United Nations Development Programme

Project Document for projects financed by the GEF Trust Funds

Project title: Integrated Management and Environmentally Sound Disposal of POPs Pesticides in the Agriculture Sector and Mercury & Waste in the Healthcare Sector in Sri Lanka		
Country(ies): The Democratic Socialist Republic of Sri Lanka	**Implementing Partner (GEF Executing Entity):** Ministry of Environment (MoE)	**Execution Modality***:* Assisted National Implementation (NIM) with support by UNDP Country Office
Contributing Outcome (UNDAF/CPD, RPD, GPD)*:* UNSDCF OUTCOME 3/UNDP OUTCOME 2: By 2027, more people and communities in Sri Lanka, especially the vulnerable and marginalized, are more resilient to climate change and disaster risks, have enhanced water and food security, and equitably benefit from ambitious climate action and increasingly sustainable management and protection of the environment and natural resources.		
UNDP Social and Environmental Screening Category: SUBSTANTIAL	**UNDP Gender Marker:** GEN2	
Quantum Award ID: 1131168	**Quantum Project ID: 0**1000981	
UNDP PIMS ID number: 6677	**GEF Project ID number:** 10868	
LPAC meeting date: 21 September 2023		
Last possible date to submit to GEF: 31 January 2023		
Latest possible CEO endorsement date: 21 September 2023		
Project duration in months: 60 months		
Planned start date: 1 February 2024	**Planned completion date:** 31 January 2029	
Expected date of Mid-Term Review (MTR) submission to the GEF: 31 July 2026	**Expected date of Terminal evaluation (TE) submission to the GEF:** 31 October 2028	

Expected Operational Closure Date: by 31 October 2029	**Expected Financial Closure Date:** by 30 April 2030

Brief project description:

There are no manufacturing of POPs or mercury containing products in Sri Lanka. Products containing POPs and mercury are imported to the country for variety of use (i.e., medical equipment, pesticides, pharmaceuticals, industrial chemicals, etc.). Despite regulations introduced for chemical imports, challenges to the control of POPs imports continue to exist. Poor awareness, insufficient regulated monitoring procedures and inadequate analytical facilities at the points of import are key issues of chemical management of the country.

In line with the requirements of the Minamata Convention, a decision to purchase non-mercury medical devices and to phase out the use of mercury-containing[1] thermometers and sphygmomanometers gradually in health ministry institutions was declared by the Ministry of Health in 2013[2]. However, systems and processes to support effective phase out of their use are yet to fall into place i.e., quality standards for alternative medical equipment, safe collection, storage and disposal are lacking. With this decision and the COVID-19 situation, while the health sector was able to increase the use of digital thermometers over the mercury-containing ones, the anticipated phase out did not materialize, the remaining stocks of mercury-filled thermometers are still in use.

The health sector is also a key source of U-POPs release, as a result of gaps that exist in healthcare waste management (HCWM). Choice of inappropriate HCWM technologies, systems, scale and their management and challenges to disposal of treated HCW are challenges that need to be addressed.

The Project Objectives of this Project is to improve regulatory framework for enforcement, strengthen national capacities in POPs pesticides and mercury management, strengthen national conditions to scale up the replacement of mercury-containing medical devices, disposal of mercury stocks and mercury-containing wastes generated from existing phase-out processes, and support the transformation of healthcare waste management systems, through four (4) project components: **Component 1** - Strengthen the Policy, Regulatory and Institutional Frameworks for the management of POPs, Mercury and other Chemicals of Concern (CoC); **Component 2** - Environmentally sound management disposal of obsolete stocks of Agrichemicals POPs, Mercury and their wastes; **Component 3** - Establish Healthcare Waste Management (HCWM) Systems to effectively prevent U-POPs emissions, and develop Business Models for waste disposal at Healthcare Facilities which are aligned to the national COVID-19 recovery efforts; and **Component 4** – Knowledge Sharing, Management & Evaluation.

The results and benefits generated by the Project will contribute to Sustainable Development Goals 3 (GMercuryood Health and Well-being), 9 (Industry, Innovation and Infrastructure) and 12 (Responsible Consumption and Production). Healthcare Waste Management (HCWM) has a direct impact on providing safe working conditions for women Goal 5 Gender Equality and Goal 8 Decent Work and Economic Growth. At completion, the Project will contribute to GHG emission reduction of 3,585 MT CO_2 eq, in additional to the environmentally sound disposal of 22.6 MT of POPs Pesticides and 99.8 MT mercury and mercury waste.

FINANCING PLAN	
GEF Trust Fund grant	USD 5,040,000
(1) Total Budget administered by UNDP	**USD 5,040,000**
Department of Chemical Management, Ministry of Environment	USD 3,380,000

[1] Government sector has taken initiatives to reduce use of amalgam by introducing composite filling since 2013. Also, the government is planning to use only composite fillings by 2020. https://ipen.org/sites/default/files/documents/final_mercury-sri_lanka_cej_1.pdf

[2] WHO, 2019, Strategic planning for implementation of the health-related articles of the Minamata Convention on Mercury

Central Environmental Authority	USD 300,000
Department of Sri Lanka Customs	USD 2,150,000
Department of Agriculture	USD 1,235,000
Ministry of Health	USD 14,000,000
Ceylon Waste Management (Pvt) Ltd.	USD 6,250,000
Asia Recycling (Pvt) Ltd.	USD 3,000,000
Central Bank of Sri Lanka	USD 140,000
Federation of Sri Lanka Government Authorities	USD 175,000
INSEE Ecocycle (Pvt) Ltd.	USD 1,527,800
UNDP	USD 1,000,000
(2) Total confirmed co-financing to this project not administered by UNDP	**USD 33,157,800**
(3) Grand-Total Project Financing (1)+(2)	**USD 38,197,800**

SIGNATURES:		
Signature: print name below	**Agreed by Government Development Coordination Authority**	**Date/Month/Year:**
Signature: print name below	**Agreed by Implementing Partner**	**Date/Month/Year:**
Signature: print name below	**Agreed by UNDP**	**Date/Month/Year:**

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II. ACRONYMS

APR	Annual Project Report
ARR	Annual Review Report
AWP	Annual Work Plan
BAT	Best Available Techniques
BEP	Best Environmental Practices
BOI	Board of Investment
CO	UNDP Country Office
CoCs	Chemicals of Concern
CEA	Central Environmental Authority
EPL	Environmental Protection License
ERC	UNDP Evaluation Resource Canter
ESM	Environmentally Sound Management
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
FSP	Full Sized Project
GEF	Global Environment Facility
GEFSEC	Global Environment Facility Secretariat
GFF	Green Finance Framework
HCF	Healthcare Facility
HCWM	Healthcare Waste Management
MIA	Minamata Initial Assessment
MoA	Ministry of Agriculture
MoH	Ministry of Health
MSME	Medium, Small ad Micro Enterprise
NCC	National Coordination Committee
NIP	National Implementation Plan
PIF	Project Identification Form
PIR	GEF Project Implementation Report
PMC	Project Management Costs
PMU	Project Management Unit
POPP	Programme and Operations Policies and Procedures
POPs	Persistent Organic Pollutants
PPG	Project Preparation Grant
PPP	Public Private Partnership
RoP	Registrar of Pesticides
SESP	UNDP Social and Environmental Screening Procedures
SIP	Specific International Programme (of the Minamata Convention0
STAP	GEF Scientific Technical Advisory Panel
TE	Terminal Evaluation
U-POPs	Unintentionally Produced Persistent Organic Pollutants
UNDP	United Nations Development Programme
BPPS NCE	Bureau for Policy and Programme Support, Nature, Climate and Energy

III. DEVELOPMENT CHALLENGE

(A) Global environmental problems and root causes

1. Article 5 of the *Stockholm Convention on Persistent Organic Pollutants* (POPs) points out that each party shall at a minimum adopt measures to reduce the total releases derived from anthropogenic sources of each of the chemicals included in Annex C to protect the health of the population and environment globally.

2. On the other hand, mercury can lead to significant adverse neurological and other health effects in humans, including the unborn child and infants. As one of the global efforts to protect human health and the environment from anthropogenic emissions and releases of mercury as well as mercury compounds, the Minamata Convention on Mercury went into effect on August 16th, 2017, setting out a range of measures to meet the above-mentioned objective, including measures to control the supply and trade of mercury, the control of mercury-added products, etc. Parties to the Convention agree in Article 4 of the Minamata Convention to forbid the manufacture, import or export of mercury-added products (listed in Part I of Annex A) after the 2020 phase-out date. This list of mercury-added products includes mercury-containing medical devices like thermometers and sphygmomanometers and dental amalgams which the import and/or export and manufacture is forbidden from January 1, 2021 onwards.

(A.1.) POPs Pesticides and contaminated pesticides and other Chemicals products in Sri Lanka

3. Sri Lanka is not a chemical producing country. However, there are few chemical industries such as mining of graphite, mining of dolomite to be used as fertilizer and in ceramic industry. In addition, there are a few formulating and re-export businesses that are using imported raw materials and formulate them through mixing and compounding to make chemicals for agricultural, industrial and other uses. All the chemicals required for agriculture, industry and laboratory use are imported to the country from different sources.

4. The health and environmental impacts of POPs chemicals have not been studied adequately in Sri Lanka. Public concerns about impacts of chemicals are emerging based on evidence that noncommunicable diseases (NCD) are on the rise in the country and is the leading cause of death[3]. Sri Lanka´s National Health Database identifies that Chronic Kidney Disease (CKD) has 15-21% prevalence in the paddy farming heartland since the 1990s, but it has not been attributed to any of the known causes like diabetes, hypertension, glomerulonephritis, etc. - and named as CKD of unknown origin (CKDu)[4]. The growing numbers of farmers with CKDu needing dialysis and transplantation is considered a national disaster. Studies have indicated that the use of pesticides for over a long period (i.e., four to five decades) could be a reason for CKDu prevalence in agricultural areas[5]. The overuse of pesticides in agriculture was quite common amongst farmers (until the ban imposed on agrochemicals in 2021), which are applied close to harvest and after harvesting to protect the fresh produce during transport and marketing[6].

5. In this regard, the National Implementation Plan (NIP) (updated in 2015 and published in 2017) still lacks further details on bottom-up data related to POPs pesticides, which denotes the need to continue carrying studies to improve knowledge about pesticides in general. The problems and challenges related to controlling POPs pesticide, mainly agro pesticides, have been identified and the actions required to overcome them are included in the NIP. Insufficient regulatory mechanisms for monitoring of illegal pesticides taken into the country, availability of insufficient information on POPs pesticides use, lack of proper storage facilities for obsolete pesticides, poor awareness on use of hazardous pesticides among stakeholder groups are some of the challengers identified in the NIP.

[3] https://healthdept.wp.gov.lk/web/non-communicable-disease/

[4] S Rajapakse, M C Shivanthan and M Selvarajah, 2016*, Chronic kidney disease of unknown etiology in Sri Lanka. International Journal of Occupational and Environmental Health , pp. 259-264*

[5] Seneviratne, J. K. a. R., 2017. Beginning of a journey: unraveling the mystery of chronic kidney disease of unknown aetiology (CKDu) in Sri Lanka. *Globalisation and Health*

[6] M T Padmaranjani et al. 2014, *Assessment od Pesticide Usage in UP-country Vegetable Farming in Sri Lanka*, Colombo: Hector Kobbekaduwa Agrarian Research and Training Institute

6. It is noted that no official import and use of POPs agro pesticides had been recorded in the country over decades due to the ban imposed in accordance with the requirement of the Stockholm Convention. However, importation of active ingredients of pesticides as chemicals, lack of monitoring facilities at the point of import for pesticides contaminated with POPs, and lack of analytical facilities with regulating authorities to monitor/validate submitted claims are among the priority regulatory problems identified in the NIP. As such, banned chemicals, possibly illegally imported under different HS Codes, and obsolete stocks (which include pesticides and plastics containers contaminated by POPs-pesticides stocks) were discovered in several locations in Sri Lanka, estimated at 22.6 metric tons. The NIP also highlighted the high potential of the existence of contaminated sites in Sri Lanka (i.e., DDT, cycloidians and lindane), which were detected in tea plantations almost two decades after the ban of these chemicals. Finally, twelve court cases have been filed by the office of Register of Pesticide (RoP) between 2016-2020, related to the smuggling of banned or severely restricted pesticides into the country (though the total quantity of smuggled pesticide is unknown, still, about 200 metric tons were seized by Sri Lanka Customs and other Control Bodies).

7. Ban on import of agrochemicals imposed in April 2021 to shift towards green agriculture with little or no preparation, came as a shock to farmers. This caused widespread protests and reported decline in food and crop production over consecutive seasons.

8. Usually, the highly regulated agrochemicals and pesticide markets in Sri Lanka has significantly weakened because of this situation. Discussions with the RoP revealed that, since the ban, there is a substantial increase in illegal flow of agrochemicals to the country and their use, including POPs pesticides. Expired chemicals and banned chemicals (i.e., Monocrotophos which was banned for over 15 years in Sri Lanka, and glyphosate) are now quite widely available in the markets. Although a formal procedure and a system is in place for the monitoring of the use of Monocrotophos, due to the resource constraints and absence of records of illegal importation, there are gaps in ground implementation.

9. The RoP is concerned that smuggling which reached a new level at present will continue to remain so or increase, despite the lifting of the ban in November 2021. The ban on the import, thus the use of agrochemicals, which many analysts see more an effort to preserve Sri Lanka's scarce foreign reserves, drew months of protests, with farmers saying they were in danger of crop failures and poverty. Tea growers complained that the famous Ceylon Tea brand was at risk if yields fell, creating more opportunities for competitors. Agriculturists was of the view that while organic farming was a welcome approach, the shift away from chemicals should be gradual to avoid food shortages. The protests put pressure on the Government to lift the ban after only a short duration of implementation.

10. RoP's concern is that, despite lifting of the ban on import, the market prices of agrochemicals remain high, due to prevailing foreign exchange crisis in Sri Lanka and the removal of the decades-long government fertilizer subsidy that paddy farmers enjoyed prior to the ban. This will create ideal conditions for continued and increased smuggling, which will in turn put pressure on enforcement efforts and capacities. Through this Project, activities will be implemented to upgrade the baseline laboratory facilities to enable quick detecting, testing and verifying imported products, and expand the centralized database to track importation of chemicals including tracking on their intended use and disposal.

11. Recently RoP issued a circular to courier companies advising/warning them not to handle and/or contribute to the movement of illegal agrochemicals. This too implies creative inflow of agrochemicals.

12. The Government of Sri Lanka (GOSL) is recommending 30% use of organic fertiliser and has allocated 16 billion Sri Lankan rupees (43.59 million U.S. dollars) to provide organic fertilizer subsidies for paddy farmers in the coming (2022/23) farming season. This will perhaps reduce demand and discourage illegal import.

(A.2.) Problem of Mercury in National Context and the issues related to Healthcare Waste Management

13. Mercury contamination is a serious threat to Sri Lanka. Seafood which is an important source of protein in the island, can be a major source of methylmercury. Mercury pollution will exert negative impacts on the 103 rivers together with close to 30,000 network of mostly ancient man-made reservoirs that exist mostly in the northcentral and northwest parts of the country forming an aquatic system that support the livelihood of inland

fishing, as well as paddy and other crop farming employing a large percentage of the population. The Project will contribute to reducing mercury-containing waste getting into the waste streams.

14. The discharge of agricultural runoff, industrial effluents, and leachate from contaminated landfills/waste dump sites greatly contribute to the accumulation of the pollutants (specifically heavy metals, including mercury) in inland surface water.

15. The healthcare sector, educational institutes, and laboratories are also sources of pollution of mercury, mostly due to use of mercury-containing medical devices and the use of mercury in their processes. Additionally, products such as CFL bulbs are also widely used in Sri Lanka, resulting in mercury-containing wastes being generated and entering the municipal solid waste streams. Up to 1.4% of e-waste in municipal solid waste in Sri Lanka consists of CFL, fluorescent lights or tube lights and other mercury containing products, including electrical switches, and relays (mechanical doorbells, thermostats) (*Center for Environment and Justice, 2018)*. Additionally, liquid crystal display (LCD) monitors, audio equipment, laptops or notebook computers, telephones, DVD players, fax machines, photocopiers, which may also constitute PBDEs sources and heavy metals.

16. The *Minamata Initial Assessment* (MIA 2019) showed that Sri Lanka inputs an estimated 7,630 kg of Hg/year from various uses in the country. Sri Lankan water systems may be contaminated with mercury by four key sources: (i) wastewater systems/treatment (3,728 kg Hg/year); (ii) use and disposal of products including medical devices (1,253 kg Hg/year); (iii) use and disposal of dental amalgam (146 kg Hg/year); and (iv) informal waste dumping (396 kg Hg/year). Medical blood pressure gauges (873.7 kg Hg/year), laboratory and medical equipment containing mercury (214.4 kg Hg/year), CFL light bulbs with mercury (73.8 kg Hg/year), mercury-based thermometers (87.1 kg Hg/year) and batteries (68.6 kg Hg/year) are considered as the major sources of mercury releases to the environment. In addition, improper burning and incineration of municipal, industrial and hospital waste are key sources of mercury contamination of land/soil in Sri Lanka as well as source of emission of U-POPs.

17. The decision to reduce use of dental amalgam since 2013 and not to purchase mercury containing thermometers since 2017 helped the Ministry of Health (MoH) to promote the move from mercury to digital thermometers during the COVID-19 situation. But in general, the use of mercury filled thermometers in hospitals is continued. The MIA has identified 21,203,000 dental amalgam fillings, 244,907 and 36,406 thermometers and sphygmomanometers respectively per annum to estimate mercury inputs to the society. MoH has issued instructions to gradually phase out dental amalgam, but it is still used in many government hospitals due to the high cost of the alternative composite and for other technical reasons.

18. The quantities of mercury released to air, water and land was estimated using the toolkit developed by the Minamata Convention. Among the major sources of pollution identified in the MIA are: sphygmomanometers (land: 582.5 kg hg/y; water: 873.7 kg hg/y; and air 582.5 kg hg/y); thermometers (water: 87.1 kg hg/y and land: 58 kg hg/y); dental amalgam (water: 146 kg hg/y and land: 27 kg hg/y); and burning and incineration which include healthcare waste (air: 308.1 kg hg/y).

19. Based on the "Rapid Assessment of Healthcare Waste Management in Sri Lanka" conducted in 2020 and 2021 by a Consultant Team commissioned by the MoH and UNDP Sri Lanka, by using an average emission factor of 24g Hg/ton of waste incinerated, it is estimated that 179 kg Hg/year and 10 kg Hg /year are released to the air during the burning and incineration of clinical wastes in large and small Healthcare Facilities respectively.

20. Since the MIA was conducted in 2019, the number of health institutions in the government, private and Ayurvedic sectors would not have changed so the demand for medical equipment remains the same. Status assessed through the stakeholder consultations observed that:

    - While government sector has taken initiatives to reduce use of amalgam by introducing composite filling since 2013, and the government was planning to use only composite fillings by 2020, this did not take place due to lack of systems and process to support effective implementation. There had been some reduction in the use of dental amalgam in the private sector and larger government hospitals. Yet, the use of mercury-containing dental amalgam continues due to many reasons the primary being the high cost of alternative,

while taking additional precautions such as using capsules to minimize exposure to mercury and not using on children.

- Use of mercury filled thermometers has been reduced. There had been a rapid influx of digital thermometers during the COVID-19 pandemic. Medical Supplies Division (MSD) and even provincial and district level administrations had purchased large numbers of digital thermometers during this time, however, the use of existing stocks of mercury-containing medical devices is continued.
- The status of disposal of florescent bulbs remains the same after MIA. There is still no established mechanism to collect and properly dispose such bulbs. Few private organizations collect them but at a cost. Government institutions do not have provisions to pay for this. Some institutions store them hoping for a solution in future and some discard them with other garbage.

(A.3.) U-POPs emissions in HCWM aggravated by the COVID-19 Pandemic

21. The healthcare sector is recognized as an important source of release of mercury and U-POPs due to unsound disposal practices of waste. Although regulations for internal management of hazardous waste have been put in place by the Government of Sri Lanka, satisfactory implementation has been challenging due to the choice of centralized large scale treatment systems with inadequate infrastructure facilities and lack integrated support services for the disposal of these (inert) wastes.

22. Proper Management of Municipal Solid Waste Management Systems (MSWMS) has always been a challenge in Sri Lanka, and to accept streams of inert (de-contaminated) healthcare waste in the municipal solid waste system adds concerns to the issue: Local authorities, which are primarily responsible for management of municipal solid waste, have generally refused to accept de-contaminated healthcare wastes, partly due to lack of awareness about how the healthcare waste de-contamination process works (which creates concerns about their safety), but also due to the unsatisfactory solutions (uncontrolled dumping, open burning) which were available for solid waste management (the more waste streams are incorporated, the more pressure over informal dumpsites will exist). The situation, while is improving with the introduction of composting, as well as limited biogas generation and incineration, and the creation of some engineered landfills, is still progressing much slower than expectations of public authorities.

23. The newly introduced National Waste Management Policy states that healthcare waste should be considered as municipal solid waste. But this is yet to be practiced as mechanisms for putting the policy into practice is lacking so far.

24. The pressure over healthcare and municipal solid waste systems has been further aggravated with the current COVID-19 pandemic. As immediate response to the increasing volume of plastics waste due to the pandemic focus on providing PPEs and other products protect people from surface contamination, these plastics waste end up in dumpsites, landfills, as well as in river streams and oceans. At the same time, infectious and non-infectious healthcare waste generation has also increased beyond the national capacities. Hospitals, which were already lacking sound and adequate HCWM strategies and disposal systems, are further stressed and had to resort to non-controlled measures, even open burning, to reduce the waste volume.

25. The healthcare facilities have gotten used to the convenience offered by burning/incineration and many consider them as preferred practice. The demand for HCW incineration by the hospitals, therefore, is on the rise, which is also pushed by the overall unsatisfactory record of the use of the MetaMizer hybrid autoclave system (MetaMizer is the brand name of a medical waste disposal system manufactured by an Australian company, having a container capacity of 240 liters and 50kW hydraulic pump) by the assigned hospitals. Most hospitals consider incineration (even substandard) as the only solution and no other practical alternatives are available for HCWM.

26. Globally the pandemic continues (overall in the EU, 27% weekly increased by end June 2022, in the US over 100,000 new cases daily, Canada almost 3,000 new daily cases etc.). Given that Sri Lanka is a popular tourism destination, progression of the pandemic is a possibility. Furthermore, significant surge of COVID-19 cases in neighbouring country would also increase the risk in Sri Lanka.

27. The Government is already rolling out the fourth vaccine dose. Thus, the continuation of the national roll-out of COVID-19 vaccination will also increase healthcare waste generation in the medium to long term due to the possibility of recurrent immunization. To cope with this, current trends such as uncontrolled burning may continue, dimming the potential for materials recycling including re-usable plastic PPEs, vaccine glass, aluminium vials, and etc. Hence, U-POPs emissions in this sector may likely continue to increase. For example, it was estimated that from the annual 182 g/TEQ of PCDD/PCDF releases in Sri Lanka in 2013, 57g/TEQ (31% of the total) came from healthcare waste burning7.

(B) Barriers that need to be addressed

28. The NIP for Sri Lanka was updated in 2015 to review the inventories of PCBs, U-POPs, POPs pesticides and establish the inventories for new POPs (PFOS, its Salts, PFOSF, and PBDEs). NIP data compiled 7 years ago are outdated and do not present a comprehensive picture of current POPs situation in Sri Lanka. 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.

29. There is also no common integrated regulatory mechanism for importing of chemicals into the country. For an example, Registrar of Pesticide (RoP) under the Ministry of Agriculture (MoA) is the licensing and controlling authority for importing of pesticides, herbicides, etc. to the country. Similarly, the Chemical Weapons Authority under the Ministry of Industry and Commerce, the Precursor Chemical Authority under the National Dangerous Drugs Commission, Ministry of Defence, Atomic Energy Authority of Sri Lanka, and the Central Environmental Authority are empowered to issue license for importing specified chemicals coming under their purview.

30. As there are no POPs manufacturers or mercury containing products in Sri Lanka, POPs and mercury are imported to the country for variety of use (i.e., medical equipment, pesticides, pharmaceuticals, industrial chemicals, etc.). The Imports and Exports Control Department is responsible to control the international trade and functions under the provisions in the Import and Export Control Act (No.1 of 1969). The Act also regulates the import of chemicals by demanding a Special Import License Scheme (SIL).

31. Despite the regulations introduced for chemical imports, challenges to the control of POPs imports continue to exist. Poor awareness among the Customs officials, insufficient regulated monitoring procedures and inadequate analytical facilities at the points of import are considered the key reasons that prevent effective detection of banned chemicals smuggling into the country. Conducting laboratorial tests on chemicals and products import before Customs clearance should be the preferred option, but the current practice is that only suspected consignments are subjected to verification. Thus, strengthening human resources capacities and skills, and improving the laboratory facilities at the Customs are priorities. The main barriers that need to be overcome are:

    a. Inadequate knowledge, unbalanced capabilities, and outdated facilities to monitor and verify consignments for chemicals import for effective enforcement of regulation(s).
    b. Unavailability of reliable data and information required for effective coordination across agencies and efficient and transparent decision making for management and control of POPs chemicals.
    c. Lack of trainings that include POPs chemicals control practices, application of regulations and screening for the Government Officers of the departments of Imports and Exports Control and Customs.
    d. Need to update inventories of POPs chemicals and products, and plan control measures including disposal planning, especially establishing inventories of POPs from 2015 to to-date.
    e. Inadequate laboratory facilities available in the country which is crucial for the prevention of illegal pesticide imports to the country; Local laboratory facilities available in the country fail to meet national demand and especially now as the inflow of illegal agrochemicals have been on the rise since the mid of 2021 due to the ban imposed on agrochemicals by the government. There are a few designated

[7] Ministry of Mahaweli Development & Environment, Sri Lanka, 2017. *Updated inventory of Dioxins & Furans in Sri Lanka - 2015,* Colombo: Government of Sri Lanka

laboratories owned by private sector which get the tests done through overseas counterpart laboratories. This is time consuming and expensive draining scarce foreign exchange in the country.

f. RoP has weak investigation capacity and has no special mechanism in place to address the continued and increasing inflow of illegal pesticides to Sri Lanka. Being aware of its minimum and weak investigatory capacity, RoP feels that they have lost control over the situation, due to capacity issues.

g. Deficiency in the recognition of POPs chemicals at the point of import. At present this is done through the given 6-digit HS Code 38.0.8. This should be expanded to 8-digit in line with international best practice for easier recognition.

32. Stocks of POPs agro pesticides and mercury wastes have been accumulated beyond national management capabilities. A large portion of POPs chemicals including those used in Agri-schools, accumulated in Agriculture Department's warehouses were disposed in 2019 through a one-off budget allocation by the government. However, there is a lack of structures or financially viable plans for safe storage and disposal of obsolete agrochemicals including pesticides. The current stocks have been estimated as:

(i) 22.6 metric tons of POPs agro pesticide and chemicals cross-contaminated with POPs agro pesticides.

(ii) 8.8 metric tons of (residual/waste) mercury from de-commissioned CFL light bulbs and medical devices at Asia Recycling (Pvt) Ltd.

(iii) 41 metric tons of mercury waste at a Ceylon Waste Management (Pvt) Ltd.

33. The Department of Agriculture (DoA), through their Agriculture Extension Officers' network provides technical advice to users on selection and use of agro pesticides. Yet, farmers do not seem to rely on the government extension service and get agro pesticides related advice from the sales agents or the local retailers of the agro pesticides[8].

34. The Government is the main owner of healthcare facilities in Sri Lanka and has set ambitious targets to replace mercury-based devices in their facilities. The replacement of mercury-based devices and the elimination of mercury, as well as the sound management of HCW, also encompass all entities that own/operate healthcare units (including private sector and NGOs), therefore, there is a need to leverage private sector co-finance capacities for replacing mercury-based devices and improve their waste management practices. Under the current scenario, the barriers to be removed in the HCWM are:

a. Lack of specific regulations, guidelines and standards that can enable the coordinated phase-in of high-quality mercury-free products in HCWM. At present, the replacement of mercury-based products is de-centralized with no minimum standards to assure quality control and efficacy, which can lead to low quality products affecting services provided.

b. Improper HCWM in many healthcare facilities across the country that has been aggravated by the COVID-19 pandemic and the lack of a proper national plan and coordinate actions to cope with such situations.

c. (Usually substandard) incineration tends to be the most common and accepted HCWM destruction technology due to the lack of acceptable demonstrated alternatives

d. Lack of coordination between different Ministries in charge of healthcare and waste management and public procurement policies.

e. Inadequate capacities at the subnational levels (local authorities) on addressing healthcare waste management issues.

f. Lack of a finance scheme to facilitate the procurement of mercury-free products, PPEs, and the de-centralized non-incineration treatment systems to reduce phase-in cost and minimize waste generation impacts.

[8] Ministry of Mahaweli Development and Environment , 2017. *Updated Inventory of POPs Pesticides in Sri Lanka - 2015,* Colombo, Gocernment of Sri Lanka

g. Lack of large scale, long term, sustainable and harmonized training for public officers and healthcare personnel.

h. Lack of aligned national and subnational strategies on safe disposal of mercury-contaminated waste and infectious HCW, lack of a strategy that can unlock the recycling of certain types of HCW in a safe manner (such as re-usable PPE plastics and glasses from vaccines), and lack of guidelines and experiences for the identification of contaminated sites.

i. Lack of technical capacities to deploy and operate non-incineration equipment, such as low-cost autoclaves and/or microwave systems, to facilitate the establishment of the de-centralized HCWM system.

j. Lack of appropriate business models for the baseline treatment equipment already in use in Sri Lanka and need to develop Cost-Benefit Analysis and business models replication of low-cost autoclaves in small and medium sized facilities.

k. Lack of final disposal options for decontaminated waste which can be integrated to the local solid waste management systems.

l. Lack of regulations to translate the recently introduced National Waste Management Policy into practice, backed by an implementation mechanism.

m. Continued challenges faced by hospital administration on disposing wastes generated by the MetaMizer hybrid autoclave systems has led to MoH to consider adding more substandard incineration options to the HCWM systems in the country.

(C) The baseline scenario and any associated baseline projects

(C.1) Ban on POPs Pesticide and POPs Obsolete Stocks

35. Prompt initiatives were introduced for agrichemicals management, including ban of the 'Dirty Dozen' pesticides prior to even effecting the Stockholm Convention. The import statistics show that most POPs pesticide were imported only until 1994, except for Lindane, whose imports lasted until 2012. Sri Lanka introduced timely legal measures to avoid some of them over two decades on the basis of health and environmental concerns mandated by the Control of Pesticide Act No. 33 of 1980 (amended in 1994, 2011, and 2020 respectively). Yet, the extensive use (and misuse) of pesticides continues to be practiced given its dominant agricultural economy. The country has imported close to 100,000 metric tons of pesticides (insecticides, herbicides, and fungicides) between 2000-2014. The misuse/overuse of agro pesticides led to bad practices resulting in cross-contamination of other agrochemicals with stocks of obsolete POPs agro pesticides in different sites. Additionally, unsound practices also generated huge amounts of plastic waste and containers contaminated by POPs-pesticides. In the baseline scenario, these practices may continue and, if current stocks are not properly managed and disposed, and cross-contamination will continue to stress the national disposal systems.

36. The Future Policy Award was awarded to Sri Lanka in 2021 in recognition of the introduction of the Control of Pesticides Act (1980) and its amendments. This was a special award dedicated to the most effective policy measures for controlling the effects of highly hazardous pesticides on people, especially on children and the environment. Sri Lanka, in line with the current national vision (Vistas of Prosperity and Splendor), made a bold announcement to ban the use of all agrochemicals, including pesticides, starting from the Maha agricultural season, which starts around October 2021. However, a discrepancy between the regulations related to pesticides, the control and monitoring mechanisms set by DOA, and the field practices of farmers still exist and remain to be addressed.

37. A private sector service provider has the only facility capable for safe disposal of hazardous waste. However, it cannot meet the country's total demand for hazardous waste disposal. The facility has been used for the disposal of part of the stockpiles of obsolete POPs accumulated over the last two to three decades, including 274 metric tons of pesticides and contaminated products, and 4,250 kg of PCBs containing oil. However, an estimated 13.6 metric tons of sold and 9 metric tons of liquid pesticides and laboratory chemicals (including HHPs, POPs pesticides and contaminated products) await safe disposal. Securing an interim storage of the obsolete pesticides until safe disposal is also amongst the highest priorities identified by the NIP 2015.

(C.2) Data and information sharing

38. Communication and information gaps are key challenges for inter-institutional coordination, and the proposed coordination structure needs to be underpinned by effective data and information management/sharing system. At present, each institution has its own database and systems of keeping records, and in the baseline scenario a coordinated mechanism that can harmonize these sources may not be developed. Relevant information is scattered across agencies. Having comprehensive and updated information for decision making is critical to addressing life cycle management of chemicals, to combat illegal trade, and to improve transparency of imports and use.

(C.3) Healthcare sector: mercury management and waste disposal

39. The Public Healthcare System provides free and universal healthcare across the island and the service scores higher than the regional countries' average. It comprises of 477 hospitals (with 84,728 patient beds) and 515 primary healthcare facilities, including central dispensaries, with 353 Medical Officers of Health assigned to designated areas under the MoH. There are also ninety (90) state indigenous medicine-based hospitals across Sri Lanka with 4,009 beds and 141 private hospitals (with over 4,200 beds) to the service. Furthermore, there are 797 units consisting of 69 private hospitals and 728 medical and dental practices and laboratories.

40. The decentralized network of healthcare facilities annually caters to an estimated 60,000 people per Secretariat Division. As such, 19,860,000 people are catered in 331 Divisions, quite a large number compared to total population of 22 million in Sri Lanka which are covered by the healthcare system. The Annual Health Statistics (2017) reports having serviced 6,910,249 inpatients and 55,399,335 outpatients. As these numbers refer to patient visits, and assuming about 10% is close to actual number of patients, potential beneficiaries of environmental benefits of phasing-out mercury-equipment would be around 6.9 million people (who become sick and require assistance).

41. Recognizing risks posed by the mercury contamination, the MoH, as main user of mercury products, initiated a mercury phase-out plan aiming to be fully implemented by 2021. However, the process has been slow, challenging, and is delayed. The challenges include inadequate skills and knowledge about choosing appropriate mercury free alternative technologies, correct specification, lack of minimum standards, inadequate investment and need of management plans for the obsolete equipment and wastes. Under the baseline scenario, these problems will continue. Disparities between public and private healthcare units will continue. Lack of finance will continue to be a challenge that will delay the speed of replacement. The lack of central coordination mechanism and standards may risk the quality of medical devices, as a result, stocks of residual and waste mercury will continue to increase without proper management and disposal plans. Without a coordinated training program, healthcare facilities staff and waste workers are at risk of mercury exposure.

42. The healthcare sector also uses mercury containing bulbs, which is being replaced with non-mercury energy saving alternatives. About 99% of imported mercury-containing lamps over the last decade were fluorescent lamps, out of which over 87% were energy efficient AC-CFL. Asia Recycling (Pvt) Ltd. is the main CFL/LFL recycling factory in Sri Lanka. It has the capacity to recycle 30 million bulbs annually. It has worked with the MoH and the CEA to collect obsolete mercury-based devices or products. Its recycling plant recycles 100,000 to 150,000 bulbs every month, which is less than 10% of the CFL that were imported to Sri Lanka monthly before 2021. Mercury and phosphorous powder were extracted using dry process and were planned to export to Germany for further separation. However, Asia Recycling (Pvt) Ltd. stopped operation in 2018 as the company realized that the accumulated mercury and mercury waste stocks was becoming a liability to the company, as the government was unable to send any waste stock to Germany as originally intended. So far, 8.8 metric tons of mercury-contained wastes stocks were recovered and the mercury containing wastes are presently kept at the premises of the factory. However, there are currently no immediate plans for viable disposal, as Sri Lanka lacks the proper interim disposal facility for mercury.

43. HCW generation is estimated to be 0.346 kg/day, per bed (national hospital); and 0.733/kg per bed (provincial hospital). Only about 10-25% of healthcare waste is considered clinical that includes infectious, chemical and radioactive waste. HCWM as an essential part of healthcare hygiene and infection control is implemented through specific regulations. The national policy on healthcare waste management dated from 2001 explains

the HCWM considerations and provides for (i) setting up a national institutional mechanism for policy implementation, (ii) safe HCWM based on regulations and HCWM planning, and (iii) the implementation and the monitoring of HCWM plans at national and subnational levels by having required legislation, human resources, training and awareness, and budget allocation (*The MoH, Nutrition and Indigenous Medicine, 2018*).

44. Although the MoH considers HCWM to be a priority for resource allocation, funds allocated are often inadequate to ensure strict implementation of the imposed internal rules and regulations. Out of the estimated 8,669.5 ton/year of HCW:

    a) 3,015.0 ton/year are processed using different disposal processes.

    b) 106.0 ton/year are openly and uncontrolled burnt.

    c) 4,275.5 ton/year incinerated under less than ideal or unknown conditions on site.

    d) 1,273.0 ton/year are treated at twenty (20) large hospitals using the MetaMizer hybrid autoclave system.

45. Hybrid autoclave technology (Australian made MetaMizer hybrid autoclave system) was introduced to 20 government hospitals for treating infectious waste in the state sector healthcare facilities in late 2016, out of which, about 85% are in operation. The container capacity of this unit is 240 liters and 50kW hydraulic pump is there for system operation. MetaMizer hybrid autoclave systems in hospitals are operated by both the supplier's local agent and hospital staff and maintained by the supplier. Continuous operation of the MetaMizer hybrid autoclave system regularly a challenge and when it is out of operation, the waste is either transferred to nearby hospital or stored in the site itself until the machines are put back into operation. This often causes problems sometimes leading to burying clinical waste in hospital premises due to lack of spaces for storage. After treating the waste, the remains should be sent to landfilling, but often open dumped within and close to hospital premises.

46. MetaMizer hybrid autoclave systems have not been generally used adhering to technical instructions and specifications. As such the machines have also been damaged with useful life significantly reduced. Furthermore, MetaMizer hybrid autoclave systems are located randomly rather than in a strategic manner to get the best out of the 20, and many are functioning significantly under-capacity as well as at a high unit cost of waste processing.

47. A significant increase of HCW generation in the future can be predicted with population increase including increase in aging population and looming threats of resurgence of Covid pandemic. This requires additional significant capacity over the usual status.

48. The final disposal of the decontaminated waste continues to be a challenge as local authorities are reluctant to receive these streams in the municipal solid waste management (MSWM) system. The 2019 National Audit Report on HCWM pointed out that 70 percent of audited hospitals do not comply with HCWM standards, particularly on solid streams.

(D) Associated baseline national policies and standards framework

49. A summary of policies, acts, procedures and systems used in the agriculture sector having implications for controlling of pesticide (Importation, manufacture, formulation, packing/repacking, labelling, distribution and sale in Sri Lanka) and banning the import of POPs containing chemicals are given below:

Table 1: Summary of Policies, Acts, Procedures and Systems used in the Agriculture Sector

Policy	Relevant Policy Elements
National Agriculture Policy	• Enforce regulatory measures to safeguard ecosystem services. • Adopt a prescription-based sale and use of pesticides – with the involvement of Agrarian Service Centers and Farmer Cooperatives or establishment of Kiosks. • Establish a system to promote integrated pest/weed management approach to facilitate multiple use of plant protection technologies.

	• Introduce and promote adoption of novel and appropriate eco-friendly pest/weed control techniques (including bio pesticides/botanicals/predator mites, etc.) • Develop and implement plans to increase the extent of land with organic ameliorations at least up to 30% of the total arable by providing an appropriate incentive package. • Introduce and increase the use of precision agriculture systems (e.g., new technologies for higher fertilizer use efficiency, soil test-based fertilizer application) to enhance productivity and minimize negative impacts to ecosystem. • Conduct Continuing Professional Development (CPD) programs for agricultural extension officers and Agriculture Research Production Assistants (ARPAs) on latest developments on use of eco-friendly agricultural production and management techniques.
National Policy on Solid Waste Management	• To ensure environmental accountability and social responsibility of all waste generators, waste managers and service providers. • To actively involve individuals and all institutions in integrated and environmentally sound solid waste management practices. • To maximize resource recovery with a view to minimize the amount of waste for disposal and. • To minimize adverse environmental impacts due to waste disposal to ensure health and well-being of the people and on ecosystems.
National Waste Management Policy (RP)	• Waste is any material, substance or by product eliminated or discarded or as no longer required at a particular time and a particular place or form and therefore to be used either as a resource or to be treated and disposed of in an environmentally sound manner if it does not have a utility value. • Multiple strategies such as command and control regime, economic instrument, voluntarily contribution shall be used as appropriate to improve waste management systems throughout the country. • Systematic mechanisms with tracking systems shall be developed to know where, what and how much waste is generated as premises for confirmation of the cause of waste generation aiming at establishing a sound and self-responsible society with life cycle thinking in resource utilization. • The lead institutions and agencies shall develop mechanisms to identify, evaluate and report the amount of waste generation with its composition and source. • A sustainable mechanism shall be developed to prevent open dumping practices by timely removal of waste at source and providing suitable infrastructure facilities for disposal. • Short-, medium- and long-term strategies and action plans shall be developed by leading institutions and agencies to minimize the waste to be finally disposed of by using an appropriate waste management hierarchy throughout the life cycle. • Importation of all types of post-consumer waste shall be prohibited. • Generators of hazardous waste shall be held responsible to ensure proper collection, storage, transportation, treatment and disposal of waste with appropriate tracking, recording and reporting systems. • Application of cleaner production techniques shall be promoted to minimize hazardous contents and improve resource efficiencies at all levels. • Leading ministries and agencies shall upgrade the existing guidelines and develop new guidelines where necessary for all waste sectors covering all waste streams for the usage at national, provincial and Local Authority levels.

	• Development and implementation of occupational health and safety systems for all waste management workers shall be made mandatory for all the industries, waste management agencies, service providers and other institutions. • Effective and sustainable resource mobilization strategies shall be developed to ensure efficient waste management island wide. • Development and implementation of sub-sectoral policies in line with the National Policy by all the leading stakeholders shall be made mandatory. • The policy statements covering all forms of waste together are applicable to semisolid waste having qualities of solid and liquid; highly viscous, as appropriate in accordance with the guidelines stipulated by CEA. • Development and implementation of Strategic action plans shall be made mandatory to all agencies in annex 1 through identifying the challenges, developing strategies and activities in line with the national policy.
National Agriculture Research Policy and Strategy 2018 - 2027	• To develop varieties resistant to pest and diseases, for use of integrated pest management techniques to reduce chemical use. • To develop cost effective and environmentally sound nutrient (organic and chemical) packages, including bio-pesticides and bio fertilizer for restoration and improvement of soil fertility status.
National Policy on Chemicals Management (Draft) December 24, 2020	The draft policy addresses the life cycle management of chemicals, covering toxic pesticides and hazardous industrial chemicals, persistent organic pollutants (POPs), persistent, bio-accumulative and toxic substances (PBTs), and endocrine disruptive chemicals. **Policy Objectives:** • Ensure effective enforcement and implementation of related laws, regulations, guidelines and standards by clear allocation of responsibilities. • Implement the obligations made under the Multilateral Environmental Agreements (MEAs) in relation to chemical management. • Foster capacity building and technological cooperation of all stakeholders. • Establish effective control and monitoring systems for chemical management to assess policy implementation efficiency, regulatory compliance and identify emerging risks. • Promote and ensure dissemination of knowledge of safe and environment friendly handling of chemicals. • Ensure the safe and sustainable management of chemicals at every stage of the chemical life cycle and in this way, protecting human health, protecting the environment and reducing resource consumption.
Acts	
Control of Pesticides Act, No 30 0f 1980:2.1 Control of Pesticides (Amendment) Act, No 6 of 1994 Implementing agency: Registrar of Pesticides	Under this Act, all pesticides are required to be registered with the Registrar of Pesticides (RoP) prior to sale. Further the Act requires, prior to registration, a statement of the claim made by the manufacturer or producer of such pesticides as to its "Use, potency, stability in storage and the period of usage" in addition to a statement with regard to its "efficiency and crop safety supported by the results of any experimental data as evidence".
Sri Lanka Ports Authority Act No.51 of 1979 (last amended in 1992)	Terms and conditions relating to the entry of chemicals defined as 'Dangerous Goods' into the country. Chemicals belonging to this category are specified in the act either by name or by the physical/chemical properties.

Implementing Agency: Sri Lanka Ports Authority	
Customs Ordinance of 1869 (last amended in 1988) Implementing Agency: Sri Lanka Customs Department	A gazette list of restrictions, bans, enactments, laws and regulations already enacted or to be enacted in future, by any agency/authority pertaining to imports and exports which are to be enforced, monitored or regulated by the DGC.
Import and Export Control Act No.1 of 1969 (last amended in 1987) Implementing Agency: Department of Imports and Exports Control	This Act has introduced the 'Special Import License Scheme (SIL)' under which chemicals that come under the scheme cannot be imported without a license issued by the Controller of Imports and Exports. The license is issued on recommendations /certification given by the relevant body.
National Environmental Act No.47 of 1980 (last amended 2000) Implementing Agency: The Central Environmental Authority	The standards prescribed under the NEA include impacts caused by waste generated through processes that use chemicals.

(E) Associated baseline projects

50. Sri Lanka has been a part of the regional initiative on synergistic implementation of Basel, Rotterdam and Stockholm Conventions, led by the Stockholm Convention Regional Centre for POPs of India since 2014. The initiative promotes strong inter-institutional coordination, as well as inter-country coordination to address specific issues. Sri Lanka has already in place an institutional coordination structure to respond to this.

51. Agencies which implement chemical management regulations such as the Department of Sri Lanka Customs, BoI, RoP etc. have set up their own individual information and data management systems. While they help to better manage individual institutional functions, the weak inter-institutional coordination poses challenges to effective tracking of the imported chemicals, to ensure they are used for the intended purposes of import and safe disposal.

52. Two laboratories: (i) Chemical & Microbiological Laboratory of ITI, and (ii) Geocycle Laboratories of Holcim (Lanka) Ltd., have established methods to analyze PCBs. Most of the private and public sector services laboratories are equipped with the necessary equipment to detect PCB contained oils of transformers and other equipment. From 2009 through 2014, INSEE EcoCycle Lanka (Pvt) Ltd. has undertaken destruction (by co–processing) of 273.68 tons of obsolete pesticides, pesticide contaminated packaging wastes and plant washings possessed by the industry/agricultural sectors. INSEE Ecocycle Lanka (Pvt) Ltd. is in the process of diversifying their cooperate mandate. One of the areas that they plan to work on is waste mining from existing dumpsites of MSW which allows rehabilitation of the sites and obtaining waste that can be used as fuel for their incinerator.

53. A Steering Committee for the Minamata Convention (SCMC) has been appointed to facilitate its implementation in Sri Lanka. A sub-committee was appointed by the SCMC to review existing regulations on mercury in 'fairness creams and cosmetics' and has identified some gaps and made some recommendations.

54. The MoE is now implementing the project "*Strengthen National Capacity for Phasing-out Mercury in Added Products in Sri Lanka*". The Specific International Programme (SIP) of the Minamata Convention will review and update existing legislative measures to ensure the country's compliance with the Minamata Convention in the implementation of control and ban on the import of mercury-containing medical devices targeted for 2020, but has not been practically enforced, while the use of dental amalgam will be minimized and will follow strictly the

requirements of the Convention on its use. The SIP will also focus on creating awareness and generating information about alternatives to mercury-containing products; develop knowledge products for awareness creating; and awareness and capacity building for the selected target sectors.

55. The World Bank has financed the "Second Health Sector Development Project (2013-2018)" which promoted HCWM across piloted hospitals in Sri Lanka. The percentage of hospitals that have obtained Environmental Protection Licencing (EPL) and Scheduled Waste Management Licencing (SWML) found to have increased from 5% to 17.3% because of HCWM practices improvement through the project. These are (i) having annual HCWM plans in larger and consolidated district hospitals; (ii) further improving HCWM practices in selected hospitals; (iii) capacity building in HCWM; and (iv) the formalization and approval of the national HCWM policy.

56. Crop-Life, a network of agrochemical importers and distributors in Sri Lanka has begun an initiative to safe management of used containers of agrochemicals. It began with six (6) centres in Sita Eliya, Polannaruwa, Bataatha, Polhena, Makandura and Karadiyana and will then expand island wide. These centers collect agrochemical packaging materials including glass and plastic bottles. The accumulated materials in these centers are collected by licensed recyclers. The government agricultural officials in these areas maintain and report the quantities recycled to RoP. The system has been affected by the ban on agrochemicals imposed by the government in 2021 but expected to resume with time.

57. As mentioned before, the mercury recycling started as a CSR initiative in 2011 by Asia Recycling (Pvt) Ltd. engaged in producing electrical products with CEA backing but stopped its recycling operation in 2018 as the government was unable to send mercury waste stocks to Germany as originally intended. As a consequence, an existing stock of 8.8 MT mercury and mercury waste is now in safe storage under controlled conditions.

58. Ceylon Waste Management (Pvt) Ltd. entered into mercury recycling business with the blessing of CEA and started proactively collecting mercury-containing equipment and CFL/Florescent lamps from government and private sector for a tipping fee based on negotiations they had with a disposal facility in Japan. The company has accumulated about 41 metric tons of extracted mercury contaminated with glass but has been unable to ship the consignment to Japan initially due to delays in getting Basel clearance. While this has been sorted out, now they have challenges as the cost of shipment have almost doubled as the crisis in Sri Lanka has devalued the Sri Lankan Rupee (LKR) against foreign currency. The Project will interact, through CEA, with Ceylon Waste Management (Pvt) Ltd. to collaboratively finalize the plan and agreement for a viable solution to the export of mercury and mercury wastes.

59. A public-private partnership (*ECHELON, 2017*) has led to the establishment of a Centralized Clinical Waste Treatment Facility using incineration technology with controlled emissions, following a crisis faced by hospitals in 2013, when the local authorities refused to accept de-contaminated clinical waste. (Sisili Projects Consortium). The Facility reported collecting waste from 280 establishments, amounting to 200t/month, with treatment technology at 14,000 degrees Celsius. The ash produced (8t) was disposed through brick making.

60. The first engineered sanitary landfill in the country was introduced by the Central Environment Authority (CEA) with technical and financial assistance from the Korean International Cooperation Agency in 2014. Management was assigned to the Local Authority in Dompe Region. Given the issues such as weak technical and management skills of the Local Authority (LA), the CEA now manages the landfill centrally.

61. Five (5) landfills were constructed and handed over to respective LAs in the Eastern province, most of which are functioning as dump sites rather than landfills. Koduwamadu landfill site in Batticola is one of these five in the Easter Province and was handed over to the Eravur Pattu Local Authority in 2017. Yet technical and financial constraints faced by the LA, led to it being mismanaged. It is now used largely as a dump site and the 25-year lifespan has been drastically reduced with only 2-3 years of remaining useful life of landfill at present.

62. More recently, a larger landfill was constructed mainly to dispose of waste (600-700 tons/day) generated in Colombo and suburbs in Aruwakkalu, Puttalam, about 170 km away from Colombo. The capacity of the sanitary landfill is expected to be expanded to reach 1,200 tons/day upon completion of the next phase, expected in late 2021, but delayed due to the COVID-19 pandemic and the economic downturn. The exact time frame of completion is still under review.

(F) Considerations on Impacts of Covid-19 Pandemic, and the Economic and Socio-Political Crisis in Sri Lanka to the Project

63. Sri Lanka is currently facing a vicious spiral of economic downturn. Mis/weak economic management and related sovereign debt service challenges, and foreign exchange shortages have affected lives of all Sri Lankans as acute scarcity of essential imported goods (i.e., petrol, diesel, LP gas etc.) have set in since early 2022. As a result, people in Sri Lanka are facing hardships as unprecedented inflation, commodity scarcity including food, created by supply chain disruptions, reduced food production, shortage of medicinal supply etc. which keep growing into even bigger challenges.

64. The situation also presented challenges in implementing activities at the PPG stage, making it difficult to arrange efficient travel for the lead international consultant and the PPG team and to visit hospitals, LAs and landfill sites, or meeting government officials and other stakeholders. The PPG team struggled to manage work amidst shortage of fuel and people at workplaces. The situation was mitigated to some extent using virtual discussions and stakeholders being quite flexible on time and places of meeting including at fuel queues. The situation eased a bit with the introduction of fuel pass in August 2022, the PPG team was able to catch up on work with better access to fuel. The GOSL with the support of IMF, is currently in negotiation with the donors on debt restructuring. One of the conditions of the negotiation; the compulsory retiring of government employees at the age of 60 is being implemented at the moment and many senior government officials are expected to retire. It would create a leadership vacuum in many government institutions in the short-term including the MoE (IP) and the Responsible Parties such as MoH, MoA/RoP, Customs etc. However, the high interest by all stakeholders and signs of the country being able to work on easing the crisis as well as the proposed assisted NIM modality, The country is progressing slowly but forward with IMF and donor negotiations. With the impending debt restructuring, the Government will be able to realise the co-financing obligations, and co-financing commitments from other contributors secured at PPG stage are expected to be realized as well. It is expected that risks during project implementation will be managed with due mitigation measures put in place.

65. The COVID-19 pandemic is bringing significant disruption in local and global economies, and this could be one of the most serious economic setbacks in the history. While the impact of the pandemic will vary from country to country, it will most likely increase poverty and inequalities at a global scale, making achievement of SDGs even more challenging.

66. The spread of the COVID-19 is at different stages in the world. It was noted that COVID-19 was under control in Sri Lanka until the last week of July 2022 but began to show signs of re-emergence in mid-July 2022. Given the socio-political and economic crisis context in Sri Lanka where people were on streets mostly in crowded queues, usually days at a stretch for fuel with little attention to personal health, there is a high chance that the pandemic to once again become yet another added problem in the near future.

67. The major risk related to the impact of the COVID-19 to this Project protocol relates to the latter part of the PPG Phase, to be carried out in 2022. It is believed that the vaccinations programme being deployed would substantially lower the risks during project implementation, expected to be initiated in 2022/2023.

