table 6 Breakdown of Costs for ESMF Implementation

Item	Budget Cost (USD)	Budget Note
Social and Environmental and Social Safeguards Officer	USD 26,250	27a
International Consultant for targeted assessments and ESMPs	USD 21,000	26a
Monitoring visits for tracking ESMPs, targeted plans, and safeguards compliance	USD 10,000	24a
Transportation	USD 12,750	24b, 25b, 29, 30
SES Capacity building/training expenses	USD 5,000	
Community engagement	USD 5,000	
Total:	USD 80,000	

Monitoring and Evaluation Arrangements

Reporting on progress and issues in the implementation of this ESMF will be documented in the project's quarterly reports and annual Project Implementation Reports (PIRs).

Implementation of the ESMF will be the responsibility for the Project Team and other partners as agreed upon and described in each site-specific ESMPs. The ESMF monitoring and evaluation plan is outlined below in **Error! Reference source not found.**.

Table 7: ESMF M&E Plan

Monitoring Activity & Relevant Projects	Description	Frequency / Timeframe	Expected Action	Roles and Responsibilities
Track progress of ESMF implementation	Implementation of this ESMF and with results reported to Project Board	Annually	Required ESMF steps are completed in a timely manner.	Project Manager, with support from Environmental and Social Safeguards Officer
Undertaking of targeted assessment and development of site-specific ESMPs in line with project activities	Carried out after selection and prior to commencement of each relevant activity requiring a targeted assessment	Quarters 1 and 2 of project implementation	Risks and potential impacts are validated with support of external consultants and participation of project team and stakeholders; management actions identified and incorporated into project implementation strategies	Environmental and Social Safeguards Officer With guidance from Global Component and Project Manager
Implementation of mitigation measures and monitoring of potential impacts as per the subsequent site-specific ESMPs	Permanent and participatory implementation and monitoring of impacts and mitigation measures, in accordance with ESMP	Continuous, once site-specific ESMP is in place	Implementation of site-specific ESMP Monitoring of environmental and social risks, and corresponding management plans as relevant	Project Manager, Global Component, Environmental and Social Safeguards Officer, Pilot Coordinators
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 Team and used to inform management decisions.	Project Manager, Communications Officer
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 Board and used to make course corrections	Project Board (considering stakeholders' opinions)
Project report	As part of progress report to be presented to the Project Board and key stakeholders, analysis, updating and recommendations for risk management will be included	Annually, and at the end of the project (final report)	Updates on progress of ESMF/ESMPs will be reported in the project's annual GEF PIRs.	Project Manager
Project review	Project Board to hold regular project reviews during which an updated analysis of risks and recommended risk mitigation measures will be discussed	At least annually	Any risks and/ or impacts that are not adequately addressed by national mechanisms or Project Team will be discussed by Project Board. Recommendations will be made, discussed and agreed upon.	Project Board Project Manager

Annexes

Annex 1: 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.[34] 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.

[34] 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.

(4) Stakeholder Engagement: 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; (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; and (c) description of effective processes for receiving and addressing stakeholder concerns and grievances regarding the project's social and environmental performance.

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

Annex 2: Sample Terms of Reference: Project-level Grievance Redress Mechanism

Notes: Please complete relevant sections and annex this TOR to the Project Document and include as necessary in the relevant Social and Environmental Assessments and Management Frameworks/Plans

This document aims to support UNDP projects to meet the Social and Environmental Standard (SES) requirement that, all projects categorized as complex Moderate Risk, Substantial Risk, or High Risk, as determined by the Social and Environmental Screening Procedure (SESP), have made available an effective project-level grievance redress mechanism. The scope of the project GRM is therefore to address grievances related to the social and environmental impacts of a UNDP project (see Section III below regarding eligibility). Grievances related to other topics should be referred to the appropriate mechanisms, in accordance with their mandates[35].

I. Introduction and Overview

These ToR provide guidance on the mandate and functions of the grievance redress mechanism (GRM) for this UNDP-supported Project. The GRM provides one avenue for stakeholder engagement and the management of social and environmental risks and impacts. However, it is not a substitute for proactive outreach to stakeholders to inform them about the Project, seek their input, and respond to their suggestions and concerns regarding social and environmental benefits, risks and impacts. Proactive stakeholder engagement should begin early in project design and continue throughout the project cycle.

The Project GRM provides an additional, formal channel for project stakeholders to register complaints about project social and environmental risks and impacts. UNDP requires the establishment of project GRMs when its Social and Environmental Screening Procedure (SESP) identifies the potential for significant, adverse social and/or environmental impacts.

Project GRMs also facilitate timely identification and treatment of potential emerging Project risks, strengthening effective risk management at the Project-level, in line with UNDP's Enterprise Risk Management Policy.[36] Grievances are an ERM sub-risk category.

In the case that an existing national mechanism for grievance resolution may be appropriate for the Project, the UNDP Country Office, jointly with the Project Board, will assess the mechanism's effectiveness against a set of criteria specified in UNDP's Supplemental Guidance Note on Project GRMs and will determine who will be responsible for undertaking the GRM function as outlined in this TOR.

The UNDP corporate Accountability Mechanism (www.undp.org/secu-srm) provides an additional recourse for Complainants who are not satisfied with the response they have received from the Project GRM or who are concerned about an adverse response if they raise concerns with the Project GRM.

[35] For example, grievances related to fraud, abuse or misconduct should be referred to the Office of Audit and Investigations (OAI).
[36] UNDP Enterprise Risk Management (ERM) Policy and Procedures.

II. Mandate

The mandate of the Project GRM will be to receive and seek to resolve complaints about actual or potential environmental or social harm to affected person(s) arising from Project. In its accessibility to complainants and in its responses to complaints, the GRM will be gender-responsive, culturally sensitive, non-discriminatory, and inclusive. Complaints related to sexual abuse and exploitation (SEA) will be treated in a survivor-centered manger and ensure referrals for safe and confidential survivor assistance.

The Project GRM will provide:

(i) an accessible, predictable and transparent procedure for receiving and responding to complaints

(ii) direct engagement and dialogue with Complainants to clarify issues and interests and develop mutually acceptable responses

(iii) equitable and rights-compatible resolution of complaints, including contribution to remedy for environmental or social harm demonstrably caused or contributed to by the project[37]

(iv) opportunity for learning from complaints and their resolution, in ways that contribute to improved management of environmental and social risks and ensure alignment with UNDP's Social and Environmental Standards as well as applicable laws, regulations and policies.

III. Eligible Complaints

To be eligible for a Project GRM response, the complaint must pertain to this UNDP Project and its activities after signature of the Project Document and prior to Project closure. In addition, the complaint must:

(a) Indicate how Project activity(ies) have caused or contributed, or may cause or contribute to social or environmental harm
(b) Be made by a person or people (directly or through an authorized representative) who could plausibly be affected by the harm(s) referenced in the complaint.

If further information is needed to determine eligibility, the GRM should seek such information from the complainant before making an eligibility determination.

Complainants may request and receive confidentiality, but the GRM cannot respond to anonymous grievances. Record keeping and information sharing about SEA survivor assistance will adhere to the 'do no harm' and confidentiality principles and the survivor's personally identifiable information will remain confidential unless the victim expressly consents to it being shared.

With the complainant's agreement, the GRM will refer requests alleging non-compliance with UNDP Social and Environmental Standards, fraud, or corruption to the appropriate offices within UNDP and to the relevant national authority(ies).

IV. Functions of the GRM

The GRM will function on two levels: at the Project Management level, under the direction of the Project Manager (supported by the project management unit), and as part of UNDP's Project Assurance role in

[37] Remedy (or contribution to remedy when the risk/impact is not solely the responsibility of the Project) may be provided through prevention, mitigation, and/or compensation, as appropriate.

consultation with and in support of the Project Board. UNDP is responsible for the Project Assurance function, under the direction of the UNDP [Deputy] Resident Representative.

A. GRM at Project Management level:

The Project Manager will use (NAME OF EXISTING GRM)[38] for receiving and responding to complaints through direct engagement with Complainants. The GRM at Project Management level will:

(i) Establish communications channels to receive complaints and identify staff responsible for documenting and responding to complaints.

(ii) Establish procedures to engage with the complainant, seek resolution, and document all complaints and responses.

(iii) Establish procedures to ensure that complaints related to sexual exploitation and abuse are treated in a survivor-centered manner and ensure referrals for safe and confidential survivor assistance39

(iv) When responding to complaints, engage directly with the complainant to clarify issues, identify options for resolution, and provide or support remedy for any environmental or social risks or impacts that are demonstrably associated with the project.

(v) Inform potentially affected community members and other stakeholders (e.g. workers employed in project activities) how to make a complaint about the project (including the option to bring complaints to the Project Management level of the GRM, the Project Assurance function, or the UNDP Accountability Mechanism). Where there are CSOs or NGOs that have well-established communication with affected stakeholders, seek their assistance (voluntary or contracted) to promote awareness and understanding of the GRM.

(vi) Log and track all complaints received.

(vii) Within 5 business days of receipt of a complaint, review the complaint and

a. If further information is needed to determine eligibility, seek further information from the complainant and/or project staff to make the determination;

OR

b. If it is very clear that the complaint does not meet one or more of the eligibility criteria, refer the complainant to appropriate national or local institution(s) that may be able to respond to the complaint;

OR

c. If the complaint is determined eligible, respond to the complainant through direct, good faith engagement to clarify issues, develop and seek agreement on options for resolution, and address and remedy risks and harms that the project is causing or contributing to (with the option to provide technical assistance to the complainant to support the complainant's effective engagement).

[38] Existing GRMs should be assessed by UNDP and the Project Board to determine whether they are sufficiently accessible and effective to be used by the Project, and whether institutional strengthening is needed prior to designation as the project GRM and how this could be provided outside the scope of this project. See the UNDP Supplemental Guidance: Grievance Redress Mechanisms for guidance on assessing and strengthening project GRMs.

[39] Procedures will be aligned with the UN Protocol on Provision of Assistance to Victims of Sexual Exploitation and Abuse: https://psea.interagencystandingcommittee.org/victim-survivor-centred-assistance.

(viii) If the complaint is resolved within 60 days, document the complainant's acceptance of resolution, and continue to monitor until all project actions that were agreed to as part of the resolution have been taken.

(ix) If the complaint is unresolved 60 days after initial receipt (or if requested by the complainant at any time), offer the complainant the option of referral to the Project Board through the UNDP Project Assurance function, to the UNDP Accountability Mechanism, or to national institution(s) with a mandate to address the issues raised.

(x) Provide quarterly reports on complaints, responses, and outcomes to the Project Board through the Project Assurance function, and collaborate with Project Assurance to identify successes, challenges, trends and lessons learned in responding to complaints.

B. GRM at Project Assurance Level (in consultation with Project Board)

Complainants who are not satisfied with the Project Management GRM response, or who are concerned about an adverse response, may bring their complaint to the Project Assurance function of the Project Board which is exercised by UNDP. In addition, UNDP Project Assurance will receive unresolved complaints referred from the Project Manager.

Complaints submitted to the UNDP Project Assurance function will be addressed per the procedures outlined below. UNDP will seek resolution of complaints together with national and other relevant partners (e.g. Implementing Partner, other members of the Project Board), with due consideration of confidentiality if requested by Complainants. The process for addressing complaints submitted to the UNDP Project Assurance function would typically involve the Project Manager and any necessary staff, external mediators, etc., under the direction of the UNDP Resident Representative and/or Deputy Resident Representative.

For complaints referred from the Project Manager (or project management unit), the Project Assurance function will:

(i) Log and track the complaint.

(ii) Review documentation received from the Project Manager and consult with the Project Manager on the case.

(iii) Within 5 days of receipt, engage with the complainant to review and clarify the issues raised in the case and explore options for resolution (with the option to provide technical assistance to the complainant to support the complainant's effective engagement).

(iv) As appropriate, engage with senior representatives of the Implementing Partner and other Project Board members to clarify issues and explore options for resolution.

(v) As appropriate, play a mediating role between the parties to seek resolution of the complaint (with the option to contract with an external mediator).

(vi) When risks are identified that may affect overall project governance (e.g. potential need to put project components on hold or change the design of the project), ensure that the Project Board has full information about the risks and guides project decision making on the appropriate response;

(vii) Support the Project Board to address and remedy risks and harms that the project is demonstrably causing or to which it is demonstrably contributing.

(viii) If the complaint is resolved within 60 days of receipt, document the complainant's acceptance of resolution, and continue to monitor until all project actions that were agreed to as part of the resolution have been taken.

(ix) If the complaint is unresolved 60 days after referral to the project assurance function (or if requested by the complainant at any time), offer the complainant the option of referral to the UNDP Accountability Mechanism and/or to any national institutions that have a mandate to address the issues raised.

For complaints received directly from Complainants, the Project Assurance function will first make an eligibility determination (identical to step (iv) of the operational Project Management level of the GRM outlined above) and then continue from step (ii) of the Project Board process as outlined above, except that step (ii) for complaints that are received directly by the Project Assurance function will be "Consult with the Project Manager on the case, protecting Complainant confidentiality if requested."

Additionally, the Project Assurance function will perform these tasks in support of the Project Board:

(i) Review complaints received by the GRM and their outcomes, work with the Project Manager to identify successes, lessons learned, challenges and trends, and report its assessments to the Project Board. Should an outcome to a grievance be compensation, the UNDP Project Assurance function is responsible for confirming this outcome and for working with the Project Board to determine how compensation will be achieved as necessary.

(ii) Receive quarterly reports on complaints from the Project Management level of the GRM, and collaborate with its staff to identify successes, challenges, trends and lessons learned in responding to complaints.

(iii) Provide summary reports to the PB of all complaints received (both those received by the operational level GRM and directly by the Project Assurance function) with any recommended actions.

(iv) Disclose the GRM's work (including case registry, summary reports on individual cases, reports on trends or patterns, and actions taken in response to trends and patterns) to the PB and to project stakeholders, through periodic reporting (at least semi-annual) in media/forums accessible to project stakeholders and protecting confidentiality of complainant identities where necessary;

(v) Monitor the Project Manager's efforts to inform project stakeholders about the GRM, and ensure the accessibility, predictability, transparency, legitimacy, and credibility of the GRM process;

(vi) Provide continuing education of PB members and their respective institutions regarding policies, procedures, and capacities needed to prevent risks and impacts which could lead to complaints, and to promote the constructive resolution of complaints.

V. Submitting a complaint

(i) Who can Submit a complaint?

A complaint can be submitted by any individual or group of individuals that believes it has been or will be harmed by the Project.

If a complaint is to be lodged by a different individual or organization on behalf of those said to be affected, the Complainant must identify the person/people on behalf of who the complaint is submitted and provide written confirmation by the person/people represented that they are giving the Complainant the authority to present the complaint on their behalf. The GRM will take reasonable steps to verify this authority.

(ii) How is the complaint submitted?

The GRM will maintain a flexible approach with respect to receiving complaints in light of known local constraints with respect to communications and access to resources for some stakeholders. A complaint can

be transmitted to the GRM by any means available (i.e. by email, letter, phone call, meeting, SMS, etc.). The contact information is the following:

[Project Web site: complaint portal

Project Manager email, address, phone number, fax, etc.]

UNDP Project Assurance function email, address, phone number, fax, etc.(typically DRR or RR)

UNDP Accountability Mechanism Web complaint portal (www.undp.org/secu-srm), stakeholder.response@undp.org; project.concerns@undp.org; secuhotline@undp.org

(iii) What information should be included in a complaint?

The Grievance should include the following information:

(a) the name(s) of the person/people submitting the complaint ("the Complainant");

(b) a means for contacting the Complainant (email, phone, address, other);

(c) if the submission is on behalf of those alleging a potential or actual harm, the identity of those on whose behalf the complaint is made, and written confirmation by those represented of the Complainant's authority to lodge the complaint on their behalf;

(d) a description of the potential or actual harm;

(e) names of the individual(s) or institutions responsible for the risk/harm (if known), and the location(s) and date(s) of harmful activity (if Complainant states that harm has already occurred);

(f) what has been done by Complainant thus far to resolve the matter;

(g) whether the Complainant wishes for their identity to be kept confidential; and

(h) the specific response requested from the GRM.

However, Complainants are not required to provide all of the information listed above. Initially, the Complainant need only provide enough information to determine eligibility. If insufficient information is provided, the GRM has an obligation to make a substantial, good faith effort to contact the Complainant to request whatever additional information is needed to determine eligibility, and if eligible, to develop a proposed response.

Complainants may request and receive confidentiality, but the GRM cannot respond to anonymous grievances. With the Complainant's agreement, the GRM will refer requests alleging fraud or corruption to the appropriate offices within UNDP and to the relevant partner(s). For complaints regarding sexual exploitation, abuse or harassment (SEAH) the GRM will ensure complete confidentiality, and may refer the complainant to [NAME OF SPECIALIZED SEAH INVESTIGATIVE BODY] and/or [NAME OF SURVIVOR ASSISTANCE BODY].

VI. Logging, Acknowledgment, and Tracking of Complaints

The Project Manager (with the support of the project management unit) will receive grievances, assign each a tracking number, acknowledge each to the Complainant, record the main points electronically in a database that is shared with the Project Assurance function, and provide periodic updates to the Complainant as well as the GRM file. The Project Assurance function will use the same system as the Project Manager for tracking of

complaints. When a complaint comes directly to the Project Assurance function, it will log the case with a new case record.

Within five (5) business days from the receipt of a grievance, the GRM will send a *written* acknowledgement to Complainant of the grievance received with the assigned tracking number.[40]

Each Grievance file will contain, at a minimum:

i. the date of the request as received;
ii. the date the written acknowledgment was sent (and oral acknowledgment if also done);
iii. the dates and nature of all other communications or meetings with the Complainant and other relevant Stakeholders;
iv. specific concerns raised by the complaint, and additional information regarding those concerns provided by the PB and any other relevant parties (if relevant);
v. the eligibility determination and rationale;
vi. any requests, offers of, or engagements of a Mediator or Facilitator;
vii. the dates of discussions between the Complainant, Project Manager and/or Project Assurance staff, and any other relevant parties related to the proposed resolution/way forward, and the main substantive points from each discussion;
viii. the Complainant's acceptance or objections to proposed resolutions, and the responses of other relevant parties to proposed resolutions;
ix. the proposed next steps if objections arose;
x. the alternative resolution if renewed dialogues were pursued;
xi. notes regarding implementation of any agreed resolution; and
xii. any conclusions and recommendations arising from monitoring and follow up.

VII. Maintaining Communication and Status Updates

Summary documentation of each complaint will be available for review by the Complainant and other stakeholders involved in the complaint, or their designated representative(s). Appropriate steps will be taken to maintain the confidentiality of the Complainant if previously requested.

The GRM will provide periodic updates to the Complainant regarding the status and current actions to resolve the complaint. Not including the acknowledgment of receipt of the complaint, such updates will occur within reasonable intervals (no less frequent than every thirty (30) days).

VIII. Protection from Reprisal and Retaliation

UNDP seeks to identify, reduce and address the risk of retaliation and reprisals against people who may seek information on and participation in project activities, express concerns and/or access project-level grievance redress processes/mechanisms or UNDPs Stakeholder Response Mechanism or Social and Environmental Compliance Unit. To minimize the risk of reprisal or retaliation, the GRM will maintain confidentiality of

[40] Oral acknowledgments can be used for expediency (and also recorded), but must be followed by a written acknowledgment.