68. Implementing Agencies and Partners to the Project are aware of the risks, and plan to carry out continuous monitoring and assessment of the impacts of COVID-19 and crisis situation on the progress of the Project implementation and will undertake appropriate adaptive management. However, the crucial challenge at the moment is that additional allocation of resources in such an event will be extremely unlikely to happen given the current economic and political crisis that seems to be getting worse on daily basis. Should the economic crisis and pandemic continue, project management and implementation supervision can be undertaken through various means such as online and telephone interactions. International experiences may be shared through web seminars.

69. UNDP and the Government of Sri Lanka will consider the principles of the UN framework for the immediate socio-economic response to COVID-19, as well UNDP´s Guidelines on UNDP's integrated response to COVID-19 potential linked and or parallel actions that could help decision-makers look and design beyond recovery, towards 2030, making choices and managing complexity and uncertainty in the green economy area to support

the recovery from COVID-19 impacts. It is anticipated that the negative impacts of COVID-19 to project implementation will be managed and minimized.

(G) Consistency with National Priorities

70. The National Environmental Policy (2003) recognizes Sri Lanka´s responsibility of honoring the international commitments and effective management of POPs and mercury is integrated to the general context of chemical and waste management for coordinated actions by relevant institutions and stakeholders. Sri Lanka has integrated the management of POPs chemicals under overall chemical and waste management and updated the relevant national legislative and regulatory frameworks to reflect this.

71. The control of Pesticides Act No. 3 of 1980, and its Amended Act No. 6 of 1994, aim to regulate the import, use, transport, storage and disposal of pesticides and is also the basis for implementing control and management of POPs pesticides. The Act was amended (No. 31, of 23.01. 2011) to increase penalty for contravention of the Act by tenfold, for stricter control of illegal imports and use.

72. The national policy on healthcare waste management, from 2001, explains HCWM considerations and, provides for (1) setting up a national institutional mechanism for policy implementation, (2) safe HCWM based on regulations and HCWM planning, and (3) the implementation and the monitoring of HCWM plans at national and subnational levels by having required legislation, human resources, training and awareness, budget allocation and private sector participation.

73. Relevance to SDG goals of Sri Lanka: HCWM has a direct impact on providing safe working conditions for women (Goal 5 & 8). Most healthcare sanitary workers are women (~80-90 percent). Non-adherence to HCWM standards increases their risk to exposure and affects their health and livelihood. Often women waste worker's safety concerns are neglected, and they continue to work in unsuitable environment with inadequate protective gears, while also subjected to harassment, and low recognition etc. (*V Sinnathamby, 2017*). Current policies and guidelines have not given adequate attention to the gendered nature of HCWM.

IV. STRATEGY

The proposed alternative scenario (expected outcomes and components of the project)

74. The Project will work in four (4) areas of intervention to remove the barriers stated above and create long-term solutions in Sri Lanka to:

    (i) Improve institutional capacities (adequate laboratory capacities and capabilities) that will enable Public Sector stakeholders to implement regulatory systems for the sound management of POPs, mercury and other CoCs, focusing on strict enforcement of import controls and use of regulated chemicals. It will also develop a centralized chemicals database and promote mechanisms to support and fast tracking the replacement of mercury-based medical products, supporting the phase-out of mercury containing products in the healthcare sector, which will include the development of long term and innovative green procurement and green finance mechanisms.

    (ii) Deploy environmentally sound management strategies and actions for storage/interim storage and disposal of obsolete stocks of POPs pesticides, mercury and their wastes (containing or contaminated by POPs and mercury).

    (iii) Align the immediate response to COVID-19 pandemic to long-term HCWM management systems and strategies; deploy long-term sound management strategies in the healthcare sector; and promote recycling of certain waste streams and reduce U-POPs emission. This includes piloting comprehensive HCWM de-centralized strategies and test (technical and economic feasibility) the use of low-cost autoclaves for treatment of infectious waste at medium- to small-scale healthcare facilities. The Strategies will also look into ways to incorporate the disinfected waste within the existing solid waste management systems in the country.

    (iv) Gather and share knowledge, support training, replication and scalability of project results, manage, monitor and evaluate the project.

Alignment with GEF focal area

75. The Project is fully aligned the GEF-7 Program Directions of the Chemicals and Waste Focal Area and will contribute to achieve the GEF-7 indicators in the following:

    a) GEF Chemicals and Waste focal area, Program 1, “Industrial Chemicals Program,” with a focus on the end of life of products, management of the waste, or waste containing these chemicals, supporting the “Environmentally sound waste management/disposal of mercury/mercury containing waste”.

    b) GEF Chemicals and Waste focal area, Program 1, “Industrial Chemicals Program,” with a focus on “Introduction and use of best available techniques and best environmental practices to minimize and ultimately eliminate releases of unintentionally produced POPs and mercury from major source categories included in both the Stockholm and Minamata Conventions”.

    c) GEF Chemicals and Waste focal area, Program 2, “Agriculture Chemicals Program,” with a focus on disposing of stocks of “agricultural chemicals that are listed as persistent organic pollutants under the Stockholm Convention".

76. The Project also considers investment principles of resource efficiency and recycling concepts in upgrading and/or introducing BEP/BAT based approaches to HCWM. Further, the Project attempts to pool emissions abatement efforts (i.e., industrial, Hg and HCW) by bringing all related information under a single digital platform to facilitate more effective coordination. It is estimated that the Project will generate emissions reduction of 5,747 tons of CO_2 eq.

Incremental/additional cost reasoning and expected contributions from the baseline, the GEFTF, and co-financing

77. The incremental support to be provided by the GEF will be instrumental to complement current baseline initiatives, to coordinate actions that in the baseline scenario are to be diverted or not fully realized and provide additional support to engage with different stakeholders to holistically tackle the challenges related to the

management and disposal of mercury residues and mercury-containing wastes (as well as mercury-containing products). The incremental cost reasoning for the Project is summarized in tabular format below:

Table 2: Incremental/additional cost reasoning and expected contributions from the baseline and the GEFTF

Baseline/baseline projects and associated co-financing budget	GEF alternative scenario and budget
Component 1 - Strengthen the Policy, Regulatory and Institutional Frameworks for the management of POPs, Mercury and other Chemicals of Concern (CoC).	
(a) There are no common integrated regulatory mechanisms for importing chemicals into the country. Challenges to the control of POPs, mercury and mercury-added products imports continue to exist due to inadequate knowledge, unbalanced capabilities, and outdated facilities to monitor and verify consignments for chemicals import for effective enforcement of regulation(s).	(a) Current institutional and legal frameworks will be reviewed and updated and integrated data management system will be developed to connect the complex network of institutions inserted in the Chemicals Control Framework in the country
(b) Poor awareness among the customs officials, insufficient regulated monitoring procedures and inadequate analytical facilities at the points of import are the key reasons that prevent effective detection of banned chemicals smuggling into the country.	(b) Institutional capacities (adequate laboratory capacities and capabilities) will be improved to enable Public Sector stakeholders to implement regulatory systems for sound management of POPs, mercury and CoCs, focusing on strict enforcement of import control and use of regulated chemicals.
(c) Lack of Green Procurement standards and innovative financing scheme to facilitate systematic replacement of mercury-free alternative products	(c) Deployment of the green procurement scheme and access to Green Finance Mechanism(s)
GEF Co-Financing: USD 5,400,000 (Central Environmental Authority, Department of Sri Lanka Customs, Central Bank of Sri Lanka)	**GEF Grant for Component 1: USD 820,000**
Component 2 - Environmentally sound management disposal of obsolete stocks of Agrichemicals POPs, Mercury and their wastes	
(a) 8/8 MT of cumulated (residual/waste) mercury from de-commissioned CFL light bulbs and medical devices at storage. Asia Recycling (Pvt) Ltd. stopped extracting mercury and recycling operation as GOSL unable to export mercury waste to Germany as originally intended.	(a) GEF funding will also support disposal of existing mercury and mercury waste stocks at Asia Recycling (Pvt) Ltd. without which restarting safe extraction, storage and safe disposal of mercury and mercury waste in Sri Lanka using high quality machinery and equipment that are already available will not happen anytime soon.
(b) The country's only private facility capable for safe disposal of hazardous waste cannot meet the country's total demand, including disposal of stockpiles of obsolete POPs accumulated. Similarly, the private entities capable of disposal of mercury and mercury waste were not able to export, including due to high costs.	(b) The GEF funding will be critical to leverage domestic co-finance. It will also play a significant role as catalyst in promoting the mobilization of social and private sector resources public-private partnerships. The Project will use GEF funding efficiently and smartly, incorporating long term access to finance and other public revenue

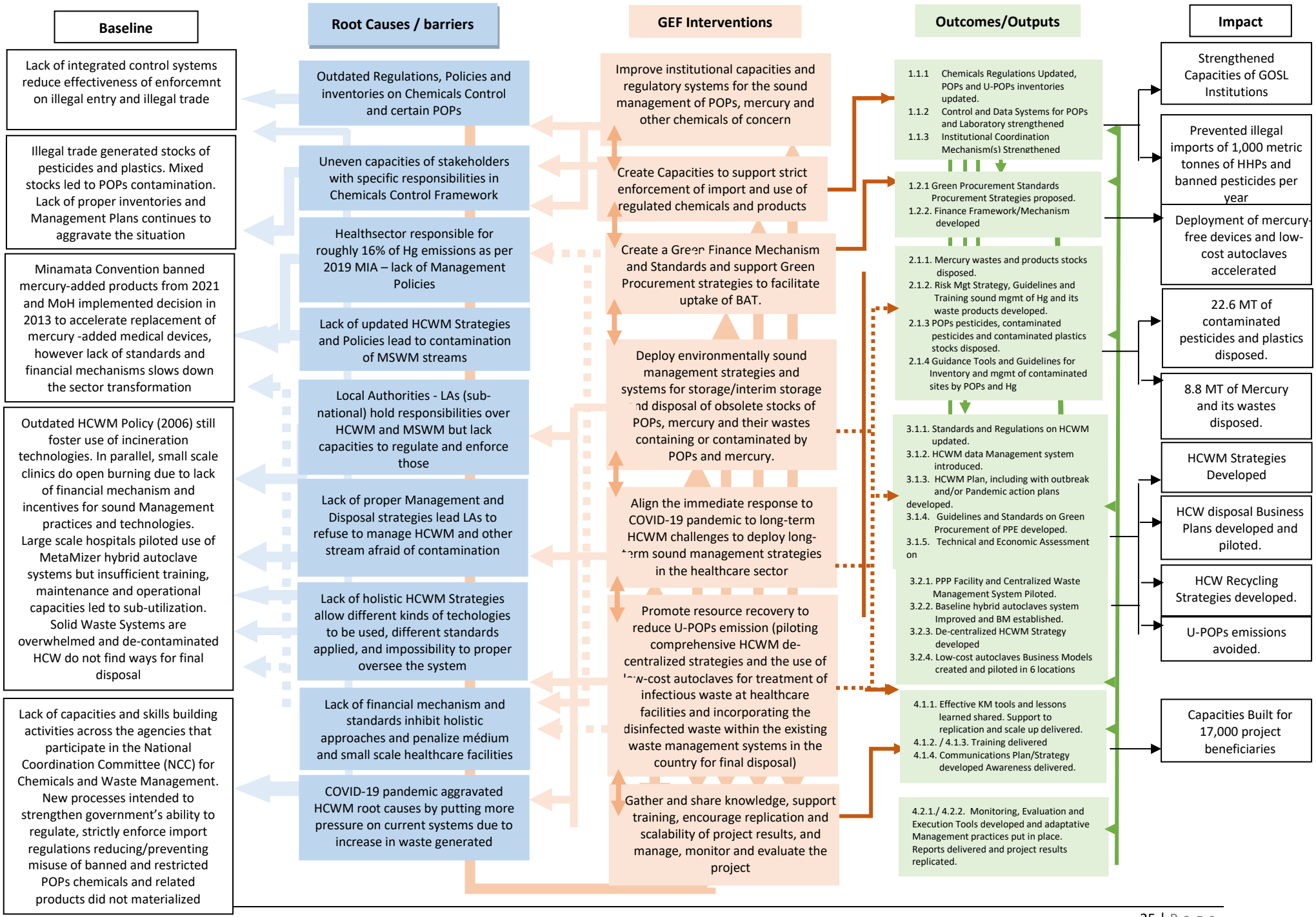
	streams (if appropriate) for long term support of the project results.
(c) Although MoH considers HCWM a priority for resource allocation, funds allocated are often inadequate to ensure strict implementation of the imposed internal rules and regulations. A significant increase in the use of agrochemicals and HCW generated in the future will require additional capacity, and sound management strategy. **GEF Co-Financing: USD 13,200,000** (Department of Agriculture, Asia Recycling (Pvt) Ltd. and Ceylon Waste Management (Pvt) Ltd.	(c) GEF Grant will support capacities in management of Mercury and POPs waste, support the disposal of current stocks of waste and contaminated wastes, conduct inventory of the potentially contaminated sites, develop and introduce strategy and guides and test at two sites for sound environmental management. **GEF Grant for Component 2: USD 2,000,000**
Component 3 - Establish Healthcare Waste Management (HCWM) Systems to effectively prevent U-POPs emissions, and develop Business Models for waste disposal at Healthcare Facilities which are aligned to the national COVID-19 recovery efforts	
(a) HCW generation is estimated to be 0.346 kg/day, per bed (national hospital) and 0.733/kg per bed (provincial hospital). Only about 10-25% of healthcare waste is considered clinical that includes infectious, chemical and radioactive waste. HCWM as an essential part of healthcare hygiene and infection control, is implemented through specific regulation. although MoH considers HCWM to be a priority for resource allocation, funds allocated are often inadequate to ensure strict implementation of the imposed internal rules and regulations.	(a) The GEF will also support the Government to develop over-arching HCWM Strategies designed to support the nationwide healthcare system to improve their waste management practices, particularly focusing in de-centralized, low cost and non-incineration solutions for medium- to small-size facilities owned by the government, private sector and NGOs. Without GEF support, the National HCWM Strategy (2003) may be updated in a much slower pace, sub-optimal incineration and even open burning practices may continue at national scale, while adding more substandard incinerators for HCWM, increasing U-POPs emissions, and the current very limited number of hospitals using different types of large autoclaves will continue to face bottlenecks in the disposal of sterilized solid waste since Local Authorities won´t have the means to absorb these types of waste in their solid waste management systems
(b) Lacking international knowledge and experience on sound and adequate HCWM strategies and disposal system	(b) Past experiences funded by the GEF and supported by UNDP in Africa and Asia (GEF Projects 4611 and 1802) for HCWM will be used as reference for building the pilots in Sri Lankan setting. This Project will build on these experiences and provide the adaptive tools for local needs, and ultimately replicate the results in national setting and scale.
(c) Need of Green Procurement standards and innovative financing scheme to support local facilities in Sri Lanka to expedite and scale up the replacement of mercury-containing devices and	(c) The GEF additional support will be critical to allow the creation of long-term financial schemes and public “green” procurement frameworks to sustain the project results overtime. Currently,

products in line with the baseline National Policies set by the MoH, to ensure long term sustainability.	mercury-free medical devices and HCW treatment units are procured through stand-alone, diffuse processes with different standards and procurement criterion, which makes difficult to deploy harmonized approaches under a holistic plan, increase the costs and limit the reach of trainings aiming to improve practices given the multitude of types of products being imported. Ultimately, the nationwide efforts to replace mercury-based devices will be stretched overtime since healthcare units won´t have more equitable access to financial mechanism to speed up this process, and the waste generated is expected to continue to be management with different - and in sub-optimal -standards, risking environmental pollution and human exposure from these
(d) Baseline sub-optimal incineration technologies for treatment of HCW. MetaMizer hybrid autoclave systems not in optimal use, or not even used in some cases.	(d) Pilot HCWM strategies and low-cost non-incineration technologies to facilitate sound environmental management.
GEF Co-Financing: USD 9,803,800	**GEF Grant for Component 3: USD1,500,000**
(Central Environmental Authority, Ministry of Health, Federal of Sri Lanka Government Authorities, INSEE Ecocycle Lanka (Pvt) Ltd., UNDP)	

Theory of Change

78. The Project's Theory of Change can be presented in the diagram below:

Theory of Change



V. RESULTS AND PARTNERSHIPS

The Project Design

79. The project will concentrate on four (4) areas of intervention to remove the barriers described in the above Sections to create long-term and sustainable solutions in Sri Lanka.

Project Objective: To improve the regulatory framework, strengthen national capacities in agricultural chemicals and mercury management, and support the transformation of healthcare waste management systems.

Expected outcomes and components of the Project

80. The following describes activities envisioned under each project component consistent with the stipulated Outcomes and Outputs:

Component 1 - Strengthen the Policy, Regulatory and Institutional Frameworks for the management of POPs, Mercury and other Chemicals of Concern (CoC).

Outcome 1.1. Institutional Coordination Mechanism Strengthened. Regulatory frameworks for enforcement of the chemicals regulations updated.

Output 1.1.1. Review baseline regulations on chemicals management. New POPs and U-POPs inventories, including their value chains, are updated into the 2015 NIP.

Activity 1.1.1.1 Regulatory review/adaptations will be carried out to allow the "rule of law" of the regulatory framework to be reviewed and applied in a holistic manner, linking these to the Central Control System under Output 1.1.2. and the enhancement of legal framework in which the strengthened Coordination Mechanism amongst the relevant institutions under Output 1.1.3. can operate. The regulatory framework on 'Polluter Pays' drafted by the Ministry of Environment under the GEF-funded project GEFID 5314, *Environmentally Sound Management and Disposal of PCBs Wastes and PCB Contaminated Equipment in Sri Lanka,* will also be reviewed and pushed forward. Healthcare facilities and healthcare related stakeholders will be duly consulted, awareness will be raised and training materials and programs will be developed (guided by UNDP SES) for relevant officials.

Activity 1.1.1.2 The 2015 NIP inventories will be updated to feed up the data management system under Output 1.1.2, support the work of the several Officers involved in their monitoring and disposing activities. PCB inventories and databases compiled by the project GEFID 5314 will be updated.

Output 1.1.2. Centralize the Chemicals Control System; Laboratory for POPs and other CoCs is improved, and monitoring of imports is enforced at entry points.

Activity 1.1.2.1 The Project will partner with the CEA to deploy a centralized digitized information management system covering all stages of the lifecycle of chemicals, building on existing initiatives on Chemical Management of the Government of Sri Lanka. This will fill a critical information gap in chemical management in Sri Lanka.

Activity 1.1.2.2 The centralized digitized information management system will be expanded using and linking the various databases. The digitized and streamlined information management system designed using the e-Sri Lanka (e-governance) platform will provide comprehensive access to relevant data and information to all agencies concerned.

Activity 1.1.2.3 Include the Environment Management Department of BOI to the centralized database and to track importation of chemicals of BOI registered industries into Sri Lanka including tracking their use and disposal.

Activity 1.1.2.4 The Project will upgrade the baseline laboratory facilities at the Department of Sri Lanka Customs with advance qualitative and quantitative analysing equipment such as X ray analyser, gas chromatograph, centrifuge and spectroscopy etc. to enable quick detecting, testing, and verifying imported products, prior to allowing them to be import-release (nationalization) for their use in the country. As result, the Departments of Sri Lanka Customs will become fully equipped, with adequate training and capacities strengthened to carry out checks and verifications at the entry points backed by enhanced capacity and skills.

Activity 1.1.2.5 Support provided to the Department of Sri Lanka Customs (Activity 1.1.2.4) will include the introduction of portable Fourier Transform Infrared (FTIR) Gas Analysers to strengthen effective and quick detection of chemicals to minimize recently increased penetration of banned POPs pesticides and other CoCs, and the expanding relevant HS codes from six to eight digits.

Activity 1.1.2.6 Strengthening capacity of RoP and CEA to effectively respond to complaints related to the use of banned chemicals and carry out quick investigation and inspection using new technology (i.e., introducing QR system-based labelling, GPS tracking etc.).

Output 1.1.3. Institutional Coordination Mechanisms strengthened and operating in efficient manner

Activity 1.1.3.1 The Project will build capacities and skills across the agencies that participate in the National Coordination Committee (NCC) for Chemicals and Waste Management. This will be done by improving their TOR and proposing new due processes to strengthen the government's ability to regulate, strictly enforce import regulations reducing/preventing misuse of banned and restricted POPs chemicals and related products. Enhanced coordination across many institutions and various levels within institutions will be promoted for better, faster, and transparent decisions.

Outcome 1.2. National conditions to scale up the replacement of medical devices and dispose of wastes of mercury-contained medical devices enabled.

Output 1.2.1. Green procurement standards established, including proposals on bulk procurement and coordinated strategies for replacement of mercury-based medical devices including dental amalgam.

Activity 1.2.1.1 Through the ongoing Specific International Programme (SIP) of the Minamata Convention, review and update existing legislative measures to ensure the country's compliance with the control and ban on the import of mercury-containing medical devices targeted for 2020, but has not been practically enforced, while the use of dental amalgam will be minimized and will follow strictly the requirements of the Convention on its use. Proper quality and technical standards will be developed by the SIP to harmonize the mercury-free alternative products, this will support the healthcare sector to close the loops, organize a more systematic and coordinated replacement through technical standards, a proposed bulk procurement methodology, and accelerating the replacement activities initiated under the baseline project of the MoH.

Output 1.2.2. Finance framework for the procurement of mercury-free medical devices and HCWM disposal equipment developed.

Activity 1.2.2.1 A Green Finance Framework (GFF) will be developed for the promotion of mercury phase-out in healthcare sector. The Project will build from positive experiences of different projects (such as projects GEF ID 10349–*Demonstration of production phase-out of mercury-containing medical thermometers and sphygmomanometers and promoting the application of mercury-free alternatives in medical facilities in China*, GEF ID 4611-*Reducing UPOPs and Mercury Releases from the Health Sector in Africa,* and GEF ID 1802 *Demonstrating and Promoting Best Techniques and Practices for Reducing Health-care Waste to Avoid Environmental Releases of Dioxins and Mercury),* as well as international best practices in the area. The GFF will also help to address other challenges in the deployment of non-incineration HCWM equipment following the Cost-Benefit Assessment (CBA) and business models to be developed under Component 3. Public and Private Partnership (PPP) schemes will also be promoted as many public and private healthcare will need upfront investment to transform their current inappropriate HCWM practices.

Central Bank of Sri Lanka (CBSL) launched Sri Lanka Green Finance Taxonomy in March 2022. CBSL has recognised that financial system in Sri Lanka needs to be reformed to create incentives for the private sector to make investments on projects that contribute/target environment protection and low carbon development. The financial institutions in Sri Lanka need to give due consideration to social and environmental costs of development and create incentives for the private sector to invest in environmentally sound initiatives instead of high pollution and/or carbon emissions projects.

Sustainable Banking and Financing Network (SBFN) is a network of private banks committed to support private sector shift towards sustainable development with over 20 memberships. Some private banks have

already started extending sustainable finance backed by international schemes even before CBSL came out with the Road Map for Sustainable Finance in 2018

The project will build on the above and collaborated with SBFN to design a suitable GFF for the health sector focusing on mercury phase out and HCWM.

Component 2 - Environmentally sound management disposal of obsolete stocks of Agrichemicals POPs, Mercury and their wastes

Outcome 2.1. Effective Management System for environmentally sound disposal of mercury stocks, mercury-containing wastes, obsolete stocks of POPs-agro pesticides and cross-contaminated chemicals, pesticides and their containers, implemented.

Output 2.1.1. Residual mercury stocks, mercury-contained waste generated from the replacement of mercury-containing medical devices and dental amalgam, obsolete stocks of agro pesticides and cross-contaminated chemicals safely disposed of.

Activity 2.1.1.1 Dispose the stock of the 8.8 metric tons of mercury and mercury containing wastes collected and stored at Asia Recycling (Pvt) Ltd. and create conditions to restart collection and processing of obsolete mercury containing products starting with HCFs. The disposal will occur in a transparent manner to address concerns of other stakeholders such as NGOs and the general public.

Activity 2.1.1.2 Support environmentally safe disposal of the mercury waste stocks of 41 metric tons at Ceylon Waste Management (Pvt) Ltd.

Activity 2.1.1.3 Undertake environmentally safe disposal of 22.6 MT (9 MT of liquid, 13.6 MT of solid) of POPs pesticides with cross-contaminated chemicals that are currently stored together in not ideal conditions.

Scoped assessments (ESIA) will be conducted for the above disposals. The assessments will tackle the risk of accidental risk on nearby sensitive receptors and occupational health and safety such that mitigation measures will be developed and included in the pursuant site-specific Environmental and Social Management Plans (ESMP) that will include a Pollution Prevention and Management Plan and Occupational Health and Safety Plan.

As included in project activities to be implemented under Component 3, mercury waste management system will be set up to include demonstration of gender sensitive safe handling and storage (including an interim storage facility). The mercury processing at Asia Recycling (Pvt) Ltd. and Ceylon Waste Management (Pvt) Ltd. will be restarted post disposal of obsolete stocks to ensure safe management of future mercury and mercury waste in the long term.

UNDP will conduct an international competitive bidding to select disposal facilities as a viable solution to export the mercury and mercury wastes overseas for final disposal.

Activity 2.1.1.4 Create awareness, capacity to mobilise field level agriculture extension offices and officials to actively help to restart and expand the programme to strengthen the system of sound management of pesticides containers and packaging materials.

Output 2.1.2. Risk Management Strategy developed. Technical Guidance & Training materials prepared for the sound management of wastes containing mercury.

Activity 2.1.2.1 National guidelines provided by the ongoing Specific International Programme (SIP) on safe management of mercury-containing medical equipment and dental amalgam, stocks of mercury extracted from obsolete products and mercury containing waste, will be reviewed and updated to incorporate the most recent BEP in the area and to make them gender responsive. Based on revised guidelines developed, safe management and disposal/phaseout pilot plans for mercury and mercury-containing products wastes will be developed at six (6) piloted government healthcare facilities.

Activity 2.1.2.2 Management plans for mercury and mercury-containing waste from obsolete medical equipment and utensils will be developed including adopting safe interim storage solutions and conducting

investigations to establish stocks and potential technology solutions to recover and reclaim mercury for other local users such as indigenous medicines.

The interim storage facility setup outside the hospitals with required safety standards that will ensure safe storage of obsolete equipment and mercury containing waste and avoidance of accidental release, which are at present in unsatisfactory storage conditions in the hospitals. The interim facility that will be managed by the CEA will also facilitate safe storage of mercury, for which the private sector does not have facilities, will encourage more private sector players with capabilities, including those from neighbouring countries, to join. It will also support longer term overall viability, despite the diminishing nature of the mercury disposal business which private sector is engaged at present.

Activity 2.1.2.3 Support the restart of safe mercury extraction at the recycling facility starting from equipment and bulbs coming from healthcare facilities and workout a system of environmentally safe disposal.

Activity 2.1.2.4 The national HCWM guidelines will be revised to include sound guidance to manage residual mercury stocks and wastes generated from obsolete mercury-containing medical equipment and dental amalgam. Training programs will be designed and carried out to train staff of healthcare facilities in applying the disposal management strategies /plans for residual Hg and Hg-contained products disposal.

Output 2.1.3. Guidance Tools and Guidelines for the inventory of mercury/POPs contaminated sites developed and tested at two sites.

Activity 2.1.3.1 The de-centralized storage facilities of obsolete POPs pesticides will also be inventoried so the Project can support data for informed strategies on the sound management of these sites including the assessment of buried stocks identified in the NIP.

Activity 2.1.3.2. Develop and introduce guides and standards for decontamination of sites contaminated with POPs pesticides, POPs chemicals and mercury. The strategy and guides will be tested at two identified sites, one for site contaminated with POPs pesticides and one contaminated with mercury.

Component 3 - Establish Healthcare Waste Management (HCWM) Systems to effectively prevent U-POPs emissions, and develop Business Models for waste disposal at Healthcare Facilities which are aligned to the national COVID-19 recovery efforts

Outcome 3.1. Update HCWM Strategies and Plans that reflect BAT/BEP which can prevent/reduce U-POPs emissions, minimize plastic waste generation and improve recycling practices.

Output 3.1.1. Standards and Regulations on HCWM are revised. A HCW Data Management System (HCWDMS) is introduced to address gaps in the monitoring activities.

Activity 3.1.1.1 Regulations, Standards and practices, at the hospital-level, will be reviewed and updated.

Activity 3.1.1.2 Data Management System on HCW, using digital solutions to improve implementation and monitoring of waste management process, will be piloted in the six (6) healthcare units.

Output 3.1.2. National Plan for Harmonized Treatment and Disposal of HCW in emergencies is developed.

Activity 3.1.2.1 A holistic HCWM Strategy will focus on all aspects of the HCWM by reviewing and proposing updates of current Standards and Regulations and established comprehensive Pans for the interim storage and the final disposal of decontaminated HCW, a challenge faced by all the hospitals.

Activity 3.1.2.2 Activities will promote direct or indirect partnerships with the relevant Local Authorities (LAs) to provide last-mile solutions for disinfected, inert and non-biodegradable healthcare residual waste, as part of the LA's effort to integrate the engineered landfills and generate revenues from SWM.

Output 3.1.3. Guidelines and Standards on green procurement of PPE and other consumables developed.

Output 3.1.3 will be linked and implemented together with Output 1.2.1.

Activity 3.1.3.1 Strategies to reduce demand of plastic materials and improve recycling of plastics, aluminum and glass materials will be developed and tested (which will also consider the impacts of the nationwide COVID-

19 vaccination program that is expected to generate large amounts of waste – vials, plastics, etc. - that, in principle, could be recycled).

Activity 3.1.3.2 Strategies will be developed to handle emergencies that have a stress on existing resources of healthcare sector that will in turn have stress on resources available for HCWM to prevent creation of possible risks.

Activity 3.1.3.3 Given the increase of waste generated by the healthcare sector - about five folds resulting from the COVID-19 pandemic - and due the high use of polythene and plastics as protective gear and in vaccination, the demonstration of safe HCWM by the Project will fill the gap that healthcare facilities and service providers face in terms the investment and operational costs in line with the Finance Mechanism under Component 1. The Green Finance Framework (GFF) to be developed will play a significant role in green recovery in the healthcare sector to align better to face future challenges confidently with safe HCWM to avoid U-POPs emissions.

Output 3.1.4. Technical and Economic Assessment (CBA) on the whole spectrum of HCWM technologies for Sri Lankan setting prepared.

Activity 3.1.4.1 Incorporate both the baseline MetaMizer hybrid autoclave system, introduced for 20 large hospitals about 4 years ago that are under sub-optimal use, or not even used in some cases) and align the experiences gathered by the GEF Project ID No. 4611 *Reducing U-POPs and Mercury Releases from the Health Sector in Africa* (on the use low-cost autoclaves) and develop Cost-Benefit Assessments (CBA), jointly with PPP interventions, to provide potential Business Cases/Plans that could be applied in different profiles of healthcare units in Sri Lanka, looking towards assure financial sustainability of the HCWM Systems. Capacity of these 20 MetaMizer hybrid autoclave systems combined, could have adequate capacity to handle almost all HCW generated in Sri Lanka at present, if they were operating in an effective and efficient manner. However, as there are many reasons why reorganizing the MetaMizer hybrid autoclave systems itself will not deliver the expected solutions, especially in view of the expected increase in healthcare wastes, which will require significant support. Re-organizing the MetaMizer hybrid autoclave systems will ensure their optimal use, and with sufficient capacity to address increasing HCW, and in case of emergencies.

Activity 3.1.4.2 Together with MoH, review the possibility of reorganizing the placement of the MetaMizer hybrid autoclave systems and to demonstrate (i) the use of some in the Centralized Clinical Waste Treatment Facilities (CCWTF), (ii) supplementing CCWTF to carry out cost effective HCWM.

Output 3.1.5. Integrated recycling programs piloted in six (6) facilities

Activity 3.1.5.1 in close consultation with project stakeholders, carry out pilot programme at the Six (6) government healthcare facilities selected during PPG Phase among a number of candidate healthcare facilities after a careful and in-depth analysis based on the "Rapid Assessment of Healthcare Waste Management in Sri Lanka" conducted by a national Consultant Team 2020-2021, commissioned jointly by MoH and UNDP Sri Lanka, and as recommended by MoH. The facilities are: Teaching Hospital Kurunegala, Teaching Hospital Kuliyapitiya, and Divisional Hospital Polpitigama in Northwestern Province. Teaching Hospital Batticoloa, Divisional Hospital Karadiyanaru and Base Hosptal Kalvanchikudy in Eastern Province. The criteria for selection are: (1) demonstrations of best practices of HCWM at small, medium and large hospitals; (2) interest shown by the hospitals to provide waste to CCWTF;(3) Including some hospitals that have challenges to operate the MetaMizer hybrid autoclave system and dispose final waste; and (4) initiative taken by hospitals to keep track of waste movement (data) within the hospital. Comprehensive business plans and gender sensitive HCWM plans reflecting the experiences of technical assistance and pilot/demonstration activities will be developed.

Activity 3.1.5.2 Support data collection on recycling potential at the piloted facilities. Partnerships with local private sector (including women led MSMEs) will be assessed to improve the collection and recycling networks of de-contaminated materials. Current Guidelines related to HCWM will be updated to facilitate the proper collection, recycling and re-use of valuable materials (plastics, glass and aluminum).

Activity 3.1.5.3 As indirect positive effect of this intervention, the Project may yield opportunities to creation of "green jobs" related to HCW recycling, as it will explore alternative income generation opportunities by facilitate the partnership between hospitals, Local Authorities and waste collectors.

Outcome 3.2. Non-incineration HCWM Business Models are developed. Baseline treatment systems models and practices improved. Technical/economic application of low-cost autoclaves demonstrated.

Output 3.2.1. Public-Private Partnership (PPP) for a Centralized Waste Management System that can incorporate the de-contamination healthcare waste facility is piloted. Technical/financial/economic application of low-cost autoclaves tested and experiences from other GEF HCWM projects are internalized in Sri Lanka.

Activity 3.2.1.1 Two (2) Centralized Clinical Waste Treatment Facilities (CCWTFs), using non-incineration technology, and linked to an existing landfill, will be established and corresponding targeted business models will be developed, with support from Ministry of Health and to be operated in a PPP model. The CCWTFs will receive and treat contaminated HCW from healthcare facilities within the respective province including small and micro healthcare facilities that are not able to operate, in a sustainable manner, with "in house" HCWM equipment. Lessons learned from the baseline incineration facility of SisiliHanaro Encare (Pvt) Ltd. will be used to improve the non-incineration CCWTF system.

The CCWTFs will be established as demonstration units at Sundarapola in Northwestern province and Koduwamadu in Eastern province integrating with the MSWM facilities and landfills operated by the Kurunegala Municipal Council and Eravur Pattu Pradeshiya Sabha (Local Authority) respectively. Clearance by the LAs and agreement by MoH to supply HCW have been obtained in principle, details which will be worked out and MoUs established during project implementation. The feasibility assessments have shown that the CCWTF can be operated as viable demonstrations based on PPP partnerships. Sisili Hanaro, GS Waste, Cleantech Abans, Hayleys are companies that are interested in PPP with the MoH and the respective LAs. In addition to creating safe interim storage facilities, the establishment of these two CCWTFs will provide the government with a long-term, sustainable capacity to undertake environmentally sound management of HCW, not having to rely entirely on the sole private entity.

A scoped ESIA will be conducted for each CCWTF to assess the existing and potential risks on biodiversity from construction and operation of the CCWTFs and propose mitigation measures. For the CCWTF in the North Western Province, which borders a forest reserve, the resulting ESMP will include a Biodiversity Management Plan that ensures conditions of biodiversity in the area are improved. The ESIA will also address health and safety concerns related to the construction and operation and all proposed mitigation measures will be included in the ESMP that will be developed and implemented before commencing works for establishing these facilities. The ESMPs will include a Pollution Prevention and Management Plan and Occupational Health and Safety Plan.

Output 3.2.2. A De-centralized non-incineration HCWM Strategy for medium to small scale health care facilities is developed.

Activity 3.2.2.1 The HCWM Strategy will incorporate both the baseline MetaMizer hybrid autoclave systems and enlarge the scope to introduce low-cost autoclaves with the experiences gathered by the GEF Project ID No. 4611. The demonstration of CCWTF in the two locations will also offer HCWM services to small and micro scale healthcare facilities, jointly with PPP interventions and structured with recycling activities. While experience related to the low-cost autoclaves generated by the GEF Project ID 4611 will provide useful technical inputs, transfer of low-cost autoclave technologies will only be considered only if capacity augmentation is required.

Output 3.2.3. Baseline Hybrid Autoclaves operation and maintenance practices, at large scale healthcare facilities, are improved, and their operational Business Models is developed.

Activity 3.2.3.1 Technical Assistance (TA) will be provided to all 20 healthcare facilities that currently owns the MetaMizer hybrid autoclave system with the purpose to further optimize their operation and help them to develop a viable and self-sustainable Business Model for safe treatment of infected waste. The TA will also help them to identify issues and inefficiencies in the use of these large sized MetaMizer hybrid autoclave systems.

Technical training for relevant staff and operators for resolving technical issues such as repairs will also be provided. Experiences will be collected and replicated through Component 4.

Component 4 – Knowledge Sharing, Management & Evaluation

Outcome 4.1. Project communication and training tools developed. Effective knowledge management delivered.

Output 4.1.1. Effective knowledge management tools delivered. Lessons learned and experiences are shared, effectively supporting the scale up and replication of project results.

Activity 4.1.1.1 Lessons learned and best practices from the Project will inform review and update of national guidelines and standards, create harmonized codes of quality and training programs for public officers, healthcare staff, waste workers and other relevant actors on the use of best available techniques (BAT) in healthcare sector, mercury-waste management, application of mercury-free devices and, thus, support the phase-in of alternatives.

Activity 4.1.1.2 The Project will collect experiences and lessons learned from relevant GEF projects implemented (e.g., GEF project IDs 10349, 4611 and 1802) as well as international best practices in the area to compound relevant KM Plans and improve the replication of successful experiences.

Activity 4.1.1.3 Knowledge management tools will be developed and deployed to reach the estimated workforce of 100,000 workers through replication and upscaling under Components 1, 2 and 3 (reaching all 1,100 healthcare facilities in the country.

Output 4.1.2. Training programs developed. Capacities of public officers and healthcare facilities staff on U-POPs and mercury (avoidance of) releases during the waste disposal activities are strengthened.

Activity 4.1.2.1 The Project will provide equitable opportunities for women and men to be trained, based on both in-person and online training models, in improved and safe handling of waste generated at each point including segregation, weighing, or measuring waste fractions and recording. A participatory and mutual learning approach, coupled with expert advice, will be adopted to allow peer to peer exchange and promote innovative bottom-up approaches for HCWM.

Activity 4.1.2.2 Improved integrated and comprehensive healthcare waste management will benefit about 10,000 waste workers engaged in Local Government level waste management processes and over 6,000 sanitary workers that are working in the healthcare system. These tools will support the dissemination of experiences, lessons learned and best practices.

Output 4.1.3. Training on Environmental, Monitoring for Customs Officers on the control and monitoring of POPs, Mercury and other CoCs is delivered.

Activity 4.1.3.1 The Project will work with the Departments of Imports and Exports Control and Customs to bridge the gaps identified and in the NIP 2015 by addressing the lack of knowledge and skills to monitor and verify POPs and POPs containing imports which defy the regulations. Awareness will be raised, and training materials and programs will be developed (guided by UNDP's SES) and deployed for the relevant officials on hazardous chemical management.

Output 4.1.4. Project Communication Strategy and Public Awareness Programs are delivered. Stakeholders Engagement Plan and Gender Action Plan implemented.

Activity 4.1.4.1 Communication Strategy will be created delivering differentiated approaches for stakeholders benefiting estimated 1,000 employees within the piloted healthcare facilities, but also reaching the general population to support sharing of information about the general replacement of household thermometers, supporting their safe disposal and reducing exposure risk. The Project will build on any relevant communication and knowledge products created by GEF project ID 5314.

Activity 4.1.4.2 This component will also be responsible to deploy the Gender Action Plan developed at the PPG phase, to raise awareness and empower women's roles in sound management activities and promote gender

sensitive approaches for the project´s KM activities that can incorporate gender equality principles and actions into environmentally sound management of healthcare waste activities.

Outcome 4.2. Monitoring and evaluation delivered during the project lifecycle.

Output 4.2.1. Monitor Project (Quarterly and annual Reports and Project Board Reports); Apply Evaluation Tools according to the project cycle (PIR, MTR and TE).

Output 4.2.2. Implementation Tools (budget revisions, financial control and project management) applied as required and adaptive management actions implemented during the project lifecycle

Activity 4.2.2.1 The Monitoring and Evaluation Tools will be used as required to guarantee the best performance in project execution and monitoring, as well as to promote the adaptive management.

81. The Project will assist MoH to attract private sector hospitals and health facilities to join the effort of phasing out mercury and mercury-added products, by creating awareness, sharing guidelines and inventory management systems etc. with them through the Private Health Services Regulatory Council, which is chaired by the Director-General of Health Services, and the Director of Private Health Sector Development is the Secretary.

Global environmental benefits (GEFTF)

82. The project will generate the following global environmental benefits:

    a) Strengthened monitoring and verification capacity at the point of imports to Sri Lanka will prevent the illegal imports of 1,000 metric tons of HHPs and banned pesticides per year.

    b) An annual reduction of the use of 800,000 mercury containing bulbs in the healthcare sector.

    c) Disposal of 22.6 metric tons of solid and liquid POPS-pesticides/contaminated pesticides and cross-contaminated laboratory chemicals.

    d) Disposal of 8.8 + 41 metric tons of mercury and related waste will be safely disposed.

    e) Collection and disposal of mercury and mercury wastes at medical facilities, leading to an approximately 50 MT additional disposal at the end of the Project.

    f) Avoided emission of mercury and U-POPs to the environment.

    g) Capacity building of 1,000 staff at the six (6) piloted HealthCare Facilities and 16,000 people working in the waste management sectors (healthcare and municipal solid systems) and at recycling industries, being that 70% estimated to be women.

Climate Risk Screening

83. Sri Lanka is a small island nation lying between 6°N and 10°N latitude and 80°E and 82°E longitude in the Indian Ocean, with a land area of approximately 65,000 square kilometers (km2). The island consists of a mountainous area in the south-central region and a surrounding coastal plain. The climate of Sri Lanka is wet and warm, ideal for forest growth; almost all the nation's land area was at one time covered with forests. Over the last century, more than two-thirds of this forest cover, rich in biodiversity, has been removed to accommodate human use.[9].

84. Due to a combination of political, geographic, and social factors, Sri Lanka is recognized as vulnerable to climate change impacts, ranked 100th out of 181 countries in the 2017 ND-GAIN Index. The World Bank´s Climate Risk Country Scenario for Sri Lanka (2020) developed models that show a trend of consistent warming regardless of emissions scenario utilized. While projections for rainfall are highly variable, trends do show a likely increase in rainfall, and specifically for its central region throughout the century.

85. Sri Lanka faces moderate disaster risk levels, ranked 97th out of 191 countries by the 2019 INFORM Risk Index. Sri Lanka has moderate exposure to flooding (ranked 56th), including riverine and flash flooding. Sri Lanka also

[9] World Bank Group and Asian Development Bank, 2020, Climate Risk Country Profile, Available at https://www.adb.org/sites/default/files/publication/653586/climate-risk-country-profile-sri-lanka.pdf

has some exposure to tropical cyclones and their associated hazards (ranked 45th). Drought exposure is slightly lower (ranked 76th). Sri Lanka's overall ranking on the INFORM risk index is somewhat mitigated by its comparatively high coping capacity score. Landslide hazard is present in many parts of Sri Lanka but is not explicitly captured by the INFORM Risk Index.

86. One of the main risks directly influenced by the Climate Screening refers to the risk of flooding of interim storage facilities for mercury. Even though this risk is assessed as "Moderate" by UNDP SESP, the Project will address this risk in its design by adopting international standards and further Guidelines under the Minamata Convention when selecting the site and companies to accommodate such interim facilities to make sure that they are not located in areas classified as high risk due to landslides, erosion, floods or extreme weather conditions. In addition, targeted assessment will be conducted to assess this risk and proposed mitigation measures, if needed.

87. Additionally, current HCW incineration practices implemented by a relative high number of healthcare facilities do demand large units of energy and are expected to generate relevant GHG emissions. The Project will support deployment of low cost and more efficient non-incineration technologies that have the potential to reduce these emissions. It is estimated that a total of 5,747 tons of CO_2 eq emission reduction will be achieved.

Knowledge management

88. Component 4 of this Project will be dedicated to "Knowledge Management and Monitoring & Evaluation". As part of Component 4, the Project will Implement:

    (i) A Stakeholder Engagement Plan to raise awareness of the project beneficiaries,

    (ii) A Gender Mainstreaming Action Plan to promote gender equality and to include all the displaced women's reemployment policies in the project phase-out guidelines, and

    (iii) A Project Communication Strategy to making use of publications, promotional materials, lessons learned reports, among else to accomplish knowledge sharing.

89. Knowledge and experience will be gathered, documented, managed and disseminated through the following activities which will capture lessons-learned and experiences gained, and will publish them in publications, lessons-learned reports and promotional materials that will be used in training, seminars and workshops to facilitate national scale up and to achieve sound management of chemicals.

90. The Project will collect experiences and lessons learned from relevant GEF projects implemented (e.g., GEF project IDs 10349, 4611 and 1802) as well as international best practices in the area to compound relevant KM Plans and improve the replication of successful experiences. Specifically, the project will identify potentially replicable or adaptable strategies, approaches, and methodologies that has worked well internationally which would include BAT/BEP, business models, standards and guidelines knowledge management products. The expected activities include:

    (i) Review similar projects and collect experiences learned and supporting documents.

    (ii) Review meeting reports, collect primary date from the pilot sites, build links with research community and encourage analysis of information generated by HCWM pilots and Mercury phase-out activities.

    (iii) Produce publications (and create collaborations with Academia for opportunities for students' research).

    (iv) Carry out relevant documentation, develop case studies, create guidelines and instructions within new or revised SOPs for individual hospitals and for the Ministry of Health.

    (v) Disseminate experiences using digital platforms, training programmes and other materials.

    (vi) Engage with media outlets, create and promote the project´s social media.

91. Knowledge and learning experiences generated from the Projects, and the green procurement and green finance mechanisms will primarily be tailored for stakeholders use in forms of training, diverse range of technical and knowledge products, webinars/workshops, content for digital platforms and social media, as well as awareness materials. The Project will advance such strategies to target wider healthcare stakeholders in the country to sustain and replicate the pilot experiences.

92. The training and capacity building programmes will be conducted with options to connect remotely providing opportunities for target groups beyond the pilot locations, and as such the actions will also cover both public and private sector across Sri Lanka. Ministry of Health will use these products proactively to target subnational Governments and medical establishments (including private ones), through relevant institutional mechanisms. Finally, the Project will also engage with academia and research community, CSO and media outlets to wider knowledge sharing and look into practical ways to scale up impacts.

Partnerships:

93. The Project will work with different partners from both the public and private sector to achieve the above-mentioned results. During the project's preparation, a series of consultations, interviews, telephone review and on-site visits were undertaken with all types of different stakeholders, and they will continue being engaged during project implementation.

94. Private Sector will participate in project activities, carry out investment on POPs-pesticides, contaminated pesticides, mercury and U-POPs sound management, reduction and disposal, and comply with national and local environmental policies and standards. Private sector actively participates in the project activities to support the strengthening of policy, regulatory and institutional framework, development of technical guidance and training materials and take part to achieve sound management disposal of obsolete stocks of agrochemical POPs, mercury and their wastes.

95. The roles and responsibilities of various stakeholders directly involved in project implementation are described below.

- UNDP will be the GEF Implementing Agency (IA) responsible for the oversight of the project.
- Ministry of Environment (MoE): as the focal agency 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 Sri Lanka.
- Ministry of Agriculture (MoA): as the focal point for Rotterdam Convention on Prior Informed Consent Procedure and responsible for Policy Setting and Enforcement.
- Central Environmental Authority (CEA), under the MoE: as the technical focal point for industrial chemicals listed by the Convention together with the Registrar of Pesticides managing the pesticides identified under the Conventions.
- Department of Sri Lanka Customs: who controls the exports and the imports in line with the Customs Ordinance no. 17 of 1869, last amended in 1988.
- Ministry of Health (MoH); responsible for policy setting and the main owner and manager of Healthcare Facilities in the country, is a main user of mercury products.
- Local Authorities (LAs) under subnational Governments: responsible for local execution and management of solid waste management structures in Sri Lanka.
- INSEE Ecocycle Lanka (Pvt) Ltd. is the only facility in Sri Lanka for safe disposal of hazardous waste.
- Asia Recycling (Pvt) Ltd.: the main CFL/LFL recycling factory in Sri Lanka which has the capacity to recycle 30 million bulbs annually and is investing to become able to collect mercury-based devises or products that became obsolete because of the phase out of mercury in the healthcare sector.
- The National Cleaner Production Centre (NCPC): an active NGOs works closely with the government in chemical management who has conducted a study in this respect in the agriculture sector.
- Other Private Sector, NGOs and CSOs that own, operate, manage or are to be impacted by the Policies, Strategies and Activities sponsored by this Project.

Private sector engagement

96. The partnership between the hospitals, LAs and other private entities will be critical to deploy effective waste management systems and to assign the responsibilities while also considering their ability to handle the safe final disposal of decontaminated clinical waste or hazardous waste.

97. Private investment - or joint private and public investments and PPPs - are also expected to be mobilized as contribution to the project. Private sector will be critical to provide goods and services that include decontamination of HCW, application of using BAT and handling and disposal of hazardous waste generated by mainly the local healthcare facilities and possibly industries to increase the viability of the facility. At present many hospitals outsource waste management to private sector. As such, staff employed by the companies work as waste workers within the hospitals. The Project will build on this partnership, engaging private companies, their managers and waste workers together with hospital administrators and staff in the awareness creation and technical training. Further, the companies will be encouraged to consider expanding partnerships to setup CCWTFs that also cover final disposal solutions. The interested/selected private company/companies will work with the LAs to revive or rehabilitate selected landfills for final disposal of disinfected waste and operate them as a business (co-funding) together with the CCWTFs. The CCWTFs linked to landfills would cater to many more hospitals (beyond the six pilot ones) including private hospitals in the areas, increasing viability of the business entity. Further the business plans will use low-cost non-incineration options for the CCWTFs complexes linked to landfills to attract and service small medical facilities that cannot carry out viable disinfection process due to the scale. Such operation will demonstrate viable comprehensive HCWM integrated within the decentralized solid waste management systems within the country and stimulate setting up more such options to cover other areas of the country taking advantage of green financing options available.

98. PPPs will offer last-mile solution for hospitals and other stakeholders involved in the project to demonstrate a successful alternative working model for healthcare waste management. They will also support data collection on recycling potential, compositing, and create and strengthen green jobs related to waste management, as well as explore partnerships with local private sector (including women led MSMEs) for income generation from waste, mobilize resources and leverage opportunities for waste management as well as updating/developing relevant guidelines, and by-laws, facilitate knowledge sharing between the hospitals and LAs on general waste management which include 3R concepts.

99. The BOI which consists of private sector will be a key stakeholder in the Centralized Chemical Control System

100. The private agrochemical companies' network, Crop Life, has initiated a collection mechanism for used pesticide containers in partnership with RoP/MoE. Crop Life will be a partner in continuing to expand and implement this system

101. Asia Recycling (Pvt) Ltd. has already invested on modern mercury extracting machinery line and Ceylon Waste Management (Pvt) Ltd. which has established links with final disposal facilities in Japan, will be partners in continuation of safe extraction and disposal of mercury in Sri Lanka.

102. BioMed, the company that is responsible for providing technical support for MetaMizer hybrid autoclave system operation will continue playing the role as a technical partner of CCWTF.

103. 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. Furthermore, one of the agenda items of the Project Board meeting will be monitoring the materialization of the project co-financing by the Project Partners.

Table 3: List of Co-Finance

Co-financing source	Co-financing party	Co-financing amount (USD)	Included in project results?	If yes, list the relevant outputs
Recipient County Government	Department of Chemical Management, Ministry of Environment	3,380,000	Yes	In-kind contribution to support implementation and monitoring of project activities and Output 1.1.1
Recipient County Government	Central Environmental Authority	300,000	Yes	In-kind contribution ($200,000) to support Output 3.2.1 on expertise advisory, staffing needs and coordination of CCWTFs; Private Investment ($100,000) to support Output 1.1.2 for development and operations of centralized database management
Recipient County Government	Department of Sri Lanka Customs	2,150,000	Yes	Investment contribution ($150,000) to support Output 1.1.2 to strengthen laboratory infrastructure; In-kind contribution ($2,000,000) to support Outputs 1.1.2 and 1.1.3 for engagement of competent staff to conduct testing and analysis, maintenance and operation of the laboratory equipment
Recipient County Government	Department of Agriculture	1,235,000	Yes	In-kind contribution to support Outputs 1.1.2, 2.1.1 and 2.1.3 for management and control of POPs containing agrochemicals and storage of illegally brought and capture obsolete POPs agrochemicals
Recipient County Government	Ministry of Health	14,000,000	Yes	In-kind contribution ($2,000,000) to support Output 3.1.5 for engagement of officials and staff at 6 piloted health facilities, Public Investment ($12,000,000) to support Output 3.2.2 for investment towards maintaining and upgrading HCWM infrastructure
Recipient County Government	Central Bank of Sri Lanka	140,000	Yes	In-kind contribution to support Output1.2.2 and 3.1.3 to develop Sustainable and Green Financing Road Map and Taxonomy
Recipient County Government	Federation of Sri Lanka Government Authorities	175,000	Yes	In-kind contribution ($100,000) and Public Investment ($75,000) to support Output 3.2.1 for landfill development, allocation of specific portion of landfill for disposal of treated HCW.

Private Sector	Ceylon Waste Management (Pvt) Ltd.	6,250,000	Yes	In-kind contribution ($1,250,000) and Public Investment ($5,000,000) to support Outputs 2.1.1 and 2.1.2 on investment of machinery and equipment for extraction and collection of mercury and mercury wastes from obsolete devices and their safe storage; and to support Output 2.1.1 for operation of mercury extraction system over the project duration
	Asia Recycling (Pvt) Ltd.	3,000,000	Yes	In-kind investment to support Output 2.1.2 on machinery and equipment for safe extraction of mercury and mercury wastes from obsolete devices, and their safe storage; restart the process once existing stocks of mercury and mercury wastes are disposed
	INSEE Ecocycle Lanka (Pvt) Ltd.	1,527,800	Yes	In-kind contribution of facility to support Output 3.2.1 for last mile solution for HCW processed by CCWTF Eastern Province, and to support operation and maintenance of the facility
GEF Agency	UNDP	1,000,000	Yes	Contribution to support Output 1.1.2 for the introduction of MIS system on HCWM in 2 hospitals in Eastern and Uva provinces.
Total Co-financing		**33,157,800**		

Risks

104. During PPG stage, thorough assessment on administrative, management, social and environmental risk assessment was carried out, and more particularly, the UNDP Social and Environmental Screening Procedures (SESP) was conducted. Below risks have been identified:

Table 4: Risks Assessment

#	Description	Risk Category	Impact & Likelihood	Risk Treatment / Management Measures	Risk Owner
1	Duty bearers and other relevant stakeholders may fall short of capacities to meet their legal/functional obligations while enforcing the systematic procedures and regulatory framework improved by the Project. This may impact the transparency of the regulatory system and the quality of national controls, risking the non-compliance	Operational Organizational Political Regulatory	I=3 L=3 **Moderate**	**This risk is being mitigated by Project Design as follows:** The **Output 1.1.2** contains a series of activities that will strengthen Sri Lanka's Customs Office, the Central Environmental Authority (CEA) and the Board of Investments (BoI) to strengthen procedures and deploy effective and quick detection of chemicals controlled and create a centralized database, SoPs and guidelines to track importation of	MoE MoH MoA Department of Sri Lanka Customs UNDP

	to Country's commitments to the Stockholm and the Minamata Conventions			chemicals. All new tools, equipment and IT systems carry on inherent training for their application, provided by the equipment and tools suppliers as part of the comprehensive bidding process to be done by the Project, thus though the work "training" is not explicit described in every single activity at tool or equipment level, these are fully integrated in the Output. The **Output 1.1.3** will engage with Duty Bearers to improving their TORs and propose new due processes to strengthen the government's ability to regulate, strictly enforce import regulations reducing/preventing misuse of banned and restricted POPs chemicals and related products. The **Output 4.1.3** will deploy effective training on control and monitoring procedures for the Duty Bearers posted in the organizations listed above which are responsible for the end activities on control and monitoring of POPs, Mercury and other CoCs (to complement Output 1.1.2 activities). The **Component 4** is designed to raise awareness, training materials and programs for the relevant officials and other stakeholders on hazardous chemical management. The training will enable the relevant officials to understand their new extended responsibilities. The project will also put in place a project-level **Grievances Redress Mechanism (GRM)** to provide meaningful means for affected stakeholders to raise concerns and/or grievances when activities may adversely impact them.	
2	Healthcare facilities, and healthcare related stakeholders, may not be involved in decision-making regarding the development of policy and regulatory frameworks and may be negatively affected by any restrictions on mercury-based products supply, as a change in the regulatory	Social and Environmental Organizational Regulatory Strategic	I=3 L=3 **Moderate**	**This risk is being partially mitigated by Project Design:** • *Activity 1.1.1.2* • *Output 1.2.2* • *Output 1.1.3* **Additional Risk Mitigation Mechanisms:** • *Environmental and Social Management Framework*	MoE MoH MoA UNDP Demonstration medical facilities

	framework can materially impact their business model (including increase their operational costs), sector operations or supply chains for products used			*(ESMF)* • *Strategic Environmental and Social Assessment (SESA).* • *Stakeholders Engagement Plan (SEP)* • *Gender Action Plan (GAP)* • *Grievances Redress Mechanism (GRM)* The SESA will ensure that economic impacts on small and medium sized healthcare facilities and other stakeholders are taken into consideration in the decision-making process while developing the legislative tools, while the **Output 1.2.2** will put forward Green Finance Framework that will allow these stakeholders to access finance to reduce any impacts. In addition to the Project **Grievances Redress Mechanism** (GRM) that will be put in place to address any grievances, the Stakeholder Engagement Plan will ensure participation of affected stakeholders during these activities. The **Gender Action Plan** has been developed and recognizes women's contribution in health sector and HCWM and this gender sensitive approaches will be incorporated in GAP and in SESA accordingly. Project's **Activity 1.1.1.2** will update the National Implementation Plan (NIP) of the Stockholm Convention in a full participatory manner involved relevant consultation procedures required by the Convention, while the **Output 1.1.3** will promote consultations and enhanced coordination across many institutions in charge of chemicals control in the country. In addition, the project has been designed to raise the awareness of public and private stakeholders on the green finance instruments and the application of green procurement standards.	
3	Inadequate participation of women in consultations, policy decision making and design of modalities for capacity building in the uptake of non-mercury	Social and Environmental Operational Organizational Regulatory	I`=3 L=2 **Moderate**	**This risk is being partially mitigated by Project Design:** • *Activity 4.1.1.3* • *Activity 4.1.2.1* • *Activity 4.1.4.2*	MoE MoH MoA UNDP

	technologies and safe management and disposal of obsolete mercury devices and health care waste	Strategic		**Additional Risk Mitigation Mechanisms:** • *Gender Action Plan (GAP)* A Gender Action Plan has been developed and recognizes women's contribution in health sector and HCWM and includes measures such as: a) Strengthening women's active participation in teams and opportunity for and recognition of leading specific functions or responsibilities for specific operations in HCWM value chains/Hg phaseout. b) Planning/producing knowledge products and planning/delivering training programmes. c) Training/awareness programmes that include specific concerns of women and/or targeted training and knowledge products for women using women friendly approaches. d) Facilitating discussions on specific risks for women and their families and promoting risk reduction measures. **Activity 4.1.4.2** will deploy the Gender Action Plan to raise awareness and empower women's roles in sound management activities and promote gender sensitive approaches for the project´s KM activities that can incorporate gender equality principles and actions into environmentally sound management of healthcare waste activities. **Activity 4.1.2.1** will provide equitable opportunities for women and men to be trained in improved and safe handling of waste generated at each point including segregation, weighing, or measuring waste fractions and recording. Finally, **Activity 4.1.1.3** will focus on developing the Knowledge management tools to reach the estimated workforce of 100,000	Demonstration Facilities

				workers, in which majority are females, this the KM products will be gender sensitive and take the GAP into consideration.	
4	Healthcare facilities and other stakeholders can be marginalized and do not benefit from the project due to lack of awareness of the green procurement standards, or do not have equal access to financing through the Green Finance Framework to be developed	Social and Environmental Financial Operational Organizational Regulatory Strategic	I=3 L=3 **Moderate**	**This risk is being partially addressed/mitigated by Project Design.** • *Output 4.1.4* **Additional Risk Mitigation Mechanisms:** • *Stakeholders Engagement Plan (SEP)* The SEP will ensure fair representation of healthcare facilities that may otherwise be marginalized from participating in the Green Finance Framework (**Output 1.2.2**) and be at a disadvantage once the final phase-out of mercury devices. In addition, the project has been designed to raise the awareness of public and private health care facilities (**Output 4.1.4**), and relevant higher-level medical administration on possible green finance instruments, and facilitate their access to government and/or private banking investments, to support switching to mercury-free devices. The project will also ensure that knowledge is disseminated on the green procurement standards (**Outputs 1.2.1**).	MoE MoH UNDP Demonstration Facilities Central Bank of Sri Lanka
5	Accidental release of mercury or POPs pesticides, and their wastes, during procedures for re/trans-packing, handling, transportation, storage and disposal of existent stockpiles can contaminate land, communities or immediate workers if unsound practices are used or if the proper Laws and Standards and the project's risk avoidance framework is not followed	Social and Environmental Operational Regulatory Strategic	I = 4 L= 3 **Substantial**	**This risk is being partially addressed/mitigated by Project Design:** • *Activity 2.1.1.2* • *Activity 2.1.1.3* • *Activity 2.1.1.4* • *Activity 2.1.2.1* • *Activity 2.1.2.2* • *Activity 2.1.2.4* **Additional Risk Mitigation Mechanisms:** • *Stakeholders Engagement Plan (SEP)* • *Scoped Environmental and Social Impact Assessment for chemicals disposal (ESIA)* • *Scoped Environmental and*	MoE MoH UNDP Demonstration Facilities

				Social Management Plans (ESMP) that include a Spill Prevention and Management Plan (SPMP) • *Application of International Standards for Hazardous Substances Packing, Transport and Disposal* In line with the ESMF that has been prepared for the project, **scoped assessments (ESIA)** will be conducted for the disposal of residual mercury and POPs pesticide stocks, mercury-contained waste generated from the replacement of mercury-containing medical devices and dental amalgam (**Output 2.1.1**), disposal of a stock of about 22.6 metric tons of (POPs pesticides with cross-contaminated chemicals that were stored together) (**Activity 2.1.1.3**), safe mercury extraction and disposal from equipment and bulbs coming from healthcare facilities (**Activity 2.1.2.3**). The assessments will tackle the risk of accidental risk on nearby sensitive receptors and occupational health and safety such that mitigation measures will be developed and included in the pursuant site-specific **Environmental and Social Management Plans (ESMP)** that will include a Pollution Prevention and Management Plan and Occupational Health and Safety Plan. This plan will adopt Best international Practice and adhere to the national legislation, 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. Any Contractor to be recruited by the Project to deliver the 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). All these risks managements tools are to be fully embedded in the Activities *2.1.1.2, 2.1.1.3, and 2.1.1.4, in addition:* • **Activity 2.1.2.1** will develop national guidelines on safe management of mercury-containing medical equipment and dental amalgam, stocks of mercury extracted from obsolete products and mercury containing waste, to incorporate the most recent BEP in the area and to make them gender responsive. • **Activity 2.1.2.2** will develop management plans for mercury and mercury-containing waste from obsolete medical products adopting safe (interim) storage solutions and conducting investigations to establish stocks and potential technology solutions to recover and reclaim mercury. • ***Activity 2.1.2.4*** will review and update national HCWM guidelines to include sound guidance to manage residual mercury stocks and wastes generated from obsolete mercury-containing medical equipment and dental amalgam. Training programs will be designed and carried out to train staff of healthcare facilities in applying the disposal management strategies /plans for residual Hg and Hg-contained products disposal. Finally, **Output 2.1.3**. will also contribute to the overall risk mitigation strategy as it will provide guidance Tools and Guidelines for the inventory and decontamination	

				of sites contaminated with POPs pesticides, POPs chemicals and mercury.	
6	Subsequent implementation (related to replication and scaling up) of adopted strategies and plans (that will be developed with project support) will lead to activities that could result in accidental release of mercury or POPs pesticides, and their wastes, during procedures for re/trans-packing, handling, transportation, storage and disposal of stockpiles exposing the workers as well as the local communities living nearby if unsound practices are used or if the proper Laws and Standards and the project's risk avoidance framework is not followed	Social and Environmental Operational Regulatory Health	I = 4 L = 3 **Substantial**	**This risk is not linked the project activities, but may result from project replication, which will only occur after the project completion.** Although this risk is not linked to the project execution, it is the objective of the project to improve chemicals and their wastes control system. This improved system, aligned with better enforcement, will lead the stakeholders that consume or use hazardous controlled chemicals, or the ones that generate/manage chemicals and healthcare waste, to comply with the procedures for disposal. applying this framework, the stakeholders will be required to carry on and pay for the packaging, transportation and disposal of chemicals and chemicals/healthcare wastes. And as mentioned in Risk 4, even with the application of the Best Environmental Practices, National and International Regulations, as well as proper Risk Management Systems that will be the legacy of the project, such activities are not risk-free. Thus, **this risk will be addressed/mitigated by Project Design as the** aggregate of the Project components will establish the basis for the enforcement and control institutions to continue using Best Environmental Practices in collecting, managing and disposing these wastes, including **Strategic Environmental and Social Assessment** (SESA), to consider economic impacts on small and medium sized healthcare facilities and other stakeholders are taken into consideration in the decision-making as well as their capacities to comply with the regulatory system. In line with the ESMF, a SESA will be prepared during development of management plans for mercury and mercury-containing waste from obsolete medical products (Activity 2.1.2.2), HCWM Strategy (Activity	MoE MoH MoA UNDP Demonstration Facilities

				3.1.2.1) and the de-centralized non-incineration HCWM Strategy for medium to small scale health care facilities (Output 3.2.2). The SESA will consider the risk of accidental release of chemicals and worker exposure that may result from implementing the legislation and strategies at the national level and incorporate measures to mitigation them. In addition, the project will generate a HCWM Strategy (**Activity 3.1.2.1**) and a de-centralized non-incineration HCWM Strategy for medium to small scale health care facilities (**Output 3.2.2**) to further support local stakeholders to comply with national regulations, apply BAT/BEP and significantly reduce the likelihood of this Risk to become an issue.	
7	**:** Damage to interim storage and disposal facilities of hazardous waste due to flooding or other extreme natural disasters/weather events	Social and Environmental Operational Regulatory Strategic Health	I = 3 L = 3 **Moderate**	**This risk is being partially addressed/mitigated by Project Design.** • Activity 2.1.2.4 **Additional Risk Mitigation Mechanisms:** • Scoped Impact Assessment for chemicals disposal (ESIA) • Scoped Environmental and Social Management Plans (ESMP) • Scoped Spill Prevention and Management Plan (SPMP) As part of the selection process for the locations of interim storage and disposal sites for the following activities, considerations will be made that facilities are not located in areas classified as high risk due to landslides, erosion, floods or extreme weather conditions. In fact, the project preparation procedures have screened two (2) potential sites located in legalized industrial zone (not triggering Standards 4 and 6) that have been licensed to manage and dispose other types of waste, in which these considerations were part of the Governmental environmental screening. One (1) site is already	MoE MoH MoA UNDP Demonstration Facilities

				operating a small-scale interim storage facility. Before pilot site demonstrations are formally selected and engaged, the scoped assessment **(ESIA)** will further review in detail the basis for the national EIA and expand it to incorporate UNDP's SES requirement as well assess this risk and propose mitigation measures if needed as part of the resulting **ESMP**. If any new mercury interim-storage facilities are needed to be established, a scoped ESIA will be undertaken to determine the extent of the assessment/management needed. Finally, the **Activity 2.1.2.4** will include sound guidance to manage residual mercury stocks and wastes generated from obsolete mercury-containing medical equipment and dental amalgam in the national Healthcare Waste Management Guidelines. Per se, the interim storage facilities will need to follow the relevant risk avoidance/mitigation frameworks for the Stockholm and Minamata Convention which take into consideration BAT/BEP design to contain any accident/event.	
8	Adverse impacts to biodiversity and natural ecosystems resulting from the construction and operation of the Centralized Clinical Waste Treatment Facilities (CCWTF) within the baseline municipal solid waste (MSW) disposal facilities	Social and Environmental Operational Regulatory Health	I = 4 L = 3 **Substantial**	**This risk is partially linked to GEF-funded activities under project framework.** **Risks associated with co-finance:** Site visits were conducted during project preparation and have found that the MSWM facility in the Northwestern Province, is close to the borders of the Sundarapola Forest Reserve. The Koduwamadu Landfill Project has been assessed following national regulations on Environmental Impacts and comply with the requirements National Waste Management Policies, which are also aligned with International Standards.	MoE MoH MoA UNDP Demonstration Facilities

				• The sides and the bottom of the Koduwamadu landfill are provided multiple impermeable protective layers to prevent the leakage of leachate and other particles contaminating the soil below. • Pipeline is placed below the protective layers for collecting the water infiltration and to divert towards the groundwater collection tank • Pipeline is placed above the HDPE liner to collect the leachate generated from the landfill and directed towards the leachate treatment plant for treatment. • Leachate is treated with Best Available Technologies by undergoing several processes in accordance with international standards. • The treated water will be used only within the site for the use of tyre washing, cleaning of the waste containers, and irrigation purposes. • The landfill gases (mostly Methane) formed within the landfill are collected by installing gas collection pipes at several locations and the gases. • Daily cover, intermediate cover and final cover (when the cell or portion of the landfill is permanently closed by a soil layer) above the dumped waste is the requirement for prevention and protection from emission of odors, breeding of birds, flies and other species. • Groundwater monitoring wells are constructed at selected locations around the landfill to monitor the groundwater quality. • A security fence and topographic barriers are placed around the perimeter of the site to prevent unauthorized entry. The landfill also has adequate area as buffer zones (not less than 200 meters in its narrower part) surrounding the property boundaries to avoid impacts on the	

				nearby ecosystems. In addition, the provision of adequate buffer is important to mitigate negative impacts such as noise and odor on human habitats. The Sundarapola site is being transformed after public complaints Mainly ground water contamination with leachate, with the guidance of NWP Environmental Authority **The Risk Mitigation Mechanisms for GEF-funded activities are:** • *Scoped Impact Assessment for chemicals disposal (ESIA)* • *Site-specific Environmental and Social Management Plans (ESMP)* • *Scoped Spill Prevention and Management Plan (SPMP) (as part of the ESMP)* • *Application of International Standards for Hazardous Substances Packing, Transport and Disposal.* • *Biodiversity Management Plan (if needed)* A scoped **ESIA**, following UNDP SES, will be conducted for the CCWTF (Activity 3.2.1.1) that is proposed to be constructed within the MSWM facilities limits. The ESIA that will be prepared for the project will assess current alignment of the MSWM facility's EIA to UNDP SES, as well as expand the assessment on social-related principles and potential incremental risks on biodiversity from construction and operation of the CCWTFs. If needed, the resulting **ESMP** would include a **Biodiversity Management Plan** if the risks to Biodiversity are found and are considered to be unavoidable, taking into consideration the location of the Sundarapola Forest Reserve. During project implementation, the Project Monitoring Unit team will establish a monitoring mechanism to follow up the establishment and initial operation of the CCWTF so to oversight the potential environmental and social risks	

				inherent to the co-financed component.	
9	Health and safety risks to workers of the selected MSWM facilities as well communities during establishment and operation of the CCWTF and inappropriate behavior by additional security personnel who may be recruited by the landfill operator	Social and Environmental Operational Organizational Regulatory Health	I = 4 L = 3 **Substantial**	**This risk is being addressed by Risk Mitigation Mechanisms:** • *Scoped Impact Assessment for chemicals disposal (ESIA)* • *Scoped Environmental and Social Management Plans (ESMP)* • *Scoped Spill Prevention and Management Plan (SPMP)* • *Occupational Health and Safety Plan:* • *Code of Conduct for Construction and Security Workers.* • *Grievance Redress Mechanism - GRM* The **ESIA** that will be conducted for each CCWTF will address health and safety concerns related to the construction and operation and all proposed mitigation measures will be included in the **ESMP** that will be developed and implemented before commencing works for establishing these facilities. The ESMPs will include a **Scoped Spill Prevention and Management Plan (SPMP)** and **Occupational Health and Safety Plan**. Prior to hiring of any new construction company and/or security staff to guard selected facilities, a **Code of Conduct** reflecting SES requirements will be prepared so that contractors ensure their staff abide by them. Training will be offered to participating individuals to ensure they are aware of their responsibilities. In addition, the **Grievance Redress Mechanism** for the project will allow the local community to share any concerns or grievances they may have or report any incidents related to this risk.	MoE MoH MoA UNDP Demonstration Facilities
10	Improper application of guidelines developed by the project during decontamination of demonstration sites (both	Social and Environmental Operational Organizational	I = 4 L = 4 **Substantial**	**This risk is being partially addressed Risk Mitigation Mechanisms:** • *Scoped Environmental Risk Assessment (equiv. to ESIA)* • *Scoped Environmental and Social*	MoE MoH MoA UNDP

	during project implementation and after project completion) can lead decontamination and disposal workers, community located in affected area and surrounding environment to be exposed to POPs pesticides and Mercury, which can extend the range of the contamination and limit access to land and natural resources of nearby communities	Regulatory Health		*Management Plans (ESMP)* • *Scoped Spill Prevention and Management Plan (SPMP)* • *Occupational Health and Safety Plan* • *Site Decontamination Monitoring Plan* **GEF-funded activities:** National Ayurvedic Teaching Hospital for mercury in Colombo, and the Interprovincial Agriculture Office of Ampara had been visited and screened by the Project Preparation Team and short-listed as pilot sites to demonstrate the application of the project guidelines on contaminated sites assessment and decontamination. Both sites are located in city areas, none are located near any cultural heritage sites, protected areas or land claimed or inhabited by indigenous peoples, nor indigenous people live in their areas of influence. For decontamination of sites, the project includes an **Environmental Risk Assessment** to align the local regulation to UNDP´s SES and provide tools for the project team to monitor situation referring to the which will require the identification and characterization of the scope (e.g., the extent of contamination, proximity to human populations, depth to groundwater, proximity to surface water or sensitive habitats), analysis of the hazard level and toxicity, analysis of exposure and analysis of risks to determine the level of management and remediation possible. **Co-funded activities that count towards the Project Results:** For the two (2) pilot demonstrations, a **scoped ESIA** will be undertaken for risks on human health, traffic and workers. An **ESMP** will then be developed for each site that will include a **Scoped Spill Prevention and Management Plan** and an **Occupational Health and Safety Plan**. The decontamination activities, per se, cannot be funded with GEF resources (ineligible as per Programme Directions), and these	Demonstration Facilities

				will be responsibility of the relevant subnational Governments of Colombo and Ampara who manage the selected sites. **As exit strategy**, the Project will propose to the CEA a monitoring plan so to follow up the application of the decontamination guidelines and the full recovery of the sites, if found contaminated, if the contamination works extend the project timeframe.	
11	Increased consumption of resources and GHG and other emissions and generation of waste from autoclaving and recycling activities	Social and Environmental Operational Regulatory	I = 3 L = 2 **Moderate**	**This risk is being partially addressed/mitigated by Project Design. (Component 3)** **Additional Risk Mitigation Mechanisms:** • *Scoped Impact Assessment for chemicals disposal (ESIA)* • *Scoped Environmental and Social Management Plans (ESMP)* • *Scoped Pollution Prevention and Management Plan*, • *Occupational Health and Safety Plan:* • *Labor Management Procedures (LMP)* A **scoped ESIA** will be conducted for each of the activities related to recycling and autoclaving: testing strategies to improve recycling of plastics , aluminum and glass materials (A**ctivity 3.1.3.1**), integrated recycling programs piloted in six (6) facilities (**Output 3.1.5**), business models for de-centralized HCWM systems (low-cost autoclaving) piloted in six (6) medium-to-small scale facilities (**Output 3.2.3**) and baseline hybrid autoclaves operation and maintenance practices, at large scale healthcare facilities, are improved, and their operational Business Models is developed. The **scoped ESIA** will inform decision-making regarding the sites selected and technologies adopted to ensure SES standards are applied and that an appropriate waste disposal site is allocated for any	MoE MoH MoA UNDP Demonstration Facilities

				residue waste (specifically for autoclaving activities). The targeted assessment will also evaluate the risks related to air quality and worker and community health such that the **scoped ESMP** will include a **Pollution Prevention and Management Plan**, and **Occupational Health and Safety Plan**. In addition, all entities operating under the project (including contractors and operators) shall abide by the project's **Labor Management Procedures (LMP)** that will be developed during the Inception Phase of the Project.	
12	Project service contractors may make use of working practices that do not meet the national labour laws, international standards/treaties, and Occupational Risk and Hazardous Guidelines, or may employ child or apply forced labor practices, leading to risk of workers exposure to health and safety risks during re/trans-packing, handling, transportation and decontamination activities	Social and Environmental Operational Organizational Regulatory Health	I = 4 L = 3 **Substantial**	**This risk is being addressed with Risk Mitigation Mechanisms:** • *Scoped Impact Assessment for chemicals disposal (ESIA)* • *Scoped Environmental and Social Management Plans (ESMP)* • *Occupational Health and Safety Plan:* • *Labor Management Procedures (LMP)* Prior to engaging any enterprise or cooperative, during project implementation and through open competitive process, the scoped entity will be duly assessed to screen its adherence to National Laws and/or International Guiding Standards before engaging into implementation contracts/agreements with the project. This will be done through a visit to the facility and ensuring that occupational health and safety measures are applied. Any entity engaged with the project will be required to adhere to the **LMP and the *Occupational Health and Safety Plan* prepared for the project**. The **scoped ESIAs** that will be undertaken for the various pilot, disposal and recycling activities will assess the risk on worker safety and health and include an Occupational	MoE MoH MoA UNDP Demonstration Facilities

				Health and Safety Plan in each site-specific **ESMP**. In addition, the facilities, enterprises and cooperatives that will engage with the project will be verified against their adherence related to the Laws on Forced Labour and Child Labour. The project will not engage with any entity that utilizes such practices.	
13	The COVID-19 Pandemic may inhibit the smooth implementation of this project.	Operational Health	I = 2 L = 2 **Low**	Different levels of protection measures to prevent COVID-19 contamination are being taken by the Government of Sri Lanka, including large scale vaccination programme. The project plans to carry out continuous monitoring and assessment of the impact of COVID-19 on the progress of project implementation and undertake appropriate adaptive management. Project management and implementation supervision can be undertaken through various means such as online and telephone interactions, international experiences may be shared through web seminars.	MoE MoH MoA UNDP Demonstration Facilities
14	Sri Lanka's economic downturn started in 2021. IMF and donor negotiation on debt restructuring is progressing slower than originally anticipated. This situation may affect the ability of the Government departments and Private Sector to honour their committed co-financing	Financial	I = # L = 3 **Moderate**	Co-financing commitments have been recently reaffirmed with respective contributors. IP, Project Board and UNDP will undertake close monitoring action on progress of contributions	MoE MoH MoA Customs Department UNDP
15	Changes in management personnel, in particular experienced staff, in response to Government mandatory retirement at age 60 and staff transfer policy imposed since 2022 may cause delay in project implementation	Management	I = # L = 3 **Moderate**	Increased capacity building for personnel directly involved in project implementation; produce practical guides and self-learning and training using digital tools i.e., audio and video clips, to retain and refresh institutional memories	MoE MoH MoA Customs Department UNDP
16	No agreement on Green Financing Framework Mechanism (GFFM)	Financial	I = # L = 3 **Moderate**	Sri Lanka has tested green financing for the promotion of biomass energy. The financial institutions have expressed interest to extend	MoE MoH UNDP

				the GFF to this project. Details of the financial modalities, and involvement of additional financial institutions, as well as private service provider to the healthcare sector who will be recipients of green financing will be consolidated during project implementation	
17	Weak cooperation from private sector companies engaged in Hg waste management	Strategic Management Financial	I = 3 L = 1 **Low**	This situation is unlikely to happen, as most of these companies have already made substantial investment on Hg waste recovery and management and have committed to restart their business operation so as not to jeopardize their investment	MoE MoH UNDP

Stakeholder engagement and south-south cooperation:

105. Stakeholder engagement means a process involving stakeholder identification and analysis, planning of stakeholder engagement, disclosure of information, consultation and participation, monitoring, evaluation and learning throughout a project cycle, addressing grievances, and on-going reporting to stakeholders. Thus, stakeholder engagement is a fundamental requirement for the success of the proposed project on "*Integrated Management and Environmentally Sound Disposal of POPs Pesticides in the Agricultural Sector and Mercury & Waste in the Healthcare Sector in Sri Lanka*". 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.

106. 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 mobilization of stakeholders, are the vehicles through which the project proposal has been formulated and planned to implement, monitor, appraise and review.

107. Stakeholder analysis and engagement is 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.

The Stakeholder Identification and Consultation Process

108. Further to stakeholder analysis performed during the PIF stage, 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; and
- The data and information collected from consultation of stakeholders through physical sessions, virtual meetings, focus group discussions, interviews, questionnaires and field visits.

109. The stakeholders in the national government, local government, private sector, NGOs/CSOs, and development partners were identified and analysed under the two key sectors covered in the Project, namely Agriculture and Healthcare. 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.

Stakeholder Analysis

110. A comprehensive stakeholder analysis and mapping is presented in this Section. Further, the governance structure and mechanism of the Project is presented in Section VIII. Governance and Management Arrangements describing the stakeholders and their roles and responsibilities.

111. Stakeholder identification, engagement and assessment during PPG stage were conducted during June to September 2022, which provided the foundation for the development of the Stakeholder Engagement Plan (SEP).

112. Identification and mapping of all relevant stakeholders in the **agriculture sector** were conducted at the PPG Stage, their specific mandates, roles and responsibilities, present activities and progress, issues, constraints, challenges and risks are given in the table below:

Table 5: Key Stakeholders in the Agriculture Sector

Stakeholder	Mandate	Roles and responsibilities	Present activities	Progress	issues / constraints / challenges / risks	Recommendations
Registrar of Pesticide under Ministry of Agriculture	Enforcement of the Control of Pesticides Act No. 33 of 1980 and (Amendment) Act No. 6 of 1994 and regulations made there under	Control, import, packing, labelling, storage, formulation, transport, sale and use of pesticides through registration of pesticides	Evaluation of registration and re – registration application Inspection and certification of pest control service institutions Arrange training and awareness programmes Monitoring of quality of pesticides Inspection of formulators, re-packers, sellers & storage facilities Evaluation of pesticide quality certificates.	Gaps with the existing institutional system and priority requirements to tighten enforcement of regulations identified	• Pesticides are flowing into the country in different illegal channels and difficult to trace and monitor. • Procedures are defined in this act to take legal actions against the persons who contravene the details provided under the license. However, this is not fully implemented in the ground. • Procedures are in place to safe dispose the waste come out after using the pesticides. But it is not being implemented yet.	Enhance the field level monitoring practices to control the inflow of illegal pesticides to the country
Ministry of Environment / Central Environmental Authority	• Enforcement of the National Environmental Act No.47 of 1980 (last amended 2000) and regulations made there under • Powers and duties given by the Control of Pesticides (Amendment) Act No. 6 of 1994	• Ensure safe disposal of chemical waste • Advise the Registrar or any important matter relating to the registration of pesticides, approval of containers, the storage, formulation, import, sale and use of pesticides and such other matters relating thereto as may be prescribed • To appoint technical sub-committees to assist such committee in the performance of its functions • Monitoring the use of illegal operations if any when renewing the EPL annually	Control of trans boundary movements of hazardous wastes and their disposal. Monitoring the process.	Inter-agency data sharing gaps and need for improved coordination acknowledged Discussions to improve data sharing across agencies initiated	While EPL (Environment Protection License) and SWML (Scheduled Waste Management License) are mandatory requirements for industry and establishments dealing with CoCs (i.e., hospitals) the CEA has little capacity to monitor, adherence to claims made through the EPL and SWML	Accessing data on type of chemicals quantities imported, and the purpose etc. enable tracking the use of chemicals for its intended purpose verify waste disposal through EPL and SWML

Ministry/Department of Agriculture {Assistant Directors Agriculture (Ads), Agriculture Inspectors (Ais)}	Powers and duties given by the section 21 of Control of Pesticides Act No. 33 of 1980 section 16 of Control of Pesticides (Amendment) Act No. 6 of 1994	• Ascertain whether any person has contravened any provision of this Act, or any regulation or Order made thereunder; • Obtain samples of pesticides for the purpose of determining whether any deterioration, adulteration or decomposition thereof has occurred; and • File a case in Magistrate against the person who contravene the Pesticide Control Act and regulations	Line management of the office of the Registrar of Pesticide	Aware of the risks and have abandoned storage areas of obsolete POPs agro pesticides storage	Lack of capacity for decontamination of sites contaminated with POPs agro pesticides Safe storage and timely disposal of confiscated and obsolete agrochemicals/pesticides	Develop guidelines for safe handling, storage and disposal of obsolete agrochemicals; and decontamination of contaminated sites
Horticultural Crop Research and Development Institute (HCRDI)	Established under Department of Agriculture and functioning as a central analytical laboratory	Testing for pesticide formulations	Analysis for presence and quality of agro pesticides	Carry out analysis of samples on request of RoP	Samples to be tested need to be brought to Peradeniya, Kandy	Need to improve timely testing capacity
Private laboratories (Bureau VERITAS Consumer Product Services Lanka (Pvt) Ltd, SGS Lanka (Pvt) Ltd	Bureau VERITAS: in the List of National Laboratory of Accreditation Board for Testing and Calibration Laboratories India (NABL) SGS Lanka (Pvt) Ltd: Accredited to ISO 17025:2017 and approved by the Ministry of Fisheries and the Central Environmental Authority (CEA) Sri Lanka	Testing for pesticide formulations	Analysis for presence and quality of agro pesticides	Carry out tests on agro pesticides verification on third party request	Samples are sent to affiliated laboratories overseas which is time and foreign exchange consuming	Local capacity consolidation and strengthening needed
Government Analyst, Central Agricultural Research Institute of the Department of	Powers and duties given by the section 27 of Control of Pesticides Act No. 33 of 1980	Testing for pesticide formulations	Analysis for presence and quality of certain agro pesticides	Limited testing of agro pesticides	The existing testing facilities available are limited to specific areas and difficult to analyze	Potential to enhance the existing facilities

Agriculture, ITI, Sri Lanka Standards Institute	and section 18 of Control of Pesticides (Amendment) Act No. 6 of 1994				more sophisticated testing.	
Ministry of Health, Commissioner of Labour, Tea Research Institute, Sri Lanka Standards Institution, Coconut Research Institute,	Powers and duties given by the section 06 of Control of Pesticides (Amendment) Act No. 6 of 1994	• To advise the Registrar or any important matter relating to the registration of pesticides, approval of containers, the storage, formulation, import, sale and use of pesticides and such other matters relating thereto as may be prescribed. • To appoint technical sub-committees to assist such committee in the performance of its functions	Participate in technical advisory committees Advice provided for import clearance and restrictions for CoCs relevant to their respective sectors	Issue guidelines and implement control of use of chemicals relevant to their respective sectors	Penetration of illegal chemicals in the market and use	Strengthening capacity for control and management of CoCs
Department of Sri Lanka Customs	Customs Ordinance of 1869 (last amended in 1988)	Border control of pesticides when importing to the country	Clearance of import of CoCs bearing HS codes that indicated in respective import licence	Identified gaps and plans are drawn for capacity strengthening	• Unauthorized entry of chemicals to the country. • No clear interpretation for identification of different types of the "waste"	Strengthening border control to prevent Unauthorized entry of banned chemicals into the country. Separate regulation with clear definition for different categories of "waste"

113. Specific mandates, roles and responsibilities, present activities and progress, issues, constraints, challenges and risks of the relevant stakeholders in the **healthcare sector** are presented in the table below:

Table 6: Key Stakeholders in the Healthcare Sector

Stakeholder	Mandate	Roles and responsibilities	Present activities	Progress	issues / constraints / challenges / risks	Recommendations
Directorate of E&OH, Ministry of Health	Technical focal point for environmental health	Providing technical guidance. Liaising with the Ministry of Environment. Participation in decision making process.	Phasing out of mercury containing equipment. Work together with Ministry of Environment to find a solution for the disposal of mercury containing thermometers and barometers.	Circular already issued by the health ministry not to purchase mercury containing equipment for government	Disposal of CFL bulbs is very costly No recyclers readily available No way of disposing of the Hg containing thermometers and barometers.	Device a monitoring system for regularly monitoring the use and proper disposal of mercury containing devices

		Setting guidelines on the subject discussed.		health institutions. A joint project proposal preparation is in progress for disposal of Hg containing medical waste	Inadequate finances. No monitoring mechanism	
National Medicines Regulatory Authority (NMRA)	Registration of Medical devices.	Ensure not to issue licenses for mercury containing medical devises.	Registrations not issued for mercury containing medical devises.	Satisfactory	Unauthorized importation happens violating this rule.	Educate the Customs on identification of mercury containing devices and take control measures
Medical Supplies Division (MSD)	Procurement of equipment	Ensure not to procure mercury containing thermometers and barometers.	MSD has stopped purchasing mercury containing thermometers and barometers.	Satisfactory	Smaller hospitals purchasing mercury containing thermometers for convenience and availability issues.	
Bio-medical Engineering Division	Procurement of equipment	Ensure not to procure mercury containing thermometers and barometers.	Bio-medical Engineering Division has stopped purchasing mercury containing thermometers and barometers.	Satisfactory	High cost of digital equipment	
Provincial health ministries	Procurement of equipment	Ensure not to procure mercury containing thermometers and barometers. Providing necessary facilities and guidance in proper disposal of mercury waste	Provincial health ministries had been advised not to procure mercury containing thermometers and barometers. No specific activities at provincial level	In progress	Smaller hospitals purchasing mercury containing thermometers for convenience and availability issues.	Educate and monitor individual health institutions on related purchases
Regional Directorates	Procurement of equipment	Ensure not to procure mercury containing thermometers and barometers. Providing necessary facilities and guidance in proper disposal of mercury waste	Regional health ministries had been advised not to procure mercury containing thermometers and barometers. No specific activities at District level	In progress	Smaller hospitals purchasing mercury containing thermometers for convenience and availability issues.	Provide necessary funds for purchasing digital equipment.
Private health regulatory council	Ensure mercury containing equipment are not used in private sector and proper disposal mechanisms exist for mercury disposal.	Need to include these criteria in the process of registering a medical/ dental institution.	No specific activities	Not satisfactory	No mechanism to dispose mercury in the private sector.	Need to include use of mercury containing devices and their disposal methods into the registration/licensing process.

Individual health care facilities (Govt. & private)	Ensure mercury containing equipment are not used and proper disposal mechanisms exist for mercury disposal.	Not to use mercury containing equipment and ensure proper disposal mechanisms exist for mercury disposal.	No specific activities at hospital level for procurement. Amalgam separators are used by many hospitals; Some hospitals use composite in place of amalgam	Need improvement	No guidelines for use and disposal of mercury containing equipment in the private sector. No proper mechanism for disposal of separated mercury.	Issue guidance from the MoH for phasing out mercury containing devices in their institutions
Ministry of Environment/Central Environmental Authority	Developing and implementing laws, rules, regulations and procedures in control of mercury	Ensure safe disposal of mercury containing products	Register disposal agencies. Issuing licenses. Monitoring the process.	Not satisfactory	No disposal agencies for CFL bulbs and fluorescent bulbs.	Create facilities for disposal of CFL bulbs and fluorescent bulbs.
Sri Lanka Customs	Border control of related devices	Ensure no mercury containing devices are imported	No specific activities (Sri Lanka Customs only checks the registration status of the product at the time of import)	No specific activities	Unauthorized entry of mercury containing devices through baggage.	Strengthening border control to prevent unauthorized entry of mercury containing devices to the country.
Suppliers of medical equipment	Supply medical devices to government and private institutions	Ensure all suppliers are in accordance with the specifications given	The checks and balances are built into the system	Satisfactory	No	

Stakeholder Engagement Plan (SEP)

Overview

114. 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.

115. 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

116. 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 (2019). 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

117. 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

118. 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

119. The process of identification 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, MoE who is the Implementing Partner and Project Executive, 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.

120. Another important element is the partnerships among relevant stakeholders (both public and private) in performing certain tasks of the project, for example centralized HCW treatment & disposal systems in the two pilot sites. 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.

121. 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.

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

Stakeholder Engagement during the Project Preparation Phase

123. Table 7 presents the details of the stakeholder engagement during PPG stage of the Project, covering means of engagement, objectives, stakeholders engaged, time and major results.

Table 7: Stakeholder engagement in the project preparation (PPG) phase

Means of Engagement	Objectives	Stakeholders engaged	Time	Major results
Focus group discussions, interviews, meetings, validation workshops (physical and virtual) of the Data Collection Team and PPG Team with the stakeholders in the agriculture sector Field visits.	To gather baseline information on the POPs containing pesticides management and implementation To identify the amount of POPs pesticide/POPs-contaminated pesticides to be disposed.	Ministry of Environment (MoE) Ministry of Agriculture (MoA) Department of Agriculture (DoA) Registrar of Pesticide (RoP) Central Environmental Authority (CEA) Sri Lanka Customs Private sector (importers and waste treatment)	June to September 2022	Identification and analysis of relevant national and sectoral acts, policies, regulations, and procedures Identification and mapping of all relevant stakeholders in the agriculture sector, their mandates, roles & responsibilities, present activities & progress, issues/ constraints/challenges/ risks Review of plans of POPs containing pesticides Control systems of POPs containing pesticides (including provisions in the Act, coordination among institutions, data management system) Status of POPs containing pesticides monitoring and verification system (including laboratory/testing facilities) Disposal of POPs containing pesticides (the present practices and amounts of obsolete POPs pesticide/POPs-contaminated pesticides to be disposed) Identification of the POP decontamination site Issues/challenges & recommendations.
Focus group discussions, interviews, meetings, validation workshops (physical and virtual) of the Data Collection Team and PPG Team with the stakeholders in the healthcare sector	To gather baseline information on the mercury management in the healthcare sector	Ministry of Environment (MoE) Ministry of Health (MoH) Directorate of E&OH, MoH Medical Supplies Division (MSD) Bio-medical Engineering Division, MoH	June to September 2022	Identification and analysis of relevant policies, acts, procedures and systems for the management of mercury containing products in the health sector Identification and mapping of all relevant stakeholders in the health sector, their mandates, roles & responsibilities, present activities & progress, issues/ constraints/challenges/ risks Progress of controlling procurement and utilization of mercury containing products Existing quality standards requirements for procuring mercury fee alternatives

Means of Engagement	Objectives	Stakeholders engaged	Time	Major results
Field visits Online questionnaire		National Medicines Regulatory Authority (NMRA) Central Environmental Authority (CEA) Sri Lanka Customs Individual HCFs Private sector (mercury recycling)		Control systems of mercury (including legislations, coordination among institutions, and data management system) Status of mercury monitoring and verification system (including laboratory facilities) Present practices in disposal of mercury Quantity of obsolete mercury containing devices to be disposed Identification of the mercury decontamination site Issues, challenges & recommendations.
Focus group discussions, interviews, meetings, validation workshops (physical and virtual) of the Data Collection Team and PPG Team with the stakeholders in the HCW management sector Field visits Online questionnaire.	To gather information on the status of HCW management in the selected provinces in view of establishing two centralized HCW treatment & disposal plants proposed in the Project To identify five HCFs to demonstrate HCWM To identify the operational status of twenty MetaMizer hybrid autoclave systems deployed in state sector HCFs To identify the status of the implementation of National HCW Management Guidelines To identify feasibility and develop business model in each of the two centralized plants.	Ministry of Environment (MoE) Ministry of Health (MoH) Directorate of E&OH, MoH Central Environmental Authority (CEA) Individual HCFs Selected LAs (Kurunegala Municipal Council and Eravur Pattu Pradeshiya Saba) Private sector (waste treatment)	June to September 2022	Selection of the two provinces (North Western and Eastern) among the three provinces initially earmarked Selection of the site for the two centralized HCW treatment & disposal plants Status of the present landfill/ dumpsites in the two locations Wastes quantities generated from the government HCFs within the catchment area of each of the two HCW treatment & disposal plants Identification of three HCFs in each of the two provinces for the demonstration of HCWM Operational status of the twenty MetaMizer hybrid autoclave systems in the HCFs, including capacity utilization, costs of operation, issues and challenges, and recommendations for improvements Implementation status of the National HCW Management Guidelines Scenario analysis and feasibility assessment of the two centralized HCW treatment an& disposal plants Business and partnership models for the two centralized HCW treatment & disposal plants
Consultation meeting (Virtual), Focus group discussions.	To identify the status of green and sustainable financing in relation to the chemical and	Member organizations of a sustainable banking initiative in Sri Lanka	July to September 2022	Status of the Roadmap for Sustainable Finance in Sri Lanka (Central Bank of Sri Lanka, 2019) Status of the Sri Lanka Green Finance Taxonomy (Central Bank of Sri Lanka, 2022)

Means of Engagement	Objectives	Stakeholders engaged	Time	Major results
	mercury management.			and its implications on chemical management Status of the Green Bond Framework for Sri Lanka Initiatives taken by individual financial organizations, particularly under their portfolios related to sustainability initiatives and Social & Environment Safeguards
Consultation meeting (Virtual), Focus group discussions, Field visits.	To identify the status of the private sector engagement in chemical and mercury management (including HCWM) To estimate the quantity of mercury waste in the stocks (required to be disposed)	Private sector organizations involved with (i) mercury management (Asia Recycling (Pvt) Ltd. and Ceylon Waste Management (Pvt) Ltd.) (II) Co-processing of hazardous waste (INSEE Ecocycle Lanka (Pvt) Ltd.) (iii) Agrochemical importers and distributors (represented by CropLife Sri Lanka)	July to September 2022	Status of the mercury recycling and disposal Quantity of mercury waste in the stocks Potential options of the disposal of accumulated mercury waste and recommencement of operations Potential options for last-mile solution to HCWM through co-processing of residues and waste mining Status of safe management pesticides through the collection of chemical containers.
Consultation meeting (Virtual)	To obtain perceptions of the national level NGOs/CSOs on chemical management and HCWM, and implications on the present Project To comprehend the community/ public opinion through the experience and exposures of NGOs/CSOs.	National level NGOs/CSOs: Centre for Environmental Justice Sri Lanka Red Cross Sarvodhaya Helpo Sri Lanka Sevenatha Palm Foundation Nuwara Eliya	01st September 2022	Presence of irregular procedure of using dental amalgam in Sri Lanka, emphasizing the need to change the attitude of doctors Need the assistance from the government authorities to operationalize mercury recycling plants operated by the private sector Importance of having sectoral experts and technical competent professionals in the Project Steering Committee and in the partner organizations Do away with the utilization of incineration technologies for treatment of HCW Lack of proper mechanism and resources in government HCFs to monitor the collection and disposal process of chemicals and chemical containing equipment Training needs of cleaning staff in HCFs in handling clinical waste Enhancement of public awareness on POPs and other chemicals and raising participation of CSOs in managing chemicals

Means of Engagement	Objectives	Stakeholders engaged	Time	Major results
				Need of strengthening mercury and chemical management policies within the project components.
Consultation meeting (Virtual)	To introduce the proposed centralized HCW treatment & disposal plant to the local stakeholders of the project site in Eravur Pattu Pradeshiya Sabha, Eastern Province To obtain perceptions of the local level NGOs/CSOs/CBOs To comprehend the community/ public opinion through the experience and exposures of the local NGOs/CSOs /CBOs	Local level NGOs/ CSOs/CBOs: Self- Reliant Community Awakening Organisation Sri Lanka centre for development Kavya Women's Development Foundation (WDF) Local Initiates for Tomorrow (LIIFT)	04th September 2022	Crosscutting nature and complexity of the challenges faced by communities Need of a multi-stakeholder engagement platform that enables different parties to contribute through their unique roles, while collectively address the challenges
Consultation meeting (Physical)	To introduce the proposed centralized HCW treatment & disposal plant to the local stakeholders of the project site in Kurunegala Municipal Council, North Western Province To obtain perceptions of the local level NGOs/CSOs/CBOs To comprehend the community/ public opinion through the experience and exposures of the local NGOs/CSOs /CBOs.	Local level NGOs/ CSOs working in North-Western Province: Sri Lanka Red Cross Helpo Sri Lanka Sevenatha Kurunegala Municipal Council Sundarapola Waste management centre	21st September 2022	The participants were made aware of the project outputs, outcomes, and impacts. The need to make the affected communities aware ahead of the project implementation was emphasized. Importance to create the necessary environment to avoid or prevent the possibility of propagating distorted information by parties with vested interests was highlighted
Consultation meetings (Physical, virtual); Validation Workshops (Physical, virtual) of the Data	To obtain endorsement for the planned data collection activities and consultations	Ministry of Environment (MoE) Ministry of Health (MoH)	June to September 2022	Endorsement of the key deliverables of the Data Collection team (Baseline status of POPs containing pesticide management; Baseline status of mercury management in the healthcare sector; HCFs for the piloting of HCWM; Operational status of the twenty MetaMizer hybrid autoclave systems in the

Means of Engagement	Objectives	Stakeholders engaged	Time	Major results
Collection Team and PPG Team with the key implementing partners.	To present and validate the findings of the data collection and stakeholder consultations	Central Environmental Authority (CEA).		HCFs; Implementation status of the National HCW Management Guidelines; Feasibility study, scenario analysis and business plan of each of the two centralized HCW treatment & disposal plants) Approval for the lists of stakeholders for the consultations Selection of the two provinces (North Western and Eastern) and sites for the two centralized HCW treatment & disposal plants
PPG Validation Workshop	Validate the design of the Project with stakeholders, finalize key elements, and secure agreement and support for the project by key stakeholders	Ministry of Environment (MoE) Ministry of Health (MoH) Central Environmental Authority (CEA) Ministry of Agriculture (MoA) Department of Sri Lanka Customs Local Authorities (LAs) Individual HCFs Private sector (mercury recycling, waste treatment, agrochemicals importers and distributors) National and local level NGOs/ CSOs/CBOs	15 September 2022	GEF project cycle and project implementation introduced Overview of the project and key Outcomes, Outputs and Activities of the project components explained and major issues discussed and validated. Project SESP safeguards findings and planned management measures presented, discussed and validated M&E mechanisms and processes explained Concerns of stakeholders discussed and comments taken into consideration in the finalization of the Project Document and CEO Endorsement Request

Stakeholder Engagement during the Project Implementation Phase

124. 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.

125. Accordingly, the SEP for the project implementation phase has been developed, as presented in Table 8, covering details related to means of engagement, objectives, Stakeholders to be engaged, main responsible agencies, location, time and resources required.