Complainants' identities when requested, will respond to complainant concerns about reprisal or retaliation and in consultation with the Complainant bring the complaint to the Project Board and/or the UNDP Accountability Mechanism for review and action. For complaints regarding SEAH, the GRM will take additional steps as necessary to protect the confidentiality of the complainant and minimize reprisal and retaliation risks.

IX. Without Prejudice

The existence and use of this GRM is without prejudice to any existing rights under any other complaint mechanisms that an individual or group of individuals may otherwise have access to under national or international law or the rules and regulations of other institutions, agencies or commissions.

Annex 3: Indicative template for a Livelihood Action Plan

*A Livelihood Action Plan (LAP) details the **procedures** and **actions** that will be undertaken in order to ensure that the capacity, production levels, and standards of living of economically displaced people are improved or at least restored, and that displaced people are compensated adequately. This plan must be developed after it has been determined, following the process outlined in Standard 5, that displacement is unavoidable. The LAP reflects the commitment made by the Implementing Partner and UNDP to affected people and communities to meet obligations arising from economic displacement.*

The LAP covers the following elements:

1. Introduction
   - Briefly describe the project and associated facilities (if any)
   - Describe project components requiring economic displacement; land acquisition and resettlement; give overall estimates of land and/or resources to which access has been restricted
   - Provide explanation of how economic displacement is necessary to achieve the project objectives, how

the project is in the 'public interest' and how displacement is proportional to project outcomes

2. Minimizing Displacement
   - Describe the justification for the displacement. Please also discuss alternative project designs, including

the "no project" scenario and if they may have avoided or reduced the resettlement.

   - Describe efforts and measures to minimize displacement, and expected outcomes of these efforts and measures
   - Describe how requirements of Indigenous Peoples Standard have been addressed if Indigenous Peoples are displaced.

3. Census and Socioeconomic Surveys/Social Baseline
   - Provide results of the census, assets inventories, natural resource assessments, and socioeconomic surveys and briefly describe how these were performed, i.e., techniques used, individuals interviewed, etc.
   - Identify all people and communities potentially affected by displacement activities and potential impacts to each. Be precise about the land titles or the lack thereof in the social baseline. Conduct a vulnerability assessment and outline what determines vulnerability (i.e. which criteria need to be met to consider someone vulnerable)

4. Legal Framework
   - Describe all relevant international, national, local, and community laws and customs that apply to displacement activities, with particular attention to laws and customs relating to tenure rights and highlight any potential conflicts e.g. between UNDP's SES and national or regional law
   - Describe how free, prior, informed consent was obtained for displacement of indigenous peoples and tribal communities, if applicable
   - Describe project-specific mechanisms to address conflicts
   - Describe entitlement/compensation policies for each type of impact

- Describe method of valuation used for affected structures, land, trees, and other assets
- Prepare entitlement matrix, which includes budget and timeframe for payment of entitlements

5. Displacement-related Property
   - Describe how affected people have been involved in a participatory process to identify replacement property when they have lost access to property to which they have legitimate rights. Describe the advantages and disadvantages of the properties, including the property chosen.
   - Describe how affected people whose livelihoods are urban-based have been involved in a participatory process to identify livelihood replacement and support opportunities. Provide evidence of past

consultation events, such as participation lists, photos and reports.

- Describe how affected people whose livelihoods are land-based have been involved in a participatory process to identify lands they can access, including lands with productive potential, locational advantages, and other factors at least equivalent to that being lost.
- Describe how affected people whose livelihoods are natural resource-based have been involved in a participatory process to identify resources they can access with equivalent livelihood-earning potential and accessibility.
- Describe how affected people whose access to legally designated parks and protected areas has been restricted have been involved in identifying and choosing measures to mitigate impacts.
- Describe the feasibility studies conducted to determine the suitability of chosen lands and/or natural resources described above, including natural resource assessments (soils and land use capability, vegetation and livestock carrying capacity, water resource surveys) and environmental and social impact assessments of the sites.
- Give calculations relating to land and resource availability
- Describe, as relevant, mechanisms for: 1) procuring, 2) developing and 3) allotting displacement property, including the awarding of title or use rights to allotted lands and/or resources. Indicate to whom titles and use rights will be allocated, including by gender.
- Provide detailed description of the arrangements for site development for agriculture, including funding of development costs
- If circumstances made it difficult to provide land or resources as described above, provide evidence of mutual agreement with affected people/communities on alternative measures.

6. Income Restoration
   - Are compensation entitlements sufficient to improve livelihoods and income streams for each category of impact? Attach independent review of opportunities to enhance incomes/livelihoods. What additional economic rehabilitation measures are necessary?
   - Briefly spell out the restoration strategies for each category of impact and describe their institutional, financial, and technical aspects
   - Describe the process of consultation with affected populations and their participation in finalizing strategies for income restoration
   - How do these strategies vary with the area of impact?
   - Provide a transparent methodology/formula that is understandable to project-affected people and can be verified for each case.
   - Does income restoration require change in livelihoods, development of alternative farmlands or some other activities that require a substantial amount of training, time for preparation, and implementation?
   - How are the risks of impoverishment to be addressed?
   - What are the main institutional and other risks for the smooth implementation of the resettlement programs?
   - Describe the process for monitoring the effectiveness of the income enhancement/restoration measures
   - Describe any social or community development programs currently operating in or

around the project area. If programs exist, do they meet the development priorities of their target communities? Are there opportunities to support new programs or expand existing programs to meet the development priorities of communities in the project area?

7. Institutional Arrangements
   - Describe the institution(s) responsible for delivery of each item/activity in the entitlement policy; implementation of income restoration programs; and coordination of the activities associated with and described in the livelihood action plan
   - State how coordination issues will be addressed where displacement is spread over a number of

jurisdictions or where displacement will be implemented in stages over a long period of time

- Identify the agency that will coordinate all implementing agencies. Does it have the necessary mandate and resources?
- Describe the external (nonproject) institutions involved in the process of income restoration (land development, land allocation, credit, training) and the mechanisms to ensure adequate performance of these institutions
- Discuss institutional capacity for and commitment to displacement
- Describe mechanisms for ensuring independent monitoring, evaluation, and financial audit of the LAP and for ensuring that corrective measures are carried out in a timely fashion

8. Implementation Schedule
   - List the chronological steps in implementation of the LAP, including identification of agencies responsible for each activity and with a brief explanation of each activity
   - Prepare a month-by-month implementation schedule of activities to be undertaken as part of resettlement implementation
   - Describe the linkage between resettlement implementation and initiation of civil works for each of the project components

9. Participation and Consultation
   - Describe the various stakeholders
   - Describe the process of promoting consultation/participation of affected populations and stakeholders in resettlement preparation and planning. Be specific about which kinds of documentation will have to be collected (photos, reports, attendance lists, etc.)
   - Describe the process of involving affected populations and other stakeholders in implementation and monitoring
   - Describe the plan for disseminating LAP information to affected populations and stakeholders, including information about compensation for lost assets, eligibility for compensation, displacement assistance, and grievance redress

10. Grievance Redress
    - Describe the step-by-step process for registering and addressing grievances and provide specific details regarding a cost-free process for registering complaints, response time, and communication modes
    - Describe how the mechanism ensured unrestricted access, transparency, accountability, how it documents cases and keeps the complainants informed and the institutional setup.
    - Describe the mechanism for appeal
    - Describe the provisions for approaching civil courts if other options fail

11. Monitoring and Evaluation
    - Describe the internal/performance monitoring process. Ensure monitoring program seeks to measure whether displaced enjoy at least a standard of living and access to livelihoods equal to what they enjoyed before displacement
    - Define key monitoring indicators derived from baseline survey. Provide a list of monitoring indicators that will be used for internal monitoring, including number and

location of displaced persons

- Describe institutional (including financial) arrangements
- Describe frequency of reporting and content for internal monitoring
- Describe process for integrating feedback from internal monitoring into implementation
- Define methodology for external monitoring
- Define key indicators for external monitoring
- Describe frequency of reporting and content for external monitoring. Ensure monitoring program is regular and ongoing following project completion until durable solutions are reached

- Describe process for integrating feedback from external monitoring into implementation
- Describe arrangements for final external evaluation
- Describe need for updates to census, assets inventories, resource assessments, and socioeconomic surveys, if necessary, as part of LAP monitoring and evaluation

12. Costs and Budgets
    - Provide a clear statement of financial responsibility and authority
    - List the sources of funds for displacement and describe the flow of funds
    - Ensure that the budget for displacement is sufficient and included in the overall project budget. Include provisions for non-anticipated adverse impacts.
    - Identify displacement costs, if any, to be funded by the government and the mechanisms that will be established to ensure coordination of disbursements with the LAP and the project schedule. Prepare estimated budget, by cost and by item, for all displacement costs including planning and implementation, management and administration, monitoring and evaluation, and contingencies
    - Describe the specific mechanisms to adjust cost estimates and compensation payments for inflation and currency fluctuations
    - Describe the provisions to account for physical and price contingencies
    - Describe the financial arrangements for external monitoring and evaluation including the process for awarding and maintenance of contracts for the entire duration of displacement

Annexes

- Copies of census and survey instruments, interview formats, and any other research tools
- Information on all public consultation including announcements and schedules of public meetings, meeting minutes, and lists of attendees
- Examples of formats to be used in monitoring and reporting on LAP implementation
- Entitlement matrix
- Evidence of prior informed consent for indigenous peoples and tribal communities

10 Annexes

10.1 Annex 1: 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.[41] 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: 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; (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; and (c) description of effective processes for receiving and addressing stakeholder concerns and grievances regarding the project's social and environmental performance.

(5) Implementation action plan (schedule and cost estimates): For all four above aspects (mitigation, monitoring, capacity development, and stakeholder engagement), ESMP provides (a) an implementation

[41] 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.

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

10.2 Annex 2: Sample Terms of Reference: Project-level Grievance Redress Mechanism

Notes: Please complete relevant sections and annex this TOR to the Project Document and include as necessary in the relevant Social and Environmental Assessments and Management Frameworks/Plans

This document aims to support UNDP projects to meet the Social and Environmental Standard (SES) requirement that, all projects categorized as complex Moderate Risk, Substantial Risk, or High Risk, as determined by the Social and Environmental Screening Procedure (SESP), have made available an effective project-level grievance redress mechanism. The scope of the project GRM is therefore to address grievances related to the social and environmental impacts of a UNDP project (see Section III below regarding eligibility). Grievances related to other topics should be referred to the appropriate mechanisms, in accordance with their mandates[42].

X. Introduction and Overview

These ToR provide guidance on the mandate and functions of the grievance redress mechanism (GRM) for this UNDP-supported Project. The GRM provides one avenue for stakeholder engagement and the management of social and environmental risks and impacts. However, it is not a substitute for proactive outreach to stakeholders to inform them about the Project, seek their input, and respond to their suggestions and concerns regarding social and environmental benefits, risks and impacts. Proactive stakeholder engagement should begin early in project design and continue throughout the project cycle.

The Project GRM provides an additional, formal channel for project stakeholders to register complaints about project social and environmental risks and impacts. UNDP requires the establishment of project GRMs when its Social and Environmental Screening Procedure (SESP) identifies the potential for significant, adverse social and/or environmental impacts.

Project GRMs also facilitate timely identification and treatment of potential emerging Project risks, strengthening effective risk management at the Project-level, in line with UNDP's Enterprise Risk Management Policy.[43] Grievances are an ERM sub-risk category.

In the case that an existing national mechanism for grievance resolution may be appropriate for the Project, the UNDP Country Office, jointly with the Project Board, will assess the mechanism's effectiveness against a set of criteria specified in UNDP's Supplemental Guidance Note on Project GRMs and will determine who will be responsible for undertaking the GRM function as outlined in this TOR.

The UNDP corporate Accountability Mechanism (www.undp.org/secu-srm) provides an additional recourse for Complainants who are not satisfied with the response they have received from the Project GRM or who are concerned about an adverse response if they raise concerns with the Project GRM.

XI. Mandate

[42] For example, grievances related to fraud, abuse or misconduct should be referred to the Office of Audit and Investigations (OAI).

[43] UNDP Enterprise Risk Management (ERM) Policy and Procedures.

The mandate of the Project GRM will be to receive and seek to resolve complaints about actual or potential environmental or social harm to affected person(s) arising from Project. In its accessibility to complainants and in its responses to complaints, the GRM will be gender-responsive, culturally sensitive, non-discriminatory, and inclusive. Complaints related to sexual abuse and exploitation (SEA) will be treated in a survivor-centered manger and ensure referrals for safe and confidential survivor assistance.

The Project GRM will provide:

(v) an accessible, predictable and transparent procedure for receiving and responding to complaints

(vi) direct engagement and dialogue with Complainants to clarify issues and interests and develop mutually acceptable responses

(vii) equitable and rights-compatible resolution of complaints, including contribution to remedy for environmental or social harm demonstrably caused or contributed to by the project[44]

(viii) opportunity for learning from complaints and their resolution, in ways that contribute to improved management of environmental and social risks and ensure alignment with UNDP's Social and Environmental Standards as well as applicable laws, regulations and policies.

XII. Eligible Complaints

To be eligible for a Project GRM response, the complaint must pertain to this UNDP Project and its activities after signature of the Project Document and prior to Project closure. In addition, the complaint must:

(c) Indicate how Project activity(ies) have caused or contributed, or may cause or contribute to social or environmental harm

(d) Be made by a person or people (directly or through an authorized representative) who could plausibly be affected by the harm(s) referenced in the complaint.

If further information is needed to determine eligibility, the GRM should seek such information from the complainant before making an eligibility determination.

Complainants may request and receive confidentiality, but the GRM cannot respond to anonymous grievances. Record keeping and information sharing about SEA survivor assistance will adhere to the 'do no harm' and confidentiality principles and the survivor's personally identifiable information will remain confidential unless the victim expressly consents to it being shared.

With the complainant's agreement, the GRM will refer requests alleging non-compliance with UNDP Social and Environmental Standards, fraud, or corruption to the appropriate offices within UNDP and to the relevant national authority(ies).

XIII. Functions of the GRM

The GRM will function on two levels: at the Project Management level, under the direction of the Project Manager (supported by the project management unit), and as part of UNDP's Project Assurance role in consultation with and

[44] Remedy (or contribution to remedy when the risk/impact is not solely the responsibility of the Project) may be provided through prevention, mitigation, and/or compensation, as appropriate.

in support of the Project Board. UNDP is responsible for the Project Assurance function, under the direction of the UNDP Deputy Resident Representative.

C. GRM at Project Management level:

The Project Manager will use NAME OF EXISTING GRM[45] for receiving and responding to complaints through direct engagement with Complainants. The GRM at Project Management level will:

(xi) Establish communications channels to receive complaints and identify staff responsible for documenting and responding to complaints.

(xii) Establish procedures to engage with the complainant, seek resolution, and document all complaints and responses.

(xiii) Establish procedures to ensure that complaints related to sexual exploitation and abuse are treated in a survivor-centered manner and ensure referrals for safe and confidential survivor assistance46

(xiv) When responding to complaints, engage directly with the complainant to clarify issues, identify options for resolution, and provide or support remedy for any environmental or social risks or impacts that are demonstrably associated with the project.

(xv) Inform potentially affected community members and other stakeholders (e.g. workers employed in project activities) how to make a complaint about the project (including the option to bring complaints to the Project Management level of the GRM, the Project Assurance function, or the UNDP Accountability Mechanism). Where there are CSOs or NGOs that have well-established communication with affected stakeholders, seek their assistance (voluntary or contracted) to promote awareness and understanding of the GRM.

(xvi) Log and track all complaints received.

(xvii) Within 5 business days of receipt of a complaint, review the complaint and

a. If further information is needed to determine eligibility, seek further information from the complainant and/or project staff to make the determination;

OR

[45] Existing GRMs should be assessed by UNDP and the Project Board to determine whether they are sufficiently accessible and effective to be used by the Project, and whether institutional strengthening is needed prior to designation as the project GRM and how this could be provided outside the scope of this project. See the UNDP Supplemental Guidance: Grievance Redress Mechanisms for guidance on assessing and strengthening project GRMs.

[46] Procedures will be aligned with the UN Protocol on Provision of Assistance to Victims of Sexual Exploitation and Abuse: https://psea.interagencystandingcommittee.org/victim-survivor-centred-assistance.

b. If it is very clear that the complaint does not meet one or more of the eligibility criteria, refer the complainant to appropriate national or local institution(s) that may be able to respond to the complaint;

OR

c. If the complaint is determined eligible, respond to the complainant through direct, good faith engagement to clarify issues, develop and seek agreement on options for resolution, and address and remedy risks and harms that the project is causing or contributing to (with the option to provide technical assistance to the complainant to support the complainant's effective engagement).

(xviii) If the complaint is resolved within 60 days, document the complainant's acceptance of resolution, and continue to monitor until all project actions that were agreed to as part of the resolution have been taken.

(xix) If the complaint is unresolved 60 days after initial receipt (or if requested by the complainant at any time), offer the complainant the option of referral to the Project Board through the UNDP Project Assurance function, to the UNDP Accountability Mechanism, or to national institution(s) with a mandate to address the issues raised.

(xx) Provide quarterly reports on complaints, responses, and outcomes to the Project Board through the Project Assurance function, and collaborate with Project Assurance to identify successes, challenges, trends and lessons learned in responding to complaints.

D. GRM at Project Assurance Level (in consultation with Project Board)

Complainants who are not satisfied with the Project Management GRM response, or who are concerned about an adverse response, may bring their complaint to the Project Assurance function of the Project Board which is exercised by UNDP. In addition, UNDP Project Assurance will receive unresolved complaints referred from the Project Manager.

Complaints submitted to the UNDP Project Assurance function will be addressed per the procedures outlined below. UNDP will seek resolution of complaints together with national and other relevant partners (e.g. Implementing Partner, other members of the Project Board), with due consideration of confidentiality if requested by Complainants. The process for addressing complaints submitted to the UNDP Project Assurance function would typically involve the Project Manager and any necessary staff, external mediators, etc., under the direction of the UNDP Resident Representative and/or Deputy Resident Representative.

For complaints referred from the Project Manager (or project management unit), the Project Assurance function will:

(x) Log and track the complaint.

(xi) Review documentation received from the Project Manager and consult with the Project Manager on the case.

(xii) Within 5 days of receipt, engage with the complainant to review and clarify the issues raised in the case and explore options for resolution (with the option to provide technical assistance to the complainant to support the complainant's effective engagement).

(xiii) As appropriate, engage with senior representatives of the Implementing Partner and other Project Board members to clarify issues and explore options for resolution.

(xiv) As appropriate, play a mediating role between the parties to seek resolution of the complaint (with the option to contract with an external mediator).

(xv) When risks are identified that may affect overall project governance (e.g. potential need to put project components on hold or change the design of the project), ensure that the Project Board has full information about the risks and guides project decision making on the appropriate response;

(xvi) Support the Project Board to address and remedy risks and harms that the project is demonstrably causing or to which it is demonstrably contributing.