Table 8: Stakeholder Engagement during the project implementation phase

Means of Engagement	Objectives	Stakeholders to be engaged	Main responsible agencies	Location	Time	Resources
1. Before the 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.	Project Execute (MoE); Project Management Unit (PMU); GEF agency (UNDP).	Disclosed on websites of the MoE and UNDP	Before the project implementation	The project budget
Dissemination of the project information to the Project Support Technical Team, Responsible Party A and Responsible Party B.	To inform the key stakeholders and partners on the project activities and plans; To obtain comments on new circumstances.	Project Support Technical Team; Responsible Party A: CEA, Sri Lanka Customs, BOI, Ceylon Chamber of Commerce, Industry associations, NGOs/ CSOs/CBOs; Responsible Party B: RoP, Ministry of Local Government, LAs (Eravur Pattu PS, Kurunegala MC), HCFs.	PMU	To be decided (TBD)	Before the project implementation	The project budget
2. Engagement in project implementation						
▪ Project inception						
Focus group discussions; Meetings	To mobilize the project partners, including the LAs, HCFs, Private sector agencies.	Government agencies (MoE, MoH, MoA, CEA, RoP, Sri Lanka Customs, BOI); The two LAs (Kurunegala Municipal Council and Eravur Pattu Pradeshiya Sabha); Six HCFs selected for piloting of HCWM; Private sector agencies (Mercury recycling, HCW treatment; Co-processing of residues/ waste)	MoE, 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 stakeholders	MoE, PMU, UNDP	TBD	Project Inception Period	The project budget
▪ For Component 1: Strengthen the Policy, Regulatory and Institutional Frameworks for the management of POPs, Mercury and other Chemicals of Concern (CoC)						
Consultation workshops, Focus group discussions, Interviews, and Surveys.	To review baseline regulations on chemicals management; To update the National Implementation Plan (NIP) of POPs.	CEA, MoA, DoA, RoP, BOI, Sri Lanka Customs; Departments of Imports and Exports Control; Private sector (importers and distributers), NCPC and other NGOs, UNDP, UNIDO	MoE, PMU	TBD	During the first six quarters of the project implementation period.	The project budget
Focus group discussions, Interviews, and Surveys.	To collect the data and information for the Centralize the Chemicals Control System, complemented by upgraded laboratory facilities, digitized information management system, and enhanced capacities.	CEA, MoA, DoA, RoP, BOI, Sri Lanka Customs; Departments of Imports and Exports Control; Private sector (importers and distributers), NCPC.	MoE, PMU, UNDP	TBD	During the project implementation	The project budget
Focus group discussions, Interviews, Surveys, and Training workshops.	To identify gaps and needs of capacities and skills agencies that participate in the National Coordination Committee (NCC) for Chemicals and Waste Management; To build capacities and skills of the relevant staff.	Member agencies of the NCC for Chemicals and Waste Management	MoE, PMU, UNDP	TBD	During the first six quarters of the project implementation period.	The project budget

Focus group discussions, Interviews, and Surveys.	To identify the attributes, criteria and indicators for green procurement standards (particularly for mercury-free alternative products, PPE and other consumables)	MoH, SCP Forum, NCPC, National Procurement Commission	MoE, PMU, UNDP	TBD	During the project implementation	The project budget
▪ For Component 2: Environmentally Sound Management Disposal of Obsolete Stocks of Agrichemicals POPs, Mercury and their Wastes						
Focus group discussions, Consultation meetings, and Interviews.	To ensure safe disposal of mercury stocks, and mercury-containing wastes; To address concerns of NGOs/CSOs and the affected communities.	MoH, MoE, Private sector agencies (mercury recycling, particularly Asia Recycling (Pvt) Ltd., Ceylon Waste Management (Pvt) Ltd. and NGOs including NCPC)	CEA, UNDP	TBD	During the project implementation	The project budget
Focus group discussions, Consultation meetings, and Interviews.	To assess and inventories residual/ contaminated stocks of POPs pesticides and cross-contaminated chemicals; To develop and introduce guides and standards for decontamination of sites contaminated with POPs pesticides, POPs chemicals and mercury; To ensure safe disposal of POPs pesticides and cross-contaminated chemicals; To address concerns of NGOs/CSOs and the affected communities.	DoA, RoP, MoE, CEA, BOI, Private sector agrochemical importers and distributors (represented by CropLife Sri Lanka), NGOs (including NCPC)	MoA, UNDP	TBD	During the project implementation	The project budget
Seminars, Training workshops	To create awareness and build capacity of field level agriculture extension offices and officials for sound management of pesticides.	Officials and field officers of DoA, RoP, BOI, Sri Lanka Customs	MoA, PMU	TBD	During the project implementation	The project budget

Focus group discussions, Consultation meetings, and Interviews.	To review and update the national guidelines on safe management of mercury; To revise national HCWM guidelines to include sound management of mercury in the HCFs.	MoE, Private sector agencies (mercury recycling), NGOs (including NCPC)	MoH, CEA, PMU	TBD	During the project implementation	The project budget
Training workshops	To train staff of HCFs in applying the disposal management strategies/plans for residual Hg and Hg-contained products disposal.	Staff of HCFs that apply the disposal management strategies /plans, particularly the six HCFs selected for the piloting on HCWM (in the two provinces).	MoH, PMU	TBD	During the project implementation	The project budget
▪ For Component 3: Establish Healthcare Waste Management (HCWM) Systems to effectively prevent U-POPs emissions, and develop Business Models for waste disposal at Healthcare Facilities which are aligned to the national COVID-19 recovery efforts						
Focus group discussions, Consultation meetings, and Interviews.	To review and update regulations, standards and HCF-level practices related to HCWM, incorporating BAT/BEP; To develop information management system on HCW, and pilot at the six HCFs selected; To develop a national plan for harmonized treatment and disposal of HCW in emergencies.	MoE, CEA, Six HCFs selected for the piloting on HCWM (in the two provinces).	MoH	TBD	During the project implementation	The project budget

Focus group discussions, Consultation meetings, Awareness programmes, Field visits and Interviews.	To establish Public-Private Partnership (PPP) for two Centralized Waste Management System based on non-incineration treatment as demonstration units at Sundarapola in North Western province and Koduwamadu in Eastern province; To establish de-centralized non-incineration HCWM Strategy for medium to small scale HCFs, integrated to the two centralized systems; To address concerns of NGOs/CSOs/CBOs and the affected communities.	MoE, CEA, HCFs in the two provinces, Six HCFs selected for the piloting on HCWM, Other HCFs within the two provinces, Private sector (non-incineration waste treatment, co-processing of residues/waste), Private sector (technology supplier), NGOs/ CSOs/CBOs	MoH, Las (Eravur Pattu PS, Kurunegala MC), UNDP	TBD	During the project implementation	The project budget
Focus group discussions, Consultation meetings, Awareness & training programmes, Field visits and Interviews.	To operationalize the twenty baseline hybrid autoclaves plants; To formulate and introduce sustainable business models for the twenty plants; To provide technical training for relevant staff and operators.	MoE, CEA, LAs, HCFs of the twenty baseline hybrid autoclaves plants, Private sector (technology supplier), NGOs/CSOs/ CBOs	MoH, UNDP	TBD	During the project implementation	The project budget
▪ For Component 4: Knowledge Sharing, Management & Evaluation						

Distance learning tools, Online communication, Knowledge products, Seminars & workshops	To raise awareness and enhance knowledge of the staff/workforce of HCWM sector in the country to cover about 1,100 HCFs and 100,000 workforce, 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, particularly on mercury management.	All HCFs in the country	MoH, Provincial health ministries, PMU	Websites, media (print, electronic, social) and other platforms	During the project implementation	The project budget
Training programmes and workshops, Distance learning tools, Online communication, Knowledge products.	To develop capacities of Public Officers and HCF staff on safe handling and management of U-POPs and Mercury To provide equitable training opportunities for women and men on improved and safe handling of HCW generated at each point including segregation, weighing, or measuring waste fractions and recording, covering 10,000 waste workers engaged in Local Government level waste management processes and over 6,000 sanitary workers working in the HCWM systems.	Demonstration medical facilities: men and women staff, Expended medical facilities: men and women staff, Other relevant enterprises and medical facilities: men and women, Public population	Selected LAs, HCFs	MoH, Provincial health ministries, PMU	During the project implementation	The project budget

Awareness programmes, Seminars, and Training workshops.	To raise awareness, enhance knowledge, and build skills of the relevant officials in Sri Lanka Customs, BOI and other agencies on hazardous chemical management, including to monitor and verify POPs and POPs containing imports.	Sri Lanka Customs, BOI, CEA	MoA, MoH, MoE	TBD	During the project implementation	The project budget
	To raise awareness of about 1,000 employees within the piloted HCFs on safe handling and disposal of mercury containing devices To raise awareness of public/local community on the general replacement of household thermometers, supporting their safe disposal and reducing exposure risk	Selected HCFs, NGOs/CSOs/CBOs	MoH, MoE, CEA	TBD	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	HCFs, LAs, Private sector partners	PMU, 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 implementers	PMU, 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.	PMU, 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	PMU, 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, UNDP, MoE, and PMU	Disclosed on websites of the GEF, UNDP, MoE	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	Relevant project agencies (MoE, MoH, MoA), PMU	Disclosed on websites of the project and MoE	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	Relevant project agencies (MoE, MoH, MoA), PMU	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	Relevant project agencies (MoE, MoH, MoA), PMU	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, LAs, HCFs)	Express grievance	People or organizations submitted grievance	Relevant entity (Pilot sites, LAs, HCFs)	Written grievance	Any time during the project implementation	Project budget for M&E
Step 2: Relevant entity (Pilot sites, LAs, HCFs) address the grievance	Address grievance	People or organizations submitted grievance	PMU, Relevant entity (Pilot sites, LAs, HCFs)	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., MoE, MoH, MoA)	Address grievance	People or organizations submitted grievance	Relevant administrative authorities (E.g. MoE, MoH, MoA)	Suitable ways	Two weeks after received the complaint	Project budget for M&E

Arrangement of Implementation of the Stakeholder Engagement Plan

126. The overall guidance and direction of the implementation of the SEP will be provided by the Project Board, while the Project Manager/Coordinator will be responsible for facilitating and monitoring implementation of this SEP, with the guidance of Lead Technical Adviser. The Project M&E Officer is responsible for overseeing and coordinating the implementation of the SEP. These will be facilitated and coordinated relevant agencies (e.g., HCFs, LAs) of the piloting programmes at the site level. In addition to overseeing implementation of the SEP, the information on progress, challenges and outcomes will be included in the annual Project Implementation Reports.

127. The project midterm review and terminal evaluation will also evaluate the implementation of the SEP. Experiences and learning points will be included in the evaluation reports, which will be shared with other GEF projects in the future.

NGOs

128. The National Cleaner Production Centre (NCPC), an active NGOs works closely with the government in chemical management, conducted a study in agriculture sector. Other Private Sector, NGOs and CSOs that own, operate, manage or are to be impacted by the Policies, Strategies and Activities sponsored by this Project, will be active key stakeholders that will continue to contribute during the implementation of this Project. The specific roles will be the main liaison with the community helping to promote and raise awareness on sound chemical management, to coordinate and mediate community grievances, as well as to strengthen capacities at community level.

Gender equality and Women's Empowerment:

129. Globally, it is estimated that 70% of all the healthcare workers are women[10] . Women have high representation in the healthcare sector in Sri Lanka too, engaging as nurses, attendants, cleaning staff, etc. As such, women also generally face increased risks of exposure which may be associated with greater socioeconomic consequences too.

130. Hospital staff with higher exposure to risks are attendants who work on wards and inside the medical establishment and the sanitary workers who collect waste from points of generation. While distinguishing between these two categories is not always easy in smaller facilities, most of them are invariably women (~ 80-90%)[11]. Therefore, women will greatly benefit from the project in terms of improved health and safety of working conditions.

131. In addition, the participation of women in the waste management sector is also expected to be relevant, particularly in the areas of recycling. Women is also present in higher posts at public and private sector and will play a critical role in the institutional and regulatory related activities under the Component 1.

132. However, it is also acknowledging that several barriers to female production workers, female medical staff and female residents exist and may affect their engagement in the project. Women workers' engagement in trainings on use of mercury-free thermometers and mercury-free sphygmomanometers etc.

133. Therefore, a specific Gender Action Plan (GAP) was prepared during the PPG phase to collect gender sensitive data and develop gender sensitive strategies to be incorporated within the revised national guidelines, regulatory frameworks and during the implementation of the demonstration/pilot activities. The proposed gender action plan will recognize women's contribution in health sector and HCWM and is anticipated to include (but not limited to) aspects of:

a) Strengthening women's active participation in teams and opportunity for and recognition of leading specific functions or responsibilities for specific operations in HCWM value chains/Hg phaseout.

[10] M. Boniol Et. Al, 2019, Gender equity in the health workforce: Analysis of 104 countries; WHO available at: https://apps.who.int/iris/bitstream/handle/10665/311314/WHO-HIS-HWF-Gender-WP1-2019.1-eng.pdf?ua=1

[11] Ministry of Health UNDP, 2021, Rapid Assessment of HCWM in Sri Lanka; (from the detailed casestudies of selected hospitals in the East developed in 2020 as an input to the, assessment)

b) Planning/producing knowledge products and planning/delivering training programmes.

c) Training/awareness programmes to include specific concerns of women and/or targeted training and knowledge products for women using women friendly approaches.

d) Facilitating discussions on specific risks for women and their families and promoting risk reduction measures.

134. Sri Lanka has had some notable achievements in gender equality. Universal franchise was extended to all people, men and women, as far back as 1931 at the first election to the State Council of Ceylon far ahead the region and even some Western countries. Free education is offered by public schools and girls are more likely to complete 13 years of mandatory schooling than boys. Girls perform better in schools; secure 60% of university enrolment including 49% in STEM areas; and become 69% all graduates. However, Sri Lanka's international position vis-a-vis gender has seen a decline. In 2006, Sri Lanka ranked among the top 20 countries in the World Gender Gap Report. In 2020 the country had declined to the 102nd place among 153 countries assessed.[12] The 2010 Human Development Report introduced the Gender Inequality Index (GII) to measure the loss in human development due to inequality between female and male achievements in three dimensions- reproductive health, empowerment, and economic activity[13]. Sri Lanka has a GII value of 0.401, ranking it 90 out of 162 countries in 2019.

135. 51.5% of the population of 21 million are female, yet women holding higher, and management professions are the minority; only 25% are Senior Professors and hardly any in the University Grants Commission and Standing Committees, 20% in management, 23% Judges, 5% Parliamentarians etc. Women's contribution is higher and significant and even critical in diverse sectors, although bulk of female jobs are of lower ranks. i.e., Women have 25% jobs in industry and provide 45% contribution to economically significant export industry, 35% jobs in agriculture, and 40% jobs in service sector.

136. ADB's Gender Equality Diagnostic (2016) delves into the issue of women's economic participation in Sri Lanka. The report highlights that women are more likely than men to be unemployed, under-employed or out of the labour force. The report also points out that women 's skills and education are underutilized in economy, and that women are often confined to informal sector employment, without adequate safeguards or low wage-earning employment in critical economic sectors such as plantations or garment manufacture[14]. Women from the poorer regions of the country have limited access to land, housing, savings, and basic economic infrastructure (loans, entrepreneurship or vocational/technology training). Rural women, excluded from the agricultural workforce for lack of land ownership and equitable access to capital and technology, are most likely to undertake other exploitative forms of employments such as in factories or service segments without social protection (janitorial, road sweepers). Heterogenous as they may be, most of them have subsistence-level jobs (except for informal employers who report the highest earnings of all but make up only a very small share in the labour force) with low pay, few benefits, and little protection.[15].

Gender and Chemicals:

137. This analysis focuses on the specific chemicals (POPs, Mercury, U-POPS and other Chemicals of Concern in agriculture and healthcare sectors.

Exposure and Impacts

138. Even though Sri Lanka has banned almost all POPs agro pesticides, there are several Chemicals of Concern still being used in the fields and linked to many long-term health issues, including sub-fertility. Women working in

[12] World Economic Forum 2020

[13] Reproductive health is measured by maternal mortality and adolescent birth rates; empowerment is measured by the share of parliamentary seats held by women and attainment in secondary and higher education by each gender; and economic activity is measured by the labour market participation rate for women and men.

[14] ADB (2016) Sri Lanka: Gender Equality Diagnostic of Selected Sectors. https://www.adb.org/sites/default/files/institutional-document/189841/sri-gender-quality-diagnostic.pdf

[15] World Bank (2020) Informality, job quality and Welfare in Sri Lanka

agricultural fields, small farms, home gardens, including in the flower industry, are exposed to these pesticides. Since POPs are most harmful to the foetus, preventing exposure of pregnant women is critical. Health problems for women caused by pesticides include acute poisonings (including deadly ones), uterine and breast cancer, infertility, delayed menopause, and other diseases.

139. In the health sector, nurses and medical staff handing mercury-containing equipment, waste handlers disposing of mercury containing electronics, medical equipment are at direct risk of exposure. Tests in many countries have demonstrated that many women have elevated levels of mercury in the blood, hair, urine, and breast milk[16]. Mercury is toxic for the nervous system, the cardiovascular system and the kidneys Mercury is one of the most chemicals in human use. What is even more troubling is that mercury can cross the placenta and accumulate in feutal tissues. Prenatal exposure to mercury poses a health threat particularly to the developing brain.[17] Methylmercury crosses the blood-brain barrier and also the placenta from mother to baby. It can cause mental impairments and learning disabilities, eye and hearing damage during pregnancy as a result of their mother's exposure. Mercury can be passed on to the baby though breast milk.[18]

140. Women are further exposed to chemicals at the households (soaps, detergents, shampoos, disinfectants) at a regular level when carrying out their caregiver duties and household chores.

Livelihood choices:

141. Sri Lanka's population is yet largely rural and farm dependent. Even in peri-urban areas women are engaged in small scale cultivation and home gardens. It is generally male agricultural workers who spray pesticides and chemicals in the paddy farms and other open field cultivations, including in plantations (tea, especially). Their occupational risks and exposure are also significant[19]. Anecdotal evidence from recent field visits shows that in the northern province, where illegally sourced POPs agro pesticides are available, women are engaged in field application as well[20]. Women either directly use pesticides and CoCs in field and gardens or are tasked with their disposal and storage at home. Over 90% of women working in export-oriented horticulture (floriculture, ornamental plants and high-value fruit and vegetables) are women. Floriculture and horticulture require significant quantities of agro pesticides, hence women are exposed to CoCs daily – directly handling them or through air/skin contact from being in confined greenhouse conditions. There are several companies importing bulk quantities of pesticides and repackaging them for local use with new labels and brand names. Women and men working in such factories will be directly exposed to chemical contaminants. The threat of illegally sourced POPs has increased due to the ban of all chemical agriculture inputs in 2021. It is also noted, in anecdotal evidence and field observations, that women in the northern and eastern provinces, where such illegal sourced POPs are available, are directly engaged in field level agro-pesticide application.

142. Women consist around 70% of the healthcare staff and are directly engaged in handling hazardous wastes including drugs, infectious waste, radioactive wastes and chemicals waste generation points in hospital wards and clinics. In Sri Lanka 95% of nursing staff and over 60% of health care assistants are women, placing them at the forefront of possible exposure to hazardous waste at points of waste generation, segregation and disposal. Nurses most often use mercury containing medical equipment -thermometers and sphygmomanometers, and they are tasked with retiring broken mercury-containing equipment. Women healthcare workers are exposed to prick injuries when handling sharps (some healthcare facilities report 2-3 prick injuries a week due to unsafe handling or non-segregated disposal). While nurses and attendants are given the hepatitis B vaccination, janitors are now provided with this facility posing greater risk to them. Nurses are relieved from waste handling when pregnant and lactating. Handling and storage of obsolete or retired mercury containing equipment could result

[16] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7143275/

[17] https://hej-support.org/women-and-mercury-new-approaches-to-minimizing-mercury-exposure/

[18] Mercury exposure and its effects on fertility and pregnancy outcome: https://onlinelibrary.wiley.com/doi/full/10.1111/bcpt.13264

[19] Long term chemical exposure has been linked to various chronic ailments including unexplained rise in kidney disease in some farming districts of Sri Lanka

[20] Field observations from the data collection team

in unintentional exposure. Transmission in the community is greater when women healthcare workers and janitors are exposed to hazardous chemicals due to several reasons:

(i) Nurses and attendants handle patients and onward transmission could be a risk.

(ii) Many janitors and healthcare attendants come from low-income backgrounds and therefore live in cramped and often under-ventilated housing. They also do not have occupational safeguards that are accessible to state sector employees such as nurses and attendants- medical covers, quality and frequency of change of PPP, awareness and monitoring proper use of PPP etc.

(iii) Janitors share very confined spaces as changing rooms and possibly use each other's uniforms, boots and gloves.

Strategies for gender mainstreaming:

143. Literature review of international studies point to several key strategies that support the goal of empowering women and protecting them from hazardous chemicals. Some of these can support gender integration and mainstreaming in the local context and be specifically tailored to support project outcomes. Some specific strategies are recommended at outcome level for this project (Table 9):

Table 9: Strategies for Gender Mainstreaming

Strategy	Outcome
Integrating gender-specific issues and strategies into national plans (NIP, SIP), regulations (EPL) and guidelines (NHCWM) and recommendations on safe storage and disposal of obsolete chemicals including POPS	Outcome 1.1 Outcome 2 Outcome 3.1
Gender sensitive decision making enabled by collecting and making available gender disaggregated data	Outcome 4.2 Outcome 2
Training for decision makers (Ministries and PMU) on gender-sensitive approaches to hazardous waste management	Outcome 1.1
Gender sensitive awareness material developed and available	Outcome 4.1 and 4.2
Occupational safety-related interventions designed and implemented	Outcome 3.1 and 3.2
Building capacity, training and awareness on safe handling of hazardous chemicals for both men and women in the frontlines	Outcome 3.1 and 4.1
Integrating gender sensitivity to green procurement guidelines and process e.g., For mercury free alternatives in the health sector	Outcome 2.1

Gender Action Plan for project

144. A Gender Action Plan (GAP) was developed at the PPG stage, outlining actions to be taken during project implementation, as descried in Table 10 below:

Table 10: Gender Action Plan

	Objective and Outcome Indicators	Activity related to Gender Mainstreaming	Indicators and targets	Budget
Project Objective: To improve the regulatory framework, strengthen national capacities in agricultural chemicals and mercury	**Mandatory** Indicator 1: # direct project beneficiaries disaggregated by gender (individual people)	Gender disaggregated data collection on - men and women beneficiaries of project	# direct project beneficiaries disaggregated by gender (individual people)	Baseline survey Gender expert

management, and support the transformation of healthcare waste management systems.		activities in the six healthcare facilities - Women in decision-making positions in hospitals and chemical waste disposal facilities - men and women engaged in different waste management activities in the centralised waste treatment facility -men and women trained to include gender considerations in waste management plans and programmes - men and women targeted by awareness programmes of the project -Indirectly targeting men and women farmers through the extension system by providing information on impacts of chemicals and a systematized way for container collection	17,000 direct project beneficiaries (11,900 female, 5,100 male) 750,000 indirect project beneficiaries (female 450,000, male 300,000) as indirect beneficiaries of improved HCWM of 6 hospitals and 2 CCWTF in two provinces	
Component 1: Strengthen the policy, regulatory and institutional frameworks for the management of POPs, mercury and other Chemicals of Concern (CoC).				
Outcome 1.1. Institutional coordination mechanism strengthened. Regulatory frameworks for the enforcement of chemicals regulations updated	**Indicator 5**: Number of policies, regulatory frameworks, technical standards reviewed, updated and adapted, and coordination mechanism strengthened for improved chemicals, mercury and wastes management and strengthened enforcement	- Develop terms of reference to integrate gender into policy gap analysis - Ensure men and women stakeholders are involved /consulted in the policy gap analysis - Develop recommendations to address policy level gender integration gaps	Number of Gender-sensitive recommendations to minimize health risks associated with chemicals of concern produced to improve policies, regulations and guidelines (at least 5 recommendations covering NIP for SC/ Mercury Management guidelines in Health Sector, National Healthcare Waste Management Guideline, Pesticide use in GAP recommendations, and Guidelines on disposing of obsolete or outdated chemicals)	Gender Expert Meetings
Outcome 1.2. National conditions to scale up the replacement of medical devices and dispose of wastes of mercury- contained medical devices enabled.	**Indicator 7:** Green procurement standards established to facilitate systematic and coordinated replacement of mercury-free alternative products	Gender responsive aspects are included in the guideline for handling storage, transport etc., in restarting Hg waste management post disposal of accumulated stocks (guideline is being developed)	Gender sensitive guidelines for Hg waste handling is available	Gender expert Meetings
Component 2. Environmentally-sound management disposal of obsolete stocks of agrichemicals POPs, mercury and their wastes				
Outcome 2.1. Effective Management System	**Indicator 10:**	Gender responsive guidelines on mercury and mercury waste	Number of gender responsive Technical Guidance and	Gender expert

for environmentally sound disposal of mercury stocks, mercury- containing wastes, obsolete stocks of POPs agro pesticides and cross-contaminated chemicals, pesticides and their containers, implemented.	Number of Technical Guidance and training materials prepared and utilized to achieve sound chemical management.	handling and storage and training conducted	training materials prepared and utilized to achieve sound chemical management.	Communication Expert Communication Material production
Component 3. Establish Healthcare Waste Management (HCWM) Systems to effectively prevent U-POPs emissions and develop Business Models for waste disposal at Healthcare Facilities which are aligned to the national COVID- recovery efforts.				
Outcome 3.1 Update HCWM strategies and plans that reflect BAT/BEP which can prevent/reduce U- POPs emissions, minimize plastic waste generation and improve recycling practices.	**Indicator 11:** Number of standards and regulations on HCWM reviewed and revised and National Plan for Harmonized Treatment and Disposal of HCW in emergency developed **Indicator 12:** Comprehensive HCWM inclusive of MIS and efficient resource recovery demonstrated in six (6) healthcare facilities UPOPs emission reduction: 4.2 gTEQ/y (Northwestern province); 6.92 gTEQ/y (Eastern province)	Gender analysis conducted during PPG updated to inform standards and national guidelines on waste management Data on numbers and health condition of men and women directly engaged in waste management collected Awareness on health impacts and gender concerns of Hg and other hazardous hospital wastes. Pre-and-post assessment of impact of awareness sessions such as: 1- Greater adherence to safety measures, 2- Reported improvement of knowledge of impacts Training of trainers (head nurses/ infection control committee and janitorial supervisors) and awareness, as well as practical safeguards introduced to improve safety of mercury waste and other hazardous waste management in hospital wards and disposal sites such as, 1- Availability of suitable PPEs and safer alternatives (cleaning/disposal) 2- Waste carts for transportation resized or amended for women's use 3- Resting facilities improved for men and women janitors 4- Access to regular health checks, hepatitis vaccination, relief from	Number of standards and regulations on HCWM reviewed and revised to include gender-sensitive aspects and National Plan for Harmonized Treatment and Disposal of HCW in emergency developed Three (3) standards and regulations in HCWM reviewed and updated, (for Hg, NHCW and a National Plan for Harmonized Treatment and Disposal of HCW in emergencies)	Gender expert(s) Workshops Seminars Equipment

		waste handling during pregnancy etc. for Janitorial Staff		
Outcome 3.2. Non-incineration HCWM Business Models are developed. Baseline treatment systems models and practices improved. Technical/economic application of low-cost autoclaves demonstrated.	**Indicator 13:** Technical assistance provided to MoH to optimize operation of 20 MetaMizer hybrid autoclave systems and develop a viable operation for safe treatment of infected waste **Indicator 14:** Business Models for CCWTF integrated with waste management systems of the country piloted in two (2) locations in two provinces	Institutional policies and operational manual for the CCWTF is drafted to include gender equality principals providing equitable access to knowledge, technical training, job opportunities for men and women	CCWTF is guided by Gender sensitive operational/institutional policies # of men and women using protective gear when working in operational aspects of the CCWTF	Gender expert Training workshops
Component 4. Knowledge sharing, management & evaluation				
Outcome 4.1 Project communication and training tools developed. Effective knowledge management delivered.	**Indicator 15:** Number of workshop and person trained in Gender Action, Project Communication Strategy and sound management and disposal of chemicals, mercury, other CoCs, wastes and avoidance of releases. 12 workshops conducted to train 40 training programmes 5,000 (female) and 3,000 (male) Gender Action Plan and Communication Plan implemented **Indicator 16:** Number of people benefited from knowledge sharing and public awareness raising activities 17,000 direct (11,900 female, 5,100 male) and 750,000 indirect (450,000 female, 300,000 male) beneficiaries	Resources committed for gender action plan. Baseline and post-facto surveys designed and implemented for all awareness activities Gender sensitive contents and communication material developed for wider dissemination. Gender M&E activities supported Gender training to PMU and other key stakeholders Targeted training for women in waste handling occupations	Gender Action Plan and gender-sensitive Communication Plan implemented # of gender actions successfully implemented and monitored # of gender specific communication material developed on POPs, UPOPs, COCs and Mercury	Gender expert Comms material Training workshops

Innovativeness, Sustainability and Potential for Scaling Up:

Innovation

145. Sri Lanka is a technology-dependent country when it comes to healthcare products and technologies, and deploying low environmental impact technologies to treat healthcare infectious waste the country depends on improving the technical assistance to create local capacities in this area. For this reason, the project will support public and private sector partnerships and engage stakeholders to access the most innovative technologies available worldwide, streamline standards to unlock their imports and use, improve national capacities to allow their use and application in the field, and investigate national schemes to allow the rapid uptake (either by bulk and public procurement schemes or special credit lines to private sector stakeholders).

146. The current circumstances in Sri Lanka had led to about 300% increase in fuel prices in 2022. This also has increased unit cost of incineration as well as the cost of operation of incinerators. The project proposes to take advantage of the current situation to conduct viable demonstrations of business models based on BAT/BEP (including the use of renewable energy options that contribute to energy security in the country in the long term, i.e., electric vehicles and solar charging systems that works for HCWM).

147. The project will introduce a modern digitized solution to the problem of inadequate sharing and access to reliable data and information on chemicals management. A data and information management system that digitally link institutional databases to each other will use the government's e-governance or e-Sri Lanka as the common platform, it will ensure accessibility to all relevant Parties. Enhanced coordination across many institutions and various levels within institutions that have specific responsibilities related to chemical management will lead to better, faster and transparent decisions as stakeholder inputs will be provided in a more informed and confident manner.

148. The project will build from the baseline Laboratory installed at Customs and will introduce state of art equipment and devices used internationally to detect POPs chemicals directly and in products. The Departments of Import and Export Control and Customs will be confident to carry out checks and verifications due to enhanced capacity and skills. Strict enforcement of import regulations will regulate imports of POPs chemicals and containing products.

149. Increasing newer trend in the illegal inflow of agrochemicals, including POPs pesticides need detection, tracking, and confiscation. The Project will develop a system in partnership/leadership with RoP.

Sustainability and Potential to Scale Up

150. The project has been designed to raise the awareness of public and private health care facilities, relevant higher-level medical administration on possible green finance instruments, and facilitate their access to government and/or private banking investments, to support switching to mercury-free devices. The project will also ensure that knowledge is disseminated on the green procurement standards.

151. The project sustainability and scale up are expected to be achieved with the development of the long-term green finance mechanisms and green procurement standards that will support local facilities in Sri Lanka to expedite and scale up the replacement of mercury-containing medical devices and products in line with the baseline National Policies set by the MoH. In addition, the green finance will enlarge the scope of the replacement activities and cover the deployment of non-incineration disposal units upon the technical and economical demonstration to be implemented in Component 3.

152. The green procurement mechanism is also expected to unlock the initiation of a national green procurement mechanism covering other aspects of public procurement by connecting stakeholders through PPPs and encourage local supplies to identify sources of eco-friendly products and services and prioritize these for long term local use.

153. The improvement of the regulatory framework and strengthening of national capacities through relevant policy adjustments and increased stakeholder awareness will sustain the phase-out of the imports of mercury-containing medical devices and support to sustain the project results. Lessons learned, knowledge management

tools and awareness of experiences will be implemented in parallel to the other Components to assure constant follow of information and "real time" replication of activities for those stakeholders that wish to carry on activities taking advantage of the Green Finance even before the project is completed. Cost effective technologies will be promoted throughout this project to ensure engagement and awareness of the private sector stakeholders.

South-south cooperation

154. In many low- and middle-income countries, many toxic hotspots associated with the unsafe recycling and smelting of waste metal scrap and used batteries can be found. HCW is also a challenge they face. This project's approach, if successful, can be replicated in many countries and some regions around the world. Results from the project will be crucial for future proposals in both the selected countries, and in Asia and other regions, including potential projects under GEF.

155. This project will use the awareness raising/engagement and data gathering platform, e.g., UNDP platform 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.

VI. PROJECT RESULTS FRAMEWORK

This project will contribute to the following Sustainable Development Goal (s): 3 good health and well-being; 5 gender equality; 8 decent work and economic growth; and 9 industry, innovation and infrastructure.				
This project will contribute to the following country outcome (UNDAF/CPD, RPD, GPD): UNSDCF OUTCOME 3/UNDP OUTCOME 2: By 2027, more people and communities in Sri Lanka, especially the vulnerable and marginalized, are more resilient to climate change and disaster risks, have enhanced water and food security, and equitably benefit from ambitious climate action and increasingly sustainable management and protection of the environment and natural resources				
	Objective and Outcome Indicators	**Baseline**	**Mid-term Target**	**End of Project Target**
Project Objective: To improve the regulatory framework, strengthen national capacities in agricultural chemicals and mercury management, and support the transformation of healthcare waste management systems.	**Mandatory** Indicator 1: # direct project beneficiaries disaggregated by gender (individual people)	0 direct project beneficiary	5,000direct project beneficiaries (3,000 female, 2,000 male) 200,000 indirect project beneficiaries (100,000 female, 100,000 male) through awareness programme for patients and visitors	17,000 direct project beneficiaries (11,900 female, 5,100 male) 750,000 indirect project beneficiaries (450,000 female, 300,000 male) as Indirect beneficiaries of improved HCWM at 6 hospitals and 2 CCWTF in two provinces
	Mandatory GEF Core Indicators 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 (thousand metric tons of toxic chemicals reduced) **Indicator 2**: Sub Core Indicator 9.1: Solid and liquid POPs and POPs containing materials and products removed or disposed (quantity of POPs Pesticides reduction in the agriculture sector)	Bulk of the obsolete pesticides stored over long period of time safely disposed in 2019. A system of collecting used containers planned to identify 6 locations. Proper implementation prevented due to ban on agrochemicals in 2021	5 MT of solid and 2 MT liquid POPs pesticides disposed Collection and safe disposal of plastic containers used for agrochemicals initiated POPs pesticide and mercury-contaminated sites identified, and development of risk management strategy, technical guidance and training material initiated	13.6 MT of solid and 9 MT of liquid POPs pesticides disposed Plastic containers used for agrochemicals collected and safely disposed (and reused, i.e., making electric switches) Inventories of POPs pesticide and mercury- contaminated sites finalized Risk management strategy, technical guidance and training materials tested at two contaminated sites
	Indicator 3: Sub indicator 9.2: Quantity of Mercury reduction	None	8.8 MT of mercury and mercury waste safely disposed	8.8 +41 MT of mercury and mercury waste safely disposed Additional 50 MT of mercury and mercury wastes safely disposed as a result of demonstration at 6 HCFs
	Indicator 4: Sub Indicator 6.2: Quantity of CO_2 emission reduction	None	1,802.7 MT of CO_2 eq avoided as a result of reduction of GHG release to the environment due to	3,585.1 MT of CO_2 eq avoided as a result of reduction of GHG release to the environment due to

			resource recovery work piloted in six (6) hospitals	resource recovery work piloted in 6 hospitals, 2 CCWTF in 2 provinces. The total emission reduction over a 16-year period will be 5,747 MT CO_2 eq
Project component 1	**Strengthen the Policy, Regulatory and Institutional Frameworks for the management of POPs, Mercury and other Chemicals of Concern (CoC)**			
Project Outcome 1.1 Institutional Coordination Mechanism Strengthened. Regulatory frameworks for enforcement of the chemicals regulations updated.	**Indicator 5**: Number of policies, regulatory frameworks, technical standards reviewed, updated and adapted, and coordination mechanism strengthened for improved chemicals, mercury and wastes management and strengthened enforcement	Data management is divided amongst agencies with weak data sharing; Inability to track/monitor the use and disposal of imported chemicals. Lack of updates covering POPs Pesticides, mercury and wastes	Integrated data management system across all regulatory agencies initiated, with the aim to provide viewing access to users	Integrated data management system across all regulatory agencies completed, with viewing access to users Procedures for implementation related to Pesticide Control Act (use of illegal agrochemicals), Import Expert Control Act and Custom Ordinance (HS code review), National Environment Act (monitoring EPL, SWML), gender responsive mercury and mercury waste management in healthcare sector National healthcare waste management guidelines reviewed and updated to strengthen MIS and to be gender responsive
	Indicator 6: 2015 NIP inventories updated to improve data management and coordination mechanism strengthened to achieve efficient operation	NIP updated in 2015 lacking updated data on POPs Pesticides, mercury and wastes, inventories of new POPs (introduced after 2009) are yet to be estimated	Survey and data collection initiated on POPs Pesticides and mercury inventories to update NIP, and plans developed to collect data on establishing inventors for new POPs chemicals	POP inventories including new POPs and management strategies updated and incorporated for NIP Update
Outputs to achieve Outcome 1.1 **Output 1.1.1**. Review baseline regulations on chemicals management. New POPs and U-POPs inventories, including their value chains, are updated into the 2015 NIP. **Output 1.1.2**. Centralize the Chemicals Control System; Laboratory for POPs and other CoCs is improved, and monitoring of imports is enforced at entry points. **Output 1.1.3**. Institutional Coordination Mechanisms strengthened and operating in efficient manner				
Project Outcome 1.2 National conditions to scale up the replacement of medical devices and dispose of wastes of mercury-contained medical devices enabled.	**Indicator 7:** Green procurement standards established to facilitate systematic and coordinated replacement of mercury-free alternative products and introducing HCWM technologies and processes	None	Six (6) medical facilities have established a system with updated inventories of Hg containing medical devices in use (based on inputs from SIP), to keep track of its replacement and disposal	Survey and data collection finalized on POPs Pesticides and mercury inventories to update NIP and plans developed to collect data on establishing inventors for new POPs chemicals

			Nationally accepted green procurement system developed for health sector	
	Indicator 8: Finance framework established for procurement of mercury-free medical devices and investment on HCWM	None	Finance institutions contacted, consulted and assisted in the development of the Green Finance Framework	10 banks which have GF cells 50 number of applicants for GF related to health sector 10 medical facilities able to obtain finance/green finance to achieve replacement of 10,000 mercury-filled devices
Outputs to achieve Outcome 1.2 **Output 1.2.1**. Green procurement standards established, including proposals on bulk procurement and coordinated strategies for replacement of mercury-based medical devices including dental amalgam. **Output 1.2.2**. Finance framework for the procurement of mercury-free medical devices and HCWM disposal equipment developed.				
Project component 2	**Environmentally sound management disposal of obsolete stocks of Agrichemicals POPs, Mercury and their wastes**			
Project Outcome 2.1 Effective Management System for environmentally sound disposal of mercury stocks, mercury-containing wastes, obsolete stocks of POPs agro pesticides and cross-contaminated chemicals, pesticides and their containers, implemented.	**Indicator 9:** Quantity of mercury stock, mercury-containing wastes and dental amalgam environmentally disposed of. Inventory of mercury/POPs contaminated sites identified, NIP revised, and risk management strategy, technical guidance, and training materials developed for sound management of contaminated sites. The strategy will include measures to minimize impact on inhabitants, businesses located on land identified as contaminated. The strategy and technical guidance will be tested at two locations.	NIP updated in 2015 and published in 2017 lacking updated inventories on POPs pesticides, mercury, including contaminated sites	Inventory of mercury contaminates sites initiated Inventory of POPs pesticide contaminated sites initiated Development of risk management strategy, technical guidance and training material initiated	Inventory of mercury contaminates sites finalized and data incorporated into NIP Update Inventory of POPs pesticide contaminated sites collected, and NIP updated Risk management strategy, technical guidance and training materials finalized and tested at two sites
	Indicator 10: Number of Technical Guidance and training materials prepared and utilized to achieve sound chemical management.	Inadequate guidance and training materials as well as continued awareness on sound management and disposal	Preparation of gender responsive guidelines and training materials initiated with consultation of relevant stakeholders	Gender responsive guidelines on mercury and mercury waste handling and storage and training conducted
Outputs to achieve Outcome 2.1 **Output 2.1.1**. Residual mercury stocks, mercury-contained waste generated from the replacement of mercury-containing medical devices and dental amalgam, obsolete stocks of agro pesticides and cross-contaminated chemicals safely disposed of. **Output 2.1.2**. Risk Management Strategy developed. Technical Guidance & Training materials prepared for the sound management of wastes containing mercury. **Output 2.1.3**. Guidance Tools and Guidelines for the inventory of mercury/POPs contaminated sites developed and tested at two sites.				

Project component 3	**Establish Healthcare Waste Management (HCWM) Systems to effectively prevent U-POPs emissions, and develop Business Models for waste disposal at Healthcare Facilities which are aligned to the national COVID-19 recovery efforts**			
Project Outcome 3.1 Update HCWM Strategies and Plans that reflect BAT/BEP which can prevent/reduce Auto emissions, minimize plastic waste generation and improve recycling practices.	**Indicator 11:** Number of standards and regulations on HCWM reviewed and revised and National Plan for Harmonized Treatment and Disposal of HCW in emergency developed	Lacking sound and adequate HCWM strategies and disposal system	Review of standards and regulation on HCWM initiated and personnel and experts assigned to develop the National Plan	Three (3) standards and regulations in HCWM reviewed and revised, and a National Plan for Harmonized Treatment and Disposal of HCW in emergencies finalized and adapted for operation
	Indicator 12: Comprehensive HCWM inclusive of MIS and efficient resource recovery demonstrated in six (6) healthcare facilities UPOPs emission reduction: 4.2 gTEQ/y (Northwestern province); 6.92 gTEQ/y (Eastern province)	No MIS system and the HCWM is either unsatisfactory or just being average in the six (6) selected hospitals	Waste audits and comprehensive MIS plans developed with the six (6) facilities for demonstration finalized. Demonstration activities reviewed, agreed upon and activities initiated	Six (6) facilities reviewed, improved HCWM introduced, and results evaluated
Outputs to achieve Outcome 3.1 **Output 3.1.1**. Standards and Regulations on HCWM are revised. A HCW Data Management System (HCWDMS) is introduced to address gaps in the monitoring activities. **Output 3.1.2**. National Plan for Harmonized Treatment and Disposal of HCW in emergencies is developed. **Output 3.1.3**. Guidelines and Standards on green procurement of PPE and other consumables developed. **Output 3.1.4.** Technical and Economic Assessment (CBA) on the whole spectrum of HCWM technologies for Sri Lankan setting prepared. **Output 3.1.5**. Integrated recycling programs piloted in six (6) facilities				
Project Outcome 3.2 Non-incineration HCWM Business Models are developed. Baseline treatment systems models and practices improved. Technical/economic application of low-cost autoclaves demonstrated.	**Indicator 13:** Technical assistance provided to MoH to optimize operation of 20 MetaMizer hybrid autoclave system and develop a viable operation for safe treatment of infected waste	20 MetaMizer hybrid autoclave systems located randomly and not been used adhering to technical instructions and specifications	Optimisation plan for the 20 MetaMizer hybrid autoclave systems developed TA and training conducted with six (6) MetaMizer hybrid autoclave systems working in optimal conditions	All 20 MetaMizer hybrid autoclave systems are working in optimal conditions
	Indicator 14: Business Models for CCWTF integrated with waste management systems of the country piloted in two (2) locations in two provinces	Treated waste get collected and was dumped, creating social and environmental concerns within and around hospital premises No last mile solutions for HCWM available	Non-incineration options reviewed, evaluated and business models developed for introduction to the selected 2 pilot locations	Non incineration options introduced for processing HCW at the two CCWTF are operated as self-sustaining business models
Outputs to achieve Outcome 3.2 **Output 3.2.1**. Public-Private Partnership (PPP) for a Centralized Waste Management System that can incorporate the de-contamination healthcare waste facility is piloted. Technical/financial/economic application of low-cost autoclaves tested and experiences from other GEF HCWM projects are internalized in Sri Lanka.				

Output 3.2.2. A De-centralized non-incineration HCWM Strategy for medium to small scale health care facilities is developed. **Output 3.2.3**. Baseline Hybrid Autoclaves operation and maintenance practices, at large scale healthcare facilities, are improved, and their operational Business Models is developed.				
Project component 4	**Knowledge sharing, Monitoring & Evaluation**			
Project Outcome 4.1 Project communication and training tools developed. Effective knowledge management delivered.	**Indicator 15:** Number of workshop and person trained in Gender Action, Project Communication Strategy and sound management and disposal of chemicals, mercury, other CoCs, wastes and avoidance of releases.	None	Four (4) workshops (TOT) organized and 24 training programmes conducted for 2,000 female and 1,000 male Gender Action Plan and Communication Plan progress is on target	12 workshops (TOT) conducted 40 training programmes conducted targeting 5,000 female and 3,000 male Gender Action Plan and Communication Plan implemented
	Indicator 16: Number of people benefited from knowledge sharing and public awareness raising activities	None	Knowledge, experience and lesson-learned gathered, documented and six (6) workshops organized targeted 300 (200 female, 100 male) beneficiaries. Scaling up plan developed	17,000 direct beneficiaries (11,900 female, 5,100 male) and 750,000 indirect beneficiaries (450,000 female, 300,000 male)
Outputs to achieve Outcome 4.1 **Output 4.1.1**. Effective knowledge management tools delivered. Lessons learned and experiences are shared, effectively supporting the scale up and replication of project results. **Output 4.1.2**. Training programs developed. Capacities of Public Officers and healthcare facilities staff on U-POPs and Mercury (avoidance of) releases during the waste disposal activities are strengthened. **Output 4.1.3**. Training on Environmental, Monitoring for Customs Officers on the control and monitoring of POPs, Mercury and other CoCs is delivered. **Output 4.1.4**. Project Communication Strategy and Public Awareness Programs are delivered. Stakeholders Engagement Plan and Gender Action Plan implemented.				
Project Outcome 4.2 Monitoring and evaluation delivered during the project lifecycle.	**Indicator 17:** Application of standard UNDP/GEF M&E and adaptive management processes in response to project oversight needs and MTR findings	0 GEF UNDP M&E requirements met, and no adaptive management applied.	Relevant progress and annual reports time prepared, reviewed and evaluated. MTR organized	Project activities are properly managed and monitored to ensure smooth implementation and achievement of results with Project inception report, PIR reports, Financial Audit reports and Terminal Evaluation timely submitted.
Outputs to achieve Outcome 4.2 **Output 4.2.1**. Monitor Project (Quarterly and annual Reports and Project Board Reports); Apply Evaluation Tools according to the project cycle (PIR, MTR and TE). **Output 4.2.2**. Implementation Tools (budget revisions, financial control and project management) applied as required and adaptive management actions implemented during the project lifecycle.				

VII. MONITORING AND EVALUATION (M&E) PLAN

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[21]. 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 these mandatory UNDP and GEF M&E requirements, other M&E activities deemed necessary to support project-level adaptive management will be agreed – including during the Project Inception Workshop - and will be detailed in the Inception Report.

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.

[21] See https://www.thegef.org/projects-operations/policies-guidelines

GEF Core Indicators:

The GEF Core indicators included as Annex 14 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 groundtruthing. The methodologies to be used in data collection have been defined by the GEF and are available on the GEF website.

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 evaluators 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 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 the BPPS/NCE.

The final MTR report and MTR TOR 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 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 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. To meet the submission deadline, final TE reports must be completed and submitted to BPPS NCE team no later than 2 months in advance of the deadline to allow sufficient time for internal review/clearance that is required prior to submission.

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 evaluators 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 the BPPS/NCE-VF Directorate.

The final TE report and TE TOR will be publicly available in English and posted on the UNDP 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.

Agreement on intellectual property rights and use of logo on the project's deliverables and disclosure of information**:** 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 in accordance with relevant policies notably the UNDP Disclosure Policy[22] and the GEF policy on public involvement[23].

[22] See http://www.undp.org/content/undp/en/home/operations/transparency/information_disclosurepolicy/

[23] See https://www.thegef.org/gef/policies_guidelines

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

Table 11: 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.

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[24]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
Project objective: To improve the regulatory framework, strengthen national capacities in agricultural chemicals and mercury management, and support the transformation of healthcare waste management systems.	**Indicator 1** # direct project beneficiaries disaggregated by gender (individual people)	17,000 direct project beneficiaries (11,900 female, 5,100 male) 750,000 indirect project beneficiaries (450,000 female, 300,000 male) as Indirect beneficiaries of improved HCWM at 6 hospitals and 2 CCWTF in two provinces	Number of direct and indirect project beneficiaries disaggregated by gender	Baseline data from PIF and PPG reports, collected through desk studies, investigation, studies, interviews and on-site visits. For verification, data to be collected from training reports and progress reports	Annually Reported in DO tab of the GEF PIR	Project Manager Project Management Unit	Progress Report Training reports Consultants' report	Risks: Lack of interest by the medical facilities, chemical industry, farmers, and government agencies to participate; Despite high female participation in agriculture and healthcare sectors, and in HCWM, it is low in decision-making and accessing training opportunities; Disposal technologies may not be acceptable. Assumptions: Key stakeholders, including MoE, MoH, MoA, healthcare facilities, chemical industry and relevant interested parties have been properly consulted and their interest and

[24] 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.

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[24]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
								commitments to participate secured. Careful analysis of available disposal technologies to ensure that acceptable alternatives/options selected are appropriate Incorporation of inclusive strategies to ensure gender equality
	Indicator 2 Sub Core Indicator 9.1: Solid and liquid POPs and POPs containing materials and products removed or disposed (quantity of POPs Pesticides reduction in the agriculture sector)	13.6 MT of solid and 9 MT of liquid POPs pesticides disposed Facilitate the restarting of the collection and safe disposal (and reuse, i.e., making electric switches) of plastic containers used for agrochemicals Inventories of POPs pesticide and mercury-contaminated sites finalized	Quantities of POPs pesticides in agricultural sector disposed No of local level awareness programmes on container collection Inventory of sites contaminated with mercury and POPs agro pesticides	Baseline data from PIF and PPG reports, collected through desk studies, investigation, studies, interviews and on-site visits. Data for verification to be collected from progress reports and annual reports	Annually Reported in DO tab of the GEF PIR	MoA/RoP MoE/CEA Project Manager Project Management Unit	Inventory Report Progress Report (Service Provider) Disposal Report Consultant Report	Risks: POPs pesticides and cross-contaminated chemicals storage not in ideal condition, risk of spillage and corrosion may present danger to workers handling packing and transport of stocks for disposal. Assumptions: Development and implementation of risk reduction strategies during the disposal and decontamination interventions

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[24]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
		Risk management strategy, technical guidance and training materials tested at two contaminated sites	Guidelines for decontamination of sites and two tested areas using the guidelines					
	Indicator 3 Sub indicator 9.2: Quantity of Mercury reduction	8.8 +41 MT of mercury and mercury waste safely disposed Additional 50 MT of mercury and mercury waste safely disposed as a result of demonstration at 6 HCFs	Quantities of mercury and mercury waste in healthcare sector disposed	Baseline data from PIF and PPG reports, collected through desk studies, investigation, studies, interviews and on-site visits. Data for verification to be collected from progress reports and annual reports	Annually Reported in DO tab of the GEF PIR	MoH Asia Recycling (Pvt) Ltd. Project Manager Project Management Unit	Inventory results of stock at Asia Recycling (Pvt) Ltd. Progress Report (Service Provider) Disposal Report Consultant Report	Risks: Exposure of workers engaged in disposal Assumptions: Risk management strategies for disposal developed and implemented will mitigate all risks
	Indicator 4 Sub Indicator 6.2: Quantity of CO_2 emission reduction	3,585.1 MT of CO_2 eq avoided as a result of reduction of GHG release to the environment due to resource recovery work piloted in 6 hospitals, 2 CCWTF in 2 provinces	Quantities of emission avoided	Baseline data from PIF and PPG reports, collected through desk studies, investigation, studies, interviews and on-site visits. Data for verification to be collected from progress reports and annual reports	Annually Reported in DO tab of the GEF PIR	MoH Demonstration medical facilities (6), CCWTFs (2) and Contaminated sites. Project Manager	Progress Report Facilities' Operation Report Consultant Report	Risks: Exposure of waste workers engaged in HCWM Assumptions: Risk reduction plan for HCWM developed and implemented will mitigate all risks

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[24]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
		(Total of 5,747 MT of CO_2 eq over 16-year duration)				Project Management Unit		
Project Outcome 1.1 Institutional Coordination Mechanism Strengthened. Regulatory frameworks for enforcement of the chemical's regulations updated.	**Indicator 5** Number of policies, regulatory frameworks, technical standards reviewed, updated and adapted, and coordination mechanism strengthened for improved chemicals, mercury and wastes management and strengthened enforcement	Integrated data management system across all regulatory agencies completed, with viewing access to users Procedures for implementation related to Pesticide Control Act (use of illegal agrochemicals), Import Expert Control Act and Custom Ordinance (HS code review), National Environment Act (monitoring EPL, SWML), gender responsive mercury and mercury waste management in healthcare sector	Number of policies, regulatory framework, technical standards reviewed and update to facilitate enhanced enforcement Integrated data management system	Baseline data from PIF and PPG reports, collected through desk studies, investigation, studies, interviews and on-site visits. Data for verification to be collected from progress reports and annual reports	Annually Reported in DO tab of the GEF PIR	MoE MoH MoA Project Manager Project Management Unit	Updated policy, regulatory framework and technical standards Consultant Report Progress and Annual Reports Training and workshop reports	Risks: Conventional resistance to cross agency data sharing Assumptions: Awareness and capacity building carried out will mitigate agency level apprehensions

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[24]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
		National healthcare waste management guidelines reviewed and updated to strengthen MIS and to be gender responsive						
	Indicator 6 2015 NIP inventories updated to improve data management and coordination mechanism strengthened to achieve efficient operation	POP inventories including new POPs and management strategies updated and incorporated for NIP Update	Inventory conducted and NIP updated for incorporated into NIP update and MIS for efficient and effective data management	Baseline data from PIF and PPG reports, collected through desk studies, investigation, studies, interviews and on-site visits. Data for verification to be collected from progress reports and annual reports	Annually Reported in DO tab of the GEF PIR	MoE MoH MoA Ministry of Industries Board of Investment Project Manager Project Management Unit	Inventory Report Progress and Annual Report Consultant Report MIS established Training and Workshop Report Data available in the centralized digitalized data management systems in the latter years of the Project	Risks: Low stakeholder inputs in the related new POPs particularly in understanding use of chemicals across relevant value chains Assumptions: Awareness creation amongst stakeholders prior to stocktaking to mitigate any anxieties amongst stakeholders
Project Outcome 1.2: National conditions to scale up the replacement of medical devices	**Indicator 7** Green procurement standards established to facilitate	Survey and data collection finalized on POPs Pesticides and mercury inventories to	Green procurement standards established and appropriately applied	Baseline data from PIF and PPG reports, collected through desk studies, investigation,	Annually Reported in DO tab of the GEF PIR	MoE MoH/Medical Supplies Division	Green procurement standards Consultant Report	Risks: Draft National Policy on Green Procurement Policy has yet to be approved by the Cabinet

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[24]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
and dispose of wastes of mercury-contained medical devices enabled.	systematic and coordinated replacement of mercury-free alternative products and introducing HCWM technologies and processes	update NIP and plans developed to collect data on establishing inventors for new POPs chemicals		studies, interviews and on-site visits. Data for verification to be collected from progress reports and annual reports		Project Manager Project Management Unit	Progress and Annual Report Training and Workshop Report	Assumptions: MoH will agree to be guided by the draft policy to develop green procurement standards for procurement
	Indicator 8 Finance framework established for procurement of mercury-free medical devices and investment on HCWM	10 banks have Green Finance (GF) cells 50 number of applicants for GF related to health sector 10 medical facilities able to obtain finance/green finance to achieve replacement of 10,000 mercury-filled devices	Green Finance Framework established, introduced and deployed to facilitate procurement of mercury-free medical devices to achieve replacement	Baseline data from PIF and PPG reports, collected through desk studies, investigation, studies, interviews and on-site visits. Data for verification to be collected from progress reports and annual reports	Annually Reported in DO tab of the GEF PIR	MoE MoH Project Manager Project Management Unit Demonstration medical facilities	GFF established Consultant Report Progress and Annual Report Training and Workshop Reports	Risks: Supply of alternative devices may not be lucrative enough business for private sector to obtain bank loans Assumptions: GFF offered by banks will evolve to be more inclusive to attract private sector
Project Outcome 2.1 Effective Management System for environmentally sound disposal of	**Indicator 9** Quantity of mercury stock, mercury-containing wastes and dental amalgam	Inventory of mercury contaminates sites finalized and data incorporated into NIP Update	POPs pesticides and cross-contaminated chemicals and mercury waste disposed	Baseline data from PIF and PPG reports, collected through desk studies, investigation, studies, interviews and on-site visits.	Annually Reported in DO tab of the GEF PIR	MoE MoH MoA/RoP Demonstration Medical Facilities	Progress and Annual Report Consultant Report Demonstration Facilities Report	Risks: Exposure of workers and environment during disposal and decontamination Assumptions: Risk reduction strategy

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[24]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
mercury stocks, mercury-containing wastes, obsolete stocks of POPs-agro pesticides and cross-contaminated chemicals, pesticides and their containers, implemented.	environmentally disposed of. Inventory of mercury/POPs contaminated sites identified, NIP revised, and risk management strategy, technical guidance, and training materials developed for sound management of contaminated sites. The strategy will include measures to minimize impact on inhabitants, businesses located on land identified as contaminated. The strategy and technical guidance will be tested at two locations	Inventory of POPs pesticide contaminated sites developed, and NIP updated Risk management strategy, technical guidance and training materials finalized and tested at two locations	Sound management of POPs and mercury achieved Guidance for decontamination of contaminated sites with mercury and POPs agro pesticides available	Data for verification to be collected from progress reports and annual reports		Project Manager Project Management Unit	Training and Workshop Report Process documentation of testing of decontamination	developed and implemented will mitigate all risks
	Indicator 10	Gender responsive	Inclusive Technical	Baseline data from PIF and PPG reports,	Annually	MoE	Progress and Annual Report	Risks: Gender considerations may not

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[24]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
	Number of Technical Guidance and training materials prepared and utilized to achieve sound chemical management.	guidelines on mercury and mercury waste handling and storage and training conducted	Guidance and Training Materials to facilitate sound chemical and mercury management	collected through desk studies, investigation, studies, interviews and on-site visits. Data for verification to be collected from progress reports and annual reports	Reported in DO tab of the GEF PIR	MoH Demonstration Facilities Project Manager Project Management Unit	Consultant Report Training and Workshop Report	get adequately considered in practice despite having guidelines Assumptions: Overall increase across health sector about the need for gender consideration will make it difficult not to adhere to gender inclusive guidelines
Project Outcome 3.1 Update HCWM Strategies and Plans that reflect BAT/BEP which can prevent / reduce U-POPs emissions, minimize plastic waste generation and improve recycling practices	**Indicator 11** Number of standards and regulations on HCWM reviewed and revised and National Plan for Harmonized Treatment and Disposal of HCW in emergency developed	Three (3) standards and regulations in HCWM reviewed and revised, and a National Plan for Harmonized Treatment and Disposal of HCW in emergencies finalized and adapted for operation	Standards and regulations in HCWM reviewed and revised	Baseline data from PIF and PPG reports, collected through desk studies, investigation, studies, interviews and on-site visits. Data for verification to be collected from progress reports and annual reports	Annually Reported in DO tab of the GEF PIR	MoE MoH Project Manager Project Management Unit	Progress and Annual Report Consultant Report Training and Workshop Report	Risks: Resistance from people and opposition with LAs Assumptions: Awareness programmes conducted with the support of NGOs and CSOs will help to convince and obtain support
	Indicator 12 Comprehensive HCWM inclusive of MIS and efficient resource recovery demonstrated in six (6)	Six (6) facilities reviewed, improved HCWM introduced, and results evaluated	HCWM reviewed and improved	Baseline data from PIF and PPG reports, collected through desk studies, investigation, studies, interviews and on-site visits. Data for verification to be collected from	Annually Reported in DO tab of the GEF PIR	MoE MoH Partnering NGOs Demonstration Medical Facilities	Progress and Annual Report Consultant Report Demonstration Medical Facilities	Risks: Capacity gaps within local micro enterprises (ME) to engage effectively in recycling activities Assumptions: Capacity strengthening of ME, inclusive of those engaging women

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[24]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
	healthcare facilities UPOPs emission reduction: 4.2 gTEQ/y (Northwestern province); 6.92 gTEQ/y (Eastern province)			progress reports and annual reports		Project Manager Project Management Unit	Training and Workshop Report	through the participating NGOs
Project Outcome 3.2 Non-incineration HCWM Business Models are developed. Baseline treatment systems models and practices improved. Technical/economic application of low-cost autoclaves demonstrated	**Indicator 13** Technical assistance provided to MoH to optimize operation of 20 MetaMizer hybrid autoclave systems and develop a viable operation for safe treatment of infected waste	All 20 MetaMizer hybrid autoclave systems are working in optimal conditions	Use and operation of MetaMizer hybrid autoclave systems optimized	Baseline data from PIF and PPG reports, collected through desk studies, investigation, studies, interviews and on-site visits. Data for verification to be collected from progress reports and annual reports	Annually Reported in DO tab of the GEF PIR	MoE MoH Hospitals owning MetaMizer hybrid autoclave systems Project Manager Project Management Unit	Progress and Annual Report Consultant Report Medical Facilities Training and Workshop Report	Risks: Resistance to use MetaMizer hybrid autoclave systems by the health sector in general Assumptions: Demonstration of successful operation based on 6 pilot/demonstration sites and links to final disposal of HCW via CCWTFs will convince sceptics in healthcare sector
	Indicator 14 Business Models for CCWTF integrated with waste management	Non incineration options introduced for processing HCW at the two CCWTF are	CCWTFs established Non-incineration options introduced	Baseline data from PIF and PPG reports, collected through desk studies, investigation,	Annually Reported in DO tab of the GEF PIR	MoE MoH MoPC&LG CCWTFs	Progress and Annual Report Consultant Report CCWTFs Report	Risks: Change in political authority of LAs will affect the agreement LA has with the respective CCWTF

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[24]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
	systems of the country piloted in two (2) locations in two provinces	operated as self-sustaining business models		studies, interviews and on-site visits. Data for verification to be collected from progress reports and annual reports		Project Manager Project Management Unit	Training and Workshop Report	Assumptions: CCWTF will enter into the agreement with national authority under the MoPC&LG to mitigate risk of changes with political changes that may occur with the election cycle of LAs
Project Outcome 4.1 Project communication and training tools developed. Effective knowledge management delivered.	**Indicator 15** Number of workshop and person trained in Gender Action, Project Communication Strategy and sound management and disposal of chemicals, mercury, other CoCs, wastes and avoidance of releases	12 workshops (TOT) conducted 40 training programmes conducted targeting 5,000 female and 3,000 male	Training workshops on Gender Action Plan and communication strategy conducted Knowledge and lessons-learned shared	Baseline data from PIF and PPG reports, collected through desk studies, investigation, studies, interviews and on-site visits. Data for verification to be collected from progress reports and annual reports	Annually Reported in DO tab of the GEF PIR	MoE MoH MoA Partnering NGOs Gender Expert Communication Expert Project Manager Project Management	Progress and Annual Report Experts Report Training and Workshop Report	Risks: Change of trained staff as government cycles of transfer Assumptions: Training programmes will include e based and user-friendly induction and self-learning material
	Indicator 16 Number of people benefited from knowledge sharing and public awareness raising activities	17,000 direct beneficiaries (11,900 female, 5,100 male) and 750,000 indirect beneficiaries (450,000 female, 300,000 male)	Number of direct and indirect project beneficiaries disaggregated by female and male	Baseline data from PIF and PPG reports, collected through desk studies, investigation, studies, interviews and on-site visits. Data for verification to be collected from	Annually Reported in DO tab of the GEF PIR	MoE MoH MoA Partnering NGOs Gender Expert	Progress and Annual Report Experts Report Training and Workshop Report	Risks: Low public participation in awareness programmes Assumptions: Include cost effective campaigns i.e. text messaging, social media, to get the public to become interested and

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[24]	Frequency	Responsible for data collection	Means of verification	Risks/Assumptions
				progress reports and annual reports		Safeguard Expert Project Manager Project Management Unit		participate in the awareness programmes
Project Outcome 4.2 Monitoring and evaluation delivered during the project lifecycle.	**Indicator 17** Application of standard UNDP/GEF M&E and adaptive management processes in response to project oversight needs and MTR findings	Project activities are properly managed and monitored to ensure smooth implementation and achievement of results with Project inception report, PIR reports, Financial Audit reports and Terminal Evaluation timely submitted.	Smooth project implementation Project monitoring effected Project results evaluated	Baseline data from PIF and PPG reports, collected through desk studies, investigation, studies, interviews and on-site visits. Data for verification to be collected from progress reports and annual reports	Annually Reported in DO tab of the GEF PIR	MoE Gender and Safeguard Experts Project Manager Project Management Unit	Progress and Annual Report Consultant Report MTR and TE Report	Risks: Change of experienced project staff towards the end of the Project Assumptions: Record keeping systems are sound enough to capture most of knowledge generated through the Project

Table 12: Monitoring and Evaluation Budget

Monitoring and Evaluation Budget for project execution:		
GEF M&E requirements to be undertaken by Project Management Unit (PMU)	**Indicative costs (US$)**	**Time frame**
Inception Workshop and Report	8,000	Inception Workshop within 2 months of the First Disbursement
M&E required to report on progress made in reaching GEF core indicators and project results included in the project results framework	20,000	Annually and at mid-point and closure.
Preparation of the annual GEF Project Implementation Report (PIR)	None	Annually typically between June-August
Monitoring of project safeguards management framework, environmental and social risks, and coordinating management plans as relevant	20,800	On a rolling basis
Monitoring of the Gender Action Plan	12,400	On a rolling basis
Supervision missions	None	Annually
Learning missions	6,000	As needed
Independent Mid-term Review (MTR)	42,000	By 31 July 2026
Independent Terminal Evaluation (TE)	42,000	By 31 October 2028
TOTAL indicative COST	**151,200**	

VIII. GOVERNANCE AND MANAGEMENT ARRANGEMENTS

Roles and responsibilities in the projects' governance mechanism

Implementing Partner: The Implementing Partner for this project is Ministry of Environment (MoE).

The Implementing Partner is the entity to which the UNDP Administrator has entrusted the implementation of UNDP assistance specified in this signed project document along with the assumption of full responsibility and accountability for the effective use of UNDP resources and the delivery of outputs, as set forth in this document.

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

- 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: The Responsible Party A for this project are related governmental departments, chamber of commerce, industry associations and NGOs regarding environment management (including agrochemicals and mercury), public health, metrological verification, policy and standard, etc. They are responsible for providing technical support and consultations to facilitate project implementation and decision making of governance and management.

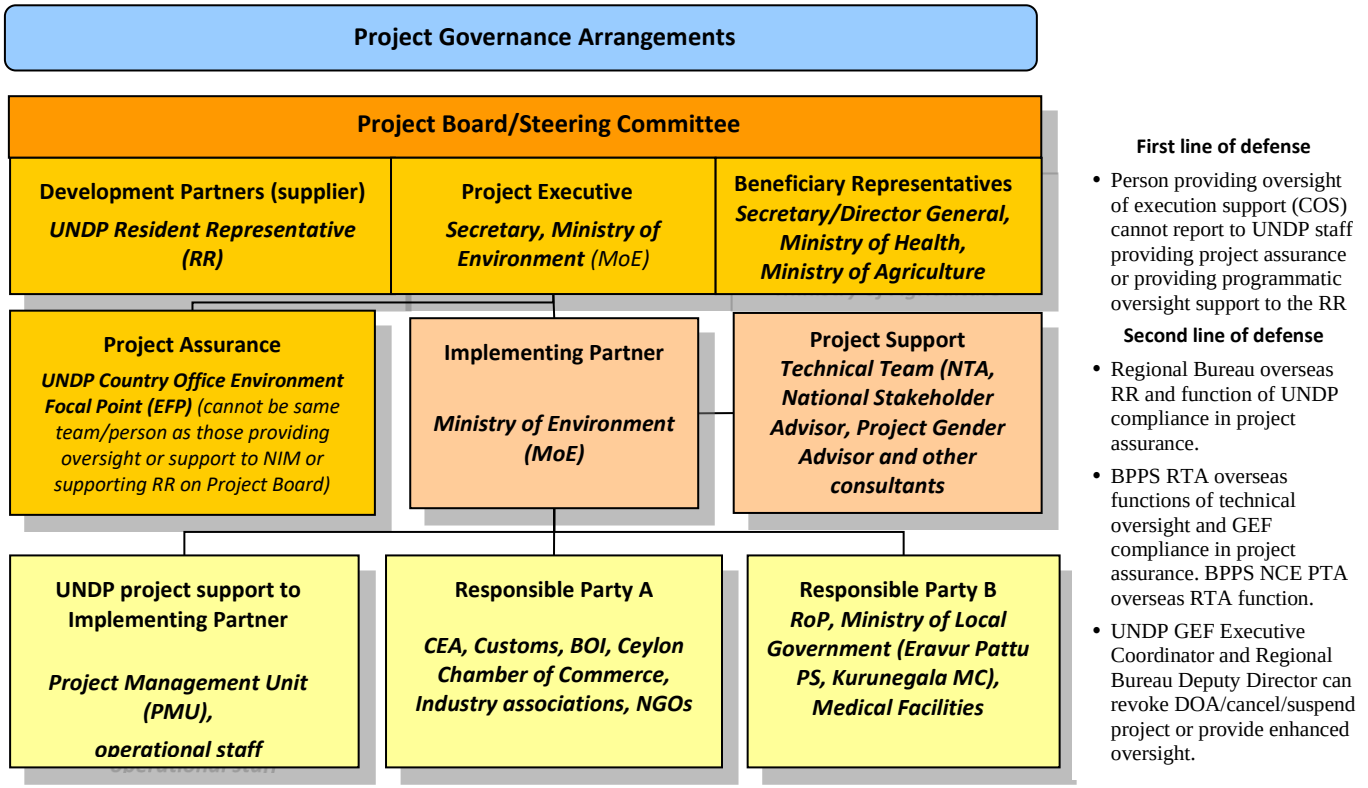
Responsible Party B: The Responsible Party B includes RoP, Ministry of Local Governments, and medical facilities guided by the Implementing Partner, they are responsible for carrying out demonstration project activities to promote and facilitate the replacement of mercury-containing medical devices and activities like collection, storage and sound environmental disposal of POPs pesticides, cross-contaminated chemicals, mercury and mercury wastes. The demonstration medical facilities will also capture and share in awareness and training materials and guidance documents for long term, post-GEF-funded sustainability.

Above Responsible Parties (if any) will be identified during inception stage in close consultation with Implementing Partner. RPs engaged directly by Implementing Partner shall follow IP rules and regulations. For RPs to be engaged by UNDP as part of third-party execution support, the process shall be in line with the GEF requirements and UNDP Programme and Operations Policies and Procedures.

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.

Project governance structure



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 to Implementing Partner: As requested by the Implementing Partner, Ministry of Environment and authorized by GEF, UNDP, with the guidance and coordination of the Implementing Partner, is responsible for providing implementation and technical support services as outlined in the Letter of Agreement (LOA) signed between UNDP and MoE (Annex 13)

UNDP project support*:* The Implementing Partner and GEF OFP have requested UNDP to provide support services in the amount of USD$ 50,647 [US Dollar Fifty Thousand Six Hundred Forty-Seven] for the full duration of the project, and the GEF has agreed for UNDP to provide such execution support services and for the cost of these services to be charged to the project budget. 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 to this Project Document (Annex 13).

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.

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 the UNDP Resident Representative. UNDP's execution role in the project (as requested by the implementing partner and approved by the GEF) is performed by the Programme Coordinator, who will report to the Team Leader of the Climate and Environment Team. Oversight support towards the project will be provided by staff in the Climate and Environmental Team (CET), the Results and Resources Management Team (RRMT) will provide cooperate guidance for oversight.

Project Implementation

The project coordination and implementation modalities were duly assessed to consider the best approach at project level. It was noted in a recent issuance of government Circular that Ministries are not allowed to establish a Project Management Units (PMU) for implementation of development projects.

The requisites of the above-mentioned Circular, in practical terms, have forbidden the Implementing Partner (Executing Agency) to establish dedicated PMU to implement Projects. Without PMU structure the Implement Partner is also not able to receive and manage cash transfers, from any Implementing Agency (meaning that no possibility to establish physical structure, recruit and deploy project staff, pay salaries and manage the funding for the implementation of the Project´s Technical Components). It is important to note that the Circular restricts the administrative capacities of Ministries, but do not impact their Technical Capacities to coordinate, implement and monitor projects (act as Implementing Partner).

The Circular was considered as part of the UNDP´s 2021 Micro Assessment of the IP, highlighting this "limitation to manage and execute project funds". This is a critical limitation once Vertical Fund projects implementation require a considerable additional workload, and an important factor of success of Vertical Fund projects is the possibility of deploying dedicated project staff (through PMU), under the Project Management Cost Component. The inability to create such PMU will greatly hinder the quality, efficiency and punctuality of project execution.

Other Government Institutions were also screened: specifically, the Ministry of Environment (MoE) and the Ministry of Health (MoH)` were assessed against the "Full NIM" implementation proposal. However, Government Agencies are required to comply with the Circular BD/CBP/01/01/06-2020, and current limitations on the establishment of PMUs reaches these both Institutions and thus, their capabilities for management of project funds, therefore this option is not viable.

"Full NIM" modality, executed through a Third Party was also considered as alternative. UNDP carried out extensive analysis of potential Ips and Third Parties that could engage in project execution, considering Government Agencies are not able to establish PMUs, the management of project funds is also not possible since the Implementing Agency (GOV) will not be able to engage into legal Agreements and carry on fund transfers towards Responsible Partners (Third Parties), therefore this option is not viable. In addition, individual consideration was also conducted for each potential Third Party, including UN Agencies, NGOs, Private Sector and Academia.

Acknowledging GEF's Policies, alternative implementation methods were also carefully assessed. It is concluded, however that "Full NIM" modality is not viable in current national settings. In addition, facilitating a mixed "third-party execution support" to the IP (MoE) is highly recommended. And the best option to address the issue of establishing a functional PMU and facilitate the transfer and management of project funds is to use a "Country Office Support to NIM" modality (COS to NIM or "Assisted NIM"), where UNDP would provide limited executing (administrative and operational) services to the IP.

The GEF Operational Focal Point (OFP) has provided Letter agreeing COS to NIM support provided by UNDP to overcome the local barriers for implementation, and assure the efficient implementation of projects throughout the project duration. Under the proposed "assisted NIM" modality, as agreed and approved by the GEF, the following system is to be put in place:

(a) Given the MoE is the Focal Point for the Stockholm Convention and has experience in implementing GEF projects, the MoE would act as Implementing Partner (Executing Agency) for the Project.

(b) A Letter of Agreement (LOA) between UNDP and the MoE will be signed enlisting the scope of services provided and establishing the basis for cost-recovery (through DPC). Estimated DPC is included in the LOA. The signed LOA is included as Annex 13 to the Project Document / GEF CEO Endorsement Request.

(c) A Project Monitoring Unit (PMU) will be established using UNDP Programmed and Project Management Policies (PPM). The PMU will report to the Project Steering Committee (PSC). The PSC is chaired by MoE. The PMU physical structure will ideally be located in MoE, if additional space available.

(d) Responsible Parties (RPs – or "Third Parties") will be sourced through a competitive process. The execution activities will be based on deliverable-based/performance-based contracts and Terms of Reference encompassing specific or a set of Outcomes or Activities (60-70% of overall project targets).

(e) Individual Contractors (Consultants) will be recruited and will be tasked to provide the technical assistance to MoE and the other Project Stakeholders, reporting directly to PMU and MoE. (30-40% of overall project targets).

(f) UNDP operational support (executing services) will be kept at minimal. UNDP Programmed and Operations Policies and Procedures (POPP) will be used in the project execution to assure alignment with GEF Policies. UNDP assistance will be provided through the PMU staff and is limited to:

  (i) Under the Moe coordination, establish the PMU (structure, staff) and release payments (rental fees, utilities, office supplies, salaries) required to assure the functioning of the PMU.

  (ii) Avail UNDP´s ERP Systems (Atlas/Quantum) so project funds can be effectively managed.

  (iii) Issue travel tickets and pay DSAs for project staff and consultants.

  (iv) Assist the PMU and the Moe to recruit Consultants and RPs. Issue Consultancy Contracts.

  (v) Assist the PMU and the Moe to carry on Procurement Process. Issue Purchase Order.

  (vi) Oversee the delivery of the Contracts and Purchase Orders.

  (vii) Release payments to RPs and Contractors, once technically cleared by PMU and MoE.

(g) UNDP will provide execution support through the Integrated Service Team of the CO, and a firewall will be established between execution and oversight functions. The Project Board (PSC) will regularly monitor the performance of the RPs. Oversight support towards the project will be provided by staff in the Climate and Environmental Team (CET), the Results and Resources Management Team (RRMT) will provide cooperate guidance for oversight.

Roles and Responsiblities of the Project Organization Strucutre:

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 the Secretary of the Ministry of Environment.
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 representatives are: the Secretary/Director General of the Ministry of Health and the Secretary/Director General of the Ministry of Agriculture.
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 is the UNDP Resident Representative.

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 the Team Leader of the Climate and Environment Team.

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 Project Manager.

IX. FINANCIAL PLANNING AND MANAGEMENT

The total cost of the project is **USD 38,197,800**. This is financed through a GEF grant of **USD 5,040,000** administered by UNDP, and additional support of **USD 33,157,800** in cash, public investment, 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.

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 PIF and will be reported to the GEF during the *mid-term review* and terminal evaluation process as follows. Furthermore, one of the agenda items of the Project Board meeting will be monitoring the materialization of the project co-financing by the Project Partners.

Table 13: List of Co-Finance

Co-financing source	Co-financing type	Co-financing amount (USD)
Department of Chemical Management, Ministry of Environment	In-kind	3,380,000
Central Environmental Authority	In-kind	200,000
Central Environmental Authority	Public Investment	100,000
Department of Sri Lanka Customs	In-kind	2,000,000
Department of Sri Lanka Customs	Public Investment	150,000
Department of Agriculture	In-kind	1,235,000
Ministry of Health	In-kind	2,000,000
Ministry of Health	Public Investment	12,000,000
Ceylon Waste Management (Pvt) Ltd.	In-kind	1,250,000
Ceylon Waste Management (Pvt) Ltd.	Public Investment	5,000,000
Asia Recycling (Pvt) Ltd.	In-kind	3,000,000
Central Bank of Sri Lanka	In-kind	140,000
Federation of Sri Lanka Government Authorities	In-kind	100,000
Federation of Sri Lanka Government Authorities	Public Investment	75,000
INSEE Ecocycle Lanka (Pvt) Ltd.	In-Kind	1,527,800
UNDP	Grant	1,000,000
Total		**33,157,800**

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[25]. 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

[25] See https://popp.undp.org/_layouts/15/WopiFrame.aspx?sourcedoc=/UNDP_POPP_DOCUMENT_LIBRARY/Public/PPM_Project%20Management_Closing.docx&action=default.

must be provided and related activities for the Project completed. No activities, except for the final clearance of the 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. LEGAL CONTEXT

This project document shall be the instrument referred to as such in Article 1 of the Standard Basic Assistance Agreement between the Government of Sri Lanka and UNDP, signed on 20th March 1990. All references in the SBAA to "Executing Agency" shall be deemed to refer to "Implementing Partner."

This project will be implemented by Ministry of Environment ("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.

XII. RISK MANAGEMENT

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.

XIII. MANDATORY ANNEXES

1. GEF Budget Template
2. GEF Execution Support Letter
3. Project Map and geospatial coordinates of the project area
4. Multiyear Workplan
5. Social and Environmental Screening Procedure (SESP)
6. UNDP Atlas Risk Register
7. Overview of technical consultancies/subcontracts
8. Stakeholder Engagement Plan
9. Environmental Social Management Framework (ESMF)
10. Gender Analysis and Gender Action Plan
11. Procurement Plan – for first year of implementation
12. Letter of Financial Commitments
13. Signed LOA between UNDP and IP requesting UNDP Support Services
14. GEF Core indicators
15. GEF Taxonomy
16. Partners Capacity Assessment Tool and HACT assessment
17. UNDP Project Quality Assurance Report
18. UNDP Checklist for GEF Project for CEO endorsement/approval

Annex 1: GEF Budget Template

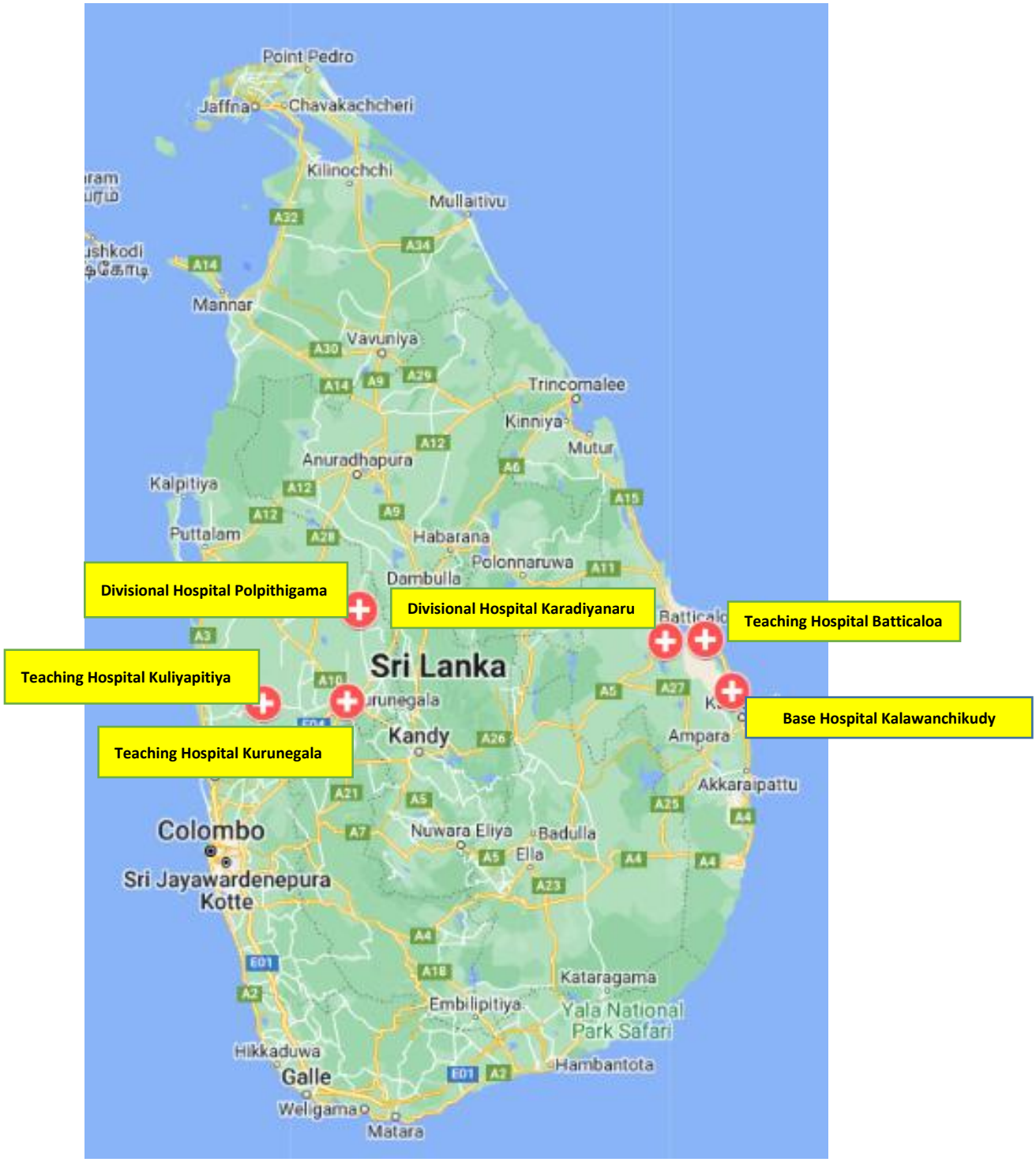
Provided as a separate annex

Annex 2: GEF execution support letter

(Please see separate file attached**)**

Annex 3: Project map and Geospatial Coordinates of project sites

Healthcare Facilities Suggested for the Demonstrations of HCWM



Please access the Google locations Here

Integrated Recycling Programme piloted at six (6) Medical Facilities

Northwestern Province

Teaching Hospital Kurunegala

Teaching Hospital Kuliyapitiya

Divisional Hospital Polpitigama

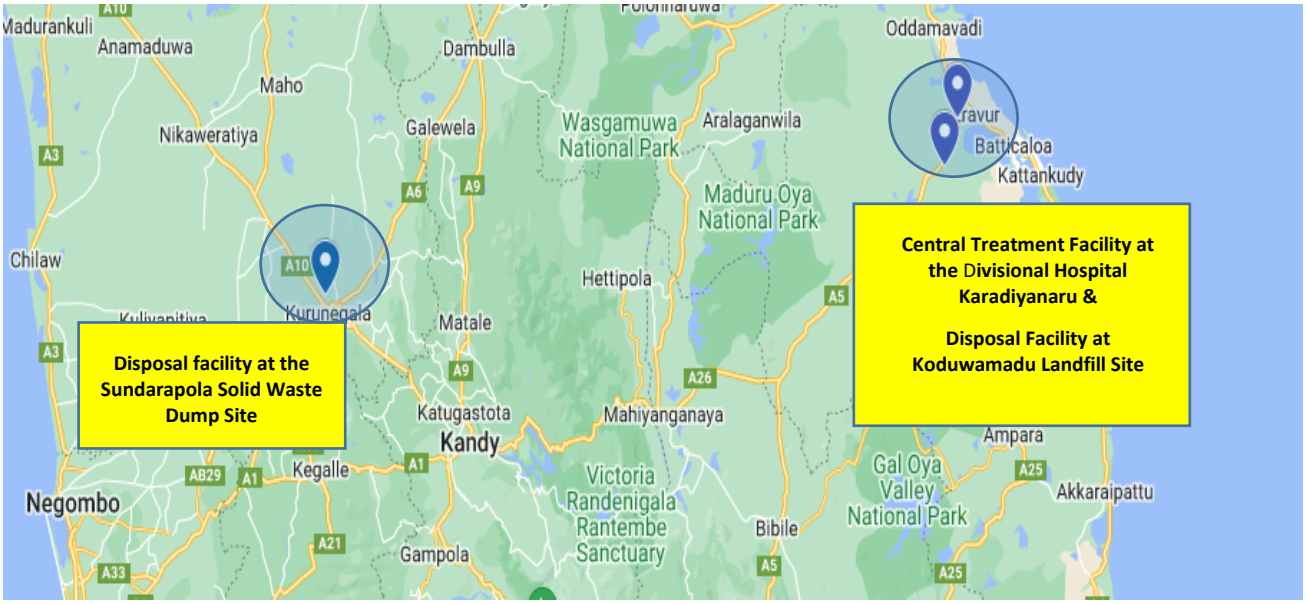
Eastern Province

Teaching Hospital Batticoloa

Divisional Hospital Karadiyanaru

Base Hospital Kaluvanchchikudy

Proposed Locations for Centralized Clinical Waste Treatment Facility (CCWTF)



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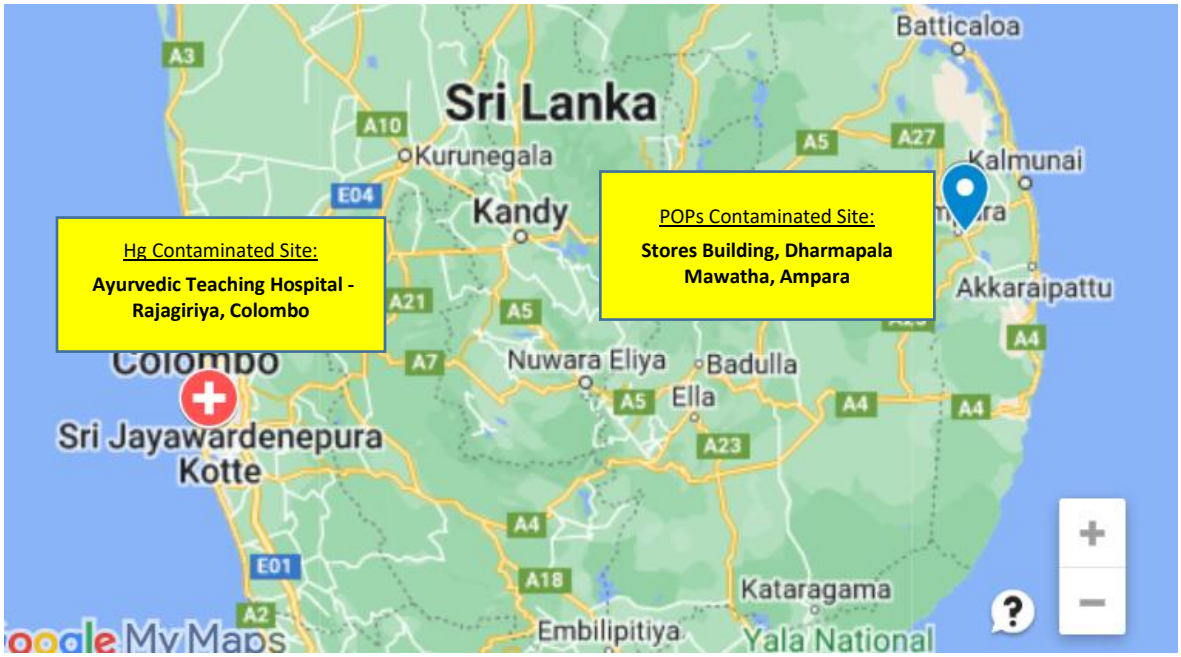
Proposed Decontamination Sites



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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 the Policy, Regulatory and Institutional Frameworks for the management of POPs, Mercury and other Chemicals of Concern (CoC).	**Outcome 1.1**. Institutional Coordination Mechanism Strengthened . Regulatory frameworks for enforcement of the chemicals regulations updated.	**Output 1.1.1**. Review baseline regulations on chemicals management. New POPs and U-POPs inventories, including their value chains, are updated into the 2015 NIP.																				
		Output 1.1.2. Centralize the Chemicals Control System; Laboratory for POPs and other CoCs is improved, and monitoring of imports is enforced at entry points.																				
		Output 1.1.3. Institutional Coordination Mechanisms strengthened and operating in efficient manner																				
	Outcome 1.2. National conditions to scale up the replacement of medical devices and dispose of wastes of mercury-contained medical devices enabled.	**Output 1.2.1**. Green procurement standards established, including proposals on bulk procurement and coordinated strategies for replacement of mercury-based medical devices including dental amalgam.																				

		Output 1.2.2. Finance framework for the procurement of mercury-free medical devices and HCWM disposal equipment developed.																				
Component 2 - Environmentally sound management disposal of obsolete stocks of Agrichemicals POPs, Mercury and their wastes	**Outcome 2.1**. Effective Management System for environmentally sound disposal of mercury stocks, mercury-containing wastes, obsolete stocks of POPs- agro pesticides and cross-contaminated chemicals, pesticides and their containers, implemented	**Output 2.1.1**. Residual mercury stocks, mercury-contained waste generated from the replacement of mercury-containing medical devices and dental amalgam, and obsolete stocks of agro pesticides and cross-contaminated chemicals safely disposed of.																				
		Output 2.1.2. Risk Management Strategy developed. Technical Guidance & Training materials prepared for the sound management of wastes containing mercury.																				
		Output 2.1.3. Guidance Tools and Guidelines for the inventory of mercury / POPs contaminated sites developed and tested at two sites																				

Component 3 - Establish Healthcare Waste Management (HCWM) Systems to effectively prevent U-POPs emissions, and develop Business Models for waste disposal at Healthcare Facilities which are aligned to the national COVID-19 recovery efforts	**Outcome 3.1**. Update HCWM Strategies and Plans that reflect BAT/BEP which can prevent/reduce U-POPs emissions, minimize plastic waste generation and improve recycling practices.	**Output 3.1.1**. Standards and Regulations on HCWM are revised. A HCW Data Management System (HCWDMS) is introduced to address gaps in the monitoring activities.																				
		Output 3.1.2. National Plan for Harmonized Treatment and Disposal of HCW in emergencies is developed.																				
		Output 3.1.3. Guidelines and Standards on green procurement of PPE and other consumables developed.																				
		Output 3.1.4. Technical and Economic Assessment (CBA) on the whole spectrum of HCWM technologies for Sri Lankan setting prepared.																				
		Output 3.1.5. Integrated recycling programs piloted in six (6) facilities																				
	Outcome 3.2. Non-incineration HCWM Business Models are developed. Baseline treatment systems	**Output 3.2.1.** Public-Private Partnership (PPP) for a Centralized Waste Management System that can incorporate the de-contamination																				

	models and practices improved. Technical/economic application of low-cost autoclaves demonstrated.	healthcare waste facility is piloted. Technical/financial/economic application of low-cost autoclaves tested and experiences from other GEF HCWM projects are internalized in Sri Lanka.																				
		Output 3.2.2. A De-centralized non-incineration HCWM Strategy for medium to small scale healthcare facilities is developed.																				
		Output 3.2.3. Baseline Hybrid Autoclaves operation and maintenance practices, at large scale healthcare facilities, are improved, and their operational Business Models is developed.																				
Component 4 – Knowledge Sharing, Management & Evaluation	**Outcome 4.1**. Project communication and training tools developed. Effective knowledge management delivered.																					
		Output 4.1.1. Effective knowledge management tools delivered. Lessons learned and experiences are shared, effectively supporting the scale up and replication of project results.																				

		Output 4.1.2. Training programs developed. Capacities of Public Officers and healthcare facilities staff on U-POPs and Mercury (avoidance of) releases during the waste disposal activities are strengthened.																				
		Output 4.1.3. Training on Environmental , Monitoring for Customs Officers on the control and monitoring of POPs, Mercury and other CoCs is delivered.																				
		Output 4.1.4. Project Communicatio n Strategy and Public Awareness Programs are delivered. Stakeholders Engagement Plan and Gender Action Plan implemented.																				
	Outcome 4.2. Monitoring and evaluation delivered during the project lifecycle.	Output 4.2.1. Monitor Project (Quarterly and annual Reports and Project Board Reports); Apply Evaluation Tools according to the project cycle (PIR, MTR and TE).																				

		Output 4.2.2. Implementation Tools (budget revisions, financial control and project management) applied as required and adaptive management actions implemented during the project lifecycle																				

UNDP Social and Environmental Screening Template (v. July 2022)

The completed template, which constitutes the Social and Environmental Screening Report, must be included as an annex to the Project Document at the design stage. Note: this template will be converted into an online tool. The online version will guide users through the process and will embed relevant guidance.

Project Information

Project Information	
1. Project Title	*Integrated Management and Environmentally Sound Disposal of POPs Pesticides in the Agricultural Sector and Mercury & Waste in the Healthcare Sector in Sri Lanka*
2. Project Number (i.e. Atlas project ID, PIMS+)	PIMS ID 6677
3. Location (Global/Region/Country)	Sri Lanka
4. Project stage (Design or Implementation)	Design (PPG)
5. Date	September 2022

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

The project contributes to Sri Lanka's commitments with the Stockholm and Minamata Conventions that aims to reduce, ban and/or eliminate the use of controlled chemicals in the Agricultural, consumer's products and healthcare sectors, and to strengthen the management of POPs (Persistent Organic Pollutants) and UPOPs (unintentionally produced POPs due to open and uncontrolled burning of biological waste) and Mercury chemicals and products in Sri Lanka, considering local needs to strengthen the country's response for COVID-19 pandemic as well as to prepare the healthcare system for any future outbreaks and pandemic. For this low cost, environmentally sound and sustainable technical solutions will be tested in the country.

The interventions will contribute to deployment of mercury-free alternatives, reducing people's exposure to these hazardous substances and their wastes by properly handling mercury and mercury wastes that have accumulated in the country after the implementation initial policies to reduce the use of mercury-containing device by the Health Sector. The project will also strengthen national capacities to control and monitor illegal imports of banned agrichemicals listed by the Stockholm Convention and will dispose of accumulated POPs and POPs-contaminated obsolete pesticides. Finally, improved coordination among agencies that are focal points for the two conventions through an integrated information management system, enhanced training and capacity building will be promoted. Technical and financial assistance will be provided to key stakeholders to enable them to adopt best practices for strengthened management of POPs/UPOPs and mercury and health care waste.

In addition to reducing releases of UPOPs and Mercury into the environment - which directly affects the quality of life of people - the project will address the increasing quantities of biological infectious healthcare waste resulting from the pressure posed by COVID-19 pandemic (in which biological wastes had increased by five times, as per estimated by WHO, 2020). The project aims at adopting the best and lower cost, non-incineration, HCWM practices for final disposal to reduce the risk faced by hospital staff and patients, waste handlers, recyclers, and communities living near these sites. The project will also incorporate training and awareness into project activities to help safeguard the hospital staff and patients, waste handlers, recyclers, and the nearby communities from risks due to improper management of health care waste.

Through such assistance, the project utilizes a human rights-based approach, by supporting the government to build the capacity of the duty-bearers, (officials and other relevant stakeholders) and raise awareness among the health care sector, general public, and waste handlers and communities living nearby dumpsites and to contribute to healthy life and wellbeing and gender equality.

Briefly describe in the space below how the project is likely to improve gender equality and women's empowerment
The project recognizes the vital role of women in health care waste management, as such measures have been taken by the project to ensure that the needs of the women are address at all levels in health care waste management. The project has developed a Gender Action Plan that will be incorporated in the Healthcare Waste Management (HCWM) Strategies considering that the majority of the healthcare units staff, as well as waste handlers, are women. The Project will provide an opportunity to tailor and include requirements of women in developing HCWM strategies and action plans. The project will engage women in the formulation of HCWM strategies and action plans which will priorities their specific needs. These women will be prioritized for awareness creation, training as well as providing training on special requirements that they may have in HCW handling. Moving women from low paid waste management jobs to better ones is acknowledged as a gender-based challenge. However, the scope of the project may not permit targeting such a strategic transformation. However, the project will acknowledge the problem include women in targeting training for better jobs working conditions by improved adherence to HC standards which will contribute towards the transformation in the long run. The project will also capture gender-disaggregated data to monitor the project activities as well as to contribute to raising awareness at the national level on the importance of gender equality interventions.
Briefly describe in the space below how the project mainstreams sustainability and resilience
The project's main objective is to promote Best Available Techniques (BAT) and Best Environmentally (sound) Practices (BEP) to strengthen institutional capacities and sup[port the Government of Sri Lanka to enforce regulations on the control and management of POPs, Mercury and other chemicals of concern controlled by the relevant Conventions. It will, deploy environmentally sound management strategies and systems for mercury-containing wastes in the Healthcare sector including phase-out the use of mercury-added products, piloting management strategies for recycling, emissions reduction techniques of UPOPs, and BAT for treatment of infectious waste aligning the immediate COVID-19 response to long-term health care waste management, strengthening of information and data management systems that inform monitoring and reporting of chemicals waste management. Strengthening institutional capacities, coordination and information management systems will help the government to minimize the illegal imports of banned chemicals and will assist the government to put in place a plan to continually update the information management system and build capacities of relevant stakeholders. The project will demonstrate Public-Private Partnerships (PPP) for final disposal of health care waste management to convince the government and the private sector to invest in such facilities and also develop a financial framework to support replication.
Briefly describe in the space below how the project strengthens accountability to stakeholders
The project design involves close interaction and participation of stakeholders such as government, hospitals, waste collector and the general public, etc. The project will raise awareness among project stakeholders and create channels for communication through website, social media, telephone and government and project offices. The project will also disseminate information through online and printed media for relevant stakeholders to access in all languages to ensure that everyone is updated on project developments. The project website will also accommodate grievances and a redress mechanism will also be put in place. In addition, UNDP's Accountability Mechanism, which includes the Social and Environmental Compliance Review (SECU) and Stakeholder Response Mechanism (SRM) will also serve as an additional layer of grievance redress and empower stakeholders to push for accountability.

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: Duty bearers and other relevant stakeholders may fall short of capacities to meet their legal/functional obligations while enforcing the systematic procedures and regulatory framework improved by the Project. This may impact the transparency of the regulatory system and the quality of national controls, risking the non-compliance to Country's commitments to the Stockholm and the Minamata Conventions. Related to: • Human Rights; P.2, P.3 • Accountability; P.14 • Standard 6: Indigenous People, 6.9	I = 3 L = 3	**Moderate**	Sri Lanka has an important baseline regulatory framework on chemical waste management. There are by-laws, guidelines and voluntary standards in relation to mercury management. It also noted that Government Officers are subject to regular training and are aware of the baseline instruments. Thus the project will proceed to review the baseline Regulatory frameworks linking these to the Central Control System and strengthen the Coordination Mechanism amongst the relevant institutions to improve enforcement of the baseline regulatory framework.	**This risk is being mitigated by Project Design as follows:** The **Output 1.1.2** contains a series of activities that will strengthen Sri Lanka's Customs Office, the Central Environmental Authority (CEA) and the Board of Investments (BoI) to strengthen procedures and deploy effective and quick detection of chemicals controlled and create a centralized database, SoPs and guidelines to track importation of chemicals. All new tools, equipment and IT systems carry on inherent training for their application, provided by the equipment and tools suppliers as part of the comprehensive bidding process to be done by the Project, thus though the work "training" is not explicit described in every single activity at tool or equipment level, these are fully integrated in the Output. The **Output 1.1.3** will engage with Duty Bearers to improving their TORs and propose new due processes to strengthen the government's ability to regulate, strictly enforce import regulations reducing/preventing misuse of banned and restricted POPs chemicals and related products. The **Output 4.1.3** will deploy effective training on control and monitoring procedures for the Duty Bearers posted in the organizations listed above which are responsible for the end activities on control and monitoring of POPs, Mercury and other CoCs (to complement Output 1.1.2 activities). The **Component 4** is designed to raise awareness, training materials and programs for the relevant officials and other stakeholders on hazardous chemical management. The training will enable the relevant officials to understand their new extended responsibilities. The project will also put in place a project-level **Grievances Redress Mechanism (GRM)** to provide meaningful means for affected stakeholders to raise concerns and/or grievances when activities may adversely impact them.

Risk 2: Healthcare facilities, and healthcare related stakeholders, may not be involved in decision-making regarding the development of policy and regulatory frameworks and may be negatively affected by any restrictions on mercury-based products supply, as a change in the regulatory framework can materially impact their business model (including increase their operational costs), sector operations or supply chains for products used. Related to: • Human Rights; P.5 • Accountability; P.13; P.14 • Gender Equality and Women's Empowerment; P.9; P.10	I=3 L=3	**Moderate**	The Stockholm Convention has banned the production and use of (obsolete) legacy POPs pesticides listed in 2005 for more than 10 years already. The national bans were already affected a number of years ago, and collection of obsolete pesticides started to occur. However, storage practices were unsound which led to cross-contamination with other pesticides and products stored at same facilities. Thus, project won't seek any new ban on other types of pesticides rather than improve enforcement systems to the highly regulated POPs ones. The Minamata Convention has established commitments to stop manufacturing and training of mercury-based medical devices from 2022 and from 2025. As Party to these Conventions, Sri Lanka is bound to comply with such international bidding commitments and thus needs to establish national mechanisms to cope with such bans. However, some stakeholders, particularly the healthcare facilities, as well as other small to medium sized enterprises that depend on mercury based products (light bulbs, LCD monitors), especially those with limited financial resources, may not be able to access alternatives to replace the banned POPs and mercury-containing products.	**This risk is being partially mitigated by Project Design:** • *Activity 1.1.1.2* • *Output 1.2.2* • *Output 1.1.3* **Additional Risk Mitigation Mechanisms:** • *Environmental and Social Management Framework (ESMF)* • *Strategic Environmental and Social Assessment (SESA).* • *Stakeholders Engagement Plan (SEP)* • *Gender Action Plan (GAP)* • *Grievances Redress Mechanism (GRM)* The SESA will ensure that economic impacts on small and medium sized healthcare facilities and other stakeholders are taken into consideration in the decision-making process while developing the legislative tools, while the **Output 1.2.2** will put forward Green Finance Framework that will allow these stakeholders to access finance to reduce any impacts. In addition to the Project **Grievances Redress Mechanism** (GRM) that will be put in place to address any grievances, the Stakeholder Engagement Plan will ensure participation of affected stakeholders during these activities. The **Gender Action Plan** has been developed and recognizes women's contribution in health sector and HCWM and this gender sensitive approaches will be incorporated in GAP and in SESA accordingly. Project's **Activity 1.1.1.2** will update the National Implementation Plan (NIP) of the Stockholm Convention in a full participatory manner involved relevant consultation procedures required by the Convention, while the **Output 1.1.3** will promote consultations and enhanced coordination across many institutions in charge of chemicals control in the country. In addition, the project has been designed to raise the awareness of public and private stakeholders on the green finance instruments and the application of green procurement standards.
Risk 3: Inadequate participation of women in consultations, policy decision making and	I=3 L=2	**Moderate**	An assessment in a sample of health care facilities found a	**This risk is being partially mitigated by Project Design:**

design of modalities for capacity building in the uptake of non-mercury technologies and safe management and disposal of obsolete mercury devices and health care waste. Related to: • Gender Equality and Women's Empowerment; P.9; P.10			greater number of women in the area of nursing and amongst the cleaning staff. Considering the fact that women and children are most vulnerable to chemicals pollutions, the participation of women in the decision-making process and in the project activities is critical for its success.	• *Activity 4.1.1.3* • *Activity 4.1.2.1* • *Activity 4.1.4.2* **Additional Risk Mitigation Mechanisms:** • *Gender Action Plan (GAP)* A Gender Action Plan has been developed and recognizes women's contribution in health sector and HCWM and includes measures such as: a) Strengthening women's active participation in teams and opportunity for and recognition of leading specific functions or responsibilities for specific operations in HCWM value chains/Hg phaseout. b) Planning/producing knowledge products and planning/delivering training programmes. c) Training/awareness programmes that include specific concerns of women and/or targeted training and knowledge products for women using women friendly approaches. d) Facilitating discussions on specific risks for women and their families and promoting risk reduction measures. **Activity 4.1.4.2** will deploy the Gender Action Plan to raise awareness and empower women's roles in sound management activities and promote gender sensitive approaches for the project´s KM activities that can incorporate gender equality principles and actions into environmentally sound management of healthcare waste activities. **Activity 4.1.2.1** will provide equitable opportunities for women and men to be trained in improved and safe handling of waste generated at each point including segregation, weighing, or measuring waste fractions and recording. Finally, **Activity 4.1.1.3** will focus on developing the Knowledge management tools to reach the estimated workforce of 100,000 workers, in which majority are females, this the KM products will be gender sensitive and take the GAP into consideration.
Risk 4: Healthcare facilities and other stakeholders can be marginalized and do not benefit from the project due to lack of awareness of the green procurement standards, or do not have equal access to	I=3 L=3	**Moderate**	If not aware of these potential financing instruments, small and medium-sized health facilities will not be incentivized to switch to mercury-free thermometers and	**This risk is being partially addressed/mitigated by Project Design.** • *Output 4.1.4*

financing through the Green Finance Framework to be developed. Related to: Accountability; P.13; P.14			sphygmomanometers. These groups will thus become marginalized and not benefit equally from the project.	A**dditional Risk Mitigation Mechanisms:** • *Stakeholders Engagement Plan (SEP)* The SEP will ensure fair representation of healthcare facilities that may otherwise be marginalized from participating in the Green Finance Framework (**Output 1.2.2**) and be at a disadvantage once the final phase-out of mercury devices. In addition, the project has been designed to raise the awareness of public and private health care facilities (**Output 4.1.4**), and relevant higher-level medical administration on possible green finance instruments, and facilitate their access to government and/or private banking investments, to support switching to mercury-free devices. The project will also ensure that knowledge is disseminated on the green procurement standards (**Outputs 1.2.1**).
Risk 5: Accidental release of mercury or POPs pesticides, and their wastes, during procedures for re/trans-packing, handling, transportation, storage and disposal of existent stockpiles can contaminate land, communities or immediate workers if unsound practices are used or if the proper Laws and Standards and the project's risk avoidance framework is not followed. Related to: • Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management; 1.1, 1.7, 1.14 • Standard 3: Community Health, Safety and Security; 3.2, 3.4, 3.5 and 3.6 • Standard 7: Labor and Working Conditions; 7.6 • Standard 8: Pollution Prevention and Resource Efficiency; 8.1, 8.2	I = 4 L= 3	**Substantial**	The project will dispose of a stock of about 22.6 metric tons of POPs pesticides (with cross-contaminated pesticides that were stored together) through export to qualified destruction facilities and will also export for final storage about 40 metric tons of mercury contained (and mercury contaminated) wastes to qualified final storage facilities, following the Basel Convention procedures. The project will proceed to re-pack, handle, transport, store and dispose these hazardous substances and their wastes, following International Standards and Guidelines established by the Stockholm and the Minamata Conventions. Major risk arises when trans-packing of wastes and materials, as any poor handling and gathering of wastes, movement of stocks and packages, loading and accommodation on trucks,	**This risk is being partially addressed/mitigated by Project Design:** • *Activity 2.1.1.2* • *Activity 2.1.1.3* • *Activity 2.1.1.4* • *Activity 2.1.2.1* • *Activity 2.1.2.2* • *Activity 2.1.2.4* A**dditional Risk Mitigation Mechanisms:** • *Stakeholders Engagement Plan (SEP)* • *Scoped Environmental and Social Impact Assessment for chemicals disposal (ESIA)* • *Scoped Environmental and Social Management Plans (ESMP) that include a Spill Prevention and Management Plan (SPMP)* • *Application of International Standards for Hazardous Substances Packing, Transport and Disposal* In line with the ESMF that has been prepared for the project, **scoped assessments (ESIA)** will be conducted for the disposal of residual mercury and POPs pesticide stocks, mercury-contained waste generated from the replacement of mercury-containing medical devices and dental amalgam (**Output 2.1.1**), disposal of a stock of about 22.6 metric tons of (POPs pesticides with cross-contaminated chemicals that were stored together) (**Activity 2.1.1.3**), safe mercury extraction and disposal from equipment

			transportation and unloading at disposal sites, and these are taken into consideration in project design. Similar disposal activities had been carried out a number of times in previous UNDP projects in Central and South America, West and East Africa, Central and South Asia regions through GEF-funded projects. **UNDP has accumulated a strong tracking record of no accidental accidents and had gathered a network of qualified and certified service provides to carry these controlled procedures following the highest standards**. Yet, it is not possible to affirm that these procedures are risk-free. However, given the previous experiences as well as the set of internationally recognized risk management tools and procedures that are established to be followed, **it is assessed that there is a low (2) to moderate (3) likelihood** that such accident could happen given the relatively good infra-structure that will be used by the project (such as availability of containers and liners for re-packing, good transit conditions in Sri Lanka, existing protocols at exporting ports to handle hazardous substances). In addition, specific SOPs will be incorporated in the sites that accumulate these wastes, and proper training and EPI will be furnished through the contractors that will handle the disposal procedures, from beginning to final disposal site.	and bulbs coming from healthcare facilities (**Activity 2.1.2.3**). The assessments will tackle the risk of accidental risk on nearby sensitive receptors and occupational health and safety such that mitigation measures will be developed and included in the pursuant site-specific **Environmental and Social Management Plans (ESMP)** that will include a Pollution Prevention and Management Plan and Occupational Health and Safety Plan. This plan will adopt Best international Practice and adhere to the national legislation, 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. Any Contractor to be recruited by the Project to deliver the 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). All these risks managements tools are to be fully embedded in the Activities *2.1.1.2, 2.1.1.3, and 2.1.1.4, in addition:* • **Activity 2.1.2.1** will develop national guidelines on safe management of mercury-containing medical equipment and dental amalgam, stocks of mercury extracted from obsolete products and mercury containing waste, to incorporate the most recent BEP in the area and to make them gender responsive. • **Activity 2.1.2.2** will develop management plans for mercury and mercury-containing waste from obsolete medical products adopting safe (interim) storage solutions and conducting investigations to establish stocks and potential technology solutions to recover and reclaim mercury. • ***Activity 2.1.2.4*** will review and update national HCWM guidelines to include sound guidance to manage residual mercury stocks and wastes generated from obsolete mercury-containing medical equipment and dental amalgam. Training programs will be designed and