(xvii) If the complaint is resolved within 60 days of receipt, document the complainant's acceptance of resolution, and continue to monitor until all project actions that were agreed to as part of the resolution have been taken.

(xviii) If the complaint is unresolved 60 days after referral to the project assurance function (or if requested by the complainant at any time), offer the complainant the option of referral to the UNDP Accountability Mechanism and/or to any national institutions that have a mandate to address the issues raised.

For complaints received directly from Complainants, the Project Assurance function will first make an eligibility determination (identical to step (iv) of the operational Project Management level of the GRM outlined above) and then continue from step (ii) of the Project Board process as outlined above, except that step (ii) for complaints that are received directly by the Project Assurance function will be "Consult with the Project Manager on the case, protecting Complainant confidentiality if requested."

Additionally, the Project Assurance function will perform these tasks in support of the Project Board:

(vii) Review complaints received by the GRM and their outcomes, work with the Project Manager to identify successes, lessons learned, challenges and trends, and report its assessments to the Project Board. Should an outcome to a grievance be compensation, the UNDP Project Assurance function is responsible for confirming this outcome and for working with the Project Board to determine how compensation will be achieved as necessary.

(viii) Receive quarterly reports on complaints from the Project Management level of the GRM, and collaborate with its staff to identify successes, challenges, trends and lessons learned in responding to complaints.

(ix) Provide summary reports to the PB of all complaints received (both those received by the operational level GRM and directly by the Project Assurance function) with any recommended actions.

(x) Disclose the GRM's work (including case registry, summary reports on individual cases, reports on trends or patterns, and actions taken in response to trends and patterns) to the PB and to project stakeholders, through periodic reporting (at least semi-annual) in media/forums accessible to project stakeholders and protecting confidentiality of complainant identities where necessary;

(xi) Monitor the Project Manager's efforts to inform project stakeholders about the GRM, and ensure the accessibility, predictability, transparency, legitimacy, and credibility of the GRM process;

(xii) Provide continuing education of PB members and their respective institutions regarding policies, procedures, and capacities needed to prevent risks and impacts which could lead to complaints, and to promote the constructive resolution of complaints.

XIV. Submitting a complaint

(iv) Who can Submit a complaint?

A complaint can be submitted by any individual or group of individuals that believes it has been or will be harmed by the Project.

If a complaint is to be lodged by a different individual or organization on behalf of those said to be affected, the Complainant must identify the person/people on behalf of who the complaint is submitted and provide written confirmation by the person/people represented that they are giving the Complainant the authority to present the complaint on their behalf. The GRM will take reasonable steps to verify this authority.

(v) How is the complaint submitted?

The GRM will maintain a flexible approach with respect to receiving complaints in light of known local constraints with respect to communications and access to resources for some stakeholders. A complaint can be transmitted to the GRM by any means available (i.e. by email, letter, phone call, meeting, SMS, etc.). The contact information is the following:

[Project Web site: complaint portal

Project Manager email, address, phone number, fax, etc.]

UNDP Project Assurance function email, address, phone number, fax, etc.(typically DRR or RR)

UNDP Accountability Mechanism Web complaint portal (www.undp.org/secu-srm), stakeholder.response@undp.org; project.concerns@undp.org; secuhotline@undp.org

(vi) What information should be included in a complaint?

The Grievance should include the following information:

(i) the name(s) of the person/people submitting the complaint ("the Complainant");

(j) a means for contacting the Complainant (email, phone, address, other);

(k) if the submission is on behalf of those alleging a potential or actual harm, the identity of those on whose behalf the complaint is made, and written confirmation by those represented of the Complainant's authority to lodge the complaint on their behalf;

(l) a description of the potential or actual harm;

(m) names of the individual(s) or institutions responsible for the risk/harm (if known), and the location(s) and date(s) of harmful activity (if Complainant states that harm has already occurred);

(n) what has been done by Complainant thus far to resolve the matter;

(o) whether the Complainant wishes for their identity to be kept confidential; and

(p) the specific response requested from the GRM.

However, Complainants are not required to provide all of the information listed above. Initially, the Complainant need only provide enough information to determine eligibility. If insufficient information is provided, the GRM has an obligation to make a substantial, good faith effort to contact the Complainant to request whatever additional information is needed to determine eligibility, and if eligible, to develop a proposed response.

Complainants may request and receive confidentiality, but the GRM cannot respond to anonymous grievances. With the Complainant's agreement, the GRM will refer requests alleging fraud or corruption to the appropriate offices within UNDP and to the relevant partner(s). For complaints regarding sexual exploitation, abuse or harassment (SEAH) the GRM will ensure complete confidentiality, and may refer the complainant to [NAME OF SPECIALIZED SEAH INVESTIGATIVE BODY] and/or [NAME OF SURVIVOR ASSISTANCE BODY].

XV. Logging, Acknowledgment, and Tracking of Complaints

The Project Manager (with the support of the project management unit) will receive grievances, assign each a tracking number, acknowledge each to the Complainant, record the main points electronically in a database that is shared with the Project Assurance function, and provide periodic updates to the Complainant as well as the GRM file. The Project Assurance function will use the same system as the Project Manager for tracking of complaints. When a complaint comes directly to the Project Assurance function, it will log the case with a new case record.

Within five (5) business days from the receipt of a grievance, the GRM will send a *written* acknowledgement to Complainant of the grievance received with the assigned tracking number.[47]

Each Grievance file will contain, at a minimum:

xiii. the date of the request as received;

xiv. the date the written acknowledgment was sent (and oral acknowledgment if also done);

xv. the dates and nature of all other communications or meetings with the Complainant and other relevant Stakeholders;

xvi. specific concerns raised by the complaint, and additional information regarding those concerns provided by the PB and any other relevant parties (if relevant);

xvii. the eligibility determination and rationale;

xviii. any requests, offers of, or engagements of a Mediator or Facilitator;

[47] Oral acknowledgments can be used for expediency (and also recorded), but must be followed by a written acknowledgment.

xix. the dates of discussions between the Complainant, Project Manager and/or Project Assurance staff, and any other relevant parties related to the proposed resolution/way forward, and the main substantive points from each discussion;

xx. the Complainant's acceptance or objections to proposed resolutions, and the responses of other relevant parties to proposed resolutions;

xxi. the proposed next steps if objections arose;

xxii. the alternative resolution if renewed dialogues were pursued;

xxiii. notes regarding implementation of any agreed resolution; and

xxiv. any conclusions and recommendations arising from monitoring and follow up.

XVI. Maintaining Communication and Status Updates

Summary documentation of each complaint will be available for review by the Complainant and other stakeholders involved in the complaint, or their designated representative(s). Appropriate steps will be taken to maintain the confidentiality of the Complainant if previously requested.

The GRM will provide periodic updates to the Complainant regarding the status and current actions to resolve the complaint. Not including the acknowledgment of receipt of the complaint, such updates will occur within reasonable intervals (no less frequent than every thirty (30) days).

XVII. Protection from Reprisal and Retaliation

UNDP seeks to identify, reduce and address the risk of retaliation and reprisals against people who may seek information on and participation in project activities, express concerns and/or access project-level grievance redress processes/mechanisms or UNDPs Stakeholder Response Mechanism or Social and Environmental Compliance Unit. To minimize the risk of reprisal or retaliation, the GRM will maintain confidentiality of Complainants' identities when requested, will respond to complainant concerns about reprisal or retaliation and in consultation with the Complainant bring the complaint to the Project Board and/or the UNDP Accountability Mechanism for review and action. For complaints regarding SEAH, the GRM will take additional steps as necessary to protect the confidentiality of the complainant and minimize reprisal and retaliation risks.

XVIII. Without Prejudice

The existence and use of this GRM is without prejudice to any existing rights under any other complaint mechanisms that an individual or group of individuals may otherwise have access to under national or international law or the rules and regulations of other institutions, agencies or commissions.

10.3 Annex 3: Indicative template for a Livelihood Action Plan

A Livelihood Action Plan (LAP) details the **procedures** and **actions** that will be undertaken in order to ensure that the capacity, production levels, and standards of living of economically displaced people are improved or at least restored, and that displaced people are compensated adequately. This plan must be developed after it has been determined, following the process outlined in Standard 5, that displacement is unavoidable. The LAP reflects the commitment made by the Implementing Partner and UNDP to affected people and communities to meet obligations arising from economic displacement.

The LAP covers the following elements:

13. Introduction
    - Briefly describe the project and associated facilities (if any)
    - Describe project components requiring economic displacement; land acquisition and resettlement; give overall estimates of land and/or resources to which access has been restricted
    - Provide explanation of how economic displacement is necessary to achieve the project objectives, how the project is in the 'public interest' and how displacement is proportional to project outcomes
14. Minimizing Displacement
    - Describe the justification for the displacement. Please also discuss alternative project designs, including the "no project" scenario and if they may have avoided or reduced the resettlement.
    - Describe efforts and measures to minimize displacement, and expected outcomes of these efforts and measures
    - Describe how requirements of Indigenous Peoples Standard have been addressed if Indigenous Peoples are displaced.
15. Census and Socioeconomic Surveys/Social Baseline
    - Provide results of the census, assets inventories, natural resource assessments, and socioeconomic surveys and briefly describe how these were performed, i.e., techniques used, individuals interviewed, etc.
    - Identify all people and communities potentially affected by displacement activities and potential impacts to each. Be precise about the land titles or the lack thereof in the social baseline. Conduct a vulnerability assessment and outline what determines vulnerability (i.e. which criteria need to be met to consider someone vulnerable)
16. Legal Framework
    - Describe all relevant international, national, local, and community laws and customs that apply to displacement activities, with particular attention to laws and customs relating to tenure rights and highlight any potential conflicts e.g. between UNDP's SES and national or regional law
    - Describe how free, prior, informed consent was obtained for displacement of indigenous peoples and tribal communities, if applicable
    - Describe project-specific mechanisms to address conflicts
    - Describe entitlement/compensation policies for each type of impact

- Describe method of valuation used for affected structures, land, trees, and other assets
- Prepare entitlement matrix, which includes budget and timeframe for payment of entitlements

17. Displacement-related Property
    - Describe how affected people have been involved in a participatory process to identify replacement property when they have lost access to property to which they have legitimate rights. Describe the advantages and disadvantages of the properties, including the property chosen.
    - Describe how affected people whose livelihoods are urban-based have been involved in a participatory process to identify livelihood replacement and support opportunities. Provide evidence of past consultation events, such as participation lists, photos and reports.
    - Describe how affected people whose livelihoods are land-based have been involved in a participatory process to identify lands they can access, including lands with productive potential, locational advantages, and other factors at least equivalent to that being lost.
    - Describe how affected people whose livelihoods are natural resource-based have been involved in a participatory process to identify resources they can access with equivalent livelihood-earning potential and accessibility.
    - Describe how affected people whose access to legally designated parks and protected areas has been restricted have been involved in identifying and choosing measures to mitigate impacts.
    - Describe the feasibility studies conducted to determine the suitability of chosen lands and/or natural resources described above, including natural resource assessments (soils and land use capability, vegetation and livestock carrying capacity, water resource surveys) and environmental and social impact assessments of the sites.
    - Give calculations relating to land and resource availability
    - Describe, as relevant, mechanisms for: 1) procuring, 2) developing and 3) allotting displacement property, including the awarding of title or use rights to allotted lands and/or resources. Indicate to whom titles and use rights will be allocated, including by gender.
    - Provide detailed description of the arrangements for site development for agriculture, including funding of development costs
    - If circumstances made it difficult to provide land or resources as described above, provide evidence of mutual agreement with affected people/communities on alternative measures.
18. Income Restoration
    - Are compensation entitlements sufficient to improve livelihoods and income streams for each category of impact? Attach independent review of opportunities to enhance incomes/livelihoods. What additional economic rehabilitation measures are necessary?
    - Briefly spell out the restoration strategies for each category of impact and describe their institutional, financial, and technical aspects
    - Describe the process of consultation with affected populations and their participation in finalizing strategies for income restoration
    - How do these strategies vary with the area of impact?
    - Provide a transparent methodology/formula that is understandable to project-affected people and can

be verified for each case.

- Does income restoration require change in livelihoods, development of alternative farmlands or some other activities that require a substantial amount of training, time for preparation, and implementation?
- How are the risks of impoverishment to be addressed?
- What are the main institutional and other risks for the smooth implementation of the resettlement programs?
- Describe the process for monitoring the effectiveness of the income enhancement/restoration measures
- Describe any social or community development programs currently operating in or around the project area. If programs exist, do they meet the development priorities of their target communities? Are there opportunities to support new programs or expand existing programs to meet the development priorities of communities in the project area?

19. Institutional Arrangements
    - Describe the institution(s) responsible for delivery of each item/activity in the entitlement policy; implementation of income restoration programs; and coordination of the activities associated with and described in the livelihood action plan
    - State how coordination issues will be addressed where displacement is spread over a number of jurisdictions or where displacement will be implemented in stages over a long period of time
    - Identify the agency that will coordinate all implementing agencies. Does it have the necessary mandate and resources?
    - Describe the external (nonproject) institutions involved in the process of income restoration (land development, land allocation, credit, training) and the mechanisms to ensure adequate performance of these institutions
    - Discuss institutional capacity for and commitment to displacement
    - Describe mechanisms for ensuring independent monitoring, evaluation, and financial audit of the LAP and for ensuring that corrective measures are carried out in a timely fashion
20. Implementation Schedule
    - List the chronological steps in implementation of the LAP, including identification of agencies responsible for each activity and with a brief explanation of each activity
    - Prepare a month-by-month implementation schedule of activities to be undertaken as part of resettlement implementation
    - Describe the linkage between resettlement implementation and initiation of civil works for each of the project components
21. Participation and Consultation
    - Describe the various stakeholders
    - Describe the process of promoting consultation/participation of affected populations and stakeholders in resettlement preparation and planning. Be specific about which kinds of documentation will have to be collected (photos, reports, attendance lists, etc.)

- Describe the process of involving affected populations and other stakeholders in implementation and monitoring
- Describe the plan for disseminating LAP information to affected populations and stakeholders, including information about compensation for lost assets, eligibility for compensation, displacement assistance, and grievance redress

22. Grievance Redress
    - Describe the step-by-step process for registering and addressing grievances and provide specific details regarding a cost-free process for registering complaints, response time, and communication modes
    - Describe how the mechanism ensured unrestricted access, transparency, accountability, how it documents cases and keeps the complainants informed and the institutional setup.
    - Describe the mechanism for appeal
    - Describe the provisions for approaching civil courts if other options fail
23. Monitoring and Evaluation
    - Describe the internal/performance monitoring process. Ensure monitoring program seeks to measure whether displaced enjoy at least a standard of living and access to livelihoods equal to what they enjoyed before displacement
    - Define key monitoring indicators derived from baseline survey. Provide a list of monitoring indicators that will be used for internal monitoring, including number and location of displaced persons
    - Describe institutional (including financial) arrangements
    - Describe frequency of reporting and content for internal monitoring
    - Describe process for integrating feedback from internal monitoring into implementation
    - Define methodology for external monitoring
    - Define key indicators for external monitoring
    - Describe frequency of reporting and content for external monitoring. Ensure monitoring program is regular and ongoing following project completion until durable solutions are reached
    - Describe process for integrating feedback from external monitoring into implementation
    - Describe arrangements for final external evaluation
    - Describe need for updates to census, assets inventories, resource assessments, and socioeconomic surveys, if necessary, as part of LAP monitoring and evaluation
24. Costs and Budgets
    - Provide a clear statement of financial responsibility and authority
    - List the sources of funds for displacement and describe the flow of funds
    - Ensure that the budget for displacement is sufficient and included in the overall project budget. Include provisions for non-anticipated adverse impacts.
    - Identify displacement costs, if any, to be funded by the government and the mechanisms that will be established to ensure coordination of disbursements with the LAP and the project schedule. Prepare estimated budget, by cost and by item, for all displacement costs including planning and implementation, management and administration, monitoring and evaluation, and contingencies

- Describe the specific mechanisms to adjust cost estimates and compensation payments for inflation and currency fluctuations
- Describe the provisions to account for physical and price contingencies
- Describe the financial arrangements for external monitoring and evaluation including the process for awarding and maintenance of contracts for the entire duration of displacement

Annexes

- Copies of census and survey instruments, interview formats, and any other research tools
- Information on all public consultation including announcements and schedules of public meetings, meeting minutes, and lists of attendees
- Examples of formats to be used in monitoring and reporting on LAP implementation
- Entitlement matrix
- Evidence of prior informed consent for indigenous peoples and tribal communities

Annex 10: Gender Analysis and Gender Action Plan

Project: Accelerating transition to a circular economy in India's electrical and electronic sector through sustainable integrated approaches	
	GEF Project ID: 11405, UNDP PIMS No. 9664

This Gender Action Plan (GAP) is meant to serve as a strategic framework to ensure gender equality. It will support in mainstreaming gender concerns and equality throughout and across the project components. The document provides an overview of the various relevant gender-related policies, plans, tools and resources existing in India; as well as an analysis of the status of e- waste workers, both men and women. It also identifies opportunities where gender inequalities can be addressed and women better empowered through the recognition of their work, knowledge, contributions and needs in the recycling value- chain of e- waste.

Purpose: The purpose of having GAP is to institutionalize the commitment to gender equality across every stage of this project, and create a roadmap that outlines specific goals, actions, and measurable outcomes to address gender disparities.

This Plan consists of the following information:

- Policy Landscape: A policy review of gender and e- waste related legislation, programmes, and frameworks, particularly those related to informal e- waste sector.
- Gender Assessment: Key gender disparities across various stages of e- waste value chain and its impacts.
- Gender Goals: Gender related information, tools, and resources to guide the project implementation team:
  - ✓ Primary gender mainstreaming objectives to be achieved during project implementation.
  - ✓ Necessary actions with recommended activities for achieving the objectives.

It is recommended that this plan be revisited at the onset of project implementation.

1. Policy Landscape

A. International policies

India is a party to several international frameworks and conventions that address gender inequality. These frameworks aim to promote gender equality, women's empowerment, and eliminate gender-based discrimination. Some of the key international conventions and frameworks that India is committed to are:

Table 8-1: India's global commitments to gender equality

Policy/ Framework	Description
Convention on the Elimination of All Forms of Discrimination	Often referred to as the "international bill of rights for women", CEDAW was adopted by the United Nations General Assembly in 1979 and ratified by India in 1993. CEDAW commits India to eliminate discrimination against women in all forms, including in political, economic, social, and cultural life. It also obliges the state to ensure equal access to education, employment, and healthcare, and to take appropriate measures to combat violence against women.

Against Women (CEDAW), 1979[48]	India submits periodic reports on the status of women's rights to the CEDAW Committee.
Beijing Declaration and Platform for Action, 1995[49]	Adopted at the Fourth World Conference on Women in Beijing, this platform is a comprehensive policy agenda for women's empowerment. India is committed to this framework, which calls for addressing twelve critical areas of concern for women, including poverty, education, health, violence, armed conflict, and economic inequality. It also highlights the need for gender mainstreaming in government policies.
Sustainable Development Goals (SDGs), 2015[50]	India is a signatory to the 2030 Agenda for Sustainable Development, which includes 17 Sustainable Development Goals (SDGs). Among these, SDG 5 specifically focuses on achieving gender equality and empowering all women and girls. SDG 5 calls for eliminating all forms of discrimination and violence against women and girls, ensuring equal participation in leadership and decision-making, and recognizing unpaid care and domestic work.