			Nevertheless, in case any accident occurs, it is also recognized that such could result in adverse impacts on people and/or environment of considerable magnitude, spatial extent, and duration, but more limited than Extreme. However, these impacts are predictable, and can be reversible through application of the decontamination procedures that will be developed by the Project, **resulting in a risk impact assessment considered Extensive (4).**	carried out to train staff of healthcare facilities in applying the disposal management strategies /plans for residual Hg and Hg-contained products disposal. Finally, **Output 2.1.3**. will also contribute to the overall risk mitigation strategy as it will provide guidance Tools and Guidelines for the inventory and decontamination of sites contaminated with POPs pesticides, POPs chemicals and mercury.
Risk 6: Subsequent implementation (related to replication and scaling up) of adopted strategies and plans (that will be developed with project support) will lead to activities that could result in accidental release of mercury or POPs pesticides, and their wastes, during procedures for re/trans-packing, handling, transportation, storage and disposal of stockpiles exposing the workers as well as the local communities living nearby if unsound practices are used or if the proper Laws and Standards and the project's risk avoidance framework is not followed. Related to: • Standard 1: Biodiversity Conservation and Natural Resource Management; 1.1, 1.2, 1.3, 1.7, 1.14 • Standard 3: Community Health, Safety and Security; 3.2, 3.4, 3.5 and 3.6 • Standard 7: Labour and Working Conditions; 7.6 • Standard 8: Pollution Prevention and Resource Efficiency; 8.1, 8.2 Risk management contribute towards: • Gender Equality and Women's Empowerment; P.9; P.10	I = 4 L = 3	**Substantial**	Under Component 1, the project will review the baseline Regulatory frameworks that govern the control of hazardous chemicals and disposal of their wastes. These frameworks will be linked to a single Central Control System and the project will strengthen the Coordination Mechanism amongst the relevant institutions that are responsible for the enforcement of the baseline regulatory framework. In parallel, under Components 2 and 3 the project will draft Healthcare Waste Management Systems and SOPs that will be tested during the waste disposal activities listed under Risk 4 **(thus rationale for the rating is the same).** All these will form a comprehensive Regulatory and Institutional base that will be further replicated once the project is completed with the objective of avoid formation of stockpiles in the future that can put the local	**This risk is not linked the project activities, but may result from project replication, which will only occur after the project completion.** Although this risk is not linked to the project execution, it is the objective of the project to improve chemicals and their wastes control system. This improved system, aligned with better enforcement, will lead the stakeholders that consume or use hazardous controlled chemicals, or the ones that generate/manage chemicals and healthcare waste, to comply with the procedures for disposal. By applying this framework, the stakeholders will be required to carry on and pay for the packaging, transportation and disposal of chemicals and chemicals/healthcare wastes. And as mentioned in Risk 4, even with the application of the Best Environmental Practices, National and International Regulations, as well as proper Risk Management Systems that will be the legacy of the project, such activities are not risk-free. Thus, **this risk will be addressed/mitigated by Project Design as the** the aggregate of the Project components will establish the basis for the enforcement and control institutions to continue using Best Environmental Practices in collecting, managing and disposing these wastes, including **Strategic Environmental and Social Assessment** (SESA), to consider economic impacts on small and medium sized healthcare facilities and other stakeholders are taken into consideration in the decision-making as well as their capacities to comply with the regulatory system.

			systems at pressure and also avoid dumping and this contamination of environment and communities. Hence, upon project completion, the improved enforcement system in the country will continue to be enforced. Stakeholders that make use of controlled chemicals or the ones that are involved in the waste management chain will be required to apply the relevant regulations, guidelines and SOPs to properly collect and dispose their wastes following BAT/BEP at their own costs.	In line with the ESMF, a SESA will be prepared during development of management plans for mercury and mercury-containing waste from obsolete medical products (Activity 2.1.2.2), HCWM Strategy (Activity 3.1.2.1) and the de-centralized non-incineration HCWM Strategy for medium to small scale health care facilities (Output 3.2.2). The SESA will consider the risk of accidental release of chemicals and worker exposure that may result from implementing the legislation and strategies at the national level and incorporate measures to mitigation them. In addition, the project will generate a HCWM Strategy (**Activity 3.1.2.1**) and a de-centralized non-incineration HCWM Strategy for medium to small scale health care facilities (**Output 3.2.2**) to further support local stakeholders to comply with national regulations, apply BAT/BEP and significantly reduce the likelihood of this Risk to become an issue.
Risk 7: Damage to interim storage and disposal facilities of hazardous waste due to flooding or other extreme natural disasters/weather events. Related to: • Standard 2: Climate Change and Disaster Risks; 2.1, 2.2 • Standard 3: Community Health, Safety and Security; 3.3 • Standard 7: Labour and Working Conditions; 7.6	I = 3 L = 3	**Moderate**	Mercury differs from other toxics and pollutants in that it is an element and cannot be broken down, degraded, or destroyed. Sri Lanka does not have capacities to arrange final disposal sites for mercury within its borders, thus the overall strategy is to proceed with interim solution of mercury and thus transfer the accumulated stocks to other country for final storage. In the other hand, it is known that Climate change is already modifying the frequency and intensity of many weather-related events, and amongst the potential weather-related hazards screened in Sri Lanka, the one that can pose greater risk to interim storage facilities is flooding, but the project is also aware of any the occurrence landslides, erosion, or extreme weather conditions. It has been assessed that in case extreme weather conditions do	**This risk is being partially addressed/mitigated by Project Design.** • *Activity 2.1.2.4* **Additional Risk Mitigation Mechanisms:** • *Scoped Impact Assessment for chemicals disposal (ESIA)* • *Scoped Environmental and Social Management Plans (ESMP)* • *Scoped Spill Prevention and Management Plan (SPMP)* As part of the selection process for the locations of interim storage and disposal sites for the following activities, considerations will be made that facilities are not located in areas classified as high risk due to landslides, erosion, floods or extreme weather conditions. In fact, the project preparation procedures have screened two (2) potential sites located in legalized industrial zone (not triggering Standards 4 and 6) that have been licensed to manage and dispose other types of waste, in which these considerations were part of the Governmental environmental screening. One (1) site is already operating a small-scale interim storage facility. Before pilot site demonstrations are formally selected and engaged, the scoped assessment **(ESIA)** will further review in detail the basis for the national EIA and expand it to incorporate UNDP's SES requirement as well assess this risk and propose

			impact the project, because of the nature of operations and safeguards proposed, these **impacts would be of medium magnitude, limited in scale (site-specific) and duration (temporary), can be avoided, managed and/or mitigated with relatively uncomplicated accepted measures, resulting in an risk impact assessment considered Intermediate (3)**, while the **likelihood of such events to impact the current screened locations sought are low (2) to moderate (3).**	mitigation measures if needed as part of the resulting **ESMP**. If any new mercury interim-storage facilities are needed to be established, a scoped ESIA will be undertaken to determine the extent of the assessment/management needed. Finally, the **Activity 2.1.2.4** will include sound guidance to manage residual mercury stocks and wastes generated from obsolete mercury-containing medical equipment and dental amalgam in the national Healthcare Waste Management Guidelines. Per se, the interim storage facilities will need to follow the relevant risk avoidance/mitigation frameworks for the Stockholm and Minamata Convention which take into consideration BAT/BEP design to contain any accident/event.
Risk 8: Adverse impacts to biodiversity and natural ecosystems resulting from the construction and operation of the Centralized Clinical Waste Treatment Facilities (CCWTF) within the baseline municipal solid waste (MSW) disposal facilities. ***Related to:*** • Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management; 1.1, 1.2, 1.4, 1.7 • Standard 4: Cultural Heritage, 4.1 • Standard 6: Indigenous People, 6.1	I = 4 L = 3	**Substantial**	The project will work with baseline MSW disposal facilities established, licensed and operated by two Local Authorities: Kurunegala Municipal Council and Eravur Pattu Pradeshiva Saba in the Northwestern province (NWP) and Eastern province (EP) respectively, in Sri Lanka. The MSW disposal facility in the NWP is in Sundarapola has existed for a long time and it still has accumulated waste dumped over few decades. At present it has a mechanized composting unit which takes the bulk of the degradable MSW (18 tons/day) Non degradable waste (2 tons/day) is recycled by channeling to various service providers. Residual mixed waste (about 500 kg or 2.5%) is currently being dumped at location within the Sundarapola site. Negative environmental impacts and public complaints have been	**This risk is partially linked to GEF-funded activities under project framework.** **Risks associated with co-finance:** Site visits were conducted during project preparation and have found that the MSWM facility in the Northwestern Province, is close to the borders of the Sundarapola Forest Reserve. The Koduwamadu Landfill Project has been assessed following national regulations on Environmental Impacts and comply with the requirements National Waste Management Policies, which are also aligned with International Standards. • The sides and the bottom of the Koduwamadu landfill are provided multiple impermeable protective layers to prevent the leakage of leachate and other particles contaminating the soil below. • Pipeline is placed below the protective layers for collecting the water infiltration and to divert towards the groundwater collection tank • Pipeline is placed above the HDPE liner to collect the leachate generated from the landfill and directed towards the leachate treatment plant for treatment. • Leachate is treated with Best Available Technologies by undergoing several processes in accordance with international standards. • The treated water will be used only within the site for the use of tire washing, cleaning of the waste containers,

			associated with Sundarapola in the past. The municipality has taken some actions; Apart from installing the mechanized composting plant the municipality has also begun rehabilitating the dumpsite starting with a part of it. Dumpsite rehabilitation includes waste mining, introducing, leachate tapping and treatment systems, and underground water control mechanism using permeable reactive barrier (PRB). The site rehabilitation also envisages improved disposal of mixed waste in future to minimize the impacts on the environment: it would be designed pit, with necessary slopping, in which layers of solid waste are filled, compacted and covered for final disposal. is the introduction of PRB will minimize groundwater pollution together with, having a leachate collection and treatment system etc. Koduwamadu is an engineered landfill which started operation in 2017. It receives 3 tons of mixed waste daily, but it is not operated properly as a landfill at present. The project will establish CCWTF at the above mentioned two MSWM, although <u>the project won't reclaim land nor construct any new waste disposal facility (Landfill).</u> The project intends to use the baseline sites in Sundarapola and Koduwanadu co-financed by the Government, Sundarapola site in the North Western Province, where one of the two Clinical Waste Treatment	and irrigation purposes. • The landfill gases (mostly Methane) formed within the landfill are collected by installing gas collection pipes at several locations and the gases. • Daily cover, intermediate cover and final cover (when the cell or portion of the landfill is permanently closed by a soil layer) above the dumped waste is the requirement for prevention and protection from emission of odors, breeding of birds, flies and other species. • Groundwater monitoring wells are constructed at selected locations around the landfill to monitor the groundwater quality. • A security fence and topographic barriers are placed around the perimeter of the site to prevent unauthorized entry. The landfill also has adequate area as buffer zones (not less than 200 meters in its narrower part) surrounding the property boundaries to avoid impacts on the nearby ecosystems. In addition, the provision of adequate buffer is important to mitigate negative impacts such as noise and odor on human habitats. The Sundarapola site is being transformed after public complaints Mainly ground water contamination with leachate, with the guidance of NWP Environmental Authority **The Risk Mitigation Mechanisms for GEF-funded activities are:** • *Scoped Impact Assessment for chemicals disposal (ESIA)* • *Site-specific Environmental and Social Management Plans (ESMP)* • *Scoped Spill Prevention and Management Plan (SPMP) (as part of the ESMP)* • *Application of International Standards for Hazardous Substances Packing, Transport and Disposal.* • *Biodiversity Management Plan (if needed)* A scoped **ESIA**, following UNDP SES, will be conducted for the CCWTF (Activity 3.2.1.1) that is proposed to be constructed within the MSWM facilities limits. The ESIA that will be prepared for the project will assess current alignment of the MSWM facility's EIA to UNDP SES, as well as expand the assessment on social-related principles and potential incremental risks on biodiversity from construction and operation of the CCWTFs.

			Facility (CCWTF) are to be established is located at the borders of the Sundarapola forest reserve. Assessment and its public consultations in the specific MSWM sites show that are no dispute over the land, and that no heritage sites and no indigenous people are present. However, the "enlarged" project area of influence could also encompasses the community in the districts of Kurunegala and Batticoloa (as the MSWM operations can trigger economic activities of the community, such as the ones that can be created around the transportation roots, most notably, food and beverage, but also sales of small goods). Finally, the CCWTF will be established following the most recent BAT/BEP, to receive untreated biological healthcare waste, proceed to decontaminate it with hot steam autoclaves, which will allow the biological waste to be further processed at the same landfilling facility once become inert.	If needed, the resulting **ESMP** would include a **Biodiversity Management Plan** if the risks to Biodiversity are found and are considered to be unavoidable, taking into consideration the location of the Sundarapola Forest Reserve. During project implementation, the Project Monitoring Unit team will establish a monitoring mechanism to follow up the establishment and initial operation of the CCWTF so to oversight the potential environmental and social risks inherent to the co-financed component.
Risk 9: Health and safety risks to workers of the selected MSWM facilities as well communities during establishment and operation of the CCWTF and inappropriate behavior by additional security personnel who may be recruited by the landfill operator ***Related to:*** • Standard 3: Community Health, Safety and Security; 3.1, 3.2, 3.3, 3.4, 3.5, 3.6,	I = 4 L = 3	**Substantial**	The selected MSWM facilities are fenced and controlled facility that counts with security personnel funded by its operators on a 24/7 basis. The facilities also have their own staff responsible for its day-to-day operations. Both construction and operation of the incremental CCWTF within	**This risk is being addressed by Risk Mitigation Mechanisms:** • *Scoped Impact Assessment for chemicals disposal (ESIA)* • *Scoped Environmental and Social Management Plans (ESMP)* • *Scoped Spill Prevention and Management Plan (SPMP)* • *Occupational Health and Safety Plan:* • *Code of Conduct for Construction and Security Workers.* • *Grievance Redress Mechanism - GRM*

3.7, 3.8 • Standard 7: Labor and Working Conditions; 7.6 • Standard 8: Pollution Prevention and Resource Efficiency; 8.1, 8.2 and 8.3 • Gender Equality and Women's Empowerment; P.9; P.10, P.12 • Human Rights; P.7			the MSWM facility area may expose current workers and the community to health and safety risks such as injuries, risk exposure to infectious and hazardous waste (if transport accidents happen), and air emissions (if decontamination autoclaves are not used properly or present technical defect). In addition, the MSWM facilities' operators (the respective Local Authority) may be required to deploy additional Security guards to secure the CCWTF facilities. Though the facilities are fenced, secured with no direct access to local community, staff of the facilities may still not be properly trained on how to deal with the local community given regional/local cultural practices when they can come to contact in outside duty hours (and if the personnel are not hired from the local community workforce), which may lead to grievances by other workers or nearby residents. The maintenance of Security Officers is fully funded by non-GEF resources (co-funding) originated from the MSWM facility operators.	The **ESIA** that will be conducted for each CCWTF will address health and safety concerns related to the construction and operation and all proposed mitigation measures will be included in the **ESMP** that will be developed and implemented before commencing works for establishing these facilities. The ESMPs will include a **Scoped Spill Prevention and Management Plan (SPMP)** and **Occupational Health and Safety Plan**. Prior to hiring of any new construction company and/or security staff to guard selected facilities, a **Code of Conduct** reflecting SES requirements will be prepared so that contractors ensure their staff abide by them. Training will be offered to participating individuals to ensure they are aware of their responsibilities. In addition, the **Grievance Redress Mechanism** for the project will allow the local community to share any concerns or grievances they may have or report any incidents related to this risk.
Risk 10: Improper application of guidelines developed by the project during decontamination of demonstration sites (both during project implementation and after project completion) can lead decontamination and disposal workers, community located in affected area and surrounding environment to be exposed to POPs pesticides and Mercury, which can extend the range of the	I = 4 L = 4	**Substantial**	Mercury is used in a range of medical devices and has been the most used type of technology for sphygmomanometers and thermometers for many years. However, these products are fragile and are subject of break during their using in healthcare facilities.	**This risk is being partially addressed Risk Mitigation Mechanisms:** • *Scoped Environmental Risk Assessment (equiv. to ESIA)* • *Scoped Environmental and Social Management Plans (ESMP)* • *Scoped Spill Prevention and Management Plan (SPMP)* • *Occupational Health and Safety Plan* • *Site Decontamination Monitoring Plan*

contamination and limit access to land and natural resources of nearby communities. Related to: • Human Rights; P.2, P.3 • Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management; 1.7 • Standard 3: Community Health, Safety and Security; 3.2, 3.4, 3.5 and 3.6 • Standard 7: Labor and Working Conditions; 7.6 • Standard 8: Pollution Prevention and Resource Efficiency; 8.1, 8.2 and 8.3 • Gender Equality and Women's Empowerment; P.9; P.10			The project considers that these mercury spills in hospitals, clinics and labs are occurring in a rolling basis due to the handling and breaking of such devices, already exposing doctors, nurses, other health care workers and patients to elemental mercury. At room temperature significant amounts of liquid elemental mercury transform to a gas, exposing workers or patients in the area to potentially highly toxic levels. Thus certain level of contamination in the healthcare units sites can exist. In addition, the project has identified 22.6 metric tonnes of POPs pesticides and contaminated pesticides being stored in the Interprovincial Agriculture Office of Ampara. Although the storage facility does have proper condition, the containers of Pesticides may be already compromising, which could lead to leakages. However, until proper EPI-equipped teams are not able to enter and start re-packing the pesticides, is not possible to know the real condition of all containers nor to assess any extent of damages due to potential leakages.	**GEF-funded activities:** National Ayurvedic Teaching Hospital for mercury in Colombo, and the Interprovincial Agriculture Office of Ampara had been visited and screened by the Project Preparation Team and short-listed as pilot sites to demonstrate the application of the project guidelines on contaminated sites assessment and decontamination. Both sites are located in city areas, none are located near any cultural heritage sites, protected areas or land claimed or inhabited by indigenous peoples, nor indigenous people live in their areas of influence. For decontamination of sites,the project includes an **Environmental Risk Assessment** to align the local regulation to UNDP´s SES and provide tools for the project team to monitor situation referring to the which will require the identification and characterization of the scope (e.g., the extent of contamination, proximity to human populations, depth to groundwater, proximity to surface water or sensitive habitats), analysis of the hazard level and toxicity, analysis of exposure and analysis of risks to determine the level of management and remediation possible. **Co-funded activities that count towards the Project Results:** For the two (2) pilot demonstrations, a **scoped ESIA** will be undertaken for risks on human health, traffic and workers. An **ESMP** will then be developed for each site that will include a **Scoped Spill Prevention and Management Plan** and an **Occupational Health and Safety Plan**. The decontamination activities, per se, cannot be funded with GEF resources (ineligible as per Programme Directions), and these will be responsibility of the relevant subnational Governments of Colombo and Ampara who manage the selected sites. **As exit strategy**, the Project will propose to the CEA a monitoring plan so to follow up the application of the decontamination guidelines and the full recovery of the sites, if found contaminated, if the contamination works extend the project timeframe.
Risk 11: Increased consumption of resources and GHG and other emissions and generation of waste from autoclaving and recycling activities Related to:	I = 3 L = 2	**Moderate**	Depending on the technology used by existing recyclers, recycling of plastic, aluminum, glass and other materials that will be piloted by the project may use a large number of resources such as	**This risk is being partially addressed/mitigated by Project Design. (Component 3)** **Additional Risk Mitigation Mechanisms:** • *Scoped Impact Assessment for chemicals disposal (ESIA)* • *Scoped Environmental and Social Management Plans*

• Standard 2: Climate Change and Disaster Risks; 2.4 • Standard 8: Pollution Prevention and Resource Efficiency; 8.1, 8.2, 8.6 • Gender Equality and Women's Empowerment; P.9; P.10			water and energy and lead to increased GHG and other air emissions. The technology and method use for autoclaving in the demonstration facilities may also lead to toxic emissions and residual waste if proper SOPs and guidelines are not applied or if proper autoclaves maintenance is not done, exposing workers and the local communities to health hazards. The residual waste requiring adequate disposal will be generated from these activities, need to take into consideration that practices in Sri Lanka for hazardous final disposal to avoid falling short of international best practice.	*(ESMP)* • *Scoped Pollution Prevention and Management Plan*, • *Occupational Health and Safety Plan:* • *Labor Management Procedures (LMP)* A **scoped ESIA** will be conducted for each of the activities related to recycling and autoclaving: testing strategies to improve recycling of plastics , aluminum and glass materials (A**ctivity 3.1.3.1**), integrated recycling programs piloted in six (6) facilities (**Output 3.1.5**), business models for de-centralized HCWM systems (low-cost autoclaving) piloted in six (6) medium-to-small scale facilities (**Output 3.2.3**) and baseline hybrid autoclaves operation and maintenance practices, at large scale healthcare facilities, are improved, and their operational Business Models is developed. The **scoped ESIA** will inform decision-making regarding the sites selected and technologies adopted to ensure SES standards are applied and that an appropriate waste disposal site is allocated for any residue waste (specifically for autoclaving activities). The targeted assessment will also evaluate the risks related to air quality and worker and community health such that the **scoped ESMP** will include a **Pollution Prevention and Management Plan**, and **Occupational Health and Safety Plan**. In addition, all entities operating under the project (including contractors and operators) shall abide by the project's **Labor Management Procedures (LMP)** that will be developed during the Inception Phase of the Project.
Risk 12: Project service contractors may make use of working practices that do not meet the national labour laws, international standards/treaties, and Occupational Risk and Hazardous Guidelines, or may employ child or apply forced labor practices, leading to risk of workers exposure to health and safety risks during re/trans-packing, handling, transportation and decontamination activities. Related to: • Standard 7: Labor and Working Conditions; 7.1, 7.2, 7.3, 7.4, 7.5, 7.6 • Gender Equality and Women's	I = 4 L = 3	**Substantial**	Healthcare workers in the medical sector, which are majority women, already have some baseline sensitivity and knowledge on safe handling of mercury and healthcare wastes, therefore lowering the risk associated with the decommissioning aspect of the work. Additionally, the project aims to promote de-contamination of biological healthcare waste and recycling of solid healthcare	**This risk is being addressed with Risk Mitigation Mechanisms:** • *Scoped Impact Assessment for chemicals disposal (ESIA)* • *Scoped Environmental and Social Management Plans (ESMP)* • *Occupational Health and Safety Plan:* • *Labor Management Procedures (LMP)* Prior to engaging any enterprise or cooperative, during project implementation and through open competitive process, the scoped entity will be duly assessed to screen its adherence to National Laws and/or International Guiding Standards before engaging into implementation contracts/agreements with the project. This will be done through a visit to the facility and ensuring that occupational health and safety measures are

Empowerment; P.9; P.10			wastes and for this will engage with companies and workers cooperatives in the recycling industries to create strategies that can promote recycling practices, increase income and potentially generate "green jobs". It is important to note that Forced and Child Labour is illegal in Sri Lanka. However, the practice still exists in some sectors, including hazardous activities such as construction.	applied. Any entity engaged with the project will be required to adhere to the **LMP and the *Occupational Health and Safety Plan* prepared for the project**. The **scoped ESIAs** that will be undertaken for the various pilot, disposal and recycling activities will assess the risk on worker safety and health and include an Occupational Health and Safety Plan in each site-specific **ESMP**. In addition, the facilities, enterprises and cooperatives that will engage with the project will be verified against their adherence related to the Laws on Forced Labour and Child Labour. The project will not engage with any entity that utilizes such practices.

	QUESTION 4: What is the overall project risk categorization?		
	Low Risk	☐	
	Moderate Risk	☐	
	Substantial Risk	**X**	Twelve (12) potential Social and Environmental risks have been identified for this project, six (6) of which are assessed as SUBSTANTIAL and six (6) as MODERATE. It is noted that overall, these risks relate to activities with potential adverse social and environmental risks and impacts that are varied or complex but remain limited in scale and are of lesser magnitude which can be reversible, predictable, and contained footprint, with less risk of cumulative impacts. As a result, the overall risk categorization for **this project is determined to be SUBSTANTIAL.** A series of Risk Mitigation/Avoidance Mechanism are being proposed in line with the SES Policy: (a) during the PPG, an ESMF, Stakeholder Engagement Plan and Gender Action Plan have been prepared to meet SES requirements. (b) During project implementation, a number of scoped assessments and Risk Management Plans along with site-specific ESMP will be prepared for several activities. These plans will be developed and put in place prior to commencement of the relevant activities.
	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? (completed, planned)***	
	if yes, indicate overall type and status	**X**		Targeted assessment(s) *Gender Analysis* *Stakeholders Analysis* *Occupational Risk Assessment*	 Completed Completed Planned
		X		ESIA (Environmental and Social Impact Assessment)	Planned
		X		SESA (Strategic Environmental and Social Assessment)	Planned
	Are management plans required? (check if "yes)	**Yes**	**No**	***Status? (completed, planned)***	
		X		Targeted management plan (s): *Gender Action Plan (GAP)* *Stakeholders Engagement Plan (SEP)* *Spill Prevention and Management Plan (SPMP* *Pollution Prevention and Management Plan (PPMP)* *Occupational Health and Safety Plan (OHSP)* *Labor Management Procedures (LMP)* *Code of Conduct for Construction and Security Worker* *Biodiversity Management Plan (BMP)*	 Completed Completed Planned Planned Planned Planned Planned If needed
			X	ESMP (Environmental and Social Management Plan)	Planned
			X	ESMF (Environmental and Social Management Framework)	Completed

Based on identified risks, which Principles/Project- level Standards triggered?		**Comments (not required)**
Overarching Principle: Leave No One Behind		
Human Rights	**X**	
Gender Equality and Women's Empowerment	**X**	
Accountability	**X**	
1. Biodiversity Conservation and Sustainable Natural Resource Management	**X**	
2. Climate Change and Disaster Risks	**X**	
3. Community Health, Safety and Security	**X**	
4. Cultural Heritage	**X**	
5. Displacement and Resettlement	☐	
6. Indigenous Peoples	☐	
7. Labour and Working Conditions	**X**	
8. Pollution Prevention and Resource Efficiency	**X**	

Final Sign Off

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

Signature	***Date***	***Description***
QA Assessor		Buddika Hapuarachchi, Policy Specialist and Team Leader, Climate and Environment Team, UNDP
QA Approver		Malin Herwig, Deputy Resident Representative, UNDP
PAC Chair		Malin Herwig, Deputy Resident Representative, UNDP

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? [16]	Yes
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?	Yes
P.7	exacerbation of conflicts among and/or the risk of violence to project-affected communities and individuals?	Yes
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 participationin 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*.	Yes
Sustainability and Resilience: Screening questions regarding risks associated with sustainability and resilience are encompassed by the Standard-specific questions below		
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?	Yes
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)?	Yes
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?[17]	No
1.13	utilization of genetic resources? (e.g. collection and/or harvesting, commercial development)[18]	No
1.14	adverse transboundary or global environmental concerns?	Yes
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?	Yes
2.2	outputs and outcomes sensitive or vulnerable to potential impacts of climate change or disasters? *For example, through increased precipitation, drought, temperature, salinity, extreme events, earthquakes*	Yes
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)	Yes
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)?	Yes
3.4	risks of water-borne or other vector-borne diseases (e.g. temporary breeding habitats), communicable and noncommunicable diseases, nutritional disorders, mental health?	Yes
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)?	Yes
3.7	influx of project workers to project areas?	Yes
3.8	engagement of security personnel to protect facilities and property or to support project activities?	Yes
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?	Yes
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)?	No
5.3	risk of forced evictions?[19]	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)?	Yes
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 Standard 6 requirements apply, and the potential significance of risks related to impacts on indigenous peoples must be Moderate or above.* [*]	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.*	Yes
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:		
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?	Yes

[*] Note: revised July 2022 modifying presumption of risk significance from Substantial or higher to Moderate or higher.

Annex 6: UNDP Risk Register

#	Description	Risk Category	Impact & Probability	Risk Treatment / Management Measures	Risk Owner
1	Duty bearers and other relevant stakeholders may fall short of capacities to meet their legal/functional obligations while enforcing the systematic procedures and regulatory framework improved by the Project. This may impact the transparency of the regulatory system and the quality of national controls, risking the non-compliance to Country's commitments to the Stockholm and the Minamata Conventions	Operational Organizational Political Regulatory	I = 3 L = 3 **Moderate**	**This risk is being mitigated by Project Design as follows:** The **Output 1.1.2** contains a series of activities that will strengthen Sri Lanka's Customs Office, the Central Environmental Authority (CEA) and the Board of Investments (BoI) to strengthen procedures and deploy effective and quick detection of chemicals controlled and create a centralized database, SoPs and guidelines to track importation of chemicals. All new tools, equipment and IT systems carry on inherent training for their application, provided by the equipment and tools suppliers as part of the comprehensive bidding process to be done by the Project, thus though the work "training" is not explicit described in every single activity at tool or equipment level, these are fully integrated in the Output. The **Output 1.1.3** will engage with Duty Bearers to improving their TORs and propose new due processes to strengthen the government's ability to regulate, strictly enforce import regulations reducing/preventing misuse of banned and restricted POPs chemicals and related products. The **Output 4.1.3** will deploy effective training on control and monitoring procedures for the Duty Bearers posted in the organizations listed above which are responsible for the end activities on control and monitoring of POPs, Mercury and other CoCs (to complement Output 1.1.2 activities). The **Component 4** is designed to raise awareness, training materials and programs for the relevant officials and other stakeholders on hazardous chemical management. The training will enable the relevant officials to understand their new extended responsibilities. The project will also put in place a project-level **Grievances Redress Mechanism (GRM)** to provide meaningful means for affected stakeholders to raise concerns and/or grievances when activities may adversely impact them.	MoE MoH MoA Customs Department UNDP
2	Healthcare facilities, and healthcare related stakeholders, may not be	Social and Environmental	I=3 L=3	**This risk is being partially mitigated by Project Design:**	MoE MoH

	involved in decision-making regarding the development of policy and regulatory frameworks and may be negatively affected by any restrictions on mercury-based products supply, as a change in the regulatory framework can materially impact their business model (including increase their operational costs), sector operations or supply chains for products used	Organizational Regulatory Strategic	**Moderate**	• *Activity 1.1.1.2* • *Output 1.2.2* • *Output 1.1.3* **Additional Risk Mitigation Mechanisms:** • *Environmental and Social Management Framework (ESMF)* • *Strategic Environmental and Social Assessment (SESA).* • *Stakeholders Engagement Plan (SEP)* • *Gender Action Plan (GAP)* • *Grievances Redress Mechanism (GRM)* The SESA will ensure that economic impacts on small and medium sized healthcare facilities and other stakeholders are taken into consideration in the decision-making process while developing the legislative tools, while the **Output 1.2.2** will put forward Green Finance Framework that will allow these stakeholders to access finance to reduce any impacts. In addition to the Project **Grievances Redress Mechanism (GRM)** that will be put in place to address any grievances, the Stakeholder Engagement Plan will ensure participation of affected stakeholders during these activities. The **Gender Action Plan** has been developed and recognizes women's contribution in health sector and HCWM and this gender sensitive approaches will be incorporated in GAP and in SESA accordingly. Project's **Activity 1.1.1.2** will update the National Implementation Plan (NIP) of the Stockholm Convention in a full participatory manner involved relevant consultation procedures required by the Convention, while the **Output 1.1.3** will promote consultations and enhanced coordination across many institutions in charge of chemicals control in the country. In addition, the project has been designed to raise the awareness of public and private stakeholders on the green finance instruments and the application of green procurement standards.	MoA UNDP Demonstra-tion facilities
3	Inadequate participation of women in consultations, policy decision making and design of modalities for capacity building in the uptake of non-mercury technologies and safe management and	Social and Environmental Operational Organizational	I=3 L=2 **Moderate**	**This risk is being partially mitigated by Project Design:** • *Activity 4.1.1.3* • *Activity 4.1.2.1* • *Activity 4.1.4.2*	MoE MoH MoA UNDP

	disposal of obsolete mercury devices and health care waste	Regulatory Strategic		**Additional Risk Mitigation Mechanisms:** • *Gender Action Plan (GAP)* A Gender Action Plan has been developed and recognizes women's contribution in health sector and HCWM and includes measures such as: a) Strengthening women's active participation in teams and opportunity for and recognition of leading specific functions or responsibilities for specific operations in HCWM value chains/Hg phaseout. b) Planning/producing knowledge products and planning/delivering training programmes. c) Training/awareness programmes that include specific concerns of women and/or targeted training and knowledge products for women using women friendly approaches. d) Facilitating discussions on specific risks for women and their families and promoting risk reduction measures. **Activity 4.1.4.2** will deploy the Gender Action Plan to raise awareness and empower women's roles in sound management activities and promote gender sensitive approaches for the project´s KM activities that can incorporate gender equality principles and actions into environmentally sound management of healthcare waste activities. **Activity 4.1.2.1** will provide equitable opportunities for women and men to be trained in improved and safe handling of waste generated at each point including segregation, weighing, or measuring waste fractions and recording. Finally, **Activity 4.1.1.3** will focus on developing the Knowledge management tools to reach the estimated workforce of 100,000 workers, in which majority are females, this the KM products will be gender sensitive and take the GAP into consideration.	Demonstra-tion facilities
4	Healthcare facilities and other stakeholders can be marginalized and do not benefit from the project due to lack of awareness of the green procurement standards, or do not have equal access to	Social and Environmental Financial Operational Organizational	I=3 L=3 **Moderate**	**This risk is being partially addressed/mitigated by Project Design.** • *Output 4.1.4* **Additional Risk Mitigation Mechanisms:** • *Stakeholders Engagement Plan*	MoE MoH MoA UNDP

	financing through the Green Finance Framework to be developed	Regulatory Strategic		*(SEP)* The SEP will ensure fair representation of healthcare facilities that may otherwise be marginalized from participating in the Green Finance Framework (**Output 1.2.2**) and be at a disadvantage once the final phase-out of mercury devices. In addition, the project has been designed to raise the awareness of public and private health care facilities (**Output 4.1.4**), and relevant higher-level medical administration on possible green finance instruments, and facilitate their access to government and/or private banking investments, to support switching to mercury-free devices. The project will also ensure that knowledge is disseminated on the green procurement standards (**Outputs 1.2.1**).	Demonstra-tion facilities Central Bank of Sri Lanka
5	Accidental release of mercury or POPs pesticides, and their wastes, during procedures for re/trans-packing, handling, transportation, storage and disposal of existent stockpiles can contaminate land, communities or immediate workers if unsound practices are used or if the proper Laws and Standards and the project's risk avoidance framework is not followed	Social and Environmental Operational Regulatory Strategic	L= 4 I = 3 **Substantial**	**This risk is being partially addressed/mitigated by Project Design:** • *Activity 2.1.1.2* • *Activity 2.1.1.3* • *Activity 2.1.1.4* • *Activity 2.1.2.1* • *Activity 2.1.2.2* • *Activity 2.1.2.4* **Additional Risk Mitigation Mechanisms:** • *Stakeholders Engagement Plan (SEP)* • *Scoped Environmental and Social Impact Assessment for chemicals disposal (ESIA)* • *Scoped Environmental and Social Management Plans (ESMP) that include a Spill Prevention and Management Plan (SPMP)* • *Application of International Standards for Hazardous Substances Packing, Transport and Disposal* In line with the ESMF that has been prepared for the project, **scoped assessments (ESIA)** will be conducted for the disposal of residual mercury and POPs pesticide stocks, mercury-contained waste generated from the replacement of mercury-containing medical devices and dental amalgam (**Output 2.1.1**), disposal of a stock of about 22.6 metric tons of (POPs pesticides with cross-contaminated chemicals that were stored together) (**Activity 2.1.1.3**), safe mercury extraction and disposal from equipment and bulbs	MoE MoH MoA UNDP Demonstra-tion facilities

				coming from healthcare facilities (**Activity 2.1.2.3**). The assessments will tackle the risk of accidental risk on nearby sensitive receptors and occupational health and safety such that mitigation measures will be developed and included in the pursuant site-specific **Environmental and Social Management Plans (ESMP)** that will include a Pollution Prevention and Management Plan and Occupational Health and Safety Plan. This plan will adopt Best international Practice and adhere to the national legislation, 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. Any Contractor to be recruited by the Project to deliver the 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). All these risks managements tools are to be fully embedded in the Activities *2.1.1.2, 2.1.1.3, and 2.1.1.4, in addition:* • **Activity 2.1.2.1** will develop national guidelines on safe management of mercury-containing medical equipment and dental amalgam, stocks of mercury extracted from obsolete products and mercury containing waste, to incorporate the most recent BEP in the area and to make them gender responsive. • **Activity 2.1.2.2** will develop management plans for mercury and mercury-containing waste from obsolete medical products adopting safe (interim) storage solutions and conducting investigations to establish stocks and potential technology solutions to recover and reclaim mercury.	

				• ***Activity 2.1.2.4*** will review and update national HCWM guidelines to include sound guidance to manage residual mercury stocks and wastes generated from obsolete mercury-containing medical equipment and dental amalgam. Training programs will be designed and carried out to train staff of healthcare facilities in applying the disposal management strategies /plans for residual Hg and Hg-contained products disposal. Finally, **Output 2.1.3**. will also contribute to the overall risk mitigation strategy as it will provide guidance Tools and Guidelines for the inventory and decontamination of sites contaminated with POPs pesticides, POPs chemicals and mercury.	
6	Subsequent implementation (related to replication and scaling up) of adopted strategies and plans (that will be developed with project support) will lead to activities that could result in accidental release of mercury or POPs pesticides, and their wastes, during procedures for re/trans-packing, handling, transportation, storage and disposal of stockpiles exposing the workers as well as the local communities living nearby if unsound practices are used or if the proper Laws and Standards and the project's risk avoidance framework is not followed	Social and Environmental Operational Regulatory Health	I = 4 L = 3 **Substantial**	**This risk is not linked the project activities, but may result from project replication, which will only occur after the project completion.** Although this risk is not linked to the project execution, it is the objective of the project to improve chemicals and their wastes control system. This improved system, aligned with better enforcement, will lead the stakeholders that consume or use hazardous controlled chemicals, or the ones that generate/manage chemicals and healthcare waste, to comply with the procedures for disposal. By applying this framework, the stakeholders will be required to carry on and pay for the packaging, transportation and disposal of chemicals and chemicals/healthcare wastes. And as mentioned in Risk 4, even with the application of the Best Environmental Practices, National and International Regulations, as well as proper Risk Management Systems that will be the legacy of the project, such activities are not risk-free. Thus, **this risk will be addressed/mitigated by Project Design as the** aggregate of the Project components will establish the basis for the enforcement and control institutions to continue using Best Environmental Practices in collecting, managing and disposing these wastes, including **Strategic Environmental and Social Assessment** (SESA), to consider economic impacts on small and medium sized healthcare facilities and other	MoE MoH MoA UNDP Demonstra-tion facilities

				stakeholders are taken into consideration in the decision-making as well as their capacities to comply with the regulatory system. In line with the ESMF, a SESA will be prepared during development of management plans for mercury and mercury-containing waste from obsolete medical products (Activity 2.1.2.2), HCWM Strategy (Activity 3.1.2.1) and the de-centralized non-incineration HCWM Strategy for medium to small scale health care facilities (Output 3.2.2). The SESA will consider the risk of accidental release of chemicals and worker exposure that may result from implementing the legislation and strategies at the national level and incorporate measures to mitigation them. In addition, the project will generate a HCWM Strategy (**Activity 3.1.2.1**) and a de-centralized non-incineration HCWM Strategy for medium to small scale health care facilities (**Output 3.2.2**) to further support local stakeholders to comply with national regulations, apply BAT/BEP and significantly reduce the likelihood of this Risk to become an issue.	
7	Damage to interim storage and disposal facilities of hazardous waste due to flooding or other extreme natural disasters/weather events	Social and Environmental Operational Regulatory Strategic Health	I = 3 L = 3 **Moderate**	**This risk is being partially addressed/mitigated by Project Design.** • *Activity 2.1.2.4* **Additional Risk Mitigation Mechanisms:** • *Scoped Impact Assessment for chemicals disposal (ESIA)* • *Scoped Environmental and Social Management Plans (ESMP)* • *Scoped Spill Prevention and Management Plan (SPMP)* As part of the selection process for the locations of interim storage and disposal sites for the following activities, considerations will be made that facilities are not located in areas classified as high risk due to landslides, erosion, floods or extreme weather conditions. In fact, the project preparation procedures have screened two (2) potential sites located in legalized industrial zone (not triggering Standards 4 and 6) that have been licensed to manage and dispose other types of waste, in which these considerations were part of the Governmental environmental screening. One (1) site is already operating a small-scale interim storage facility.	MoE MoH MoA UNDP Demonstra-tion facilities

				Before pilot site demonstrations are formally selected and engaged, the scoped assessment **(ESIA)** will further review in detail the basis for the national EIA and expand it to incorporate UNDP's SES requirement as well assess this risk and propose mitigation measures if needed as part of the resulting **ESMP**. If any new mercury interim-storage facilities are needed to be established, a scoped ESIA will be undertaken to determine the extent of the assessment/management needed. Finally, the **Activity 2.1.2.4** will include sound guidance to manage residual mercury stocks and wastes generated from obsolete mercury-containing medical equipment and dental amalgam in the national Healthcare Waste Management Guidelines. Per se, the interim storage facilities will need to follow the relevant risk avoidance/mitigation frameworks for the Stockholm and Minamata Convention which take into consideration BAT/BEP design to contain any accident/event.	
8	Adverse impacts to biodiversity and natural ecosystems resulting from the construction and operation of the Centralized Clinical Waste Treatment Facilities (CCWTF) within the baseline municipal solid waste (MSW) disposal facilities	Social and Environmental Operational Regulatory Health	I = 4 L = 3 **Substantial**	**This risk is partially linked to GEF-funded activities under project framework.** **Risks associated with co-finance:** Site visits were conducted during project preparation and have found that the MSWM facility in the Northwestern Province, is close to the borders of the Sundarapola Forest Reserve. The Koduwamadu Landfill Project has been assessed following national regulations on Environmental Impacts and comply with the requirements National Waste Management Policies, which are also aligned with International Standards. • The sides and the bottom of the Koduwamadu landfill are provided multiple impermeable protective layers to prevent the leakage of leachate and other particles contaminating the soil below. • Pipeline is placed below the protective layers for collecting the water infiltration and to divert towards the groundwater collection tank • Pipeline is placed above the HDPE liner to collect the leachate	MoE MoH MoA UNDP Demonstra-tion facilities

				generated from the landfill and directed towards the leachate treatment plant for treatment. • Leachate is treated with Best Available Technologies by undergoing several processes in accordance with international standards. • The treated water will be used only within the site for the use of tire washing, cleaning of the waste containers, and irrigation purposes. • The landfill gases (mostly Methane) formed within the landfill are collected by installing gas collection pipes at several locations and the gases. • Daily cover, intermediate cover and final cover (when the cell or portion of the landfill is permanently closed by a soil layer) above the dumped waste is the requirement for prevention and protection from emission of odors, breeding of birds, flies and other species. • Groundwater monitoring wells are constructed at selected locations around the landfill to monitor the groundwater quality. • A security fence and topographic barriers are placed around the perimeter of the site to prevent unauthorized entry. The landfill also has adequate area as buffer zones (not less than 200 meters in its narrower part) surrounding the property boundaries to avoid impacts on the nearby ecosystems. In addition, the provision of adequate buffer is important to mitigate negative impacts such as noise and odor on human habitats. The Sundarapola site is being transformed after public complaints Mainly ground water contamination with leachate, with the guidance of NWP Environmental Authority **The Risk Mitigation Mechanisms for GEF-funded activities are:** • *Scoped Impact Assessment for chemicals disposal (ESIA)* • *Site-specific Environmental and Social Management Plans (ESMP)* • *Scoped Spill Prevention and Management Plan (SPMP) (as part of the ESMP)* • *Application of International*	

				Standards for Hazardous Substances Packing, Transport and Disposal. • *Biodiversity Management Plan (if needed)* A scoped **ESIA**, following UNDP SES, will be conducted for the CCWTF (Activity 3.2.1.1) that is proposed to be constructed within the MSWM facilities limits. The ESIA that will be prepared for the project will assess current alignment of the MSWM facility's EIA to UNDP SES, as well as expand the assessment on social-related principles and potential incremental risks on biodiversity from construction and operation of the CCWTFs. If needed, the resulting **ESMP** would include a **Biodiversity Management Plan** if the risks to Biodiversity are found and are considered to be unavoidable, taking into consideration the location of the Sundarapola Forest Reserve. During project implementation, the Project Monitoring Unit team will establish a monitoring mechanism to follow up the establishment and initial operation of the CCWTF so to oversight the potential environmental and social risks inherent to the co-financed component.	
9	Health and safety risks to workers of the selected MSWM facilities as well communities during establishment and operation of the CCWTF and inappropriate behavior by additional security personnel who may be recruited by the landfill operator	Social and Environmental Operational Organizational Regulatory Health	I = 4 L = 3 **Substantial**	**This risk is being addressed by Risk Mitigation Mechanisms:** • *Scoped Impact Assessment for chemicals disposal (ESIA)* • *Scoped Environmental and Social Management Plans (ESMP)* • *Scoped Spill Prevention and Management Plan (SPMP)* • *Occupational Health and Safety Plan:* • *Code of Conduct for Construction and Security Workers.* • *Grievance Redress Mechanism - GRM* The **ESIA** that will be conducted for each CCWTF will address health and safety concerns related to the construction and operation and all proposed mitigation measures will be included in the **ESMP** that will be developed and implemented before commencing works for establishing these facilities. The ESMPs will include a **Scoped Spill Prevention and Management Plan (SPMP)** and **Occupational Health and**	MoE MoH MoA UNDP Demonstra-tion facilities

				Safety Plan. Prior to hiring of any new construction company and/or security staff to guard selected facilities, a **Code of Conduct** reflecting SES requirements will be prepared so that contractors ensure their staff abide by them. Training will be offered to participating individuals to ensure they are aware of their responsibilities. In addition, the **Grievance Redress Mechanism** for the project will allow the local community to share any concerns or grievances they may have or report any incidents related to this risk.	
10	Improper application of guidelines developed by the project during decontamination of demonstration sites (both during project implementation and after project completion) can lead decontamination and disposal workers, community located in affected area and surrounding environment to be exposed to POPs pesticides and Mercury, which can extend the range of the contamination and limit access to land and natural resources of nearby communities	Social and Environmental Operational Organizational Regulatory Health	I = 4 L = 4 **Substantial**	**This risk is being partially addressed Risk Mitigation Mechanisms:** • *Scoped Environmental Risk Assessment (equiv. to ESIA)* • *Scoped Environmental and Social Management Plans (ESMP)* • *Scoped Spill Prevention and Management Plan (SPMP)* • *Occupational Health and Safety Plan* • *Site Decontamination Monitoring Plan* **GEF-funded activities:** National Ayurvedic Teaching Hospital for mercury in Colombo, and the Interprovincial Agriculture Office of Ampara had been visited and screened by the Project Preparation Team and short-listed as pilot sites to demonstrate the application of the project guidelines on contaminated sites assessment and decontamination. Both sites are located in city areas, none are located near any cultural heritage sites, protected areas or land claimed or inhabited by indigenous peoples, nor indigenous people live in their areas of influence. For decontamination of sites, the project includes an **Environmental Risk Assessment** to align the local regulation to UNDP´s SES and provide tools for the project team to monitor situation referring to the which will require the identification and characterization of the scope (e.g., the extent of contamination, proximity to human populations, depth to groundwater, proximity to surface water or sensitive habitats), analysis of the hazard level and toxicity, analysis of exposure and analysis of risks to determine the level of management and remediation possible.	MoE MoH MoA UNDP Demonstra-tion facilities

				Co-funded activities that count towards the Project Results: For the two (2) pilot demonstrations, a **scoped ESIA** will be undertaken for risks on human health, traffic and workers. An **ESMP** will then be developed for each site that will include a **Scoped Spill Prevention and Management Plan** and an **Occupational Health and Safety Plan**. The decontamination activities, per se, cannot be funded with GEF resources (ineligible as per Programme Directions), and these will be responsibility of the relevant subnational Governments of Colombo and Ampara who manage the selected sites. **As exit strategy**, the Project will propose to the CEA a monitoring plan so to follow up the application of the decontamination guidelines and the full recovery of the sites, if found contaminated, if the contamination works extend the project timeframe.	
11	Increased consumption of resources and GHG and other emissions and generation of waste from autoclaving and recycling activities	Social and Environmental Operational Regulatory	I = 3 L = 2 **Moderate**	**This risk is being partially addressed/mitigated by Project Design. (Component 3)** **Additional Risk Mitigation Mechanisms:** • *Scoped Impact Assessment for chemicals disposal (ESIA)* • *Scoped Environmental and Social Management Plans (ESMP)* • *Scoped Pollution Prevention and Management Plan*, • *Occupational Health and Safety Plan:* • *Labor Management Procedures (LMP)* A **scoped ESIA** will be conducted for each of the activities related to recycling and autoclaving: testing strategies to improve recycling of plastics , aluminum and glass materials (A**ctivity 3.1.3.1**), integrated recycling programs piloted in six (6) facilities (**Output 3.1.5**), business models for de-centralized HCWM systems (low-cost autoclaving) piloted in six (6) medium-to-small scale facilities (**Output 3.2.3**) and baseline hybrid autoclaves operation and maintenance practices, at large scale healthcare facilities, are improved, and their operational Business Models is developed. The **scoped ESIA** will inform decision-making regarding the sites selected and technologies adopted to ensure SES	MoE MoH MoA UNDP Demonstra-tion facilities

				standards are applied and that an appropriate waste disposal site is allocated for any residue waste (specifically for autoclaving activities). The targeted assessment will also evaluate the risks related to air quality and worker and community health such that the **scoped ESMP** will include a **Pollution Prevention and Management Plan**, and **Occupational Health and Safety Plan**. In addition, all entities operating under the project (including contractors and operators) shall abide by the project's **Labor Management Procedures (LMP)** that will be developed during the Inception Phase of the Project.	
12	**:** Project service contractors may make use of working practices that do not meet the national labour laws, international standards/treaties, and Occupational Risk and Hazardous Guidelines, or may employ child or apply forced labor practices, leading to risk of workers exposure to health and safety risks during re/trans-packing, handling, transportation and decontamination activities	Social and Environmental Operational Organizational Regulatory Health	I = 4 L = 3 **Substantial**	**This risk is being addressed with Risk Mitigation Mechanisms:** • *Scoped Impact Assessment for chemicals disposal (ESIA)* • *Scoped Environmental and Social Management Plans (ESMP)* • *Occupational Health and Safety Plan:* • *Labor Management Procedures (LMP)* Prior to engaging any enterprise or cooperative, during project implementation and through open competitive process, the scoped entity will be duly assessed to screen its adherence to National Laws and/or International Guiding Standards before engaging into implementation contracts/agreements with the project. This will be done through a visit to the facility and ensuring that occupational health and safety measures are applied. Any entity engaged with the project will be required to adhere to the **LMP and the *Occupational Health and Safety Plan* prepared for the project**. The **scoped ESIAs** that will be undertaken for the various pilot, disposal and recycling activities will assess the risk on worker safety and health and include an Occupational Health and Safety Plan in each site-specific **ESMP**. In addition, the facilities, enterprises and cooperatives that will engage with the project will be verified against their adherence related to the Laws on Forced Labour and Child Labour. The project will not engage with any entity that utilizes	MoE MoH MoA UNDP Demonstra-tion facilities

				such practices.	
13	Sri Lanka's economic downturn started in 2021. IMF and donor negotiation on debt restructuring is progressing slower than originally anticipated. This situation may affect the ability of the Government departments and Private Sector to honour their committed co-financing	Financial	I = 3 L = 3 **Moderate**	Co-financing commitments have been recently reaffirmed with respective contributors. IP, Project Board and UNDP will undertake close monitoring action on progress of contributions	MoE MoH MoA Customs Department UNDP
14	Changes in management personnel, in particular experienced staff, in response to Government mandatory retirement at age 60 and staff transfer policy imposed since 2022 may cause delay in project implementation	Management	I = 3 L = 3 **Moderate**	Increased capacity building for personnel directly involved in project implementation; produce practical guides and self-learning and training using digital tools i.e., audio and video clips, to retain and refresh institutional memories	MoE MoH MoA Customs Department UNDP
15	No agreement on Green Financing Framework Mechanism (GFFM)	Financial	I = 3 L = 3 **Moderate**	Sri Lanka has tested green financing for the promotion of biomass energy. The financial institutions have expressed interest to extend the GFF to this project. Details of the financial modalities, and involvement of additional financial institutions, as well as private service provider to the healthcare sector who will be recipients of green financing will be consolidated during project implementation	MoE MoH UNDP
16	Weak cooperation from private sector companies engaged in Hg waste management	Strategic Management Financial	I = 3 L = 1 **Low**	This situation is unlikely to happen, as most of these companies have already made substantial investment on Hg waste recovery and management and have committed to restart their business operation so as not to jeopardize their investment	MoE MoH UNDP

Annex 7: Overview of Project Staff and Technical Consultancies

Consultant	Time Input	Tasks, Inputs and Outputs
For Project Management		
Local / National contracting		
Project Manager/ Coordinator Rate: $15,500/year	5 years	The Project Manager (PM), together with the Lead Technical Advisor will be responsible for the overall management of the project, including the mobilization of all project inputs, supervision over project staff, consultants and sub-contractors. <u>Duties and Responsibilities</u> • Manage the overall conduct of the project across all components. Assurance of successful completion of the project in accordance with the Project Results Framework. • 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. • 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 the 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. • Perform regular progress reporting to the project board as agreed with the board, including measures to address challenges and opportunities. • 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 the Mid-term review and Terminal Evaluation process. • Add technical tasks as necessary **Qualifications:** • Masteral degree related to natural resource management, public administration or another field with direct relevance to the project. • At least 10 years of experience in managing large-scale projects on natural resource management, chemical and waste management. • Close familiarity with the roles, activities, and priorities of the MOE regarding natural resource management, biodiversity conservation, agriculture and chemical management including the Mercury. • Basic technical understanding of natural resources management, POPs/UPOPs and chemical management including the Mercury. • Demonstrated ability to work effectively with a broad range of stakeholder, including private sector. • Demonstrated ability to work effectively under minimal supervision. • Superior skills in organization and management, including past experience with planning, tracking, evaluation, and supervision of consultants and/or employees. • Strong skills in financial tracking and budget management. • Preferably have close familiarity with the operations and rules of UNDP. • Fluency in English (reading, writing, speaking).
Project Assistant Rate: $5,500/year	5 years	<u>Duties and Responsibilities</u> • 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, including financial resources management, human Resources Management, efficient procurement and logistical services • Support preparation and update of project work plans, budgets and briefs and other documents as necessary • Assist the M&E officer in matters related to M&E and knowledge resources management. • Assist the Project Manager in carrying duties in UNDP's project management platform- ATLAS/Quantum

Consultant	Time Input	Tasks, Inputs and Outputs
		• Assist in coordinating and maintaining partnerships with Government organizations, other development partners and the private sector in project implementation • Assist in providing logistical support for Project Board meetings, workshops, and other meetings as tasked by the project • 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 and ensure the timely and smooth implementation of all project logistics • Provide support to international consultants in the implementation of assigned tasks for the achievement of project results (communication, contracts, agenda, visas, logistics etc) **Qualifications:** • Secondary Education, preferably with specialized certification in Administration, Management, HR or Accounting. OR bachelor's degree. • Secondary Education with Minimum four (04) years of experience in supporting the implementation of projects, with preference in environment/natural resource management. UN-related experience is advantageous. OR bachelor's degree with one year of experience. • Experience in the usage of computers and office software packages (MS Word, Excel, PowerPoint, etc.) is a must and knowledge of database packages, and experience in handling of web-based information flatforms are preferred. • Experience building and maintaining partnerships with Government, other development partners and the private sector • Demonstrated capacity to undertake assigned responsibilities and work under pressure
Project Finance and Procurement Assistant Rate: $5,500/year	5 years	The Project Finance and Procurement Officer will be responsible for the financial and administrative management of the project activities and assists in the preparation of quarterly and annual work plans and progress reports for review and monitoring by the Project Manager and UNDP. The Project Finance Officer will have the following responsibilities: • Responsible for providing general financial and procurement support to the project. • Take own initiative and perform daily work in compliance with annual work schedules. • Assist project management in performing budget cycle: planning, preparation, revisions, and budget execution. • Assist project management in procurement planning, preparation, procurement and monitoring of procurement actions • Provide assistance to partner agencies involved in project activities, performing and monitoring financial and procurement aspects to ensure compliance with budgeted costs in line with UNDP policies and procedures. • Monitor project expenditures, ensuring that no expenditure is incurred before it has been authorized.

Consultant	Time Input	Tasks, Inputs and Outputs
		• Assist project team in drafting quarterly and yearly project progress reports concerning financial and procurement issues. • Ensure that UNDP procurement rules are followed during procurement activities that are carried out by the project and maintain responsibility for the inventory of the project assets. • Perform preparatory work for mandatory and general budget revisions, annual physical inventory and auditing, and assist external evaluators in fulfilling their mission. • Prepare all outputs in accordance with the UNDP administrative and financial office guidance. • Ensure the project utilizes the available financial resources in an efficient and transparent manner. • Ensure that all project financial activities are carried out on schedule and within budget to achieve the project outputs. • Perform all other financial related duties, upon request **Qualifications and Skills:** • At least a bachelor's degree in finance, business management, or related fields. • Experience related to project implementation. • A demonstrated ability in the financial management of development projects and in liaising and cooperating with government officials, NGOs, etc. • Self-motivated and ability to work under the pressure. • Team-oriented, possesses a positive attitude, and works well with others. • Flexible and willing to travel as required. • Excellent interpersonal skills. • Excellent verbal and writing communication skills • Good knowledge of Word, Outlook, Excel, and Internet browsers is required. • Previous experience working with a GEF-supported project is considered an asset.
International / Regional and global contracting		
International Consultant - Green Finance Specialist Rate: $650/day	30 working days	• Draw lessons learned from the implementation of similar projects elsewhere and apply them in the Sri Lankan context. • Develop a green financing framework for the promotion of mercury phase-out in the healthcare sector. • Ensure in the design, structuring and implementation of green financing instruments e.g., risk sharing, green and sustainability with an accompanying framework document. • Design an effective fund mobilization strategy based on the assessment of the current financing gap to deliver mercury phase-out targets, and advise on how relevant project partners can most effectively mobilize

Consultant	Time Input	Tasks, Inputs and Outputs
		relevant forms of private finance to catalyze the transition towards mercury phase-out in the healthcare sector including the private healthcare facilities. • Define and implement an impact measuring framework to reflect the environmental, social, and economic objectives of the proposed green financing framework. • Recommend suitable to address the issues of lack of private sector investment, long-term funding, financial incentives, and investments. • Lead stakeholder discussions and workshops to help ensure that international good practices are considered. Ensure capacity building through workshops, training, and outreach. **Qualifications:** • A minimum of a master's degree in development or sustainable finance, economics, or a closely related subject, including specialization in waste/chemical and climate finance. • The Consultant will be expected to have at least seven years of experience working as a development or sustainable finance expert including experience in developing countries. • Consultant will be expected to have at least seven years of experience working as a development or sustainable finance expert including experience in developing countries. • Experience of working in the waste and chemical-related projects specially on Mercury phaseout • Experience of working with governmental, academic, and international organizations/institutions; knowledge of UN/UNDP. • Experience working with financial sector regulators in developing countries on financial sector regulatory reforms is an asset, especially in terms of green finance mainstreaming into the financial sector. • Experience in capital markets, banking, financial institutions and digital payment systems
International Consultant- Mercury and POPs Management Rate: $650/day	38 working days	• Review and update of inventory of products which contain mercury (real quantities), already existing in Sri Lanka health sector and provide required technical guidance for the NIP update. • Introduce the rationale for integrating Sound Management of Chemicals into national country development planning dialogue and processes to key stakeholders with emphasis on the methodology proposed for mainstreaming the sound Management of Chemicals and the tools by which to do so. • Proposing the best manner for Customs Administration to monitor the abovementioned products, as well as how to discourage distribution or trade of new products containing mercury. • Defining of measures which need to be applied to achieve adequate improvement in reducing the emission of mercury in air from the health sector.

Consultant	Time Input	Tasks, Inputs and Outputs
		• Development of risk management strategy, technical guidance & training materials for sound management of waste containing mercury • Development of guidance tools and guidelines for inventory of mercury and POPs contaminated sites • Ensure environmentally safe disposal of existing residual mercury stooks and mercury-contained waste, obsolete stocks of POPs-contaminated pesticides and their containers • Defining of measures that will ensure that mercury is disposed/collected temporarily in an ecological acceptable manner • Training for relevant health sector staff prepared and delivered with the support of local consultants. **Qualifications** • Minimum of 10 years of experience in preparation of national reports and assessments related to chemicals in the environment, POPs, etc. • Specific experience with Mercury inventories is an advantage. • Demonstrable experience in training and capacity building of national stakeholders and institutions. • Experience in development of long-term plans for mercury management. • Experience in Policy/Regulatory and Institutional assessments. • Practical experience in similar assignments is preferred. • Solid knowledge of United Nations, Global Environmental Facility, The Minamata Convention and other international or bilateral organizations and their policy, programme and operations. • Prior UNDP/GEF project experience and knowledge of UNDP and GEF procedures and guidelines is an advantage.
For Technical Assistance		
Outcomes 1.1, 1.2, 2.1, 3.1 and 3.2		
Local / National contracting		
Technical Advisor Rate: $400/day	250 working days	The Technical Advisor's main role is to provide technical support for all components of the project, including in particular for overseeing the responsibilities of the third-party entities processes including revision of policies and guidelines, capacity building, knowledge management, gender mainstreaming and M&E. He/she will also be responsible for ensuring project quality and the provision of technical oversight for all project activities and the delivery of its outputs. The PA will support and coordinate the activities of all partners, staff, and consultants as they relate to the implementation of the project. The TA will be responsible for the following specific tasks: Specific responsibilities include: • Manage the overall coordination and guidance of the technical aspects of the project, in particular the safe disposal of Mercury and POPs and obsolete POPs chemical stocks, establishment of Central Clinical Waste

Consultant	Time Input	Tasks, Inputs and Outputs
		Treatment Systems, financial solutions and community and related development activities • Oversee and coordination of the technical inputs from the international and national consultants • Develop and support a capacity building and training programs for all relevant national and local agencies, HCFs, community and stakeholders • Support the conduct of technical consultations and workshops to develop the guidelines, tool kits and manuals for facilitating safe chemical and mercury disposal, financial solutions, centralized HCW treatment systems, etc. • Development and organization of awareness and publicity programs and materials • Plan the activities of the project and monitor progress of third-party entities against the approved work plan. • 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. • 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. • Perform regular progress reporting to the project board as agreed with the board, including measures to address challenges and opportunities. • 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 work plan, as needed, as well as annual and quarterly plans if required. • Prepare the inception report no later than one month after the inception workshop. • 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. • 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 the Terminal Evaluation process

Consultant	Time Input	Tasks, Inputs and Outputs
		Qualifications • At least a master's degree in environment, natural resources, waste/chemical management, private sector engagement or related topic • At least 10 years of Project technical experience, showing a progressive increase in scope and responsibilities. • Demonstrated coordination and project leadership skills, and ability to multi-task. • Demonstrated experience on biodiversity and environmental conservation activities. • Familiarity with the goals and procedures of government institutions, including those of UNDP and GEF as it relates to the Project goals and objectives. • Availability for extensive domestic travel. • Strong leadership and team building skills. • Self-motivated and ability to work under the pressure. • Demonstrable ability to organize, facilitate, and mediate technical teams to achieve stated project objectives. • Familiarity with logical frameworks and strategic planning. • Strong computer skills. • Flexible and willing to travel as required. • Excellent communication and writing skills in English. • Previous experience working with a GEF-supported project is considered an asset.
Private Sector Liaison and Business Development Expert Rate: $400/day	250 working days over a 4-year period	• Support the establishment and maintenance of relationships/partnerships with champion firms, business groups, organizations, and other stakeholders in the areas of health care waste and chemical management. • Working closely with the Private Sector, assist in the coordination and exchange of experiences, best practices, and other business promotion mechanisms among private sector partners to achieve sustained business models for HCWM and Mercury disposal. • Develop comprehensive business plans and gender sensitive HCWM reflecting the experiences of technical assistance and demonstration activities with integrated recycling programs piloted in six HCFs • Data collection on recycling potential at the pilot facilities and development & assessed partnerships with the local private sector (including women led MSMEs) to improve the collection and recycling networks of de-contaminated materials. • Review and update current guidelines related to HCWM to facilitate the proper collection and recycling of valuable materials (plastics, glass and aluminium). • Ensure opportunities for the creation of "green jobs" related to HCW recycling, and alternative income generation opportunities by

Consultant	Time Input	Tasks, Inputs and Outputs
		facilitating the partnership between hospitals, Local Authorities and waste collectors. • Contribute to the development of a private sector engagement strategy and the implementation of recommended interventions to address barriers to women's employment in HCWM and Chemical waste management sectors • Coordinate between government and private sector companies at national and local community levels. • Provide technical support on areas of mutual interest between the government and private sector; and • Contribute technically to official discussions and meetings with government, employers' organizations, finance institutes, BOI and chamber of industry and commerce, etc. **Qualifications** • Master's degree in business management or in a relevant field • Relevant progressive practical experience at a professional level acquired through work in a respective industry, central or local government, academia, non-governmental or professional services sector. • Proven experience in one or more of the following areas: business enabling environment; export and investment promotion; clusters and business linkages; facilitating access to finance; promoting innovation and technology use for competitive development; enterprise restructuring; business upgrade, or an associated field. Prior experience in technical cooperation / technical assistance in developing countries is a distinct advantage. • Demonstrated experience in carrying out consultations with local peoples, and/or community engagement is highly desired. Fluency in English, working knowledge of the other UN official languages is an asset.
Outcome 4: KM and M&E		
Project Gender Expert Rate: $400/day	31 days over 5-year project duration	<u>Duties and Responsibilities</u> • 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 the 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. • Carry out participatory social and environmental injustice analysis over healthcare waste management (HCWM) issues in the project including gender dimensions.

Consultant	Time Input	Tasks, Inputs and Outputs
		• In close collaboration with the midterm review consultant, highlight the gender equality dimensions of the evaluation and analyze the gender equality and human rights mainstreaming gaps in the project implementation. • Develop list of recommendations of the project with annual outputs to facilitate the implementation of activities that promote gender equality and human rights. • Develop short gender equality and human rights training module to be part of HCWM training activities in the project areas. • Participate in the project meeting to advise on the results of the analysis, present the list of recommendations for implementation; and conduct a short training session on gender equality and human rights issues in HCWM and POPs chemicals in the agriculture sector. **Qualifications** • Master's degree in studies related to gender or human rights on development, environment, sustainable development or closely related area. • At least 5 years of practical working experience in gender equality or human rights issues related to sustainable development. • Experience carrying out participatory social and environmental injustice analysis including gender inequality. • Experience collecting and formulating gender and human rights responsive indicators and sex-disaggregated data, and developing gender and human rights action plans. • Experience with chemical or healthcare waste management related issues is highly desired. • Experience conducting gender equality and human rights trainings or stakeholder meetings is highly desired. • Relevant experience in Sri Lanka or in a similar region is desired. • Experience working with the UN and GEF is desired.
Social and Environmental Safeguards Specialist Rate: $400/day	52 days over 5-year project duration	<u>Duties and Responsibilities</u> • Organize and facilitate inception workshops and prepare and communicate key highlights to key decision makers with regard to addressing environmental, and social safeguard and climate mitigation measures. • 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 the implementation of all safeguards related plans. • Ensure social and environmental grievances are managed effectively and transparently. • Review the SESP annually, and update and revise the corresponding risk log; mitigation/management plans as necessary. • Ensure full disclosure with concerned stakeholders.

Consultant	Time Input	Tasks, Inputs and Outputs
		• 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. • Organize and facilitate the convening of preparatory meetings as well as meetings with all the relevant stakeholders concerned to establish mechanisms for disposal of POPs chemicals and HCW and management of environmental & social safeguards • Assist in the preparation of operating safeguard procedures as part of work packages to operationalize key features of the project interventions at the pilot locations • Oversee the preparation of the ESMP and related safeguard procedures. • Oversee and monitor the implementation of the ESMP, advise HCFs, LAs on procedures for management of safeguards and report on performance on regular basis • Monitor project progress and participate in the production of progress reports ensuring that they meet the necessary reporting requirements and standards for safeguards • Providing training and skills development for relevant target groups of MOH, HCF, ROP, MoA and LAs etc; in safeguard management and monitoring outcomes of the project **Qualifications:** • Master's degree related to natural resource management, social science or another field with direct relevance to the project. • At least 7 years of experience in managing community-based projects on natural resource management, waste or chemical management in Sri Lanka or other parts of the world. • Minimum 7 years of demonstrable experience in the technical area of environment management, community development, and social and environmental safeguards risk assessment and mitigation. • Prior experience in the safeguards assessments and processes of international organizations and donors, such as World Bank, GEF, UNDP, etc. • Demonstrated understanding of the links between sustainable development, social and gender issues. • Demonstrated experience working on policy and programmatic issues with national and local governments and civil society organizations including community organizations. Demonstrated experience in carrying out consultations with local peoples, and/or community engagement is highly desired.
Monitoring and Evaluation Specialist Rate: $400/day	118 working days	<u>Duties and Responsibilities</u> • Monitor project progress and participate in the production of progress reports ensuring that they meet the necessary reporting requirements and standards.

Consultant	Time Input	Tasks, Inputs and Outputs
		• 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. • Coordinate the timely conduct of reporting processes by all responsible partners related to M&E functions in accordance to GEF/UNDP protocols and policies • 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. **Qualifications:** • At least 5 years of proven experience with (a) The logical framework and other strategic planning approaches (b) M&E methods and approaches (including quantitative, qualitative and participatory (c) Planning, design, and implementation of M&E systems (d) Training in M&E development and implementation and/or facilitating learning-oriented analysis sessions of M&E data with multiple stakeholders (e) Data and information analysis (f). Report writing • A solid understanding of waste & chemical management and environmental management, with a focus on participatory processes, joint management, and gender issues • Familiarity with, and a supportive attitude towards, processes to strengthen local organisations and build local capacities for self-management • Willingness to undertake regular field visits and interact with different stakeholders, especially primary stakeholders • Understanding of UNDP and • Experience in data processing and with computers • Computer proficiency in MS Office (Word, Excel and PowerPoint) and other common software is a prerequisite. • Demonstrated ability to work effectively with a broad range of stakeholders • Strong skills in financial tracking and budget management • Preferably have close familiarity with the operations and rules of UNDP and GEF procedures • Fluency in English (reading, writing, speaking).

Consultant	Time Input	Tasks, Inputs and Outputs
Communication and Training Expert Rate: $15,500/year	5 years	• Develop and deliver Project communication and training tools related to the project outputs and activities through differentiated approaches for the stakeholders • Ensure the effective delivery of knowledge management tools among the relevant workforce through replication and upscaling under the project Components 1, 2 and 3 • Ensure and provide equitable training opportunities for women and men on the safe handling of waste through a participatory and mutual learning approach, allowing peer-to-peer exchange and promoting innovative bottom-up approaches for HCWM. • Develop and conduct awareness and training materials and programs (guided by UNDP's SES) for the relevant officials on hazardous chemical management. • Develop training programs to strengthen the capacities of public officers and healthcare facilities staff on U-POPs releases during the waste disposal activities and mercury phase out. • Conduct training programmes on Environmental, Monitoring for Customs Officers on the control and monitoring of POPs, Mercury and other CoCs • Record, report and ensure dissemination of lessons learned, best practices and experiences regarding the scale-up and replication of project results as well as from other part of the world and ensure and incorporate those into the national guidelines, regulations and standards • Create harmonized codes of quality and training programs for public officers, healthcare staff, waste workers and other relevant actors on the use of best available techniques/practices (BAT/BAP) in the healthcare sector, mercury-waste management, application of mercury-free devices and, thus, support the phase-in of alternatives. • Development of relevant communication and knowledge products including gender responsive technical guidance and training materials and utilize them to achieve sound chemical management under the project scope • Promote and incorporate gender sensitive approaches for the project´s KM activities which can incorporate gender equality principles and actions into environmentally sound management of healthcare waste • Develop and draft the appropriate manual aimed at the identification, and prevention of illegal import of POPs for Departments of Imports and Exports Control and Customs officers and safe handling of Mercury for health care staff • Provide technical inputs in developing project communication materials (videos/leaflets/infographics and posters; etc.) **Qualifications:** • Master's Degree or equivalent in Communication, Media Studies, Journalism or relevant technical sciences, environmental protection, or related fields.

Consultant	Time Input	Tasks, Inputs and Outputs
		• At least 5 years of professional experience working in environment, waste and chemical management with specific knowledge of POPs, Mercury and Health care waste management • Previous experience in developing and delivering training to the government, private sector, general public and NGO/CSOs on subjects regarding chemicals and waste management • Previous experience in conceptualizing and drafting training materials intended for relevant project stakeholder groups (e.g., manuals-textbooks, guides, studies, etc.) • Previous experience with UN or other international organizations related projects preferred • Working Knowledge of the English language (communication skills). • Excellent computer skills and ability to use information technologies as a tool and resource.

Annex 8: Stakeholder Engagement Plan

1. INTRODUCTION

Stakeholder engagement means a process involving stakeholder identification and analysis, planning of stakeholder engagement, disclosure of information, consultation and participation, monitoring, evaluation and learning throughout a project cycle, addressing grievances, and on-going reporting to stakeholders. Thus, stakeholder engagement is a fundamental requirement for the success of the proposed project on "Integrated Management and Environmentally Sound Disposal of POPs Pesticides in the Agricultural Sector and Mercury & Waste in the Healthcare Sector in Sri Lanka". 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 mobilization of stakeholders, are the vehicles through which the project proposal has been formulated and planned to implement, monitor, appraise and review.

Stakeholder analysis and engagement is 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) is devoted to present a summary of the stakeholder mapping conducted and the Stakeholder Engagement Plan (SEP) developed covering the stakeholder engagement during both the project preparation and project implementation. 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 performed during the PIF stage, more comprehensive analysis is 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; and
- The data and information collected from consultation of stakeholders through physical sessions, virtual meetings, focus group discussions, interviews, questionnaires and field visits.

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, namely Agriculture and Healthcare. 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.

Stakeholder identification, engagement and assessment during PPG stage were conducted during June to September 2022, 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 VIII. 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
National government		
The Ministry of Environment (MoE)	The government entity mandated (particularly by National Environmental Act, No. 47 of 1980) to develop and enact policies (e.g., National Environmental Policy 2003) and regulations in environment related subjects; The focal agency 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 Sri Lanka. Powers and duties given by the Control of Pesticides (Amendment) Act No. 6 of 1994. Advise the Registrar on any important matter relating to the registration of pesticides, approval of containers, the storage, formulation, import, sale and use of pesticides, etc.	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; Represent the Project Board as the Project Executive/Chairperson, and performing the responsibilities of the Project Board such as reviewing performance based on monitoring and evaluation, and addressing the implementation issues to ensure quality delivery of results. Provide co-financing.
Ministry of Agriculture (MoA)	Powers and duties given by the section 21 of Control of Pesticides Act No. 33 of 1980 section 16 of Control of Pesticides (Amendment) Act No. 6 of 1994; The focal point for Rotterdam Convention on Prior Informed Consent Procedure and responsible for Policy Setting and Enforcement.	A member of the Project Board as one of the Beneficiary representatives (in the agricultural sector); Perform the responsibilities of the Project Board such as reviewing performance based on monitoring and evaluation, and addressing the implementation issues to ensure quality delivery of results; Ensure the realization of project results from the perspective of project beneficiaries in the agricultural sector. Provide co-financing.
Ministry of Health (MoH)	Powers and duties given by the section 06 of Control of Pesticides (Amendment) Act No. 6 of 1994. Setting policies and management of healthcare waste, particularly mercury in the healthcare facilities.	A member of the Project Board as one of the Beneficiary representatives (in the heath sector); Perform the responsibilities of the Project Board such as reviewing performance based on monitoring and evaluation, and addressing the

Key Stakeholders	Mandate Relevant to the project	Roles in the project
		implementation issues to ensure quality delivery of results; Ensure the realization of project results from the perspective of project beneficiaries in the health sector; Ensure mercury containing equipment are not used (or procured) and provide guidance and facilities for the utilization of proper disposal mechanism for the available obsolete mercury containing equipment; Partner with the local authorities (LAs) and private companies in establishment and operationalization of the centralized healthcare waste (HCW) treatment & disposal plants (referred to as Centralized Clinical Waste Treatment Facilities - CCWTF) proposed in 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.
The Ministry of Local Government and Provincial Councils	Responsible for formulating and implementing national policy on provincial councils and Local Government and other subjects in which waste management is one area.	As a member of the 'Responsible Party B', provide advice and guidance to carries out demonstration project activities to promote and facilitate HCW management, particularly treatment of waste and final disposal of residues.
The Central Environmental Authority (CEA)	The Authority established under the provision of the National Environmental Act No 47 of 1980, for developing and enforcing regulations to Protect, manage and enhance quality of the environment, and to Prevent, abate and control pollution. The focal point for managing the industrial chemicals including pesticides listed by the Rotterdam Convention (together with the Registrar of Pesticides); Control waste discharges from industry which may contain chemicals.	As a member of the 'Responsible Party A', provide technical support and consultations to facilitate project implementation and decision making of governance and management; Deploy a centralized digitized information management system covering all stages of the lifecycle of chemicals; Develop an effective system for responding to complaints and inspection using new technologies (i.e., introducing QR system-based labelling, GPS tracking etc.). Ensure safe disposal of chemical waste including mercury and pesticides; Issue Environmental Protection Licencing (EPL) and Scheduled Waste Management Licencing (SWML) for the agencies involved with the pilot projects. Monitoring the use of illegal operations, if any, when renewing the EPL annually; Provide co-financing.
Department of Agriculture	Enforcement of the provisions given by the section 21 of Control of Pesticides Act No. 33 of 1980 section 16 of Control of Pesticides (Amendment) Act No. 6 of 1994, through appointment of Authorized Officers.	As a member of the Pesticide Formulary Committee of the Registrar of Pesticide, provide advice and make rules on the registration of pesticides, and related matters, as may be prescribed by regulations made under Control of Pesticides Act;

Key Stakeholders	Mandate Relevant to the project	Roles in the project
		Provide co-financing.
Registrar of Pesticide (RoP)	Enforcement of the provisions in the Control of Pesticides Act No. 33 of 1980 and (Amendment) Act No. 6 of 1994 and regulations made there under. The focal point for managing the industrial chemicals listed by the Rotterdam Convention (together with CEA).	As a member of the 'Responsible Party B', carries out demonstration project activities to promote and facilitate the replacement of mercury-containing medical devices and activities like collection, storage and sound environmental disposal of POPs pesticides, cross-contaminated chemicals, mercury and mercury wastes; Enhance the testing laboratory facilities; Control, import, packing, labelling, storage, formulation, transport, sale and use of pesticides through registration of pesticides. Provide co-financing.
Department of Agriculture (DoA)	Enforcement of the provisions given by the section 21 of Control of Pesticides Act No. 33 of 1980 section 16 of Control of Pesticides (Amendment) Act No. 6 of 1994, through appointment of Authorized Officers.	As a member of the Pesticide Formulary Committee of the RoP, provide advice and make rules on the registration of pesticides, and related matters, as may be prescribed by regulations made under Control of Pesticides Act. Provide co-financing.
Sri Lanka Customs	Empowered by the Customs Ordinance no. 17 of 1869 (and subsequent amendments) to control the imports & exports of chemicals, though implementations/ monitoring/enforcement of regulations of other government agencies like Import Control Department, RoP, and MoH,	Enhance the testing laboratory facilities to detect POPs chemicals directly and in products; Control, import, packing, labelling, storage, formulation, transport, sale and use of pesticides through registration of pesticides. Border control of pesticides when importing to the country. Provide co-financing.
Import and Export Control Department	Empowered by the Import and Export Control Act No.1 of 1969 (and subsequent amendments) to control of the importation and exportation of goods (including chemicals) and for matters connected therewith or incidental thereto.	Regulate the import of chemicals by demanding a Special Import License Scheme (SIL); Strick enforcement of regulation of imports of POPs chemicals and containing products though enhanced capacity and skills.
National Medicines Regulatory Authority (NMRA)	Registration of Medical devices.	Ensure not to issue licenses for mercury containing medical devices.
Private Health Services Regulatory Council (PHSRC)	Established under Private Medical Institutions (Registration) Act No 21 of 2006, which provides provide registration, regulation, monitoring, and inspection of private HCFs.	Ensure mercury containing equipment are not used (or procured) in private HCFs and provide guidance and facilities for the utilization of proper disposal mechanism for the available obsolete mercury containing equipment.
The Board of Investment (BOI)	Established under Greater Colombo Economic Commission Law, No. 4 of 1978 to promote and to facilitate import/export clearance and custom procedure for import of capital goods, raw materials, chemicals and the export of the final product;	As a member of the 'Responsible Party A', provide technical support and consultations to facilitate project implementation and decision making of governance and management; Provide related information to the centralized database in order to record and track importation of chemicals of BOI registered industries, including tracking their use and disposal.

Key Stakeholders	Mandate Relevant to the project	Roles in the project
	The "Environment Department" of the BOI checks the conformity of Import Control Licence (ICL), as required by the amended Import & Export (Control) Act (2013), prior to granting clearance.	
Central Bank of Sri Lanka (CBSL)	Development and regularization of green financing taxonomy and frameworks for investment analysis for the banking sector when funding green projects, including waste management.	Further develop the Green Financing Taxonomy, and related instruments (e.g., greed bonds) to cover the management of chemicals and chemical waste; Provide guidance and advisory services to set up sustainable/green financing cells within commercial banks and disbursement of green financing; Provide co-financing.
Private sector – a sustainable banking initiative in Sri Lanka (includes both public and private sector banks).	Provide a platform where banks can work together on sustainability issues and to advance understanding and action on responsible banking practices that can facilitate sustainable economic growth by incorporating minimal standards and principles for environmental and social considerations into operations.	Assist CBSL to Further develop the Green Financing Taxonomy, and related instruments (e.g., greed bonds) to cover the management of chemicals and chemical waste; Guide commercial banks to set up green/ sustainable financing cells and disbursement of green/sustainable financing; Provide co-financing.
Public sector banks	Mainstream social & environmental sustainability through establishing principles and standards on social and environmental safeguards; Adopt and operationalize Green Financing Taxonomy, and related instruments (e.g., greed bonds) in enhancing the scope to cover the management of chemicals and chemical waste.	Assist in developing sustainable business models and provide access to green/ sustainable finance in implementing the centralized HCW treatment & disposal plants and chemical/pesticide management systems proposed in the project.
Healthcare facilities (government)	Management of HCW generated in the facility, including mercury-containing medical devices, other products and mercury wastes.	As members of the 'Responsible Party B', provide advice and guidance to carries out demonstration project activities to promote and facilitate HCW management, particularly treatment of waste and final disposal of residues; Ensure mercury containing equipment are not used (or procured) and proper disposal mechanism is used for the available obsolete mercury containing equipment; Participate in the centralized HCW treatment & disposal systems proposed in the project, while implementing holistic waste management within the healthcare facility.
Provincial and local governments		
Local Authorities (Kurunegala Municipal Council and Eravur Pattu Pradeshiya Sabha)	Safe disposal of treated non-hazardous HCW in landfill sites.	As members of the 'Responsible Party B', provide advice and guidance to carries out demonstration project activities to promote and facilitate HCW management;

Key Stakeholders	Mandate Relevant to the project	Roles in the project
		Partner with the MoH, healthcare facilities (HCFs) and private companies in treatment & disposal of HCW through non-incineration technologies/processes in the centralized HCW treatment & disposal systems proposed in the project. Allocation of land and other resources to setup disposal site for HCW residues (treated). Provide co-financing.
Provincial health ministries	Procurement of equipment for HCFs	Ensure mercury containing equipment are not used (or procured) and provide guidance and facilities for the utilization of proper disposal mechanism for the available obsolete mercury containing equipment.
Private Sector		
Asia Recycling (Pvt) Ltd.	Recycling of Linear fluorescent lamps (LFL) and compact fluorescent lamps (CFL).	Recommence the recycling facility operations for safe mercury extraction and storage of mercury, to be able to collect and recycle mercury-based devises or products that has become obsolete; Provide advice and guidance to carry out demonstration project activities to promote and facilitate HCW management; and Provide co-financing.
Ceylon Waste Management (Pvt) Ltd.	Extraction and recycling of mercury from equipment and LFL/CFL.	Recommence the mercury recycling facility to support the project activities to safely manage mercury-based devises and products; Provide advice and guidance to carry out demonstration project activities to promote and facilitate HCW management; Provide co-financing.
INSEE Ecocycle Lanka (Pvt) Ltd.	Sustainable waste management through co-processing of hazardous and non-hazardous industrial waste in the cement kiln.	Contribution to last mile solution for HCW processed by the proposed centralized HCW treatment & disposal system in Eastern Province, through waste mining at the landfill site that would allow rehabilitation of the site for further landfilling. Provide co-financing.
CropLife Sri Lanka	Safe management of used containers of agrochemicals, as a responsibility of private sector agrochemical importers and distributors.	Partner with government agencies (e.g., MoA, RoP, MoE, CEA) and other stakeholders in enhancing the collection of chemical containers during the project implementation and continuing to expand and implement the system.
Healthcare facilities (private)	Management of HCW generated in the facility, including mercury-containing medical devices, other products and mercury wastes.	Ensure mercury containing equipment are not used (or procured) and proper disposal mechanism is used for the available obsolete mercury containing equipment; Participate in the centralized HCW treatment & disposal systems proposed in the project, while implementing holistic waste management within the HCF.

Key Stakeholders	Mandate Relevant to the project	Roles in the project
Suppliers of medical equipment	Supply medical devices to government and private institutions	Ensure suppliers are in accordance with the specifications given and no mercury containing devices are supplied.
Private sector banks	Mainstream social & environmental sustainability through establishing principles and standards on social and environmental safeguards; Adopt and operationalize Green Financing Taxonomy, and related instruments (e.g., greed bonds) in enhancing the scope to cover the management of chemicals and chemical waste.	Assist in developing sustainable business models and provide access to green/ sustainable finance in implementing the centralized HCW treatment & disposal plants and chemical/pesticide management systems proposed in the project.
NGOs/CSOs/CBOs		
The National Cleaner Production Centre (NCPC)	Provide Resource Efficient and Cleaner Production (RECP) solutions, including chemical management, for industrial, business, governmental and other organizations to become environmentally friendly, socially responsible and economically productive.	Provide data and information on the chemical management in the local industries, businesses, governmental and other organizations.
Other NGOs/CSOs/ CBOs	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.
Local communities	Living in the influential area of the pesticide and mercury-polluted sites; Living surrounding the demonstration medical facilities.	Participate in the implementation of the centralized HCW treatment & disposal plants and chemical management systems proposed in the project; and Participate in, and contribute to, the implementation of some activities of the project such as awareness creation, communication and training.
Development Partners		
United Nations Development Programme (UNDP), Sri Lanka	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 (2019). 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 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, MoE who is the Implementing Partner and Project Executive, 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 centralized HCW treatment & disposal systems in the two pilot sites. 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 VIII. 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 means of engagement, objectives, stakeholders engaged, time and major results.

Table 4.1: Stakeholder engagement in the project preparation (PPG) phase

Means of Engagement	Objectives	Stakeholders engaged	Time	Major results
Focus group discussions, interviews, meetings, validation workshops (physical and virtual) of the Data Collection Team and PPG Team with the stakeholders in the agriculture sector; Field visits.	To gather baseline information on the POPs containing pesticides management and implementation; To identify the amount of POPs pesticide/POPs-contaminated pesticides to be disposed.	Ministry of Environment (MoE); Ministry of Agriculture (MoA); Department of Agriculture (DoA); Registrar of Pesticide (RoP); Central Environmental Authority (CEA); Sri Lanka Customs; Private sector (importers and waste treatment).	June to September 2022	Identification and analysis of relevant national and sectoral acts, policies, regulations, and procedures; Identification and mapping of all relevant stakeholders in the agriculture sector, their mandates, roles & responsibilities, present activities & progress, issues/ constraints/challenges/ risks; Review of plans of POPs containing pesticides; Control systems of POPs containing pesticides (including provisions in the Act, coordination among institutions, data management system); Status of POPs containing pesticides monitoring and verification system (including laboratory/testing facilities); Disposal of POPs containing pesticides (the present practices and amounts of obsolete

Means of Engagement	Objectives	Stakeholders engaged	Time	Major results
				POPs pesticide/POPs-contaminated pesticides to be disposed); Identification of the POP decontamination site; Issues/challenges & recommendations.
Focus group discussions, interviews, meetings, validation workshops (physical and virtual) of the Data Collection Team and PPG Team with the stakeholders in the healthcare sector; Field visits; Online questionnaire.	To gather baseline information on the mercury management in the healthcare sector.	Ministry of Environment (MoE); Ministry of Health (MoH); Directorate of E&OH, MoH; Medical Supplies Division (MSD); Bio-medical Engineering Division, MoH; National Medicines Regulatory Authority (NMRA); Central Environmental Authority (CEA); Sri Lanka Customs; Individual HCFs; Private sector (mercury recycling)	June to September 2022	Identification and analysis of relevant policies, acts, procedures and systems for the management of mercury containing products in the health sector; Identification and mapping of all relevant stakeholders in the health sector, their mandates, roles & responsibilities, present activities & progress, issues/ constraints/challenges/ risks; Progress of controlling procurement and utilization of mercury containing products; Existing quality standards requirements for procuring mercury fee alternatives; Control systems of mercury (including legislations, coordination among institutions, and data management system); Status of mercury monitoring and verification system (including laboratory facilities); Present practices in disposal of mercury; Quantity of obsolete mercury containing devices to be disposed; Identification of the mercury decontamination site; Issues, challenges & recommendations.
Focus group discussions, interviews, meetings, validation workshops (physical and virtual) of the Data Collection Team and PPG Team with the stakeholders in the HCW management sector; Field visits;	To gather information on the status of HCW management in the selected provinces in view of establishing two centralized HCW treatment & disposal plants proposed in the Project; To identify five HCFs to demonstrate HCWM;	Ministry of Environment (MoE); Ministry of Health (MoH); Directorate of E&OH, MoH; Central Environmental Authority (CEA); Individual HCFs; Selected LAs (Kurunegala Municipal Council	June to September 2022	Selection of the two provinces (North Western and Eastern) among the three provinces initially earmarked; Selection of the site for the two centralized HCW treatment & disposal plants; Status of the present landfill/ dumpsites in the two locations; Wastes quantities generated from the government HCFs within the catchment area of each of the two HCW treatment & disposal plants; Identification of three HCFs in each of the two provinces for the demonstration of HCWM;

Means of Engagement	Objectives	Stakeholders engaged	Time	Major results
Online questionnaire.	To identify the operational status of twenty MetaMizer hybrid autoclave systems deployed in state sector HCFs; To identify the status of the implementation of National HCW Management Guidelines; To identify feasibility and develop business model in each of the two centralized plants.	and Eravur Pattu Pradeshiya Sabha); Private sector (waste treatment)		Operational status of the twenty MetaMizer hybrid autoclave systems in the HCFs, including capacity utilization, costs of operation, issues and challenges, and recommendations for improvements; Implementation status of the National HCW Management Guidelines; Scenario analysis and feasibility assessment of the two centralized HCW treatment an& disposal plants; Business and partnership models for the two centralized HCW treatment & disposal plants.
Consultation meeting (Virtual), Focus group discussions.	To identify the status of green and sustainable financing in relation to the chemical and mercury management.	Member organizations of a sustainable banking initiative in Sri Lanka	July to September 2022	Status of the Roadmap for Sustainable Finance in Sri Lanka (Central Bank of Sri Lanka, 2019); Status of the Sri Lanka Green Finance Taxonomy (Central Bank of Sri Lanka, 2022) and its implications on chemical management; Status of the Green Bond Framework for Sri Lanka; Initiatives taken by individual financial organizations, particularly under their portfolios related to sustainability initiatives and Social & Environment Safeguards.
Consultation meeting (Virtual), Focus group discussions, Field visits.	To identify the status of the private sector engagement in chemical and mercury management (including HCWM); To estimate the quantity of mercury waste in the stocks (required to be disposed).	Private sector organizations involved with (i) mercury management (Asia Recycling (Pvt) Ltd. and Ceylon Waste Management (Pvt) Ltd.) (ii) Co-processing of hazardous waste by INSEE Ecocycle Lanka (Pvt) Ltd. (iii) Agrochemical importers and distributors	July to September 2022	Status of the mercury recycling and disposal; Quantity of mercury waste in the stocks; Potential options of the disposal of accumulated mercury waste and recommencement of operations; Potential options for last-mile solution to HCWM through co-processing of residues and waste mining; Status of safe management pesticides through the collection of chemical containers.

Means of Engagement	Objectives	Stakeholders engaged	Time	Major results
		(represented by CropLife Sri Lanka).		
Consultation meeting (Virtual)	To obtain perceptions of the national level NGOs/CSOs on chemical management and HCWM, and implications on the present Project; To comprehend the community/ public opinion through the experience and exposures of NGOs/CSOs.	National level NGOs/CSOs: Centre for Environmental Justice; Sri Lanka Red Cross; Sarvodhaya; Helpo Sri Lanka; Sevenatha; Palm Foundation Nuwara Eliya;	01st September 2022	Presence of irregular procedure of using dental amalgam in Sri Lanka, emphasizing the need to change the attitude of doctors; Need the assistance from the government authorities to operationalize mercury recycling plants operated by the private sector; Importance of having sectoral experts and technical competent professionals in the Project Steering Committee and in the partner organizations; Do away with the utilization of incineration technologies for treatment of HCW; Lack of proper mechanism and resources in government HCFs to monitor the collection and disposal process of chemicals and chemical containing equipment; Training needs of cleaning staff in HCFs in handling clinical waste. Enhancement of public awareness on POPs and other chemicals and raising participation of CSOs in managing chemicals; Need of strengthening mercury and chemical management policies within the project components.
Consultation meeting (Virtual)	To introduce the proposed centralized HCW treatment & disposal plant to the local stakeholders of the project site in Eravur Pattu Pradeshiya Sabha, Eastern Province; To obtain perceptions of the local level NGOs/CSOs/CBOs; To comprehend the community/ public opinion through the experience and exposures of the local NGOs/CSOs /CBOs	Local level NGOs/ CSOs/CBOs: Self- Reliant Community Awakening Organisation; Sri Lanka centre for development; Kavya; Women's Development Foundation (WDF); Local Initiates for Tomorrow (LIIFT)	04th September 2022	Crosscutting nature and complexity of the challenges faced by communities; Need of a multi-stakeholder engagement platform that enables different parties to contribute through their unique roles, while collectively address the challenges.

Means of Engagement	Objectives	Stakeholders engaged	Time	Major results
Validation Workshop (Physical)			15th September 2022	
Consultation meeting (Physical)	To introduce the proposed centralized HCW treatment & disposal plant to the local stakeholders of the project site in Kurunegala Municipal Council, North Western Province; To obtain perceptions of the local level NGOs/CSOs/CBOs; To comprehend the community/ public opinion through the experience and exposures of the local NGOs/CSOs /CBOs.	Local level NGOs/ CSOs working in North-Western Province: Sri Lanka Red Cross Helpo Sri Lanka Sevenatha Kurunegala Municipal Council Sundarapola Waste management centre	21st September 2022	The participants were made aware of the project outputs, outcomes, and impacts. The need to make the affected communities aware ahead of the project implementation was emphasized. Importance to create the necessary environment to avoid or prevent the possibility of propagating distorted information by parties with vested interests was highlighted
Consultation meetings (Physical, virtual); Validation workshops (Physical, virtual) of the Data Collection Team and PPG Team with the key implementing partners.	To obtain endorsement for the planned data collection activities and consultations; To present and validate the findings of the data collection and stakeholder consultations.	Ministry of Environment (MoE); Ministry of Health (MoH); Central Environmental Authority (CEA).	June to September 2022	Endorsement of the key deliverables of the Data Collection team (Baseline status of POPs containing pesticide management; Baseline status of mercury management in the healthcare sector; HCFs for the piloting of HCWM; Operational status of the twenty MetaMizer hybrid autoclave systems in the HCFs; Implementation status of the National HCW Management Guidelines; Feasibility study, scenario analysis and business plan of each of the two centralized HCW treatment & disposal plants); Approval for the lists of stakeholders for the consultations; Selection of the two provinces (North Western and Eastern) and sites for the two centralized HCW treatment & disposal plants.

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, Stakeholders to be engaged, main responsible agencies, location, time and resources required.

Table 4.2: Stakeholder Engagement during the Project Implementation Phase

Means of Engagement	Objectives	Stakeholders to be engaged	Main responsible agencies	Location	Time	Resources
1. Before the 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,	Project Execute (MoE); Project Management Unit (PMU); GEF agency (UNDP).	Disclosed on websites of the MoE and UNDP	Before the project implementation	The project budget
Dissemination of the project information to the Project Support Technical Team, Responsible Party A and Responsible Party B.	To inform the key stakeholders and partners on the project activities and plans; To obtain comments on new circumstances.	Project Support Technical Team; Responsible Party A: CEA, Sri Lanka Customs, BOI, Ceylon Chamber of Commerce, Industry associations, NGOs/ CSOs/CBOs; Responsible Party B: RoP, Ministry of Local Government, LAs (Eravur Pattu PS, Kurunegala MC), HCFs.	PMU	To be decided (TBD)	Before the project implementation	The project budget
2. Engagement in project implementation						
▪ Project inception						
Focus group discussions; Meetings	To mobilize the project partners, including the LAs, HCFs, Private sector agencies.	Government agencies (MoE, MoH, MoA, CEA, RoP, Sri Lanka Customs, BOI); The two LAs (Kurunegala Municipal Council and Eravur Pattu Pradeshiya Sabha); Six HCFs selected for piloting of HCWM; Private sector agencies (Mercury recycling, HCW treatment; Co-processing of residues/ waste)	MoE, 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 stakeholders	MoE, PMU, UNDP	TBD	Project Inception Period	The project budget
▪ For Component 1: Strengthen the Policy, Regulatory and Institutional Frameworks for the management of POPs, Mercury and other Chemicals of Concern (CoC)						
Consultation workshops, Focus group discussions, Interviews, and Surveys.	To review baseline regulations on chemicals management; To update the National Implementation Plan (NIP) of POPs.	CEA, MoA, DoA, RoP, BOI, Sri Lanka Customs; Departments of Imports and Exports Control; Private sector (importers and distributers), NCPC and other NGOs, UNDP, UNIDO	MoE, PMU	TBD	During the first six quarters of the project implementation period.	The project budget
Focus group discussions, Interviews, and Surveys.	To collect the data and information for the Centralize the Chemicals Control System, complemented by upgraded laboratory facilities, digitized information management system, and enhanced capacities.	CEA, MoA, DoA, RoP, BOI, Sri Lanka Customs; Departments of Imports and Exports Control; Private sector (importers and distributers), NCPC.	MoE, PMU, UNDP	TBD	During the project implementation	The project budget
Focus group discussions, Interviews, Surveys, and Training workshops.	To identify gaps and needs of capacities and skills agencies that participate in the National Coordination Committee (NCC) for Chemicals and Waste Management; To build capacities and skills of the relevant staff.	Member agencies of the NCC for Chemicals and Waste Management	MoE, PMU, UNDP	TBD	During the first six quarters of the project implementation period.	The project budget

Focus group discussions, Interviews, and Surveys.	To identify the attributes, criteria and indicators for green procurement standards (particularly for mercury-free alternative products, PPE and other consumables)	MoH, SCP Forum, NCPC, National Procurement Commission	MoE, PMU, UNDP	TBD	During the project implementation	The project budget
▪ For Component 2: Environmentally Sound Management Disposal of Obsolete Stocks of Agrichemicals POPs, Mercury and their Wastes						
Focus group discussions, Consultation meetings, and Interviews.	To ensure safe disposal of mercury stocks, and mercury-containing wastes; To address concerns of NGOs/CSOs and the affected communities.	MoH, MoE, Private sector agencies (mercury recycling, particularly Asia Recycling (Pvt) Ltd. and Ceylon Waste Management (Pvt) Ltd., NGOs, including NCPC)	CEA, UNDP	TBD	During the project implementation	The project budget
Focus group discussions, Consultation meetings, and Interviews.	To assess and inventories residual/ contaminated stocks of POPs pesticides and cross-contaminated chemicals; To develop and introduce guides and standards for decontamination of sites contaminated with POPs pesticides, POPs chemicals and mercury; To ensure safe disposal of POPs pesticides and cross-contaminated chemicals; To address concerns of NGOs/CSOs and the affected communities.	DoA, RoP, MoE, CEA, BOI, Private sector agrochemical importers and distributors (represented by CropLife Sri Lanka), NGOs (including NCPC)	MoA, UNDP	TBD	During the project implementation	The project budget
Seminars, Training workshops	To create awareness and build capacity of field level agriculture extension offices and officials for sound management of pesticides.	Officials and field officers of DoA, RoP, BOI, Sri Lanka Customs	MoA, PMU	TBD	During the project implementation	The project budget

Focus group discussions, Consultation meetings, and Interviews.	To review and update the national guidelines on safe management of mercury; To revise national HCWM guidelines to include sound management of mercury in the HCFs.	MoE, Private sector agencies (mercury recycling), NGOs (including NCPC)	MoH, CEA, PMU	TBD	During the project implementation	The project budget
Training workshops	To train staff of HCFs in applying the disposal management strategies/plans for residual Hg and Hg-contained products disposal.	Staff of HCFs that apply the disposal management strategies /plans, particularly the six HCFs selected for the piloting on HCWM (in the two provinces).	MoH, PMU	TBD	During the project implementation	The project budget
▪ *For Component 3: Establish Healthcare Waste Management (HCWM) Systems to effectively prevent U-POPs emissions, and develop Business Models for waste disposal at Healthcare Facilities which are aligned to the national COVID-19 recovery efforts*						
Focus group discussions, Consultation meetings, and Interviews.	To review and update regulations, standards and HCF-level practices related to HCWM, incorporating BAT/BEP; To develop information management system on HCW, and pilot at the six HCFs selected; To develop a national plan for harmonized treatment and disposal of HCW in emergencies.	MoE, CEA, Six HCFs selected for the piloting on HCWM (in the two provinces).	MoH	TBD	During the project implementation	The project budget

Focus group discussions, Consultation meetings, Awareness programmes, Field visits and Interviews.	To establish Public-Private Partnership (PPP) for two Centralized Waste Management System based on non-incineration treatment as demonstration units at Sundarapola in North Western province and Koduwamadu in Eastern province; To establish de-centralized non-incineration HCWM Strategy for medium to small scale HCFs, integrated to the two centralized systems; To address concerns of NGOs/CSOs/CBOs and the affected communities.	MoE, CEA, HCFs in the two provinces, Six HCFs selected for the piloting on HCWM, Other HCFs within the two provinces, Private sector (non-incineration waste treatment, co-processing of residues/waste), Private sector (technology supplier), NGOs/ CSOs/CBOs	MoH, LAs (Eravur Pattu PS, Kurunegala MC), UNDP	TBD	During the project implementation	The project budget
Focus group discussions, Consultation meetings, Awareness & training programmes, Field visits and Interviews.	To operationalize the twenty baseline hybrid autoclaves plants; To formulate and introduce sustainable business models for the twenty plants; To provide technical training for relevant staff and operators.	MoE, CEA, LAs, HCFs of the twenty baseline hybrid autoclaves plants, Private sector (technology supplier), NGOs/CSOs/ CBOs	MoH, UNDP	TBD	During the project implementation	The project budget
▪ *For Component 4: Knowledge Sharing, Management & Evaluation*						

Distance learning tools, Online communication, Knowledge products, Seminars & workshops	To raise awareness and enhance knowledge of the staff/workforce of HCWM sector in the country to cover about 1,100 HCFs and 100,000 workforce, 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, particularly on mercury management.	All HCFs in the country	MoH, Provincial health ministries, PMU	Websites, media (print, electronic, social) and other platforms	During the project implementation	The project budget
Training programmes and workshops, Distance learning tools, Online communication, Knowledge products.	To develop capacities of Public Officers and HCF staff on safe handling and management of U-POPs and Mercury; To provide equitable training opportunities for women and men on improved and safe handling of HCW generated at each point including segregation, weighing, or measuring waste fractions and recording, covering 10,000 waste workers engaged in Local Government level waste management processes and over 6,000 sanitary workers working in the HCWM systems.	Demonstration medical facilities: men and women staff, Expended medical facilities: men and women staff, Other relevant enterprises and medical facilities: men and women, Public population	Selected LAs, HCFs	MoH, Provincial health ministries, PMU	During the project implementation	The project budget

Awareness programmes, Seminars, and Training workshops.	To raise awareness, enhance knowledge, and build skills of the relevant officials in Sri Lanka Customs, BOI and other agencies on hazardous chemical management, including to monitor and verify POPs and POPs containing imports.	Sri Lanka Customs, BOI, CEA	MoA, MoH, MoE	TBD	During the project implementation	The project budget
	To raise awareness of about 1,000 employees within the piloted HCFs on safe handling and disposal of mercury containing devices To raise awareness of public/local community on the general replacement of household thermometers, supporting their safe disposal and reducing exposure risk	Selected HCFs, NGOs/CSOs/CBOs	MoH, MoE, CEA	TBD	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	HCFs, LAs, Private sector partners	PMU, 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 implementers	PMU, 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.	PMU, 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	PMU, 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, UNDP, MoE, and PMU	Disclosed on websites of the GEF, UNDP, MoE	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	Relevant project agencies (MoE, MoH, MoA), PMU	Disclosed on websites of the project and MoE	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	Relevant project agencies (MoE, MoH, MoA), PMU	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	Relevant project agencies (MoE, MoH, MoA), PMU	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, LAs, HCFs)	Express grievance	People or organizations submitted grievance	Relevant entity (Pilot sites, LAs, HCFs)	Written grievance	Any time during the project implementation	Project budget for M&E
Step 2: Relevant entity (Pilot sites, LAs, HCFs) address the grievance	Address grievance	People or organizations submitted grievance	PMU, Relevant entity (Pilot sites, LAs, HCFs)	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., MoE, MoH, MoA)	Address grievance	People or organizations submitted grievance	Relevant administrative authorities (E.g. MoE, MoH, MoA)	Suitable ways	Two weeks after received the complaint	Project budget for M&E

5. ARRANGEMENT OF IMPLEMENTATION OF THE STAKEHOLDER ENGAGEMENT PLAN

The overall guidance and direction of the implementation of the SEP will be provided by the Project Board, while the Project Manager/Coordinator will be responsible for facilitating and monitoring implementation of this SEP, with the guidance of Lead Technical Adviser. The Project M&E Officer is responsible for overseeing and coordinating the implementation of the SEP. These will be facilitated and coordinated relevant agencies (e.g. HCFs, LAs) of the piloting programmes at the site level. In addition to overseeing implementation of the SEP, the information on progress, challenges and outcomes will be included in the annual Project Implementation Reports.

The project midterm review and terminal evaluation will also evaluate the implementation of the SEP. Experiences and learning points will be included in the evaluation reports, which will be shared with other GEF projects in the future.