B. Relevant laws in India

India does not have specific laws focused on ensuring gender equality in the e-waste sector, but several broader legal frameworks aim to address gender equality across industries, including environmental and labor sectors. These laws indirectly impact gender issues within the e- waste sector.

1.1 Constitutional provisions

The principle of gender equality is enshrined in the Indian Constitution in its Preamble, Fundamental Rights, Fundamental Duties and Directive Principles[51]. The Constitution not only grants equality to women, but also empowers the State to adopt measures of positive discrimination in favor of women.

Table 8-2: Provisions of equal treatment of men and women in Indian Constitution

Article in the Constitution	Constitutional Privilege
Article 14	Equality before law
Article 15 (i)	The State not to discriminate against any citizen on grounds only of religion, race, caste, sex, place of birth or any of them
Article 15 (3)	The State to make any special provision in favor of women and children
Article 16	Equality of opportunity for all citizens in matters relating to employment or appointment to any office under the State
Article 39 (a)	The State to direct its policy towards securing equal right to an adequate means of livelihood for men and women

[48] CEDAW | India | UN Women – Asia-Pacific
[49] Microsoft Word - Document1 (unsw.edu.au)
[50] THE 17 GOALS | Sustainable Development (un.org)
[51] Constitutional&Legal_Rights.pdf (mospi.gov.in)

Article 39 (d)	The State to direct its policy towards securing equal pay for equal work for both men and women
Article 39 (A)	To promote justice, on a basis of equal opportunity and to provide free legal aid by suitable legislation or scheme or in any other way to ensure that opportunities for securing justice are not denied to any citizen by reason of economic or other disabilities
Article 42	The State to make provision for securing just and humane conditions of work and for maternity relief
Article 46	The State to promote with special care the educational and economic interests of the weaker sections of the people and to protect them from social injustice and all forms of exploitation
Article 47	The State to raise the level of nutrition and the standard of living of its people
Article 51 (A) (e)	To promote harmony and the spirit of common brotherhood amongst all the people of India and to renounce practices derogatory to the dignity of women
Article 243 D (3)	Not less than one-third (including the number of seats reserved for women belonging to the Scheduled Castes and the Scheduled Tribes) of the total number of seats to be filled by direct election in every Panchayat to be reserved for women and such seats to be allotted by rotation to different constituencies in a Panchayat
Article 243 D (4)	Not less than one- third of the total number of offices of Chairpersons in the Panchayats at each level to be reserved for women
Article 243 T (3)	Not less than one-third (including the number of seats reserved for women belonging to the Scheduled Castes and the Scheduled Tribes) of the total number of seats to be filled by direct election in every Municipality to be reserved for women and such seats to be allotted by rotation to different constituencies in a Municipality
Article 243 T (4)	Reservation of offices of Chairpersons in Municipalities for the Scheduled Castes, the Scheduled Tribes and women in such manner as the legislature of a State may by law provide

1.2 Code of Wages Act, 2019

This Act was introduced to transform the old and obsolete labour laws into more accountable and transparent ones. It removes the multiplicity of wage definitions; regulates the wages and bonus payments in all employments where any industry, trade, business, or manufacturing is being carried out; links minimum wage across the country to the skills of the employee and the place of employment. It subsumes the following four labour laws:

i. The Payment of Wages Act, 1936

ii. The Minimum Wages Act, 1948

iii. The Payment of Bonus Act, 1965

iv. The Equal Renumeration Act, 1976

Table 8-3: Provisions for gender equality in Code of Wages Act, 2019

Key provisions[52]	Responsibility	Applicability
The employer shall pay equal wages to its workers, thereby promoting gender equality.	Manufacturer, Producer, Recycler, Refurbisher and Dismantler involved in manufacture, sale, transfer, purchase, refurbishing, dismantling, recycling and processing of e-waste or EEE	All the employees

1.3 Occupational Safety, Health, and Working Conditions Code, 2019

The Code seeks to regulate health and safety conditions of workers in establishments with 10 or more workers. It subsumes and replaces 13 labour laws relating to safety, health, and working conditions. These laws include:

i. Factories Act, 1948

ii. Contract Labour Act, 1970

iii. Inter-State Migrant Workers Act, 1979, etc.

The Code applies to establishments employing at least 10 workers. Establishments covered by the Code are required to register with registering officers, appointed by the central or state government.

Table 8-4: Provisions for gender equality and equal treatment in Occupational Safety, Health, and Working Conditions Code, 2019

Key provisions[53]	Responsibility	Applicability
The employer must provide a workplace that is free from hazards that may cause injury or diseases.	Manufacturer, Producer, Recycler, Refurbisher and Dismantler involved in manufacture, sale, transfer, purchase, refurbishing, dismantling, recycling and processing of e-waste or EEE	All the employees
The employer must provide free annual health examinations to employees in notified establishments.		
The employer must issue appointment letters to employees.		
The employer must obtain the consent of female workers in cases where female workers work past 7 pm and before 6 am.		
The employer must ensure that welfare facilities such as canteens, first aid boxes, and crèches, are provided as per standards notified by the central government.		

[52] The Code on Wages 2019 No. 29 of 2019 (labour.gov.in)

53 OSH_Gazette.pdf (labour.gov.in)

1.4 Social Security Code, 2020

This Code has widened its coverage by including the unorganized sector, fixed term employees and gig workers, platform workers, inter- state migrant workers, etc. It also mandates the online registration of the workers in unorganized sector on the basis of self- certification.

Table 8-5: Provisions for gender equality in Social Security Code, 2020

Key provisions[54]	Responsibility	Applicability
Maternity Benefits		
i. The maternity leave for women has been increased to 26 weeks, of which not more than 8 weeks shall precede the expected date of delivery. ii. Women who have adopted children aged under three months may avail maternity leave for 12 weeks. iii. The employer must provide creche facility at workplaces with 50 or more employees (Maternity Benefit Act, 2017). iv. A woman who is already a mother of 2 children is eligible for 12 weeks of maternity leave if she has a third child. v. For a woman employee to be eligible under maternity benefit at the rate of the average daily wage for the period of her actual absence, she should have been working for 80 days in the current establishment in the last 12 months.	Manufacturer, Producer, Recycler, Refurbisher and Dismantler involved in manufacture, sale, transfer, purchase, refurbishing, dismantling, recycling and processing of e-waste or EEE	Women Employees

1.5 Industrial Relations Code, 2020

This Code subsumes the following three legislations:

i. The Trade Unions Act, 1926

ii. The Industrial Employment (Standing Orders) Act, 1946

iii. The Industrial Disputes Act, 1947

The objective of the Code is to streamline the dispute resolution mechanism, protect fixed- term employees, and enforce strict penalties to avoid non- compliance.

Table 8-6: Provisions for gender equality in Industrial Relations Code, 2020

Key provisions[55]	Responsibility	Applicability
There should be equality in the number of members representing the employers, employees, as well as women employees. Representation of	Manufacturer, Producer, Recycler, Refurbisher and Dismantler involved in manufacture, sale, transfer, purchase,	All the employees

54 The Code on Wages 2019 No. 29 of 2019 (labour.gov.in)

55 ir_gazette_of_india.pdf (labour.gov.in)

women workers in the committee should not be less than the proportion of women workers to the total workers in an establishment.	refurbishing, dismantling, recycling and processing of e-waste or EEE	

The above- mentioned laws and rules regulate the functioning of the formal sector establishments of manufacturers, producers, recyclers, refurbishers, and dismantlers. However, the Indian policy landscape recognizes the activities of informal e- waste workers as illegal[56]. Upon identification by relevant state authorities, informal e- waste workers are arrested, and their e- waste processing operations are shut down.

2. Gender Assessment

2.1 Introduction

Various gender assessments in India reveal persistent inequalities across various social, economic, and political sectors despite progress in some areas[57]. According to the Global Gender Gap Report 2023, India ranks 127th out of 146 countries, highlighting disparities in economic participation, political empowerment, and health outcomes[58]. Women's labor force participation remains low at around 25%, largely due to socio-cultural norms, lack of access to formal employment, and unpaid domestic responsibilities[59]. In politics, while women make up 14% of parliamentary representatives, significant gender gaps in leadership roles persist[60]. Additionally, the country continues to grapple with high rates of gender-based violence, with 1 in 3 women reporting experiencing physical or sexual violence during their lifetime[61].

In India's e-waste sector, women play a significant role, particularly in informal roles such as collection, segregation, and dismantling, often in hazardous conditions with limited formal recognition or safety measures[62]. Additionally, their involvement in formal sectors remains limited due to lack of access to training and opportunities. Formal roles like technicians or managers are still male dominated[63]. However, with the growing awareness of e-waste management and policy initiatives, there is potential for better inclusion of women in skilled positions, though much progress is still needed to bridge the gap between informal and formal participation.

The sections below highlight various roles taken up by women in both formal and informal e- waste value chain, and the gender differentiated inequalities that they continue to face.

2.2 Formal Sector

The formal e-waste sector in India has seen significant growth, driven by stringent regulations and a rising demand for proper disposal of electronic waste. However, this sector still exhibits stark gender disparities, with women being underrepresented in many roles, especially those that are technical, managerial, or involve decision-making[64].

[56] E-WASTE Management In Informal Sector (pib.gov.in)
[57] Gender Inequality and Gender Gap: An Overview of the Indian Scenario | Gender Issues (springer.com)
[58] Benchmarking gender gaps, 2023 - Global Gender Gap Report 2023 | World Economic Forum (weforum.org)
[59] Closing the gap: Tackling the remaining disparities in girls' education and women's labor market participation (worldbank.org)
[60] Women's Representation in India's Parliament: Measuring Progress, Analysing Obstacles (orfonline.org)
[61] Bridging Gender Gap: India's Path To Equality In 2023 Vs 2024 (businessworld.in)
[62] Celebrating Women of Waste:: Breaking Gender Barriers in the Circular Economy | WMW (waste-management-world.com)
[63] USAID-factsheet- WE3-SWM-Global 2019 09 27.pdf (urban-links.org)
[64] Celebrating Women of Waste:: Breaking Gender Barriers in the Circular Economy | WMW (waste-management-world.com)

Table 8-7: Various roles taken up by women in formal e- waste value chain

S. No.	Roles	Description[65]
1.	Technical Roles	i. **Engineers:** Women are employed as mechanical, electrical, and environmental engineers involved in designing and optimizing recycling processes, machinery, and e-waste treatment plants. ii. **Scientists and Researchers:** Women contribute to developing innovative recycling technologies, new materials recovery methods, and research on the environmental and health impacts of e-waste. iii. **Quality Control Analysts:** Monitoring and ensuring that the recycling processes meet environmental and safety standards can be a significant role for women with technical expertise.
2	Management and Leadership Roles	i. **Operations Managers:** Women oversee day-to-day management of recycling facilities, ensuring compliance with safety standards, supervising workers, and coordinating the recycling processes. ii. **Project Managers**: Leading recycling projects, from setup to execution, ensuring project timelines, and managing financial and human resources. iii. **Compliance Officers:** Ensuring adherence to environmental laws and safety regulations under India's E-Waste Management Rules.
3.	Supervisory and Technical Assistance	i. **Supervisors in dismantling units:** Supervising, sorting and dismantling units where manual dismantling of e-waste like small electronics, PCBs (printed circuit boards), and other components occurs.
4.	Heavy Machinery Operation	i. With proper training, women also handle heavy machinery used in shredding, separating, and treating e-waste. This includes the use of automated systems for safe dismantling, extraction, and recovery of materials like precious metals (gold, copper, etc.) from e-waste.

Gender differentiated perceptions and risks

While women have the potential to contribute meaningfully across the value chain, several gender disparities hinder their active participation and career advancement. These disparities manifest in different forms, ranging from the types of roles assigned to women to challenges in workplace conditions, pay gaps, and access to training.

i. *Stereotyping of skills*

Women in the formal e-waste sector are often perceived as more suitable for roles that involve manual sorting, basic dismantling, or administrative tasks rather than technical or managerial roles[66]. This reflects traditional gender

[65] The data has been collected during stakeholder consultations.

[66] Gender Stereotypes and Their Impact on Women's Career Progressions from a Managerial Perspective - Naznin Tabassum, Bhabani Shankar Nayak, 2021 (sagepub.com)

norms that stereotype women as less capable in handling complex machinery or engaging in physically demanding tasks.

For instance, women are frequently assigned to sorting and dismantling components like keyboards, cell phones, and small electronics, which are viewed as less labor-intensive. Meanwhile, men are preferred for jobs involving machinery operation, transport of heavy materials, and roles in hazardous waste handling.

ii. *Underrepresentation in technical and managerial roles*

Despite qualifications, women are often underrepresented in more technical roles such as process engineers, machinery operators, and environmental scientists, which are higher-paying and offer better career growth prospects[67].

In managerial positions, women are often perceived as less capable of handling operational challenges, leading to fewer women in leadership positions such as facility managers, project leads, or compliance officers.

iii. *Disparity in wages*

A significant gender pay gap persists in the formal sector, with women being paid less than men for the same work or similar roles. Studies show that across technical fields in India, women earn about 20% less than their male counterparts[68]. In the e-waste sector, this is compounded by the perception that women's roles are less technical or specialized.

iv. *Nature of employment*

Women are more likely to be employed on a contract or part-time basis, which reduces their job security, access to benefits, and opportunities for advancement[69].

2.3 Informal Sector

In India, despite the illegality of informal e-waste recycling, vast quantities of discarded electronics continuously flow into the hands of informal workers who operate outside the law. These workers, often living in densely populated urban slums or peripheral areas, have developed sophisticated yet illicit networks for procuring e-waste[70]. A large part of their supply comes from local collection efforts, where informal "kabadiwalas" (scrap collectors) roam the streets, going door-to-door to purchase or pick up old electronics from households and small businesses[71]. This neighborhood-level collection is merely the surface of a much deeper, more complex system. Beneath this informal collection lies a hidden world of illegal e-waste transportation, imports, and reverse logistics.

Once the e- waste is sourced by the informal sector, it is processed manually through various stages. Dismantling and segregation are critical stages where discarded electronics are broken down into their component parts. This process is labor-intensive and involves the manual breakdown of devices into their core components—plastics, metals, glass, and hazardous materials like batteries or CRT tubes.

Once processed and extracted, the recycled materials are either sold back into the market or used by small-scale industries.

[67] Women Are Still Underrepresented in Leadership and the Technology, Information and Media industry (linkedin.com)
[68] Gender gaps in the workforce - Global Gender Gap Report 2023 | World Economic Forum (weforum.org)
[69] Women and Work in India: Trends and Analysis - India Briefing News (india-briefing.com)
[70] Circular economy and household e-waste management in India: Integration of formal and informal sectors - ScienceDirect
[71] Tejas Article : E-Waste Supply Chain Management in India : Opportunities and Challenges (iimb.ac.in)

Table 8-8: Various tasks performed by men and women during segregation and dismantling of e-waste

S. No.	Task	Description	Performed by
1.	Manual segregation dismantling	Workers perform manual segregation and dismantling using rudimentary tools like hammers, screwdrivers, and chisels to tear down the electronic devices.	Women
2	Burning and open-air smelting	To extract valuable metals like copper, gold, and silver, workers in the informal sector often burn wires and circuit boards. This process is highly dangerous and releases toxic fumes like dioxins, lead, and mercury into the air, causing severe health risks to workers and surrounding communities.	Men
3.	Acid baths	Another hazardous method involves using strong acids to dissolve circuit boards and extract precious metals. Workers pour these chemicals into unprotected containers, leading to dangerous exposure to chemicals like cyanide, hydrochloric acid, and sulfuric acid.	Men
4.	Shedding and grinding	Larger components like CRT tubes or plastic casings are often manually shredded and ground down.	Men

Gender differentiated perceptions and risks-

i. *Wage disparities*

Wage disparities between men and women in the informal e-waste sector are a significant and persistent issue, deeply rooted in socio-economic, cultural, and structural inequalities.

Despite their crucial role in the value- chain, women earn significantly lower wages than men in the informal sector. Women's tasks, such as sorting and wire stripping, are considered low-skilled and are compensated less than the physically demanding tasks undertaken by men, such as dismantling large devices or handling hazardous materials. This disparity persists even though women's labor is vital to ensuring that the valuable materials are properly segregated for resale.

One of the main reasons this wage gap persists is the entrenched societal norms and gender roles that dictate what is considered "appropriate" work for women. Women are often seen as less capable of handling more technical or physically demanding jobs. This results in a concentration of women in lower-tier jobs, which are undervalued and underpaid. Moreover, women's participation in the workforce is often constrained by their dual burden of domestic responsibilities, as they are expected to balance work with household chores and caregiving duties. This limits their ability to take on full-time or higher-paying work, reinforcing the gender-based segregation of roles and wages in the sector.

Another factor contributing to wage disparities is the lack of access to education and training for women in the informal sector. Many women do not have the same opportunities as men to learn skills that could qualify them for better-paying jobs, such as dismantling materials. Without formal training, they remain trapped in low-skill, low-wage roles. Additionally, in many cases, women lack the bargaining power or collective voice to advocate for higher

wages or better working conditions. The informal nature of their employment, often without contracts or legal protections, makes it even harder for them to challenge the status quo or demand equal pay.

ii. *Limited economic mobility*

While both men and women are involved in the process of segregation and dismantling in different capacities, women are typically confined to low-paying and repetitive tasks, which limits their ability to move up the economic ladder within this industry. They are less likely to engage in negotiations with middlemen or traders, as those roles are often dominated by men who have stronger connections to the market and more experience in securing higher-value deals.

The repercussions of this limited economic mobility are profound and far-reaching in women's lives. Financially, the inability to move up the economic ladder leaves women and their families vulnerable to poverty and economic instability. Many women, especially widows, working in the informal e-waste sector struggle to meet their basic needs, such as food, shelter, healthcare, and education for their children. This financial insecurity often perpetuates intergenerational cycles of poverty, as children from low-income families are less likely to access education or opportunities that could improve their future economic standing. Furthermore, the lack of economic mobility contributes to social inequality, as women are often excluded from decision-making processes both within their households and in the broader community. Without financial independence or stability, women have less control over their lives and are more susceptible to exploitation, discrimination, and abuse.

iii. *Health and safety*

While men are more likely to be involved in physically consuming and risky tasks which can lead to immediate injuries, women face more chronic health risks[72], [73], [74] due to their prolonged exposure to chemicals during manual dismantling and segregation.

- Exposure to hazardous substances due to inhalation, dermal contact, or ingestion leads to reduced fertility among women workers. Fertility is affected due to endocrine disruption, reduced ovarian reserve, or even genetic damage at times. Such an exposure may also suppress the immune system leading to complications in pregnancy.
- For an expectant mother, exposure to toxic e-waste can affect the health and development of her unborn child for the rest of his/her life. Potential adverse health effects include negative birth outcomes, such as stillbirth and premature births, as well as low birth weight and length.
- Exposure to lead from e-waste recycling activities has been associated with significantly reduced neonatal behavioral neurological assessment scores, increased rates of attention deficit/ hyperactivity disorder (ADHD), behavioral problems, changes in child temperament, sensory integration difficulties, and reduced cognitive and language scores.

iv. *Dual burden of work and domestic responsibilities*

Women in the informal e-waste sector face the “double burden” of paid labor and unpaid household responsibilities. After working long hours in hazardous conditions, they are expected to fulfill domestic duties such as childcare,

[72] Soaring e-waste affects the health of millions of children, WHO warns
[73] Why gender dynamics matter in waste management (unep.org)
[74] Krueger.pdf (greene.gov.in)

cooking, and cleaning. This dual burden limits their ability to seek better- paying jobs or engage in skill development programmes.

v. *Decision-Making Power and Financial Independence*

Despite contributing to household income, women often have limited decision- making power within their families. Cultural norms dictate that men control financial decisions, leaving women with limited autonomy over their earnings75. This lack of financial independence perpetuates gender inequality and reduces women's ability to improve their economic status.

vi. *Limited Mobility and Workplace Harassment*

Due to concerns about safety and harassment, women's mobility is often restricted. They are less likely to be given jobs that require traveling outside their local area, which limits their opportunities for better-paying roles. Additionally, sexual harassment76 in the workplace is a serious issue in the informal sector, with few avenues for women to report abuse or seek justice.

Action Plan for Gender Responsive E- Waste Management

The following plan puts forth the desired gender-related impact and outcomes of the project and recommends concrete actions on how gender can be mainstreamed in various project activities.

[75] (PDF) Decision Making as a Contributor for Women Empowerment: A Study in the Indian Context (researchgate.net)
[76] PowerPoint Presentation (asiafoundation.org)

Project Objective: Accelerating transition to a circular economy in India's electrical and electronic sector through sustainable integrated approaches			
Gender related impact: i. Improved economic opportunities for women. ii. Reduction of health and safety risks at work.			
Component 1: Strengthen institutional mechanisms and develop knowledge- based interventions including the design of innovative economic models.			
Outcome 1: Enabling environment enhanced for sustainable EEE production and e-waste management			
Output 1.1: Circular Economy baseline for EEE eco-design and cleaner production establishments			
Project Activity	**Gender Action**	**Gender Target**	**Budget Requirements**
Activity 1.1.1: Establish a CE baseline among EEE OEMs/producers in India via primary data collection by using established indicators	Strengthen institutional capacities of relevant stakeholders to collect and manage e- waste data, ensuring that both men's and women's contributions in the sector are accurately captured. Ensure baseline mapping includes the socio-economic situation of rural poor, women, and other marginalized groups in the e-waste sector.	Baseline study is gender- sensitive.	Included in Project budget
Output 1.2: Inventories of e-waste generation and assessment on externalities established, the cost of e-waste management estimated, and the value chain of key materials mapped taking into consideration specific gender-related aspects.			
Project Activity	**Gender Action**	**Gender Target**	**Budget Requirements**
Activity 1.2.1: Conduct national e-waste inventory assessment with improved granularity at national and sub-national levels, aligned to global methodologies	Collect and analyse gender- disaggregated data to understand the roles of men, women, and other genders, in informal and formal e-waste management sectors	National inventory is gender- sensitive	Included in Project budget
Activity 1.2.2: Conduct a study to estimate the cost burden of e-waste management and adoption of BAT/BEPs on different	Ensure the study on the cost burden of e-waste management and adoption of BAT/BEP incorporates a gender lens by capturing the	Integrate at least one gender-sensitive recommendation into the findings to address	Included in Project budget

stakeholders (producers, recyclers, manufacturers, refurbishers)	distinct economic impacts on women, men, and other genders across stakeholder groups	economic disparities related to e-waste management and technology adoption	
Activity 1.2.3: Conduct a socio-environmental and gender assessment of the impact of informal recycling, its nature of operation, collection network, modus operandi and identifying informal hubs in the country	Assess the gender-differentiated roles, risks, and benefits associated with informal recycling operations, collection networks, and hubs to address gender disparities and promote equitable inclusion in recycling systems. Ensure that the data collection team is provided with appropriate and adequate training on gender aspects.	50% representation of women in interviews, focus group discussions, and surveys among informal recycling stakeholders, including waste pickers, aggregators, and collectors	Included in Project budget
Activity 1.2.4: Undertake a Material Flow Analysis (MFA) to map the life cycle of the 106 EEE included in the E-waste Management Rules and assess the emissions of POPs, uPOPs, and Hazardous metals	Strengthen institutional capacities of relevant stakeholders in identifying gender- specific challenges in management of the 106 EEE, including identification of the exposure routes to hazardous substances for both men and women.	Increased capacities of the relevant targeted stakeholders with regard to gender specific and gender appropriate training and technical assistance.	Included in Project budget
Output 1.3: E-waste rules' enforcement, including EPR monitoring, harmonized between national and subnational levels and coordination mechanisms and guidelines for the e-waste management established			
Project Activity	**Gender Action**	**Gender Target**	**Budget Requirements**
Activity 1.3.1: Develop guidelines/SOPs for sub-national (state and city-level) e-waste inventory development, management, and enforcement, in accordance with UNDP Social and Environmental Safeguards (SES)	Provision of gender-sensitive capacity-building initiatives for state and city officials on e-waste inventory development and enforcement. Training programs and capacity-building materials developed alongside the SOPs include gender-specific modules addressing women's roles and challenges in e-waste management	Increased capacities of the relevant stakeholders for development of gender-sensitive and gender- inclusive guidelines	Included in Project budget
Activity 1.3.2: Conduct a feasibility study to extend the scope of the EPR certificate regime	Review the estimated gendered impact of the desired change (access, needs, barriers, potentials, workload, benefits) for both men	Feasibility study includes gender analysis with specific recommendations for improving	Included in Project budget

beyond the 4 key metals (Gold, Aluminum, Copper, Iron).	and women in terms of employment opportunities, skill development, and health risks.	gender inclusivity in extending the EPR certificate regime.	
Output 1.4: Frameworks for audit of e-waste recycling facilities developed.			
Project Activity	**Gender Action**	**Gender Target**	**Budget Requirements**
Activity 1.4.1: Develop an SOP to streamline and effectively implement the auditing of e-waste recycling facilities in accordance with the E-waste management rules provisions with insights from global waste audit certifications and in accordance with UNDP SES .	Ensure women and men are able to voice out and harmonize their needs and concerns by undertaking gender- inclusive consultations during development of SOPs for auditing e-waste recycling facilities.	Adequate participation of both women and men during development of SOPs	Included in Project budget
Output 1.5: India's RoHS for imported and manufactured EEE assessed and gender-sensitive recommendations proposed to strengthen its implementation and aligned for the national/ sub-national action.			
Project Activity	**Gender Action**	**Gender Target**	**Budget Requirements**
Activity 1.5.1: Develop product-wise testing protocol and guidelines including testing infrastructure development/upgradation for RoHS compliance aligned with global laboratory standards	Ensure the inclusion of women experts and stakeholders in the development of testing protocols and guidelines to integrate diverse perspectives	Achieve at least 30% representation of women in the technical committees, consultation workshops, and stakeholder engagements involved in protocol and guideline development	Included in Project budget
Activity 1.5.2: Develop a Monitoring, Reporting and Verification (MRV) framework for CPCB to facilitate efficient post-market surveillance of RoHS certified products	Integrate gender considerations into the monitoring, reporting, and verification (MRV) framework for RoHS compliance by ensuring that both men and women's roles in post-market surveillance are acknowledged, and that gender-specific health risks and exposure to hazardous substances are assessed.	Ensure that the MRV framework includes at least two gender-specific indicators to track the participation, impact, and exposure risks for both men and women in post-market RoHS compliance activities, leading to a more inclusive and equitable surveillance system.	Included in Project budget
Output 1.6: Gender-sensitive Eco-design and eco-labelling standards and guidelines proposed at targeted industries.			

Project Activity	Gender Action	Gender Target	Budget Requirements
Activity 1.6.1: Identify critical EEE product categories with increased potential for eco-design and eco-labelling incorporation	Ensure that the product categories identified take into consideration how eco-design and eco-labelling impacts men and women differently in terms of production roles, consumption patterns, and occupational health risks for EEE products.	Eco- design and eco- labelling potential of EEE products are gender- sensitive.	Included in Project budget
Activity 1.6.2: Develop a roadmap to facilitate adoption of the new Ecomark rules, 2024 for each EEE category	Ensure active participation of women from various sectors (government, industry, civil society, and academia) in the development of the strategy for adopting new Ecomark rules and identifying BEP	Achieve at least 30% participation of women in consultations, workshops, and working groups involved in the strategy development and identification of BEP	Included in Project budget
Activity 1.6.3: Conduct Readiness Assessment to gauge India's readiness to adopt a policy akin to the EU's Eco-design for Sustainable Products Regulation (ESPR	Ensure that women are actively involved in consultations, workshops, and expert groups during the readiness assessment, capturing their perspectives on the potential impacts of the eco-design policy.	Ensure at least 30% representation of women in the stakeholder consultations and expert reviews during the readiness assessment	Included in Project budget
Output 1.7: Economically sustainable management model for e-waste designed and piloted			
Project Activity	**Gender Action**	**Gender Target**	**Budget Requirements**
Activity 1.7.1: Based on the assessed existing business models, at its different stages, develop a blueprint of an "ideal" business model, including compliance with UNDP SES and reflecting relevant gender considerations	Integrate gender-responsive components in the business model, such as ensuring equitable access to resources, decision-making processes, and benefits for women across the e-waste management value chain	Ideal business model is gender- sensitive.	Included in Project budget
Activity 1.7.2: Conduct a study of the product subscription model with the aim of diminishing e-waste generation and extending the lifespan of electronic products	Collect and analyze gender- disaggregated data to understand the roles of men, women, and other genders.	Integrate at least one gender-sensitive recommendation into the findings to ensure gender-specific insights are factored in.	Included in Project budget
Component 2: EEE manufacturing, supply chain, and end of life (EoL) ecosystem improvement through prevention measures and socio- technical ESM models/ pilots for replication			

Outcome 2: POPs and other highly hazardous releases and emissions from EEE's unsound production and e-waste's management reduced with support from financial models and BAT/BEP piloted			
Output 2.1: Initiate the transformation of the EEE production and assembly in at least two (2) Original Equipment Manufacturers (OEMs) through eco-design and other inputs/ materials/ chemicals reduction measures piloted.			
Project Activity	**Gender Action**	**Gender Target**	**Budget Requirements**
Activity 2.1.1: Conduct pre-feasibility and assessment of potential intervention. Define feasible and easily adoptable eco-design measures that can be integrated in EEE production and assembly by conducting a pre-feasibility assessment.	Identify eco-design measures that specifically address gender differences, such as improving the ergonomics of products for women users or ensuring women's participation in eco-design decision-making processes	Identify and recommend at least two eco-design measures that are particularly beneficial for women users or that can increase women's participation in the EEE sector	Included in Project budget
Activity 2.1.2: Design the implementation of the intervention with the participating OEMs/Producers	Assess the gender-differentiated roles, risks, and benefits associated with the upstream value chain to address gender disparities and promote equitable inclusion.	50% representation of women in interviews, focus group discussions, and stakeholder surveys.	Included in Project budget
Activity 2.1.3: Initiate implementation of intervention, and undertake final assessment.	Integrate gender considerations into the implementation plan. Ensure women are actively involved in consultations, workshops, and expert group discussions during implementation and final assessment so their perspectives are adequately captured.	Ensure the implementation plan includes at least two gender-specific indicators to track the participation and impact on both men and women.	Included in Project budget
Output 2.2: At least two (2) Feasibility Studies for replacement/ rebate models of used EEE developed with manufacturers (OEMs) and/ or large retailers to support strengthening of EPR schemes.			
Project Activity	**Gender Action**	**Gender Target**	**Budget Requirements**
Activity 2.2.1: Based pm pre-defined selection criteria, which will include health and safety, environmental, social and gender considerations, select OEMs and identify types	Design the rebate model to consider factors that affect women consumers, such as accessibility, affordability, and marketing strategies that target female customers,	Incorporate at least two gender-responsive elements in the pilot model, such as ensuring the rebate system is accessible to women-headed households or developing	Included in Project budget

of interventions, Design two business models for replacement-rebate of large EEE goods. Implement pilot projects, conduct assessment, and document pilot results	especially in low-income or marginalized communities	communication strategies that target female customers	
Output 2.3: At least one (1) gender-responsive economically sustainable model with OEMs for education and public engagement on e-waste collection (offsetting) and supply chains piloted.			
Project Activity	**Gender Action**	**Gender Target**	**Budget Requirements**
Activity 2.3.1: Based on pre-defined selection criteria, including health and safety, environmental, social and gender consideration, select and engage two OEMs interested in participation	Include gender-responsive indicators in the selection criteria, such as commitment to gender diversity in the OEM's workforce, especially in sustainability or waste management teams, policies supporting women in technical roles or leadership positions, evidence of gender equity practices in supply chain management, etc. Ensure that the selection and evaluation processes involve women representatives from relevant stakeholders (e.g., government, academia, or NGOs focused on gender and environment).	Ensure 100% of shortlisted OEMs meet a baseline standard of gender-responsive practices (e.g., equal employment policies, and evidence of gender inclusivity).	Included in Project budget
Activity 2.3.2: Design detailed intervention and engage a CSO or SME which will operate the offsetting model, with schools/universities or youth communities interested in participating in the pilot projects	Ensure gender equality in participation at all levels such as CSO, SMEs and youth communities.	At least 20% of female participation	Included in Project budget
Activity 2.3.3: Implement the pilot schemes through an agile model of off-setting through education	Ensure that the educational programmes or campaigns are tailored to the specific needs and capabilities of women.	Gender mainstreaming (and use of gender-fair language) in all knowledge material and campaigns.	Included in Project budget
Output 2.4: At least four (4) gender- responsive schemes for e-waste collection and BEP for transforming or upgrading informal processing facilities developed and piloted.			
Project Activity	**Gender Action**	**Gender Target**	**Budget Requirements**

Activity 2.4.1: Based on pre-defined selection criterial, including health and safety, social, environmental and gender aspects, identify and Select (with due diligence) micro or small aggregators/disassemblers/recyclers for pilot projects, design and implement the pilot projects, assess results and design replication plan	Include gender-responsive indicators in the selection criteria, such as prioritizing businesses that employ or are led by women or have policies promoting gender equity.	Ensure 100% of shortlisted OEMs meet a baseline standard of gender-responsive practices (e.g., equal employment policies, and evidence of gender inclusivity).	Included in Project budget
Activity 2.4.2: BAT/BEP implementation of e-waste management (at its preparatory stages: collection, classification, disassembly, segregation, etc.) to a group of micro or small aggregators/disassemblers/ recyclers and linking the recycling facility with OEMs to ensure uptake	Ensure the selected businesses demonstrate commitments to gender-equitable practices (e.g., equal wages, safe working conditions, gender-sensitive HR policies).	Require 100% of selected enterprises to demonstrate gender-inclusive practices (e.g., policies on gender equality, hiring female workers).	Included in Project budget
Output 2.5: Lithium-ion scrap batteries management pilot (1), developed and tested, linked to upstream electric car production to manage their off-spec batteries, with ESM model and guidelines prepared.			
Project Activity	**Gender Action**	**Gender Target**	**Budget Requirements**
Activity 2.5.1: Conduct a study on technology landscape and economic feasibility in India of recycling spent LIBs	Include a section in the study to analyze how the recycling of LIBs impacts men and women differently (e.g., exposure to toxic materials, employment opportunities, or barriers to participation). Investigate the participation of women in the LIB recycling value chain, focusing on informal sector roles and potential entry barriers in formalized processes.	At least 30% participation of women in stakeholder consultations, focus group discussions, or interviews conducted during the study.	Included in Project budget
Activity 2.5.2: Based on pre-defined criteria, select and engage aggregators/ disassemblers/ recyclers for the pilot projects	Include gender-responsive indicators in the selection criteria, such as: commitment to gender diversity in the OEM's workforce, especially in sustainability or waste management teams, policies supporting	Ensure 100% of shortlisted OEMs meet a baseline standard of gender-responsive practices (e.g., equal employment policies, and evidence of gender inclusivity).	Included in Project budget

	women in technical roles or leadership positions, evidence of gender equity practices in supply chain management, etc. Ensure that the selection and evaluation processes involve women representatives from relevant stakeholders (e.g., government, academia, or NGOs focused on gender and environment).		
Activity 2.5.3: Implement pilot for safe handling of spent LIBs to prevent explosion. Design of replication plan with replication implemented and results assessed	Assess the gendered impact of health and safety risks during LIB handling, particularly for women workers who may have differing exposure levels or physiological vulnerabilities. Develop and deliver training on LIB safety protocols, ensuring gender-sensitive language and content.	Target 50% participation of women in training programs on the safe handling of LIBs, with sessions designed to address specific needs and barriers.	Included in Project budget
Component 3: Improvement of baseline system and infrastructures for POPs and UPOPs reduction in e- waste processing.			
Outcome 3: Systems changed and infrastructures for reduction of POPs and uPOPs & recovery of key materials improved.			
Output 3.1: Circularity gender-responsive infrastructure for eco-design in OEM facilities (3) assessed and improvements' feasibility determined.			
Project Activity	**Gender Action**	**Gender Target**	**Budget Requirements**
Activity 3.1.1: Shortlist OEMs and their feasible and easily adoptable eco-design measures that can be integrated in EEE production and assembly	Include gender-responsive indicators in the selection criteria for the OEMs. Ensure that the eco-design measures are responsive to gender-specific needs.	Ensure 100% of shortlisted OEMs meet a baseline standard of gender-responsive practices (e.g., equal employment policies, and evidence of gender inclusivity).	Included in Project budget
Activity 3.1.2: Infrastructure changes selection based on Eco-design, assessment of potential implementation, and feasibility study and implementation plan	Evaluate how the eco-design measure impacted men and women differently, considering workplace safety, access to resources, and skill requirements.	At least 10% female representation in operational roles in the implemented pilot.	Included in project budget

	Identify barriers that may limit women's participation in this intervention.		
Output 3.2: Review of baselines and BAT/ BEP in process for metal and valuable material extraction from e-waste tested in one (1) pilot site.			
Project Activity	**Gender Action**	**Gender Target**	**Budget Requirements**
Activity 3.2.1: Develop a recovered metal re-use strategy for pilot test. Define the process type, location, scope and type of partnership. Select and engage consulting designer and plant developer. Define type of partnership	Ensure gender diversity in teams conducting the pilot testing of recovered metal reuse strategies to bring varied perspectives and expertise	At least 30% representation of women in activities related to the development and testing of the recovered metal reuse strategy	Included in project budget
Activity 3.2.2:. Design, procure and start the pilot processing unit for metal extraction from end-of-life (EoL) materials sourced from downstream recyclers and MSEs. Processing unit tested and put into operation	Evaluate how existing and emerging metal extraction technologies impact men and women differently, considering workplace safety, access to resources, and skill requirements. Identify barriers that may limit women's participation in using or developing these technologies, such as lack of technical training or representation in the recycling sector.	Pilots are gender-inclusive.	Included in project budget
Output 3.3: Gender-responsive Feasibility study(ies) and strategic roadmap developed for replication of 3.2.			
Project Activity	**Gender Action**	**Gender Target**	**Budget Requirements**
Activity 3.3.1: Develop a sustainable scale-up strategy to replicate the model of PCB recycling in multiple locations.	Ensure promotion of equal opportunities for both men and women in leadership, employment, and training across multiple locations.	At least 20% female representation in management and operational roles in the new locations.	Included in project budget
Activity 3.3.2: Identify areas of gender inclusion in proposed pilot and develop strategy to enhance their livelihood. (social security, leadership opportunities, skill development, access to finance etc	Ensure equal access to capacity-building opportunities and social security schemes.	At least 20% female representation in capacity-building sessions. Access to at least 2 social security schemes.	Included in project budget

Output 3.4: Process for PBDEs removal from e-waste' plastics designed, assessed and pilot scale tested in one (1) site.			
Project Activity	**Gender Action**	**Gender Target**	**Budget Requirements**
Activity 3.4.1: Define the process type, location, scope and type of partnership. Selection and engagement of consulting designer and plant developer. Define type of partnership	Evaluate how existing and emerging PBDE removal technologies impact men and women differently, considering workplace safety, access to resources, and skill requirements. Identify barriers that may limit women's participation in using or developing these technologies, such as lack of technical training or representation in the recycling sector.	Achieve 30% representation of women in teams conducting the technology landscape assessment and solution identification.	Included in Project budget
Activity 3.4.2: Based on pre-defined selection criteria, which will include compliance with UNDP SES, identify, select and engage large collector/aggregator for the pilot project.	Ensure women are part of the evaluation team for selecting recyclers, bringing diverse perspectives to the selection process.	Ensure 30% women representation in the selection committee evaluating recyclers.	Included in Project budget
Activity 3.4.3: Conduct feasibility study of the pilot to compensate for the cost of removal of PBDEs in EEE plastic and value generated from value generated by metal extraction	Study how compensation models affect men and women differently in the e-waste value chain, including their ability to benefit from value generated by metal extraction	Feasibility study is gender- sensitive	Included in Project budget
Component 4: Knowledge management, global coordination & cooperation, and monitoring & evaluation (M&E).			
Outcome 4.1: Global, regional cooperation improved, and capacities enhanced			
Output 4.1.1: Coordination established with Global Programmes and Initiatives for knowledge management and information exchange and gender equality action			
Project Activity	**Gender Action**	**Gender Target**	**Budget Requirements**
Activity 4.1.1: Develop a knowledge- sharing mechanism strategy for the project with detailed SOPs.	Design the knowledge sharing mechanism to ensure that data and information shared for knowledge sharing is accessible to both men and women equally.	Gender mainstreaming (and use of gender fair language) in all training modules	Included in Project budget

Output 4.1.2: Gender-responsive cross collaboration, including web-based MIS system and communication platform established and aligned with global programmes or initiatives on EEE Sector			
Project Activity	**Gender Action**	**Gender Target**	**Budget Requirements**
Activity 4.1.2: Conduct experience exchange sessions or roundtables to share lessons and insights from the pilots	Collect and analyze gender-disaggregated feedback from participants to assess the inclusivity and impact of the sessions	Achieving a minimum of 80% positive feedback on the effectiveness of the experience exchange sessions	Included in Project budget
Outcome 4.2: Awareness, training and robust mechanism for monitoring and evaluation developed			
Output 4.2.1: Gender-sensitive Awareness and training Programme(s) for stakeholders, consumers, recyclers and dismantlers launched. Women are empowered to lead and participate in awareness and training activities			
Project Activity	**Gender Action**	**Gender Target**	**Budget Requirements**
Activity 4.2.1: Conduct gender sensitization training sessions for project stakeholders. Before project inception	Ensure training modules are gender-sensitive and use gender-fair language. Ensure equal representation of women and men in training teams.	Achieving a minimum of 80% positive feedback on the effectiveness of the training conducted.	Included in Project budget
Output 4.2.2: Gender-sensitive Guidelines on incorporating EPR/ CE principles and results, metrics and impacts into ESG Reports launched and Champions on ESG reporting identified through a manufacturer's driven awareness programme.			
Project Activity	**Gender Action**	**Gender Target**	**Budget Requirements**
Activity 4.2.2: Develop a playbook for Micro and Small EEE OEMs and Producers to guide them on how to integrate EPR related metrics and results into their sustainability reporting regime.	Ensure the playbook addresses gender inclusivity by incorporating guidelines on how micro and small electronic OEMs and producers can engage both men and women in sustainability reporting processes. Highlight gender-specific metrics that reflect the contributions and impacts of women in the supply chain.	Include at least two gender-specific metrics in the playbook that OEMs and producers can adopt in their sustainability reporting and aim for at least 30% of the case studies or examples in the playbook to feature women- led or gender-inclusive practices in integrating EPR-related metrics.	Included in Project budget
Output 4.2.3: Gender-sensitive Project Monitoring & Evaluation established and ongoing throughout project cycle.			
Project Activity	**Gender Action**	**Gender Target**	**Budget Requirements**

Activity 4.2.3: Develop a gender-sensitive Monitoring and Evaluation (M&E) plan for each activity, drawing from the project's M&E plan.	Ensure that the M&E plan for each activity within the e- waste circularity project explicitly incorporates gender-specific indicators and methodologies. This will involve assessing the participation, impact, and challenges faced by both men and women in e-waste management activities, including their roles in collection, recycling, and decision-making processes.	Monitoring tools developed or used for each activity are gender-sensitive (inclusion of components such as women's participation rates in project activities, changes in gender-related health outcomes, and gender-disaggregated economic benefits from e-waste circularity initiatives).	Included in Project budget

Annex 11: Procurement Plan to be initiated first year of project implementation

Description of Activity	Procurement Category	Description of Goods/Services/ Individual Contractor/ Professional Services	Estimated (US$)	Component	Timeline
1 sub-contract to entity/institute to establish baseline of Circular Economy in upstream value chain	Institution	Services	150,000	1	Quarter 1
1 sub-contract to entity/institute to conduct national e-waste inventory assessment, aligned to global methodologies	Institution	Services	100,000	1	Quarter 1
1 sub-contract to entity/institute to conduct technical study to estimate cost burden of e-waste management	Institution	Services	100,000	1	Quarter 1
1 subcontract to conduct a socio-environmental and gender assessment of the impact of informal recycling	Institution	Service	100,000	1	Quarter 1
1 direct agreement with an entity/institute to conduct Material Flow Analysis (MFA) to map the life cycle of EEE included in the e-waste management rules	Institution	Services	100,000	1	Quarter 1
1 direct agreement with an entity/institute to develop product-wise testing protocol and guidelines including testing infrastructure development/upgradation for RoHS	Institution	Services	100,000	1	Quarter 1
	Equipment	Services	685,086	1	Quarter 1
1 direct agreement with an entity/institute to develop guidelines/SOPs for sub-national inventory, feasibility study to extend the scope of EPR regime beyond the 4 metals, SOP for recycling facilities auditing, developing a circular business model prototype	Institution	Services	400,000	1	Quarter 1
1 technical workshop during inventory development	Workshop	Training, workshops and conference	2,500	1	Quarter 1
1 technical workshop during RoHS labs upgradation	Workshop	Training, workshops and conference	2,900	1	Quarter 2
19 review meetings	Workshop	Training, workshops and conference	50,350	1	Recurrent
4 sub-contracts to develop MRV framework for CPCB for RoHS compliance, identify EEE categories with high potential for eco-design and eco-labelling incorporation, strategy to facilitate adoption of Eco mark rules, and	Institution	Services	400,000	1	Quarter 1

conduct readiness assessment for eco-design policy adoption					
2 sub-contracts for pre-feasibility assessment, design intervention for eco-design and replacement-rebate models with participating OEMs and implement pilots, select OEMs and/or large retailers, assessment of pilots	Institution	Services	536,600	2	Quarter 2
2 sub-contracts and 1 direct agreement for education off-setting, engaging a CSO/SME, and implementing the pilots and for due-diligence and selection of micro or small aggregators/disassemblers/recyclers for pilot projects, design BAT/BEP for e-waste recycling and implement the pilot	Institution	Services	448,000	2	Quarter 3
1 sub-contract with entity/institution to conduct study on technology landscape and economic feasibility of recycling spent LIBs from non-automotive sectors, selection of aggregators/recyclers for pilots, design pilot for safe management of spent LIBs and implementation, along with design of replication plan	Institution	Services	174,000	2	Quarter 3
1 Technical workshops	Workshop	Training, workshops and conference	7,500	2	Quarter 4
39 Review meetings	Workshop	Training, workshops and conference	80,000	2	Recurrent
2 sub-contracts and one direct agreement to design detailed interventions for eco-design, PBDE recycling, and implement the pilot projects, assess results and design replication plan	Institution	Services	821,000	3	Quarter 4
2 sub-contract with entity/institution to design, procure, and engage a start-up for pilot processing unit for metal extraction, develop sustainable scale-up strategy, and identify areas of gender inclusion and develop strategy for gender mainstreaming	Institution	Services	510,000	3	Quarter 4
Technical workshops	Workshop	Training, workshops and conference	6,400	3	Quarter 4
20 Review meetings	Workshop	Training, workshops and conference	53,850	2	Recurrent
4 sub-contracts for setting up MIS, conducting training sessions, and preparing guidelines on incorporating metrics into ESG reports	Institution	Services	334,250	4	Quarter 2

1 sub-contract with entity/institution to develop knowledge sharing mechanisms and support in knowledge management and information exchange	Institution	Services	80,000	4	Quarter 2
2 Technical workshops	Workshop	Training, workshops and conference	6,400	4	Year 2 and 3
31 Review meeting learning workshop and Project Board meetings	Workshop	Training, workshops and conference	81,350	4	Recurrent
4 Local Consultants (gender expert, knowledge expert) for coordination and management	National Consultant	Individual Contractor	80,000	4	Quarter 1
1 Local consultant to support gender-sensitive M&E	National Consultant	Individual Contractor	42,000	4	Quarter 1
1 International consultant for development of SESA, ESIA, ESMP as applicable	International Consultant	Individual Contractor	21,000	M&E	Quarter 1
International consultants to conduct project's Mid-term and Terminal Evaluations	International Consultant	Individual Contractor	65,000	M&E	Quarter 3, Year 3 & Quarter 3, Year 5
National consultants to conduct project's Mid-term and Terminal Evaluations	National Consultant	Individual Contractor	45,000	M&E	Quarter 3, Year 3 & Quarter 3, Year 5
Inception Workshop	Workshop	Training, workshops and conference	10,000	M&E	Quarter 1
1 National Project Manager	National Consultant	Individual Contractor	410,000	PMC	Quarter 1
1 Technical advisor					
1Project Officer					
1 Project Associate for upstream circular intervention					
1 Project Associate for downstream circular intervention					
1 Gender Expert					
Information Technology Equipment	Supplier	Equipment	30,000	PMC	Quarter 1
Rental and maintenance of Premises	Rental contract	Services	125,000	PMC	Year 1-5
Printing Costs for brochures, knowledge products	PMU	Other Operating Costs	15,000	PMC	Recurrent

Annex 12: Signed LOA between UNDP and IP requesting UNDP Support Services

STANDARD LETTER OF AGREEMENT BETWEEN UNDP AND THE GOVERNMENT FOR THE PROVISION OF SUPPORT SERVICES

1. Reference is made to consultations between officials of the Government of *[India]* (hereinafter referred to as "the Government") and officials of UNDP with respect to the provision of support services by the UNDP country office for the nationally managed project: **"Accelerating transition to a circular economy in India's electrical and electronic sector through sustainable integrated approaches".** UNDP and the Government hereby agree that the UNDP country office may provide such support services at the request of the Government through its institution designated in the relevant programme support document or project document, as described below.

2. The UNDP country office may provide support services for assistance with reporting requirements and direct payment. In providing such support services, the UNDP country office shall ensure that the capacity of the Government-designated institution is strengthened to enable it to carry out such activities directly. The costs incurred by the UNDP country office in providing such support services shall be recovered from the administrative budget of the office.

3. The UNDP country office may provide, at the request of the designated institution, the following support services for the activities of the programme/project:

a) Identification and/or recruitment of technical experts;
b) Identification and facilitation of training activities;
c) Procurement of goods and services;
d) Direct payments on request and authorization of the Implementing Partner (IP).

4. The procurement of goods and services and the recruitment of project and programme personnel by the UNDP country office shall be in accordance with the UNDP regulations, rules, policies and procedures. Support services described in paragraph 3 above shall be detailed in an annex to the programme support document or project document, in the form provided in the Attachment hereto. If the requirements for support services by the country office change during the life of a programme or project, the annex to the programme support document or project document is revised with the mutual agreement of the UNDP resident representative and the designated institution.

5. The relevant provisions on liability and privileges and immunities of UN Privileges and Immunities Act shall apply to the provision of the Letter of Agreement. The Government shall retain overall responsibility for the nationally managed project through its designated institution. The responsibility of the UNDP Country Office for the provision of the support services detailed in the annex to the programme support document or project document. The responsibility of the UNDP country office for the provision of the support services described herein shall be limited to the provision of such support services detailed in the annex to the programme support document or project document.

6. Any claim or dispute arising under or in connection with the provision of support services by the UNDP country office in accordance with this letter shall be handled pursuant to the relevant provisions of the Government of India – UNDP Partnership Agreement

7. The manner and method of cost-recovery by the UNDP country office in providing the support services described in paragraph 3 above shall be specified in the annex to the programme support document or project document.

8. The UNDP country office shall submit progress reports on the support services provided and shall report on the costs reimbursed in providing such services, as may be required.

9. Any modification of the present arrangements shall be effected by mutual written agreement of the parties hereto.

10. If you are in agreement with the provisions set forth above, please sign and return to this office two signed copies of this letter. Upon your signature, this letter shall constitute an agreement between your Government and UNDP on the terms and conditions for the provision of support services by the UNDP country office for the nationally managed project.

Signed on behalf of UNDP *[Angela Lusigi]* *[Resident Representative*] [*Date*]	For the Government- Ministry of Electronics and Information Technology [*National Project Director*] [*Date*]

Attachment

DESCRIPTION OF UNDP COUNTRY OFFICE SUPPORT SERVICES

1. Reference is made to consultations between [*Ministry of* Electronics and Information Technology *]* the institution designated by the Government of [*India]* and officials of UNDP with respect to the provision of support services by the UNDP country office for the nationally managed project on the "Accelerating transition to a circular economy in India's electrical and electronic sector through sustainable integrated approaches**."**

2. In accordance with the provisions of the letter of agreement signed on [*xxxx*] and the project support document [*or project document*], the UNDP country office shall provide support services for the Project as described below. DPC for support services shall be charged from non-GEF resources.

3. Support services to be provided:

Support services (Insert description)	Schedule for the provision of the support services	Cost to UNDP of providing such support services (where appropriate)[77]	Amount and method of reimbursement of UNDP (where appropriate)
Logistics and Travel Services This includes travel management and arrangements for workshops and conferences.	Ongoing throughout implementation when applicable	USD 3,225	UNDP will directly charge the DPC from non-GEF resources upon receipt of request of services from the Implementing Partner in accordance with the UPL.
Human Resources: Staff and Personnel Management for technical experts / assistants • Staff selection and recruitment process advertising, shortlisting, and interviewing. • Staff HR, benefits administration and management • Staff payroll validation,	Ongoing throughout implementation when applicable	USD 12,904	UNDP will directly charge the DPC from non-GEF resources upon receipt of request of services from the Implementing Partner in accordance with the UPL.

[77] DPC for support services shall be charged from non-GEF resources.

disbursement and performance evaluation.			
Finance Payment processes	Ongoing throughout implementation when applicable	USD 15,135	UNDP will directly charge the DPC from non-GEF resources upon receipt of request of services from the Implementing Partner in accordance with the UPL.
Procurement of consultants, goods and services This includes advertisement, preliminary review, evaluation, selection, vendor management, contracting, Note: All procurement procedures involving staff on UNDP contracts will be done using UNDP rules and regulations.	Ongoing throughout implementation when applicable	USD 28,555	UNDP will directly charge the DPC from non-GEF resources upon receipt of request of services from the Implementing Partner in accordance with the UPL.
Total		**USD 59,819**	

Annex 13: Letters of Financial Commitments

Annex 14: List of Relevant Regulations

Regulatory Instruments	Ministry	Year	Description	Stakeholders involved
Upstream				
Eco Mark	MeitY	1991	The Government of India instituted this scheme for the labeling of environment-friendly products. The scheme is administered by the Bureau of Indian Standards and covers various product categories including EEE. The products that qualify for the Eco Mark should also carry an ISI Mark and indicate that the product adheres to stringent environmental and quality standards.[78]	Producers
Make in India		2014	The Make in India initiative was launched to transform India into a global design and manufacturing hub. With the vision of 'Minimum Government, Maximum Governance', the program aims to inspire confidence in India's capabilities, provide framework for a vast amount of technical information on 25 industry sectors and explore local and global arenas for opportunities.[79]	Manufacturers and exporters
Digital India		2015	Digital India is a transformative initiative launched by the Government of India with the vision of creating a digitally empowered society and knowledge economy. Digital India aims to provide the thrust to the nine pillars of growth areas including electronics manufacturing.[80]	Manufacturers
Draft National Resource Efficiency Policy		2019	The Draft National Resource Efficiency Policy was initiated by MoEF&CC with a vision towards environmentally sustainable and equitable economic growth, resource security, healthy environment and restored ecosystems. The policy is guided by the following principles; i. Reduction in primary resource consumption to 'sustainable' levels, in keeping with achieving the Sustainable	Manufacturers/ Producers/ Recyclers

[78] https://www.bis.gov.in/
[79] https://www.makeinindia.com/about
[80] https://www.digitalindia.gov.in/

Regulatory Instruments	Ministry	Year	Description	Stakeholders involved
			Development Goals and staying within the planetary boundaries. ii. Creation of higher value with less material through resource-efficient and circular approaches, iii. Waste minimization iv. Material security, and creation of employment opportunities and business models beneficial to the cause of environment protection and restoration.[81]	
National Policy on Electronics (NPE)		2019	To promote the Electronics System Design and Manufacturing (ESDM) ecosystem for economic development and improve Ease of Doing Business, the policy provides support and incentives for encouraging R&D, technological advancement, skill development, and governance to address the ESDM sector within the Government, promoting the development of eco-parks for processing e-waste, and R&D on e-waste management.[82]	Producers/ Manufacturers/ Recyclers
Modified Electronics Manufacturing Clusters Scheme (EMC 2.0)		2020	To address the challenges faced by industries in terms of quality infrastructure and to establish India as a hub for Electronics Manufacturing, the scheme supports the creation of world-class infrastructure, including Ready Built Factory (RBF) sheds and Plug and Play facilities, to attract major global electronics manufacturers and their supply chains. The scheme also aims to enhance the linkage between domestic and international markets and provide financial assistance for setting up EMC projects and Common Facility Centres (CFCs) across the country.[83]	Manufacturers
Scheme for Promotion of Manufacturing of Electronic		2020	SPECS helps offset the disability for domestic manufacturing of electronic components and semiconductors to strengthen the electronics manufacturing ecosystem in the country. The	Manufacturers

[81] https://www.bing.com/ck/a?!&&p=823b1a373efcee66JmltdHM9MTcyNzIyMjQwMCZpZ3VpZD0xMGRiZmJhOC0xOGJlLTY3NTItMjlhMS1lZWFkMTk0YzY2OGMmaW5zaWQ9NTMzNw&ptn=3&ver=2&hsh=3&fclid=10dbfba8-18be-6752-29a1-eead194c668c&psq=National+resource+policy&u=a1aHR0cHM6Ly93d3cucGliLmdvdi5pbi9QcmVzc1JlbGVzZURldGFpbG0uYXNweD9QUklEPTE1ODMwNTY&ntb=1

[82] https://www.meity.gov.in/writereaddata/files/eGazette_Notification_NPE%202019_dated%2025022019.pdf

[83] https://www.meity.gov.in/writereaddata/files/modified_electronics_manufacturing_clusters_scheme.pdf

Regulatory Instruments	Ministry	Year	Description	Stakeholders involved
Components and Semiconductors (SPECS)			scheme provides a financial incentive of 25% on capital expenditure for the identified list of electronic goods and comprises the chain of electronic products, i.e., electronic components, semiconductor/ display fabrication units, and capital goods for manufacture of aforesaid goods, all of which involve high value-added manufacturing[84]. E-waste recycling facilities are eligible for incentives under this scheme[85].	
Electronics and Information Technology Goods (Requirement of Compulsory Registration) Order, 2021		2021	This order mandates compliance to ensure the safety of Indian citizens by preventing the import of substandard and unsafe electronic goods. This order includes 64 product categories, and all specified goods must conform to the corresponding Indian Standards and bear the Standard Mark under a license from the Bureau of Indian Standards, as per Scheme-II of the Bureau of Indian Standards (Conformity Assessment) Regulations, 2018.[86]	EEE Importers
Production Linked Incentive (PLI) scheme for Large Scale Electronics Manufacturing		2020	This Scheme proposes a financial incentive to boost domestic manufacturing and attract large investments in the electronics value chain including electronic components and semiconductor packaging. The second round of the scheme extends an incentive of 5% to 3% on incremental sales (over base year) of goods manufactured in India and covered under target segments for five years from the base year.[87],[88]	Large manufacturers/ Exporters
Production Linked Incentive (PLI) Scheme for IT Hardware (2.0)		2023	This PLI scheme for IT Hardware aims to boost domestic manufacturing and attract significant investments in the value chain. It encourages the localization of components and sub-assemblies, including semiconductor design, IC manufacturing, and packaging as incentivized components. Eligible companies can receive an incentive of around 5% on net	IT Manufacturers and value chain partners.

[84] Scheme for Promotion of Manufacturing of Electronic Components and Semiconductors (SPECS) | Ministry of Electronics and Information Technology, Government of India (meity.gov.in)
[85] Amendment in SPECS guidelines with regard to E-waste recycling facility_0_0.pdf (meity.gov.in)
[86] https://www.meity.gov.in/writereaddata/files/CRO2021-and-ammenment.pdf
[87] https://www.meity.gov.in/writereaddata/files/production_linked_incentive_scheme.pdf
[88] https://www.meity.gov.in/esdm/pli

Regulatory Instruments	Ministry	Year	Description	Stakeholders involved
			incremental sales (over the base year) of identified goods manufactured in India for six years. The target segments include laptops, tablets, all-in-one PCs, servers, and ultra-small form factor (USFF) devices.[89]	
Production Linked Incentive (PLI) Scheme for National Programme on Advanced Chemistry Cell (ACC) Battery Storage	Ministry of Heavy Industries	2021	The scheme envisages enhancing India's manufacturing capabilities of Advanced Chemistry Cell (ACC) by setting up Giga scale ACC and battery manufacturing facilities in India with an emphasis on maximum domestic value addition. The beneficiary firm must ensure achieving a domestic value addition of at least 25% and raise it to 60% within 5 Years while also making the mandatory investment of Rupee 225 crore /GWh for committed capacity within 2 Years[90].	Large manufacturers
Downstream				
E-waste management and handling rules,2011[91]	Ministry of Environment, Forest and Climate Change (MoEF&CC)	2012	The rules came into effect in 2012, with the main objective of describing the standards that shall apply to all the stakeholders involved in the manufacturing, selling, purchasing processing, dismantling, and recycling of electronic items and waste respectively. Additionally, the rules prescribe guidelines for the responsible storing, handling, and transportation of e-waste at the collection centres (the place where e-waste is stored), dismantlers (the place where the dismantling process of electronic items is processed), and recyclers (the place where final recycling is done of the e-waste).	Collection centre owners/ dismantler/ recycler
E-waste (Management) rules, 2016[92]		2016	The E-waste (Management) Rules, 2016 enforce the implementation of EPR which stipulates phase-wise target collection to producers. Additionally, it includes specific guidelines for channelization, collection centers, storage, refurbishment of e-waste, and parameters for handling/disposing of	Producer/ Refurbishment unit owners/ collection center/ dismantler/ recyclers

[89] https://www.meity.gov.in/writereaddata/files/Production%20Linked%20Scheme%202.0%20for%20IT%20Hardware%20notification_0.pdf
[90] PLI Scheme for National Programme on Advanced Chemistry Cell (ACC) Battery Storage | Ministry of Heavy Industries
[91] The E-waste (Management and Handling) Rules, 2011 (indiankanoon.org)
[92] *displaypdf.php (cpcb.nic.in)

Regulatory Instruments	Ministry	Year	Description	Stakeholders involved
			hazardous substances (mercury-containing lamps/ fluorescent bulbs).	
E-waste (Management) rules, 2022[93]		2022	The E-waste (Management) Rules, 2022 included the mandate for all producers, manufacturers, refurbishes, and recyclers, to register themselves on the CPCB portal and upload all the vital information regarding e-waste on the portal with quarterly and annual returns. Additionally, this amendment also talks about the waste management of solar PV modules/solar cells.	Producer/ Refurbishment unit owners/ collection center/dismantler/ recyclers
E-Waste First Amendment Rules, 202394		2023	This amendment came into effect in 2023, this included the list of items of electronic equipment/electrical parts/consumables, and spare parts that will be covered under the rule. It also specifies the items that will be exempted under the rules.	Producer/ Refurbishment unit owners /collection center/ dismantler/ recyclers
E-Waste Second Amendment Rules, 202395		2023	This amendment introduced the list of electronic equipment/ electrical parts/ consumables, and spare parts that will be covered under the E-waste (Management) Rules, 2022.	Producer/ Refurbishment unit owners /collection center/ dismantler/ recyclers
E-Waste Third Amendment Rules, 2023		2024	This amendment of E-waste (Management) Rules, 2022 included the relaxation on timeline for filing returns of producers, manufacturers, refurbishers and recyclers along with guidelines on EPR Certificate's transfer and pricing range in terms of environmental compensation.	Producer/ Refurbishment unit owners /collection center/ dismantler/ recyclers
Hazardous Waste Management Rules,201696		2016	In 1986, the first hazardous waste (management and handling) rules came into effect. Later in 2008, it was amended and newly entitled to hazardous waste (management, handling, and transboundary) rules, 2008[97]. This mandated that all the stakeholders involved in the manufacturing, processing, handling, storing, recycling,	Recycling unit owners/ disposing unit owners/ treatment unit owners

[93] e-waste_rules_2022.pdf (cpcb.nic.in)
[94] E-waste-Second-Amendment-Rules-2023.pdf (cpcb.nic.in)
[95] https://cpcb.nic.in/uploads/Projects/E-Waste/E-waste-Second-Amendment-Rules-2023.pdf
[96] *HWM_27-5-19.cdr (npcindia.gov.in)
[97] *HWM-2008.pdf (nagaland.gov.in)

Regulatory Instruments	Ministry	Year	Description	Stakeholders involved
			treatment, disposal, and transport of the hazardous materials and waste respectively shall be registered and duly authorized by SPCB for the respective operation. Additionally, it also mandates that the storage of the hazardous waste shall not exceed 90 days of period and there shall be proper records maintained for the same for inspection purposes and any import/export/transfer within the country boundary of the hazardous waste shall only be permitted with prescribed authorizations given in the act. In 2016, the act was further amended, and proper guidelines were provided on the establishment of the Transfer, storage, and disposal units for hazardous waste, and the establishment of the secured landfill mandated that there be proper training for the employees handling hazardous waste in the storage/disposal facility. Later in 201998, the act mandated that all the workers involved in the process shall be duly registered and follow proper health and safety protocols.	
The Batteries (Management And Handling) Rules, 2001		2001	The Batteries (Management and Handling) Rules, 2001 mandated that all the stakeholders involved in the producing, manufacturing, importing, assembling, recycling, disposing, and transporting of the battery waste shall be duly registered as prescribed in the act. The act mandates that the transport and recycling of batteries shall be done in a manner that would not adversely impact the environment and ensure compliance. Additionally, recyclers are responsible for ensuring all the records relating to the recycling of batteries are properly maintained, creating public awareness about hazardous lead, and returning used batteries to an authorized dealer[99].	Recyclers/ transporters

[98] March_Amendment_HOWM.pdf (cpcb.nic.in)
[99] *Battery management & handling rules 2001.pdf (cpcb.nic.in)

Regulatory Instruments	Ministry	Year	Description	Stakeholders involved
Battery Waste (Management) Rules, 2022.		2022	This rule mandates the use of the minimum quantity of recycled materials in manufacturing different kinds of batteries and EPR for all producers dealing in portable, automotive, industrial, and electrical vehicle batteries. For imported batteries, the producer must fulfill the obligation to ensure a minimum quantity of recycled materials is either used by other businesses or exported.[100]	Producers/ consumers/ transporters/ refurbishers/ recyclers
Water (Prevention and Control of Pollution) Act, 1974[101]		1974	This Act provides for the maintenance and restoration of quality of all types of surfaces and groundwater. Industries in India are classified into four categories based on their pollution index: red, orange, green, and white.	Recycling unit owners/ disposing unit owners/ treatment unit owners
Water (Prevention and Control of Pollution) Act		2024	The 2024 amendment decriminalizes minor offenses, introducing a penalty-based system to reduce the legal burden on businesses and encourage compliance through financial disincentives rather than criminal charges. This change is intended to foster a more business-friendly environment.	Recycling unit owners/ disposing unit owners/ treatment unit owners
Air (Prevention and Control of Pollution) Act		1981	This Act is a comprehensive legislation that aims at the prevention and control of air pollution in India. Although SPCBs were established under the Water Act, they were later entrusted with the competencies and duties under the Air Act as well. Accordingly, to obtain CTE, industries are required to submit details relating to air pollution control measures: chimney/stack wise for boiler and process emission, to respective SPCBs. Similarly, to obtain CTO, the industries shall submit details relating to air pollution control measures.	Recycling unit owners/ disposing unit owners/ treatment unit owners
Environment Protection Act[102]		1986	▪ All establishments that obtain consent under the Water Act or Air Act or authorization under Hazardous and Other Waste Rules are supposed to	Recycling unit owners/ disposing unit owners/

[100] *Battery-WasteManagementRules-2022.pdf (cpcb.nic.in)
[101] Central Pollution Control Board: Water Pollution. Link
[102] The Environment (Protection) Act, 1986. Link

Regulatory Instruments	Ministry	Year	Description	Stakeholders involved
			submit an environmental statement in Form V. ▪ All establishments which obtain authorization under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 are supposed to maintain records of hazardous waste in Form 3. ▪ All establishments that obtain authorization under Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 are supposed to submit annual reports in Form 4. ▪ The standard for the emission or discharge of environmental pollutants from the industries, operations or processes shall be as specified in Schedule I to IV of Environment Protection Rule 3(1). The combined effect of the emission/ discharge however shall not exceed the National Ambient Air Quality Standards given in Schedule VII of Environment Protection Rule, 3(B). The EPA covers the following Rules: i. Noise Pollution (Regulation and Control) Rules, 2000. ii. Solid Waste Management (SWM) Rules, 2016. iii. Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.	treatment unit owners
Noise Pollution (Regulation and Control) Rules[103]		2000	These rules were issued under the Environment Protection Act, 1986, to set out ambient air quality standards in respect of noise for different areas/ zones. Depending on which area the recycling facility is established in, Schedule I of the Act prescribes the ambient air quality standards concerning noise.	Recycling unit owners/ disposing unit owners/ treatment unit owners

[103] Noise Pollution (Regulation and Control) (Amendment) Rules, 2010.

Regulatory Instruments	Ministry	Year	Description	Stakeholders involved
Solid Waste Management Rules		2016	These rules were issued under the Environment Protection Act, of 1986, and focus on the segregation of waste at source, the responsibility of manufacturer, disposal, and processing from the bulk generator, etc. Under SWM Rules, detailed duties and responsibilities have been assigned to the Secretary of State Urban Development Department, the Commissioner of Municipal Administration, the Director of Local Bodies, and other relevant local authorities. They are responsible for the preparation of state policy and solid waste management strategy in consultation with stakeholders such as waste pickers, industries, self-help groups, etc.	Recycling unit owners/ disposing unit owners/ treatment unit owners
Regulation of Persistent Organic Pollutants Rules, 2018		2018	This rule intends the prohibition of manufacturing, trade, use, import and export of 7 chemicals: chlordecone, hexabromobiphenyl, hexabromodiphenyl ether and heptabromodiphenyl ether (commercial octa-BDE), tetrabromodiphenyl ether and pentabromodiphenyl ether (commercial penta-BDE), pentachlorobenzene, hexabromocyclododecane and hexachlorobutadiene.[104]	Manufacturers, importers and exporters

[104] https://www.pib.gov.in/PressReleasePage.aspx?PRID=1662335#:~:text=The%20Cabinet's%20approval%20for%20ratification%20of%20POPs%20demonstrates%20India's%20commitment

Annex 15: Terms of Reference for Project Board and Project Team

a) Project Board: All UNDP projects must be governed by a multi-stakeholder board or committee established to review performance based on monitoring and evaluation, and implementation issues to ensure quality delivery of results. The Project Board (also called the Project Steering Committee) is the most senior, dedicated oversight body for a project.

The two main (mandatory) roles of the project board are as follows:

1) **High-level oversight of the execution of the project by the Implementing Partner** (as explained in the "Provide Oversight" section of the POPP). This is the primary function of the project board and includes annual (and as-needed) assessments of any major risks to the project, and decisions/agreements on any management actions or remedial measures to address them effectively. The Project Board reviews evidence of project performance based on monitoring, evaluation and reporting, including progress reports, evaluations, risk logs and the combined delivery report. The Project Board is responsible for taking corrective action as needed to ensure the project achieves the desired results.
2) **Approval of strategic project execution decisions of the Implementing Partner** with a view to assess and manage risks, monitor and ensure the overall achievement of projected results and impacts and ensure long term sustainability of project execution decisions of the Implementing Partner (as explained in the "Manage Change" section of the POPP).

Requirements to serve on the Project Board

- ✓ Agree to the Terms of Reference of the Board and the rules on protocols, quorum and minuting.
- ✓ Meet annually; at least once.
- ✓ Disclose any conflict of interest in performing the functions of a Project Board member and take all measures to avoid any real or perceived conflicts of interest. This disclosure must be documented and kept on record by UNDP.
- ✓ Discharge the functions of the Project Board in accordance with UNDP policies and procedures.
- ✓ Ensure highest levels of transparency and ensure Project Board meeting minutes are recorded and shared with project stakeholders.

Responsibilities of the Project Board

- ✓ Consensus decision making:
    - The project board provides overall guidance and direction to the project, ensuring it remains within any specified constraints, and providing overall oversight of the project implementation.
    - Review project performance based on monitoring, evaluation and reporting, including progress reports, risk logs and the combined delivery report.
    - The project board is responsible for making management decisions by consensus.
    - 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 representative on the board will mediate to find consensus and, if this cannot be found, will take the final decision to ensure project implementation is not unduly delayed.
- ✓ Oversee project execution:

- Agree on project manager's tolerances as required, within the parameters outlined in the project document, and provide direction and advice for exceptional situations when the project manager's tolerances are exceeded.
- Appraise annual work plans prepared by the Implementing Partner for the Project; review combined delivery reports prior to certification by the implementing partner.
- Address any high-level project issues as raised by the project manager and project assurance.
- Advise on major and minor amendments to the project within the parameters set by UNDP and the donor and refer such proposed major and minor amendments to the UNDP BPPS Nature, Climate and Energy Executive Coordinator (and the GEF, as required by GEF policies).
- Provide high-level direction and recommendations to the project management unit to ensure that the agreed deliverables are produced satisfactorily and according to plans.
- Track and monitor co-financed activities and realisation of co-financing amounts of this project.
- Approve the Inception Report, GEF annual project implementation reports, mid-term review and terminal evaluation reports.
- Ensure commitment of human resources to support project implementation, arbitrating any issues within the project.

✓ Risk Management:

- Provide guidance on evolving or materialized project risks and agree on possible mitigation and management actions to address specific risks.
- Review and update the project risk register and associated management plans based on the information prepared by the Implementing Partner. This includes risks related that can be directly managed by this project, as well as contextual risks that may affect project delivery or continued UNDP compliance and reputation but are outside of the control of the project. For example, social and environmental risks associated with co-financed activities or activities taking place in the project's area of influence that have implications for the project.
- Address project-level grievances.

✓ Coordination:

- Ensure coordination between various donor and government-funded projects and programmes.
- Ensure coordination with various government agencies and their participation in project activities.

Composition of the Project Board

As noted in the diagram below, every Project Board in a UNDP project has three categories of formal members (e.g. voting members). The role of every formal Project Board member must correspond to one of these three roles and be identified accordingly in the project documentation.

The three categories of Project Board members are the following:

1) **Project Director/Executive(s):** This is an individual who represents ownership of the project and chairs (or co-chairs) the Project Board. The Executive usually is the senior national counterpart for nationally implemented projects (typically from the same entity as the Implementing Partner), and it must be UNDP for projects that are direct implementation (DIM). In exceptional cases, two individuals from different entities can co-share this role and/or co-chair the Project Board. If the project executive co-chairs the project board with representatives of another category, it typically does so with a development partner representative. The Project Executive is: Additional Secretary, Ministry of Electronics and Information Technology.

2) **Beneficiary Representative(s):** Individuals or groups representing the interests of those groups of stakeholders 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 representatives from civil society, industry associations, or other government entities benefiting from the project can fulfil this role. There can be multiple beneficiary representatives in a Project Board. The Beneficiary representative (s) is/are:

   - Ministry of Environment, Forest & Climate Change (MoEF&CC)
   - Central Pollution Control Board (CPCB)

3) **Development Partner(s):** Individuals or groups representing the interests of the parties concerned that provide funding, strategic guidance and/or technical expertise to the project. The Development Partner(s) is UNDP Deputy Resident Representative (UNDP DRR).

d) **Project Assurance:** Project assurance is the responsibility of each project board member; however, UNDP has a distinct assurance role for all UNDP projects in carrying out objective and independent project oversight and monitoring functions. UNDP performs quality assurance and supports the Project Board (and Project Management Unit) by carrying out objective and independent project oversight and monitoring functions, including compliance with the risk management and social and environmental standards of UNDP. The Project Board cannot delegate any of its quality assurance responsibilities to the Project Manager. Project assurance is totally independent of project execution.

   A designated representative of UNDP playing the project assurance role is expected to attend all board meetings and support board processes as a non-voting representative. It should be noted that while in certain cases UNDP's project assurance role across the project may encompass activities happening at several levels (e.g., global, regional), at least one UNDP representative playing that function must, as part of their duties, specifically attend board meeting and provide board members with the required documentation required to perform their duties. The UNDP representative playing the main project assurance function is/are:

   - Head (Action for Climate and Environment)

e) **Project Management – Execution of the Project:** The Project Manager (PM) (also called project coordinator) is the senior most representative of the Project Management Unit (PMU) and is responsible for the overall day-to-day management of the project on behalf of the Implementing Partner, including the mobilization of all project inputs, supervision over project staff, responsible parties, consultants and sub-contractors. The project manager typically presents key deliverables and documents to the board for their review and approval, including progress reports, annual work plans, adjustments to tolerance levels and risk registers.

   A designated representative of the PMU is expected to attend all board meetings and support board processes as a non-voting representative. The primary PMU representative attending board meetings is the National Project Manager for the project (to be hired). The Project Management Unit (PMU) will be located at the Research & Development, Electronics Division, Ministry of Electronics and Information Technology (MeitY) in New Delhi, under the Additional Secretary who is also the National Project Director for the project. The PMU will consist of one national Project Manager, one Technical Advisor, one Project Officer, two Project Associates and one Gender Officer.

   The primary PMU representative attending board meetings is The National Project Manager.

   Note: The form/evidence for this acknowledgement must be included as an annex or codified in other ways (e.g. note to file or minutes of a board meeting) The formal acknowledgement of the ToR by board members can be done via various procedures, including the following options: 1) Having copies of the ToR be signed by each appointed board member at the Appraise and Approve stage (LPAC) and then having all signed copies attached as an annex to the Project Document 2) Having the final ToR be signed by each appointed board member at the

first project board meeting after Project Document signing with the approvals recorded in the minutes of the meeting In both cases, the signature or acknowledgement should include the name, title and category of board representation for the person signing.

Annex 16: GEF Core indicators

Core Indicator 1	**Terrestrial protected areas created or under improved management for conservation and sustainable use**							***(Hectares)***
				Hectares (1.1+1.2)				
				Expected		Achieved		
				PIF stage	Endorsement	MTR	TE	
Indicator 1.1	Terrestrial protected areas newly created							
Name of Protected Area	WDPA ID	IUCN category		Hectares				
				Expected		Achieved		
				PIF stage	Endorsement	MTR	TE	
		(select)						
		(select)						
		Sum						
Indicator 1.2	Terrestrial protected areas under improved management effectiveness							
Name of Protected Area	WDPA ID	IUCN category	Hectares	METT Score				
				Baseline		Achieved		
					Endorsement	MTR	TE	
		(select)						
		(select)						
		Sum						
Core Indicator 2	**Marine protected areas created or under improved management for conservation and sustainable use**							***(Hectares)***
				Hectares (2.1+2.2)				
				Expected		Achieved		
				PIF stage	Endorsement	MTR	*TE*	
Indicator 2.1	Marine protected areas newly created							
Name of Protected Area	WDPA ID	IUCN category		Hectares				
				Expected		Achieved		
				PIF stage	Endorsement	MTR	TE	
		(select)						
		(select)						
		Sum						
Indicator 2.2	Marine protected areas under improved management effectiveness							
Name of Protected Area	WDPA ID	IUCN category	Hectares	METT Score				
				Baseline		Achieved		
				PIF stage	Endorsement	MTR	TE	
		(select)						
		(select)						
		Sum						
Core Indicator 3	**Area of land restored**							***(Hectares)***
				Hectares (3.1+3.2+3.3+3.4)				

			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 3.1	Area of degraded agricultural land restored					
			Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 3.2	Area of forest and forest land restored					
			Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 3.3	Area of natural grass and shrublands restored					
			Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 3.4	Area of wetlands (including estuaries, mangroves) restored					
			Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Core Indicator 4	**Area of landscapes under improved practices (hectares; excluding protected areas)**					***(Hectares)***
			Hectares (4.1+4.2+4.3+4.4)			
			Expected		Expected	
			PIF stage	Endorsement	MTR	TE
Indicator 4.1	Area of landscapes under improved management to benefit biodiversity					
			Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 4.2	Area of landscapes that meet national or international third-party certification that incorporates biodiversity considerations					
Third party certification(s):			Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE

Indicator 4.3	Area of landscapes under sustainable land management in production systems					
			Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 4.4	Area of High Conservation Value Forest (HCVF) loss avoided					
Include documentation that justifies HCVF			Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Core Indicator 5	**Area of marine habitat under improved practices to benefit biodiversity**					***(Hectares)***
Indicator 5.1	Number of fisheries that meet national or international third-party certification that incorporates biodiversity considerations					
Third party certification(s):			Number			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 5.2	Number of large marine ecosystems (LMEs) with reduced pollution and hypoxial					
			Number			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 5.3	Amount of Marine Litter Avoided					
			Metric Tons			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Core Indicator 6	**Greenhouse gas emission mitigated**					***(Metric tons of CO_2e)***
			Expected metric tons of CO_2e (6.1+6.2)			
			PIF stage	Endorsement	MTR	TE
	Expected CO2e (direct)					
	Expected CO2e (indirect)		*508,200*	*609,840*		
Indicator 6.1	Carbon sequestered or emissions avoided in the AFOLU sector					
			Expected metric tons of CO_2e			
			PIF stage	Endorsement	MTR	TE
	Expected CO2e (direct)					
	Expected CO2e (indirect)					
	Anticipated start year of accounting					
	Duration of accounting					

Indicator 6.2	Emissions avoided Outside AFOLU					
			Expected metric tons of CO_2e			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
	Expected CO2e (direct)					
	Expected CO2e (indirect)		*508,200*	*609,840*		
	Anticipated start year of accounting		*2026*	*2030*		
	Duration of accounting		*5*	*5*		
Indicator 6.3	Energy saved					
			MJ			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 6.4	Increase in installed renewable energy capacity per technology					
		Technology	Capacity (MW)			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
		(select)				
		(select)				
Core Indicator 7	**Number of shared water ecosystems (fresh or marine) under new or improved cooperative management**					***(Number)***
Indicator 7.1	Level of Transboundary Diagnostic Analysis and Strategic Action Program (TDA/SAP) formulation and implementation					
		Shared water ecosystem	Rating (scale 1-4)			
			PIF stage	Endorsement	MTR	TE
Indicator 7.2	Level of Regional Legal Agreements and Regional Management Institutions to support its implementation					
		Shared water ecosystem	Rating (scale 1-4)			
			PIF stage	Endorsement	MTR	TE
Indicator 7.3	Level of National/Local reforms and active participation of Inter-Ministerial Committees					
		Shared water ecosystem	Rating (scale 1-4)			
			PIF stage	Endorsement	MTR	TE
Indicator 7.4	Level of engagement in IWLEARN through participation and delivery of key products					
		Shared water ecosystem	Rating (scale 1-4)			
			Rating		Rating	
			PIF stage	Endorsement	MTR	TE
Core Indicator 8	**Globally over-exploited fisheries Moved to more sustainable levels**					***(Metric Tons)***

Fishery Details			Metric Tons			
			PIF stage	Endorsement	MTR	TE
Core Indicator 9	**Reduction, disposal/destruction, phase out, elimination and avoidance of chemicals of global concern and their waste in the environment and in processes, materials and products**					***(Metric Tons)***
			Metric Tons (9.1+9.2+9.3)			
			Expected		Achieved	
			PIF stage	PIF stage	MTR	TE
			19.43	25.61		
Indicator 9.1	Solid and liquid Persistent Organic Pollutants (POPs) removed or disposed (POPs type)					
POPs type			Metric Tons			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
(select)	(select)	(select)	16.8	25.2		
(select)	(select)	(select)				
(select)	(select)	(select)				
Indicator 9.2	Quantity of mercury reduced					
			Metric Tons			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
			2.63	*0.41*		
Indicator 9.3	Hydrochloroflurocarbons (HCFC) Reduced/Phased out					
			Metric Tons			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 9.4	Number of countries with legislation and policy implemented to control chemicals and waste					
			Number of Countries			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
		India	*1*	*1*		
Indicator 9.5	Number of low-chemical/non-chemical systems implemented particularly in food production, manufacturing and cities					
		Technology	Number			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 9.6	Quantity of POPs/Mercury containing materials and products directly avoided					
			Metric Tons			
				Expected		Achieved
			PIF stage	Endorsement	PIF stage	Endorsement
			10,500	*12,600*		

Core Indicator 10	**Reduction, avoidance of emissions of POPs to air from point and non-point sources**					***(grams of toxic equivalent gTEQ)***
Indicator 10.1	Number of countries with legislation and policy implemented to control emissions of POPs to air					
			Number of Countries			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
			1	*1 (265.67 g TEQ)*		
Indicator 10.2	Number of emission control technologies/practices implemented					
			Number			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
			N/A	*2*		
Core Indicator 11	**Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment**					***(Number)***
			Number			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
		Female	3,200	3,200		
		Male	*3,200*	*3,200*		
		Total	*6,400*	*6,400*		

Annex 17: GEF Taxonomy

Level 1	Level 2	Level 3	Level 4
☒ **Influencing models**			
	☐ **Transform policy and regulatory environments**		
	☒ **Strengthen institutional capacity and decision-making**		
	☐ **Convene multi-stakeholder alliances**		
	☒ **Demonstrate innovative approaches**		
	☐ **Deploy innovative financial instruments**		
☒ **Stakeholders**			
	☐ **Indigenous Peoples**		
	☒ **Private Sector**		
		☐ Capital providers	
		☐ Financial intermediaries and market facilitators	
		☐ Large corporations	
		☐ SMEs	
		☒ Individuals/Entrepreneurs	
		☐ Non-Grant Pilot	
		☐ Project Reflow	
	☒ **Beneficiaries**		
	☒ **Local Communities**		
	☒ **Civil Society**		
		☒ Community Based Organization	
		☒ Non-Governmental Organization	
		☒ Academia	
		☐ Trade Unions and Workers Unions	
	☐ **Type of Engagement**		
		☐ Information Dissemination	
		☐ Partnership	
		☐ Consultation	
		☐ Participation	
	☒ **Communications**		
		☒ Awareness Raising	
		☐ Education	
		☐ Public Campaigns	
		☐ Behavior Change	
☒ **Capacity, Knowledge and Research**			
	☐ **Enabling Activities**		
	☒ **Capacity Development**		
	☒ **Knowledge Generation and Exchange**		
	☒ **Targeted Research**		
	☒ **Learning**		
		☐ Theory of Change	
		☐ Adaptive Management	
		☐ Indicators to Measure Change	
	☐ **Innovation**		
	☐ **Knowledge and Learning**		
		☒ Knowledge Management	
		☐ Innovation	
		☒ Capacity Development	
		☒ Learning	
	☒ **Stakeholder Engagement Plan**		

☒**Gender Equality**			
	☒**Gender Mainstreaming**		
		☐Beneficiaries	
		☐Women groups	
		☒Sex-disaggregated indicators	
		☐Gender-sensitive indicators	
	☒**Gender results areas**		
		☐Access and control over natural resources	
		☒Participation and leadership	
		☐Access to benefits and services	
		☐Capacity development	
		☒Awareness raising	
		☐Knowledge generation	
☒**Focal Areas/Theme**			
	☐**Integrated Programs**		
		☐Commodity Supply Chains (Good Growth Partnership)	
			☐Sustainable Commodities Production
			☐Deforestation-free Sourcing
			☐Financial Screening Tools
			☐High Conservation Value Forest
			☐High Carbon Stocks Forest
			☐Soybean Supply Chain
			☐Oil Palm Supply Chain
			☐Beef Supply Chain
			☐Smallholder Farmers
			☐Adaptive Management
		☐Food Security in Sub-Sahara Africa	
			☐Resilience (climate and shocks)
			☐Sustainable Production Systems
			☐Agroecosystems
			☐Land and Soil Health
			☐Diversified Farming
			☐Integrated Land and Water Management
			☐Smallholder Farming
			☐Small and Medium Enterprises
			☐Crop Genetic Diversity
			☐Food Value Chains
			☐Gender Dimensions
			☐Multi-stakeholder Platforms
		☐Food Systems, Land Use and Restoration	
			☐Sustainable Food Systems
			☐Landscape Restoration
			☐Sustainable Commodity Production
			☐Comprehensive Land Use Planning
			☐Integrated Landscapes
			☐Food Value Chains
			☐Deforestation-free Sourcing
			☐Smallholder Farmers
		☐Sustainable Cities	
			☐Integrated urban planning
			☐Urban sustainability framework
			☐Transport and Mobility
			☐Buildings
			☐Municipal waste management

			☐ Green space
			☐ Urban Biodiversity
			☐ Urban Food Systems
			☐ Energy efficiency
			☐ Municipal Financing
			☐ Global Platform for Sustainable Cities
			☐ Urban Resilience
	☐ **Biodiversity**		
		☐ Protected Areas and Landscapes	
			☐ Terrestrial Protected Areas
			☐ Coastal and Marine Protected Areas
			☐ Productive Landscapes
			☐ Productive Seascapes
			☐ Community Based Natural Resource Management
		☐ Mainstreaming	
			☐ Extractive Industries (oil, gas, mining)
			☐ Forestry (Including HCVF and REDD+)
			☐ Tourism
			☐ Agriculture & agrobiodiversity
			☐ Fisheries
			☐ Infrastructure
			☐ Certification (National Standards)
			☐ Certification (International Standards)
		☐ Species	
			☐ Illegal Wildlife Trade
			☐ Threatened Species
			☐ Wildlife for Sustainable Development
			☐ Crop Wild Relatives
			☐ Plant Genetic Resources
			☐ Animal Genetic Resources
			☐ Livestock Wild Relatives
			☐ Invasive Alien Species (IAS)
		☐ Biomes	
			☐ Mangroves
			☐ Coral Reefs
			☐ Sea Grasses
			☐ Wetlands
			☐ Rivers
			☐ Lakes
			☐ Tropical Rain Forest
			☐ Tropical Dry Forest
			☐ Temperate Forest
			☐ Grasslands
			☐ Paramo
			☐ Desert
		☐ Financial and Accounting	
			☐ Payment for Ecosystem Services
			☐ Natural Capital Assessment and Accounting
			☐ Conservation Trust Funds
			☐ Conservation Finance
		☐ Supplementary Protocol to the CBD	

			☐ Biosafety
			☐ Access to Genetic Resources Benefit Sharing
	☐ **Forest**		
		☐ Forest and Landscape Restoration	
			☐ REDD/REDD+
		☐ Forest	
			☐ Amazon
			☐ Congo
			☐ Drylands
	☐ **Land Degradation**		
		☐ Sustainable Land Management	
			☐ Restoration and Rehabilitation of Degraded Lands
			☐ Ecosystem Approach
			☐ Integrated and Cross-sectoral approach
			☐ Community-Based NRM
			☐ Sustainable Livelihoods
			☐ Income Generating Activities
			☐ Sustainable Agriculture
			☐ Sustainable Pasture Management
			☐ Sustainable Forest/Woodland Management
			☐ Improved Soil and Water Management Techniques
			☐ Sustainable Fire Management
			☐ Drought Mitigation/Early Warning
		☐ Land Degradation Neutrality	
			☐ Land Productivity
			☐ Land Cover and Land cover change
			☐ Carbon stocks above or below ground
		☐ Food Security	
	☐ **International Waters**		
		☐ Ship	
		☐ Coastal	
		☐ Freshwater	
			☐ Aquifer
			☐ River Basin
			☐ Lake Basin
		☐ Learning	
		☐ Fisheries	
		☐ Persistent toxic substances	
		☐ SIDS: Small Island Dev States	
		☐ Targeted Research	
		☐ Pollution	
			☐ Persistent toxic substances
			☐ Plastics
			☐ Nutrient pollution from all sectors except wastewater
			☐ Nutrient pollution from Wastewater
		☐ Transboundary Diagnostic Analysis and Strategic Action Plan preparation	
		☐ Strategic Action Plan Implementation	

		☐ Areas Beyond National Jurisdiction	
		☐ Large Marine Ecosystems	
		☐ Private Sector	
		☐ Aquaculture	
		☐ Marine Protected Area	
		☐ Biomes	
			☐ Mangrove
			☐ Coral Reefs
			☐ Seagrasses
			☐ Polar Ecosystems
			☐ Constructed Wetlands
	☒ **Chemicals and Waste**		
		☐ Mercury	
		☐ Artisanal and Scale Gold Mining	
		☐ Coal Fired Power Plants	
		☐ Coal Fired Industrial Boilers	
		☐ Cement	
		☐ Non-Ferrous Metals Production	
		☐ Ozone	
		☒ Persistent Organic Pollutants	
		☒ Unintentional Persistent Organic Pollutants	
		☐ Sound Management of chemicals and Waste	
		☒ Waste Management	
			☐ Hazardous Waste Management
			☐ Industrial Waste
			☒ e-Waste
		☐ Emissions	
		☐ Disposal	
		☐ New Persistent Organic Pollutants	
		☐ Polychlorinated Biphenyls	
		☒ Plastics	
		☐ Eco-Efficiency	
		☐ Pesticides	
		☐ DDT - Vector Management	
		☐ DDT - Other	
		☐ Industrial Emissions	
		☒ Open Burning	
		☒ Best Available Technology / Best Environmental Practices	
		☐ Green Chemistry	
	☐ **Climate Change**		
		☐ **Climate Change Adaptation**	
			☐ Climate Finance
			☐ Least Developed Countries
			☐ Small Island Developing States
			☐ Disaster Risk Management
			☐ Sea-level rise
			☐ Climate Resilience
			☐ Climate information
			☐ Ecosystem-based Adaptation
			☐ Adaptation Tech Transfer
			☐ National Adaptation Programme of Action
			☐ National Adaptation Plan
			☐ Mainstreaming Adaptation
			☐ Private Sector

			☐ Innovation
			☐ Complementarity
			☐ Community-based Adaptation
			☐ Livelihoods
		☐ **Climate Change Mitigation**	
			☐ Agriculture, Forestry, and other Land Use
			☐ Energy Efficiency
			☐ Sustainable Urban Systems and Transport
			☐ Technology Transfer
			☐ Renewable Energy
			☐ Financing
			☐ Enabling Activities
		☐ **Technology Transfer**	
			☐ Poznan Strategic Programme on Technology Transfer
			☐ Climate Technology Centre & Network (CTCN)
			☐ Endogenous technology
			☐ Technology Needs Assessment
			☐ Adaptation Tech Transfer
		☐ **United Nations Framework on Climate Change**	☐ Nationally Determined Contribution
	☒ **Rio Markers**		
		☐ Paris Agreement	
		☐ Sustainable Development Goals	
		☐ Climate Change Mitigation 0	
		☐ Climate Change Mitigation 1	
		☐ Climate Change Mitigation 2	
		☐ Climate Change Adaptation 0	
		☐ Climate Change Adaptation 1	
		☐ Climate Change Adaptation 2	

Annex 18: Results of the Partners Capacity Assessment Tool (PACT) and HACT Micro Assessment



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Annex 19: UNDP Project Quality Assurance Report