Empowered lives.
Resilient nations.

Draft Environment and Social Management Framework (ESMF)

For UNDP-supported, GEF-financed project in Sri Lanka:

Project Title:	Integrated Management and Environmentally Sound Disposal of POPs Pesticides in the Agricultural Sector and Mercury & Waste in the Healthcare Sector in Sri Lanka		
UNDP-GEF PIMS ID number:	6677	**GEF ID number:**	10868
Country:	Sri Lanka		
Implementing Partner:	Ministry of Environment (MoE)		
Management Arrangements:	Assisted National Implementation (NIM) with support by UNDP Country Office (if approved by GEF at CEO Endorsement)		
GEF-7 Focal Area/Non-Focal Area:	Chemicals and Waste		
Co-financing Administered by UNDP:	N/A	**Total Project Cost:**	USD 5,040,000
CEO Endorsement/Approval	7 June 2023	**Expected Project Start**	1 October 2023

Public Consultation/Disclosure Notice

Date: XXXX /Vehicle: UNDP Country Office Webpage

The United Nations Development Programme (UNDP) is requesting feedback on the Environmental and Social Management Framework and associated Social and Environmental Screening Procedures for the GEF Project 6677 (GEF ID 10868) "Integrated Management and Environmentally Sound Disposal of POPs Pesticides in the Agriculture Sector and Mercury & Waste in the Healthcare Sector in Sri Lanka." The public consultation will be opened for 60 days **(The last date for receiving comments is day/month/year).**

Comments and questions can be sent to the following address:

United Nations Development Programme
Physical Address:
Tel:
Fax:
Email:
Website:

Executive Summary

Sri Lanka is Party to both the Stockholm and Minamata Conventions, thus has international legal obligations to control, reduce and eliminate the use of such hazardous substances. Sri Lanka is not a chemical producing country, and all the chemicals required for agriculture, industry and laboratory use are imported to the country from different sources. Thus, this project is designed to respond to the requirements of the Stockholm Convention (to reduce the risks of POPs, eliminated POPs stocks and reduce emissions of POPs pollutants) and the Minamata Convention (to eliminate/replace the use of Mercury and mercury-containing equipment) for the benefit of human health and the environment. The Project will work in four areas of intervention to remove the barriers stated above and create long-term solutions in Sri Lanka:

Component 1 - Improve institutional capacities that will enable Public Sector stakeholders to implement regulatory systems for the sound management of POPs, mercury and other CoCs, focusing on strict enforcement of import controls and use of regulated chemicals.

Component 2 - Deploy environmentally sound management strategies and actions for storage/interim storage and disposal of obsolete stocks of POPs pesticides, mercury and their wastes (containing or contaminated by POPs and mercury).

Component 3 - Align the immediate response to COVID-19 pandemic to long-term HCWM management systems and strategies; deploy long-term sound management strategies in the healthcare sector; and promote recycling of certain waste streams and reduce U-POPs emission.

Component 4 - Gather and share knowledge, support training, replication and scalability of project results, manage, monitor and evaluate the project.

Therefore, this Environmental and Social Management Framework (ESMF) has been prepared based on the Social and Environment Screening Procedure (UNDP's SESP) for submission of project to the GEF for CEO Endorsement. This ESMF was completed as part of the project design phase that included consultations with the Implementing Partner, local communities, private sector and civil society entities.

Twelve potential risks have been identified for this project, six (6) of which are assessed as SUBSTANTIAL and six (6) as MODERATE. As a result, the overall risk categorization for this project is determined to be SUBSTANTIAL. It was concluded that these risks relate to activities with potential adverse social and environmental risks and impacts that are more varied or complex but remain limited in scale and are of lesser magnitude which can be reversible, predictable, have smaller and contained footprint, with less risk of cumulative impacts. In addition:

(a) The project won't promote incineration nor chemical treatment nor disposal of dangerous waste in Sri Lanka.

(b) The project won't create new sites nor reclaim land towards any natural habitat reserve nor cultural site and it has been assessed that none of the pre-screened project site locations for demonstrations activities belong to, are claimed by or have the presence of indigenous people.

This ESMF covers activities in Components 1, 2, 3 and 4. The co-financed activities related to baseline projects and replication of activities related to Components 2 and 3 are also covered under this ESMF but in the way as will need to be consistent with UNDP SES. The ESMF will follow precautionary actions during project implementation and is aligned with UNDP SES requirements, as proposed:

(a) Confirm risks/mitigation requirements during project preparation phase.
(b) Carry on SESA (Components 1 and 4) and ESIAs to identified Activities under Components 2 and 3.
(c) Development of ESMPs to mitigate and monitor any potential interconnections of Risks 4 to 12.
(d) Preparation additional targeted risk management plans for risks 4 to 12: Spill Prevention and Management Plan: Occupational Health and Safety Assessment; Biodiversity Management Plan; Code of Conduct for Construction and Security Workers; Labour Management Plan and Pollution Prevention and Management Plan.
(e) Conduct annual reviews of safeguard instrument performance.

In summary, the following assessment and management requirements apply:

Component	Outcomes - Outputs - Activities	RISKS	ESMF Applicable?		Assessments and Mgt. Plans
			YES	NO	
Component 1 - Strengthen the Policy, Regulatory and Institutional Frameworks for the management of POPs, Mercury and other Chemicals of Concern (CoC).	Activity 1.1.1.1	Risk 2 Risk 3	**X**		SESA GAP SEP
	Outputs 1.1.2	Risk 1	**X**		GAP SEP
	Output 1.2.2	Risk 4	**X**		GAP SEP
Component 2 - Environmentally sound management disposal of obsolete stocks of Agrichemicals POPs, Mercury and their wastes	Output 2.1.1	Risk 5 Risk 7 Risk 12	**X**		ESIA ESMP SEP OHSP CoC GRM
	Activity 2.1.1.3	Risk 5 Risk 7 Risk 12	**X**		ESIA ESMP SEP CoC GRM
	Activity 2.1.2.2	Risk 6	**X**		SESA SEP
	Activity 2.1.2.3	Risk 5 Risk 7	**X**		ESIA ESMP SEP CoC GRM
Component 3 - Establish Healthcare Waste Management (HCWM) Systems to effectively prevent U-POPs emissions, and develop Business Models for waste disposal at Healthcare Facilities which are aligned to the national COVID-19 recovery efforts	Activity 3.1.3.1	Risk 11	**X**		ESIA ESMP GAP CoC LMP PPM GRM
	Activity 3.1.2.1	Risk 6	**X**		SESA SEP
	Output 3.1.5	Risk 11 Risk 12	**X**		ESIA ESMP GAP CoC LMP PPM GRM
	Activity 3.2.1.1.	Risk 8 Risk 9 Risk 12	**X**		ESIA ESMP (incl. BDM) GAP CoC LMP PPM GRM
	Output 3.2.2	Risk 6	**X**		SESA SEP

	Output 3.2.3	Risk 11 Risk 12	**X**		ESIA ESMP GAP CoC LMP PPM GRM
Component 4 – KM & Evaluation	Output 4.1.3.	Risk 1	**X**		SEP

SESA - Strategic Environmental and Social Assessment

GAP - Gender Action Plan

SEP - Stakeholders Engagement Plan

ESIA - Environmental and Social Impact Assessment

ESMP - Environmental and Social Management Plan

SIP - Spill Prevention and Management Plan

BMP - Biodiversity Management Plan

OHSP - Occupational Health and Safety Plan

CoC - Code of Conduct for Construction and Security Workers

GRM - Grievance Redress Mechanism

LMP - Labour Management Plan

PPM - Pollution Prevention and Management Plan

Finally, this ESMF also details the roles and responsibilities for its implementation and includes a framework for a Grievance Redress Mechanism, budget and monitoring and evaluation plans. The Grievance Redress Mechanism (GRM) will provide a formal avenue for affected individuals or communities to engage with the Project implementers or sponsors on issues of concern or unaddressed environmental and social impacts. It aims to manage and satisfactorily respond to the complaints of individuals or groups of people regarding the environmental and social performance of the Project. The GRM process will be managed by a Grievance Redress Committee (GRC). None of the members of the Committee shall have a conflict of interest involving any complaint lodged.

Abbreviations and Acronyms

CCWTF	Centralized Clinical Waste Treatment Facilities
EIA	Environmental Impact Assessment
ESIA	Environmental and Social Impact Assessment
ESMF	Environmental and Social Management Framework
ESMP	Environmental and Social Management Plan
FSP	Full Sized Project (GEF)
GEF	Global Environment Facility
GEFSEC	Global Environment Facility Secretariat
GRM	Grievance Redress Mechanisms
HHP	Highly Hazardous Pesticides
PIR	GEF Project Implementation Report
PMU	Project Management Unit
POPs	Persistent Organic Pollutants
PPG	Project Preparation Grant (GEF)
SECU	Social and Environmental Compliance Review Unit (UNDP)
SES	Social and Environmental Standards (UNDP)
SESP	Social and Environmental Screening Procedure (UNDP)
SRM	Stakeholder Response Mechanism (UNDP)
UNDP	United Nations Development Programme
UNDP-NCE	UNDP Nature, Climate and Energy

1. Introduction

An Environmental and Social Management Framework (ESMF) is an instrument that examines potential risks and impacts when a project consists of a series of sub-projects/activities or subsequent implementation of policies, plans, programmes (PPP) that cannot be fully assessed until the details of the PPP and/or activities have been identified (often later in the project cycle). The ESMF sets out the principles, rules, guidelines and procedures to ensure the social and environmental risks and impacts of the forthcoming but as yet unspecified activities are fully identified (screened) and assessed, and that management measures are in place prior to implementation of the relevant activities with potential social and environmental risks and impacts. It contains measures for estimating and budgeting the costs of such measures, and information on responsibilities for addressing project risks and impacts (UNDP, 2020, p. 5).

This Environmental and Social Management Framework (ESMF) was developed for the UNDP-supported, GEF-financed project "Integrated Management and Environmentally Sound Disposal of POPs Pesticides in the Agricultural Sector and Mercury & Waste in the Healthcare Sector in Sri Lanka". The project aims to improve the regulatory framework, strengthen national capacities in agricultural chemicals and mercury management, and support the transformation of healthcare waste management systems in Sri Lanka.

1.1 Background

Persistent organic pollutants (POPs) are chemicals of global concern (CoCs) due to their potential for long-range transport, persistence in the environment, ability to bio-magnify and bio-accumulate in ecosystems, as well as their significant negative effects on human health and the environment. In this sense, the Article 5 of the Stockholm Convention on Persistent Organic Pollutants points out that each party shall at a minimum adopt measures to reduce the total releases derived from anthropogenic sources of each of the chemicals included in Annex C to protect the health of the population and environment globally.

On the other hand, Mercury can lead to significant adverse neurological and other health effects in humans, including the unborn child and infants. As one of the global efforts to protect human health and the environment from anthropogenic emissions and releases of mercury as well as mercury compounds, the Minamata Convention on Mercury went into effect on August 16th, 2017, setting out a range of measures to meet the above-mentioned objective, including measures to control the supply and trade of mercury, the control of mercury-added products, etc.

Sri Lanka is Party to both the Stockholm and Minamata Conventions, thus has international legal obligations to control, reduce and eliminate the use of such hazardous substances. Sri Lanka is not a chemical producing country, and all the chemicals required for agriculture, industry and laboratory use are imported to the country from different sources.

The health and environmental impacts of POPs chemicals have not been studied adequately in Sri Lanka. Public concerns about impacts of chemicals are emerging based on evidence that noncommunicable diseases (NCD) are on the rise in the country and is the leading cause of death26. The National Implementation Plan (NIP) (updated in 2015 and published in 2017) still lacks further details on bottom-up data related to POPs pesticides, which denotes the need to continue carrying studies to improve knowledge about pesticides in general. The problems and challenges related to controlling POPs pesticide, mainly agro pesticides, have been identified and the actions required to overcome them are included in the NIP.

Mercury contamination is a serious threat to Sri Lanka. Seafood which is an important source of protein in the island, can be a major source of methylmercury. The discharge of agricultural runoff, industrial effluents, and leachate from contaminated landfills/waste dump sites greatly contribute to the accumulation of the pollutants (specifically heavy metals, including mercury) in inland surface water. The healthcare sector, educational institutes, and laboratories are also sources of pollution of mercury, mostly due to use of mercury-containing medical devices and the use of mercury in their processes.

Finally, the healthcare sector is recognized as an important source of release of mercury and U-POPs due to unsound disposal practices of waste. Although regulations for internal management of hazardous waste have been put in place by the Government of Sri Lanka, satisfactory implementation has been challenging due to the

[26] https://healthdept.wp.gov.lk/web/non-communicable-disease/

choice of centralized large scale treatment systems with inadequate infrastructure facilities and lack integrated support services for the disposal of these (inert) wastes.

The project is designed to respond to the requirements of the Stockholm Convention (to reduce the risks of POPs, eliminated POPs stocks and reduce emissions of POPs pollutants) and the Minamata Convention (to eliminate/replace the use of Mercury and mercury-containing equipment and) for the benefit of human health and the environment. The Project will work in fours (4) areas of intervention to remove the barriers stated above and create long-term solutions in Sri Lanka to:

(i) Improve institutional capacities (adequate laboratory capacities and capabilities) that will enable Public Sector stakeholders to implement regulatory systems for the sound management of POPs, mercury and other CoCs, focusing on strict enforcement of import controls and use of regulated chemicals. It will also develop a centralized chemicals database and promote mechanisms to support and fast tracking the replacement of mercury-based medical products, supporting the phase-out of mercury containing products in the healthcare sector, which will include the development of long term and innovative green procurement and green finance mechanisms.

(ii) Deploy environmentally sound management strategies and actions for storage/interim storage and disposal of obsolete stocks of POPs pesticides, mercury and their wastes (containing or contaminated by POPs and mercury).

(iii) Align the immediate response to COVID-19 pandemic to long-term HCWM management systems and strategies; deploy long-term sound management strategies in the healthcare sector; and promote recycling of certain waste streams and reduce U-POPs emission. This includes piloting comprehensive HCWM de-centralized strategies and test (technical and economic feasibility) the use of low-cost autoclaves for treatment of infectious waste at medium- to small-scale healthcare facilities. The Strategies will also look into ways to incorporate the disinfected waste within the existing solid waste management systems in the country.

(iv) Gather and share knowledge, support training, replication and scalability of project results, manage, monitor and evaluate the project.

1.2 Project Description

Project Implementing Partner: Ministry of Environment

The following describes activities envisioned under each project component consistent with the stipulated Outcomes and Outputs:

Component 1 - Strengthen the Policy, Regulatory and Institutional Frameworks for the management of POPs, Mercury and other Chemicals of Concern (CoC).

Outcome 1.1. Institutional Coordination Mechanism Strengthened. Regulatory frameworks for enforcement of the chemicals regulations updated.

Output 1.1.1. Review baseline regulations on chemicals management. New POPs and U-POPs inventories, including their value chains, are updated into the 2015 NIP.

Activity 1.1.1.1 Regulatory review/adaptations will be carried out to allow the "rule of law" of the regulatory framework to be reviewed and applied in a holistic manner, linking these to the Central Control System under Output 1.1.2. and the enhancement of legal framework in which the strengthened Coordination Mechanism amongst the relevant institutions under Output 1.1.3. can operate. The regulatory framework on 'Polluter Pays' drafted by the Ministry of Environment under the GEF-funded project GEFID 5314, *Environmentally Sound Management and Disposal of PCBs Wastes and PCB Contaminated Equipment in Sri Lanka,* will also be reviewed and pushed forward. Healthcare facilities and healthcare related stakeholders will be fully consulted, awareness will be raised and training materials and programs will be developed (guided by UNDP SES) for relevant officials.

Activity 1.1.1.2 The 2015 NIP inventories will be updated to feed up the data management system under Output 1.1.2, support the work of the several Officers involved in their monitoring and disposing activities. PCB inventories and databases compiled by the project GEFID 5314 will be updated.

Output 1.1.2. Centralize the Chemicals Control System; Laboratory for POPs and other CoCs is improved, and monitoring of imports is enforced at entry points.

Activity 1.1.2.1 The Project will partner with the CEA to deploy a centralized digitized information management system covering all stages of the lifecycle of chemicals, building on existing initiatives on Chemical Management of the Government of Sri Lanka. This will fill a critical information gap in chemical management in Sri Lanka.

Activity 1.1.2.2 The centralized digitized information management system will be expanded using and linking the various databases. The digitized and streamlined information management system designed using the e-Sri Lanka (e-governance) platform will provide comprehensive access to relevant data and information to all agencies concerned.

Activity 1.1.2.3 Include the Environment Management Department of BOI to the centralized database and to track importation of chemicals of BOI registered industries into Sri Lanka including tracking their use and disposal.

Activity 1.1.2.4 The Project will upgrade the baseline laboratory facilities at the Department of Sri Lanka Customs with advance qualitative and quantitative analyzing equipment such as X ray analyser, gas chromatograph, centrifuge and spectroscopy etc. to enable quick detecting, testing, and verifying imported products, prior to allowing them to be import-release (nationalization) for their use in the country. As result, the Departments of Sri Lanka Customs will become fully equipped, with adequate training and capacities strengthened to carry out checks and verifications at the entry points backed by enhanced capacity and skills.

Activity 1.1.2.5 Support provided to the Department of Sri Lanka Customs (Activity 1.1.2.4) will include the introduction of portable Fourier Transform Infrared (FTIR) Gas Analysers to strengthen effective and quick detection of chemicals to minimize recently increased penetration of banned POPs pesticides and other CoCs, and the expanding relevant HS codes from six to eight digits.

Activity 1.1.2.6 Strengthening capacity of RoP and CEA to effectively respond to complaints related to the use of banned chemicals and carry out quick investigation and inspection using new technology (i.e., introducing QR system-based labelling, GPS tracking etc.).

Output 1.1.3. Institutional Coordination Mechanisms strengthened and operating in efficient manner

Activity 1.1.3.1 The Project will build capacities and skills across the agencies that participate in the National Coordination Committee (NCC) for Chemicals and Waste Management. This will be done by improving their TOR and proposing new due processes to strengthen the government's ability to regulate, strictly enforce import regulations reducing/preventing misuse of banned and restricted POPs chemicals and related products. Enhanced coordination across many institutions and various levels within institutions will be promoted for better, faster, and transparent decisions.

Outcome 1.2. National conditions to scale up the replacement of medical devices and dispose of wastes of mercury-contained medical devices enabled.

Output 1.2.1. Green procurement standards established, including proposals on bulk procurement and coordinated strategies for replacement of mercury-based medical devices including dental amalgam.

Activity 1.2.1.1 Through the ongoing Specific International Programme (SIP) of the Minamata Convention, review and update existing legislative measures to ensure the country's compliance with the control and ban on the import of mercury-containing medical devices targeted for 2020, but has not been practically enforced, while the use of dental amalgam will be minimized and will follow strictly the requirements of the Convention on its use. Proper quality and technical standards will be developed by the SIP to harmonize the mercury-free alternative products, this will support the healthcare sector to close the loops, organize a more systematic and coordinated replacement through technical standards, a proposed bulk procurement methodology, and accelerating the replacement activities initiated under the baseline project of the MoH.

Output 1.2.2. Finance framework for the procurement of mercury-free medical devices and HCWM disposal equipment developed.

Activity 1.2.2.1 A Green Finance Framework (GFF) will be developed for the promotion of mercury phase-out in healthcare sector. The Project will build from positive experiences of different projects (such as projects GEF ID 10349–*Demonstration of production phase-out of mercury-containing medical thermometers and sphygmomanometers and promoting the application of mercury-free alternatives in medical facilities in China*, GEF ID 4611-*Reducing UPOPs and Mercury Releases from the Health Sector in*

Africa, and GEF ID 1802 *Demonstrating and Promoting Best Techniques and Practices for Reducing Health-care Waste to Avoid Environmental Releases of Dioxins and Mercury),* as well as international best practices in the area. The GFF will also help to address other challenges in the deployment of non-incineration HCWM equipment following the Cost-Benefit Assessment (CBA) and business models to be developed under Component 3. Public and Private Partnership (PPP) schemes will also be promoted as many government and private healthcare will need upfront investment to transform their current inappropriate HCWM practices.

Assessment for Activities 1.1.1.1, 1.1.1.2, 1.1.2.1, 1.1.2.2, 1.1.2.3, 1.2.1.1

Sri Lanka has an important baseline regulatory framework on chemical waste management. There are by-laws, guidelines and voluntary standards in relation to mercury management. It also noted that Government Officers are subject to regular training and are aware of the baseline instruments.

Thus the project will proceed to review the baseline Regulatory frameworks linking these to the Central Control System and strengthen the Coordination Mechanism amongst the relevant institutions to improve enforcement of the baseline regulatory framework.

Any updated regulations that may be proposed in relation of POPs and Mercury will undergo a participatory **Strategic environmental and Social Assessment (SESA)**.

The project will also put in place a project-level **Grievances Redress Mechanism (GRM)** to provide meaningful means for affected stakeholders to raise concerns and/or grievances when activities may adversely impact them.

In addition, by design, **Output 1.1.2, Output 1.1.3, Output 4.1.3 and, overall, Component 4,** will contribute to the avoidance/management of SESP **Risk 1** to deploy effective training, capacity building and awareness raising to improve control and monitoring procedures and support duty bears to effectively deliver their roles.

Assessment for Activities 1.1.2.4, 1.1.2.5, 1.1.2.6

The **Output 1.1.2** contains a series of activities that will strengthen Sri Lanka's the Customs Office, the Central Environmental Authority (CEA) and the Board of Investments (BoI) to strengthen procedures and deploy effective and quick detection of chemicals controlled and create a centralized database, SoPs and guidelines to track importation of chemicals (linked to SESP **Risk 1**).

All new tools, equipment and IT systems carry on inherent training for their application, provided by the equipment and tools suppliers as part of the comprehensive bidding process to be done by the Project, thus though the work "training" is not explicit described in every single activity at tool or equipment level, these are fully integrated in the Output

Assessment for Activities 1.2.2.1

Central Bank of Sri Lanka (CBSL) launched Sri Lanka Green Finance Taxonomy in March 2022. CBSL has recognised that financial system in Sri Lanka needs to be reformed to create incentives for the private sector to make investments on projects that contribute/target environment protection and low carbon development. The financial institutions in Sri Lanka need to give due consideration to social and environmental costs of development and create incentives for the private sector to invest in environmentally sound initiatives instead of high pollution and/or carbon emissions projects.

Sustainable Banking and Financing Network (SBFN) is a network of private banks committed to support private sector shift towards sustainable development with over 20 membership. Some private banks have already started extending sustainable finance backed by international schemes even before CBSL came out with the Road Map for Sustainable Finance in 2018.

The project will build on the above and collaborated with SBFN to design a suitable GFF for the health sector focusing on mercury phase out and HCWM.

If not aware of these potential financing instruments, small and medium-sized health facilities will not be incentivized to switch to mercury-free thermometers and sphygmomanometers. These groups will thus become marginalized and not benefit equally from the project (SESP **Risk 4**).

The **Stakeholders Engagement Plan (SEP)** will ensure fair representation of healthcare facilities that may otherwise be marginalized from participating in the Green Finance Framework (Output 1.2.2) and be at a disadvantage once the final phase-out of mercury devices.

In addition, the project has been designed to raise the awareness of public and private health care facilities (**Output 4.1.4)**, and relevant higher-level medical administration on possible green finance instruments, and facilitate their access to government and/or private banking investments, to support switching to mercury-free devices. The project will also ensure that knowledge is disseminated on the green procurement standards (**Outputs 1.2.1**).

Component 2 - Environmentally sound management disposal of obsolete stocks of Agrichemicals POPs, Mercury and their wastes

Outcome 2.1. Effective Management System for environmentally sound disposal of mercury stocks, mercury-containing wastes, obsolete stocks of POPs-agro pesticides and cross-contaminated chemicals, pesticides and their containers, implemented.

Output 2.1.1. Residual mercury stocks, mercury-contained waste generated from the replacement of mercury-containing medical devices and dental amalgam, obsolete stocks of agro pesticides and cross-contaminated chemicals safely disposed of.

Activity 2.1.1.1 Dispose the stock of the 8.8 metric tons of mercury and mercury containing wastes collected and stored at a recycling facility and create conditions to restart collection and processing of obsolete mercury containing products starting with HCFs. The disposal will occur in a transparent manner to address concerns of other stakeholders such as NGOs and the general public.

Activity 2.1.1.2 Support environmentally safe disposal of the mercury waste stocks of 41 metric tons at a waste management facility.

Activity 2.1.1.3 Undertake environmentally safe disposal of 22.6 MT (9 MT of liquid, 13.6 MT of solid) of POPs pesticides with cross-contaminated chemicals that are currently stored together in not ideal conditions.

Activity 2.1.1.4 Create awareness, capacity to mobilise field level agriculture extension offices and officials to actively help to restart and expand the programme to strengthen the system of sound management of pesticides containers and packaging materials.

Output 2.1.2. Risk Management Strategy developed. Technical Guidance & Training materials prepared for the sound management of wastes containing mercury.

Activity 2.1.2.1 National guidelines provided by the ongoing Specific International Programme (SIP) on safe management of mercury-containing medical equipment and dental amalgam, stocks of mercury extracted from obsolete products and mercury containing waste, will be reviewed and updated to incorporate the most recent BEP in the area and to make them gender responsive. Based on revised guidelines developed, safe management and disposal/phaseout pilot plans for mercury and mercury-containing products wastes will be developed at six (6) piloted government healthcare facilities.

Activity 2.1.2.2 Management plans for mercury and mercury-containing waste from obsolete medical equipment and utensils will be developed including adopting safe (interim) storage solutions and conducting investigations to establish stocks and potential technology solutions to recover and reclaim mercury for other local users such as indigenous medicines.

Activity 2.1.2.3 Support the restart of safe mercury extraction at the recycling facility starting from equipment and bulbs coming from healthcare facilities and workout a system of environmentally safe disposal.

Activity 2.1.2.4 The national HCWM guidelines will be revised to include sound guidance to manage residual mercury stocks and wastes generated from obsolete mercury-containing medical equipment and dental amalgam. Training programs will be designed and carried out to train staff of healthcare facilities in applying the disposal management strategies /plans for residual Hg and Hg-contained products disposal.

Output 2.1.3. Guidance Tools and Guidelines for the inventory of mercury/POPs contaminated sites developed and tested at two sites.

Activity 2.1.3.1 The de-centralized storage facilities of obsolete POPs pesticides will also be inventoried so the Project can support data for informed strategies on the sound management of these sites including the assessment of buried stocks identified in the NIP.

Activity 2.1.3.2. Develop and introduce guides and standards for decontamination of sites contaminated with POPs pesticides, POPs chemicals and mercury.

Assessment of Activities 2.1.1.1, 2.1.1.2, 2.1.2.1, 2.1.2.2, 2.1.2.3, 2.1.2.4

Mercury differs from other toxics and pollutants in that it is an element and cannot be broken down, degraded, or destroyed. And as Sri Lanka does not have capacities to arrange final disposal sites for mercury within its borders, thus the overall strategy is to proceed with interim solution of mercury and thus transfer the accumulated stocks to other country for final storage.

In the other hand, is known that Climate change is already modifying the frequency and intensity of many weather-related events, and amongst the potential weather-related hazards screened in Sri Lanka, the one that can pose greater risk to interim storage facilities is flooding, but the project is also aware of any the occurrence landslides, erosion, or extreme weather conditions.

It has been assessed that in case extreme weather conditions do impact the project, because of the nature of operations and safeguards proposed, potential impacts of **Risk 7** would be of medium magnitude, limited in scale (site-specific) and duration (temporary), can be avoided, managed and/or mitigated with relatively uncomplicated accepted measures, resulting in an risk impact assessment considered Intermediate (3), while the likelihood of such events to impact the current screened locations sought are low (2) to moderate (3).

The establishment of interim storage facility outside the hospitals with required safety standards will ensure safe storage of obsolete equipment and mercury containing waste which are at present in unsatisfactory storage conditions in the hospitals.

The project preparation procedures have screened two (2) potential sites located in legalized industrial zone (not triggering Standards 4 and 6) that have been licensed to manage and dispose other types of waste, in which these considerations were part of the Governmental environmental screening. One (1) site is already operating a small-scale interim storage facility.

Before pilot site demonstrations are formally selected and engaged, the scoped assessment **(ESIA)** will further review in detail the basis for the national EIA and expand it to incorporate UNDP's SES requirement as well assess this risk and propose mitigation measures if needed as part of the resulting **ESMP**.

The interim facility will be managed by the CEA will also facilitate safe storage of mercury, for which the private sector does not have facilities, will encourage more private sector players with capabilities, including those from neighbouring countries, to join. It will also support longer term overall viability, despite the diminishing nature of the mercury disposal business which private sector is engaged at present.

Activity 2.1.2.2 will contribute to the avoidance/management of risks by developing management plans for mercury and mercury-containing waste from obsolete medical equipment and utensils will be developed including adopting safe (interim) storage solutions and conducting investigations to establish stocks and potential technology solutions to recover and reclaim mercury for other local users such as indigenous medicines. For this, **SESA** will be prepared during the development of the management plan to assure to integration social and environmental considerations into these management plans.

Activity 2.1.2.4 will contribute to the avoidance/management of risks by including sound guidance to manage residual mercury stocks and wastes generated from obsolete mercury-containing medical equipment and dental amalgam in the national Healthcare Waste Management Guidelines.

Scoped assessments (ESIA) will be conducted for the disposal of residual mercury and POPs pesticide stocks, mercury-contained waste generated from the replacement of mercury-containing medical devices and dental amalgam (Output 2.1.1), disposal of a stock of about 22.6 metric tons of (POPs pesticides with cross-contaminated chemicals that were stored together) (Activity 2.1.1.3), safe mercury extraction and disposal from equipment and bulbs coming from healthcare facilities (Activity 2.1.2.3).

Assessment of Activities 2.1.1.1, 2.1.1.2, 2.1.1.3, 2.1.1.4

The project will dispose of a stock of about 22.6 metric tons of POPs pesticides (with cross-contaminated pesticides that were stored together) through export to qualified destruction facilities and will also export for final storage about 41 metric tons of mercury contained (and mercury contaminated) wastes to qualified final storage facilities, following the Basel Convention procedures.

The project will proceed to re-pack, handle, transport, store and dispose these hazardous substances and their wastes, following International Standards and Guidelines established by the Stockholm and the Minamata Conventions (SESP **Risk 5 and 12**).

Major risk arises when trans-packing of wastes and materials, as poor handling and gathering of wastes, movement of its stocks and poor packages, loading and accommodation on trucks, transportation and unloading at disposal sites.

Similar disposal activities had been carried out a number of times in previous UNDP projects in Central and South America, West and East Africa, Central and South Asia regions through GEF-funded projects. UNDP has accumulated a strong tracking record of no accidents and had gathered a network of qualified and certified service provides to carry on these controlled procedures following the highest standards.

Yet, it is not possible to affirm that these procedures are risk-free. However, given the previous experiences as well as the set of internationally recognized risk management tools and procedures that are established to be followed, it is assessed that **Risk 8** is of low (2) to moderate (3) likelihood that accidents could happen, yet in case any accident occurs, it is also recognized that such could result in adverse impacts on people and/or environment of considerable magnitude, spatial extent, and duration, but more limited than Extreme. However, these impacts are predictable, and can be reversible through application of the decontamination procedures that will be developed by the Project, resulting in a risk impact assessment considered Extensive (4).

The project takes into the relatively good infra-structure that will be used by the project (such as availability of containers and liners for re-packing, good traffic conditions in Sri Lanka, existing protocols at exporting ports to handle hazardous substances). In addition, specific SOPs will be incorporated in the sites that accumulate these wastes, and proper training and EPI will be furnished through the contractors that will handle the disposal procedures, from beginning to final disposal site.

Any Contractor to be recruited by the Project to deliver the 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).

The **Activity 2.1.1.4** will contribute to the avoidance/management of risks by creating awareness, capacity to mobilise field level agriculture extension offices and officials to actively help to restart and expand the programme to strengthen the system of sound management of pesticides containers and packaging materials.

Scoped assessments (ESIA) will be conducted for the disposal of residual mercury and POPs pesticide stocks, mercury-contained waste generated from the replacement of mercury-containing medical devices and dental amalgam (Output 2.1.1), disposal of a stock of about 22.6 metric tons of (POPs pesticides with

cross-contaminated chemicals that were stored together) (Activity 2.1.1.3), safe mercury extraction and disposal from equipment and bulbs coming from healthcare facilities (Activity 2.1.2.3).

The assessments will tackle the risk of accidental risk on nearby sensitive receptors and occupational health and safety such that mitigation measures will be developed and included in the pursuant site-specific **Environmental and Social Management Plans (ESMP)** that will include a **Pollution Prevention and Management Plan and Occupational Health and Safety Plan**. This plan will adopt Best international Practice and adhere to the national legislation, 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.

Under Component 1, the project will review the baseline Regulatory frameworks that govern the control of hazardous chemicals and disposal of their wastes. These frameworks will be linked to a single Central Control System and the project will strengthen the Coordination Mechanism amongst the relevant institutions that are responsible for the enforcement of the baseline regulatory framework.

In parallel, under Components 2 and 3 the project will draft Healthcare Waste Management Systems and SOPs that will be tested during the waste disposal activities listed under Risk 4 **(thus rationale for the rating is the same).** All these will form a comprehensive Regulatory and Institutional base that will be further replicated once the project is completed with the objective of avoid formation of stockpiles in the future that can put the local systems at pressure and also avoid dumping and this contamination of environment and communities.

Hence, upon project completion, the improved enforcement system in the country will continue to be enforced. Stakeholders that make use of controlled chemicals or the ones that are involved in the waste management chain will be required to apply the relevant regulations, guidelines and SOPs to properly collect and dispose their wastes following BAT/BEP at their own costs (SESP **Risk 6 –** as this risk is not linked the project activities, but may result from project replication, which will only occur after the project completion).

By applying this framework on Risk Management developed by the Project, the stakeholders will be required to carry on and pay for the packaging, transportation and disposal of chemicals and chemicals/healthcare wastes. And as mentioned in Risk 4, even with the application of the Best Environmental Practices, National and International Regulations, as well as proper Risk Management Systems that will be the legacy of the project, such activities are not risk-free.

Assessment of Activities 2.1.3.1, 2.1.3.2

Mercury is used in a range of medical devices and has been the most used type of technology for sphygmomanometers and thermometers for many years. However, these products are fragile and are subject of break during their using in healthcare facilities.

The project considers that these mercury spills in hospitals, clinics and labs are occurring in a rolling basis due to the handling and breaking of such devices, already exposing doctors, nurses, other health care workers and patients to elemental mercury. At room temperature significant amounts of liquid elemental mercury transform to a gas, exposing workers or patients in the area to potentially highly toxic levels. Thus, certain level of contamination in the healthcare units sites can exist.

National Ayurvedic Teaching Hospital for mercury in Colombo, and the Interprovincial Agriculture Office of Ampare had been visited and screened by the Project Preparation Team and short-listed as pilot sites to demonstrate the application of the project guidelines on contaminated sites assessment and decontamination. Both sites are located in city areas, none are located near any cultural heritage sites, protected areas or land claimed or inhabited by indigenous peoples, nor indigenous people live in their areas of influence.

For **Activity 2.1.3.1,** An Environmental Risk Assessment, equivalent to **ESIA**, will be conducted to align the local regulation to UNDP's SES and provide tools for the project team to monitor the carrying out of the inventories of contaminated sites and buried stocks identified in the NIP. A risk management strategy for safe decontamination of sites contaminated with POPs pesticides and contaminated chemicals, and the

buried pesticides, if required, will be developed. The strategy will include measures to minimize impact on inhabitants, businesses located on land identified as contaminated.

For **Activity 2.1.3.2, Scoped ESIA**, will be conducted *for* the application and testing of project identification at two (2) demonstration sites so to assess the risks on human health, traffic and workers. A **Scoped ESMP** will then be developed for each site that will include a Health and Safety Plan, Traffic Management Plan, Waste Management Plan and an Occupational Health and Safety Plan as to managed SESP **Risk 10**.

In addition, a**s exit strategy**, the Project will propose to the CEA a monitoring plan so this Institution can follow up the application of the decontamination guidelines and the full recovery of the sites, if found contaminated, if the decontamination works extend the project timeframe.

Component 3 - Establish Healthcare Waste Management (HCWM) Systems to effectively prevent U-POPs emissions, and develop Business Models for waste disposal at Healthcare Facilities which are aligned to the national COVID-19 recovery efforts

Outcome 3.1. Update HCWM Strategies and Plans that reflect BAT/BEP which can prevent/reduce U-POPs emissions, minimize plastic waste generation and improve recycling practices.

Output 3.1.1. Standards and Regulations on HCWM are revised. A HCW Data Management System (HCWDMS) is introduced to address gaps in the monitoring activities.

Activity 3.1.1.1 Regulations, Standards and practices, at the hospital-level, will be reviewed and updated.

Activity 3.1.1.2 Data Management System on HCW, using digital solutions to improve implementation and monitoring of waste management process, will be piloted in the six (6) healthcare units.

Output 3.1.2. National Plan for Harmonized Treatment and Disposal of HCW in emergencies is developed.

Activity 3.1.2.1 A holistic HCWM Strategy will focus on all aspects of the HCWM by reviewing and (proposing) updates of current Standards and Regulations and established comprehensive Pans for the interim storage and the final disposal of decontaminated HCW, a challenge faced by all the hospitals.

Activity 3.1.2.2 Activities will promote direct or indirect partnerships with the relevant Local Authorities (LAs) to provide last-mile solutions for disinfected, inert and non-biodegradable healthcare residual waste, as part of the LA's effort to integrate the engineered landfills and generate revenues from SWM.

Output 3.1.3. Guidelines and Standards on green procurement of PPE and other consumables developed.

Output 3.1.3 will be linked and implemented together with Output 1.2.1.

Activity 3.1.3.1 Strategies to reduce demand of plastic materials and improve recycling of plastics, aluminum and glass materials will be developed and tested (which will also consider the impacts of the nationwide COVID-19 vaccination program that is expected to generate large amounts of waste – vials, plastics, etc. - that, in principle, could be recycled).

Activity 3.1.3.2 Strategies will be developed to handle emergencies that have a stress on existing resources of healthcare sector that will in turn have stress on resources available for HCWM to prevent creation of possible risks.

Activity 3.1.3.3 Given the increase of waste generated by the healthcare sector - about five folds resulting from the COVID-19 pandemic - and due the high use of polythene and plastics as protective gear and in vaccination, the demonstration of safe HCWM by the Project will fill the gap that healthcare facilities and service providers face in terms the investment and operational costs in line with the Finance Mechanism under Component 1. The Green Finance Framework (GFF) to be developed will play a significant role in green recovery in the healthcare sector to align better to face future challenges confidently with safe HCWM to avoid U-POPs emissions.

Output 3.1.4. Technical and Economic Assessment (CBA) on the whole spectrum of HCWM technologies for Sri Lankan setting prepared.

Activity 3.1.4.1 Incorporate both the baseline MetaMizer hybrid autoclave system, introduced for 20 large hospitals about 4 years ago that are under sub-optimal use, or not even used in some cases) and align the experiences gathered by the GEF Project ID No. 4611 *Reducing U-POPs and Mercury Releases from the Health Sector in Africa* (on the use low-cost autoclaves) and develop Cost-Benefit Assessments (CBA), jointly with PPP interventions, to provide potential Business Cases/Plans that could be applied in different profiles of healthcare units in Sri Lanka, looking towards assure financial sustainability of the HCWM Systems. Capacity of these 20 MetaMizer hybrid autoclave systems combined, could have adequate capacity to handle almost all HCW generated in Sri Lanka at present, if they were operating in an effective and efficient manner. However, as there are many reasons why reorganizing the MetaMizer hybrid autoclave systems itself will not deliver the expected solutions, especially in view of the expected increase in healthcare wastes, which will require significant support. Re-organizing the MetaMizer hybrid autoclave systems will ensure their optimal use, and with sufficient capacity to address increasing HCW, and in case of emergencies.

Activity 3.1.4.2 Together with MoH, review the possibility of reorganizing the placement of the MetaMizer hybrid autoclave systems and to demonstrate (i) the use of some in the Centralized Clinical Waste Treatment Facilities (CCWTF), (ii) supplementing CCWTF to carry out cost effective HCWM.

Output 3.1.5. Integrated recycling programs piloted in six (6) facilities.

Activity 3.1.5.1 in close consultation with project stakeholders, carry out pilot programme at the Six (6) government healthcare facilities selected during PPG Phase among a number of candidate healthcare facilities after a careful and in-depth analysis based on the "Rapid Assessment of Healthcare Waste Management in Sri Lanka" conducted by a national Consultant Team 2020-2021, commissioned jointly by MoH and UNDP Sri Lanka, and as recommended by MoH.

Activity 3.1.5.2 Support data collection on recycling potential at the piloted facilities. Partnerships with local private sector (including women led MSMEs) will be assessed to improve the collection and recycling networks of de-contaminated materials. Current Guidelines related to HCWM will be updated to facilitate the proper collection, recycling and re-use of valuable materials (plastics, glass and aluminum).

Activity 3.1.5.3 As indirect positive effect of this intervention, the Project may yield opportunities to creation of "green jobs" related to HCW recycling, as it will explore alternative income generation opportunities by facilitate the partnership between hospitals, Local Authorities and waste collectors.

Outcome 3.2. Non-incineration HCWM Business Models are developed. Baseline treatment systems models and practices improved. Technical/economic application of low-cost autoclaves demonstrated.

Output 3.2.1. Public-Private Partnership (PPP) for a Centralized Waste Management System that can incorporate the de-contamination healthcare waste facility is piloted. Technical/financial/economic application of low-cost autoclaves tested and experiences from other GEF HCWM projects are internalized in Sri Lanka.

Activity 3.2.1.1 Two (2) Centralized Clinical Waste Treatment Facilities (CCWTFs), using non-incineration technology, and linked to an existing landfill, will be established and corresponding targeted business models will be developed, with support from Ministry of Health and to be operated in a PPP model. The CCWTFs will receive and treat contaminated HCW from healthcare facilities within the respective province including small and micro healthcare facilities that are not able to operate, in a sustainable manner, with "in house" HCWM equipment. Lessons learned from the baseline incineration facility of SisiliHanaro Encare (Pvt) Ltd. will be used to improve the non-incineration CCWTF system.

Output 3.2.2. A De-centralized non-incineration HCWM Strategy for medium to small scale health care facilities is developed.

Activity 3.2.2.1 The HCWM Strategy will incorporate both the baseline MetaMizer hybrid autoclave systems and enlarge the scope to introduce low-cost autoclaves with the experiences gathered by the GEF Project ID No. 4611. The demonstration of CCWTF in the two locations will also offer HCWM services to small and micro scale healthcare facilities, jointly with PPP interventions and structured with recycling activities. While experience related to the low-cost autoclaves generated by the GEF Project ID 4611 will provide useful technical inputs, transfer of low-cost autoclave technologies will only be considered only if capacity augmentation is required.

Output 3.2.3. Baseline Hybrid Autoclaves operation and maintenance practices, at large scale healthcare facilities, are improved, and their operational Business Models is developed.

Activity 3.2.3.1 Technical Assistance (TA) will be provided to all 20 healthcare facilities that currently owns the MetaMizer hybrid autoclave system with the purpose to further optimize their operation and help them to develop a viable and self-sustainable Business Model for safe treatment of infected waste. The TA will also help them to identify issues and inefficiencies in the use of these large sized MetaMizer hybrid autoclave systems. Technical training for relevant staff and operators for resolving technical issues such as repairs will also be provided. Experiences will be collected and replicated through Component 4.

Assessment of Activities 3.1.1.1, 3.1.1.2, 3.1.2.1, 3.1.2.2, 3.1.3.1, 3.1.3.2, 3.1.3.3, 3.2.2.1

As Party to the Stockholm and Minamata Conventions, Sri Lanka is bound to comply with such international bidding commitments and thus needs to establish national mechanisms to cope with legal bans on imports and uses of controlled chemicals. However, some stakeholders, particularly the healthcare facilities, as well as other small to medium sized enterprises that depend on mercury based products (light bulbs, LCD monitors), especially those with limited financial resources, may not be able to access alternatives to replace the banned POPs and mercury-containing products.

Thus, the project will e**stablish Healthcare Waste Management (HCWM) Systems to effectively prevent U-POPs emissions**. Any updated Policies and Strategies that may be proposed in relation of POPs and Mercury will undergo a participatory **Strategic environmental and Social Assessment (SESA)**.

The SESA will particularly ensure that economic impacts on small and medium sized healthcare facilities and other stakeholders are taken into consideration in the decision-making process while developing the legislative tools, while the **Output 1.2.2** will put forward Green Finance Framework that will allow these stakeholders to access finance to reduce any impacts.

In addition to the Project **Grievances Redress Mechanism** (GRM) that will be put in place to address any grievances, the Stakeholder Engagement Plan will ensure participation of affected stakeholders during these activities. The **Gender Action Plan** has been developed and recognizes women's contribution in health sector and HCWM and this gender sensitive approaches will be incorporated in GAP and in SESA accordingly (SESP **Risks 2 and 3**).

Assessment of Activities 3.1.4.1, 3.1.4.2, 3.1.5.1, 3.1.5.2, 3.1.5.3, 3.2.2.1, 3.2.2.1, 3.2.3.1

The facilities selected by the project are:

- Teaching Hospital Kurunegala,
- Teaching Hospital Kuliyapitiya, and Divisional Hospital Polpitigama in Northwestern Province.
- Teaching Hospital Batticoloa,
- Divisional Hospital Karadiyanaru and
- Base Hosptal Kalvanchikudy in Eastern Province.

The criteria for selection are: (1) demonstrations of best practices of HCWM at small, medium and large hospitals; (2) interest shown by the hospitals to provide waste to CCWTF;(3) Including some hospitals that have challenges to operate the MetaMizer hybrid autoclave system and dispose final waste; and (4) initiative taken by hospitals to keep track of waste movement (data) within the hospital. Comprehensive business plans and gender sensitive HCWM plans reflecting the experiences of technical assistance and pilot/demonstration activities will be developed.

A **scoped ESIA** will be conducted for each of the activities related to recycling and autoclaving: testing strategies to improve recycling of plastics , aluminium and glass materials, integrated recycling programs piloted in six (6) facilities, business models for de-centralized HCWM systems (low-cost autoclaving) piloted in six (6) medium-to-small scale facilities and baseline hybrid autoclaves operation and maintenance practices, at large scale healthcare facilities, are improved, and their operational Business Models is developed (SESP **Risk 11**).

The **scoped ESIA** will inform decision-making regarding the sites selected and technologies adopted to ensure SES standards are applied and that an appropriate waste disposal site is allocated for any residue

waste (specifically for autoclaving activities). The assessment will also evaluate the risks related to air quality and worker and community health such that the **scoped ESMP** will include a **Pollution Prevention and Management Plan**, and **Occupational Health and Safety Plan**.

In addition, all entities operating under the project (including contractors and operators) shall abide by the project's **Labor Management Procedures (LMP)** that will be developed during the Inception Phase of the Project.

Assessment of Activities *3.2.1.1, 3.2.1.2, 3.2.2.1*

The project will work with baseline engineered landfills facilities established and licensed in Sri Lanka. An Engineered landfill is a highly regulated facility that allows final disposal of solid waste in a secure manner by avoiding or minimizing the impacts on the environment: it has an engineered pit, in which layers of solid waste are filled, compacted and covered for final disposal. It is lined at the bottom and sides to prevent groundwater pollution, having a leachate collection and treatment system; groundwater monitoring; gas extraction and a cap system. The capacity and the site are chosen based on an environmental impact assessment.

The project preparation team has conducted site visits and assessments of the targeted Landfills, however formal selection of the landfills that will serve as demonstration sites will occur during project implementation and will involve the conduction of ESIAs and preparation of ESMP (including proper scoped management plans) prior that demonstration activities can start.

Thus, the project won't reclaim land nor construct any new waste disposal facility (Landfill). The landfills also have adequate area as buffer zones (not less than 200 meters in its narrower part) surrounding the property boundaries to avoid impacts on the nearby ecosystems. In addition, the provision of adequate buffer is important to mitigate negative impacts such as noise and odor on human habitats.

The project intends to use the baseline proposed site in Arawakkalu landfill, co-financed by the Government of Sri Lanka and operated by the Kurunegala Municipal Council, located at the borders the Sundarapola forest reserve, North Western Province, in which will establish an also controlled pilot Chemicals Waste Treatment Facility (CCWTF). The project preparation team has conducted an assessment of the Landfill: it has been established in reclaimed land that previously hosted cement manufacturing facility. The Environmental Impact Assessment (EIA) and its public consultations demonstrated in the specific area of the landfill that are no dispute the over land, and that no heritage sites and no indigenous people are present.

The project also intends to use the baseline proposed sites in Pulaiyaveli, landfill, Koduwamadu in Eastern province, co-financed by the Government of Sri Lanka and constructed by UNOPS and operated by Eravur Pattu Pradeshiya Sabha (Local Authority). The project preparation team has conducted an assessment of the Landfill upon the approved Environmental Impact Assessment (EIA) and its public consultations demonstrated in the specific area of the landfill that are no dispute the over land, and that no heritage sites and no indigenous people are present.

The CCWTFs will be established as demonstration units. Clearance by the LAs and agreement by MoH to supply HCW have been obtained in principle, details which will be worked out and MoUs established during project implementation. The feasibility assessments have shown that the CCWTF can be operated as viable demonstrations based on PPP partnerships. Short listed private sector companies demonstrated interested in engaging into PPP with the MoH and the respective Las, however proper due diligence process will be carried out during project implementation, prior to formal engagement. In addition to creating safe interim storage facilities, the establishment of these two CCWTFs will provide the government with a long-term, sustainable capacity to undertake environmentally sound management of HCW, not having to rely entirely on the sole private entity.

Scoped ESIA will be conducted for each CCWTF site to assess the potential risks on biodiversity from construction and operation of the addition CCWTFs units within the already licensed landfills, and propose risk avoidance/mitigation measures.

Specifically for the CCWTF in the North Western Province, which borders a forest reserve, the resulting **ESMP** will include a Biodiversity Management Plan that ensures conditions of biodiversity in the area are improved.

The ESIA will also address health and safety concerns related to the construction and operation and all proposed mitigation measures will be included in the ESMP that will be developed and implemented before commencing works for establishing these facilities. The ESMPs will include a Pollution Prevention and Management Plan and Occupational Health and Safety Plan.

Component 4 – Knowledge Sharing, Management & Evaluation

Outcome 4.1. Project communication and training tools developed. Effective knowledge management delivered.

Output 4.1.1. Effective knowledge management tools delivered. Lessons learned and experiences are shared, effectively supporting the scale up and replication of project results.

Activity 4.1.1.1 Lessons learned and best practices from the Project will inform review and update of national guidelines and standards, create harmonized codes of quality and training programs for public officers, healthcare staff, waste workers and other relevant actors on the use of best available techniques (BAT) in healthcare sector, mercury-waste management, application of mercury-free devices and, thus, support the phase-in of alternatives.

Activity 4.1.1.2 The Project will collect experiences and lessons learned from relevant GEF projects implemented (e.g., GEF project IDs 10349, 4611 and 1802) as well as international best practices in the area to compound relevant KM Plans and improve the replication of successful experiences.

Activity 4.1.1.3 Knowledge management tools will be developed and deployed to reach the estimated workforce of 100,000 workers through replication and upscaling under Components 1, 2 and 3 (reaching all 1,100 healthcare facilities in the country.

Output 4.1.2. Training programs developed. Capacities of public officers and healthcare facilities staff on U-POPs and mercury (avoidance of) releases during the waste disposal activities are strengthened.

Activity 4.1.2.1 The Project will provide equitable opportunities for women and men to be trained, based on both in-person and online training models, in improved and safe handling of waste generated at each point including segregation, weighing, or measuring waste fractions and recording. A participatory and mutual learning approach, coupled with expert advice, will be adopted to allow peer to peer exchange and promote innovative bottom-up approaches for HCWM.

Activity 4.1.2.2 Improved integrated and comprehensive healthcare waste management will benefit about 10,000 waste workers engaged in Local Government level waste management processes and over 6,000 sanitary workers that are working in the healthcare system. These tools will support the dissemination of experiences, lessons learned and best practices.

Output 4.1.3. Training on Environmental, Monitoring for Customs Officers on the control and monitoring of POPs, Mercury and other CoCs is delivered.

Activity 4.1.3.1 The Project will work with the Departments of Imports and Exports Control and Customs to bridge the gaps identified and in the NIP 2015 by addressing the lack of knowledge and skills to monitor and verify POPs and POPs containing imports which defy the regulations. Awareness will be raised, and training materials and programs will be developed (guided by UNDP's SES) and deployed for the relevant officials on hazardous chemical management.

Output 4.1.4. Project Communication Strategy and Public Awareness Programs are delivered. Stakeholders Engagement Plan and Gender Action Plan implemented.

Activity 4.1.4.1 Communication Strategy will be created delivering differentiated approaches for stakeholders benefiting estimated 1,000 employees within the piloted healthcare facilities, but also reaching the general population to support sharing of information about the general replacement of household thermometers, supporting their safe disposal and reducing exposure risk. The Project will build on any relevant communication and knowledge products created by GEF project ID 5314.

Activity 4.1.4.2 This component will also be responsible to deploy the Gender Action Plan developed at the PPG phase, to raise awareness and empower women's roles in sound management activities and promote gender sensitive approaches for the project´s KM activities that can incorporate gender equality principles and actions into environmentally sound management of healthcare waste activities.

Outcome 4.2. Monitoring and evaluation delivered during the project lifecycle.

Output 4.2.1. Monitor Project (Quarterly and annual Reports and Project Board Reports); Apply Evaluation Tools according to the project cycle (PIR, MTR and TE).

Output 4.2.2. Implementation Tools (budget revisions, financial control and project management) applied as required and adaptive management actions implemented during the project lifecycle.

Activity 4.2.2.1 The Monitoring and Evaluation Tools will be used as required to guarantee the best performance in project execution and monitoring, as well as to promote the adaptive management.

Project Duration: The duration of the project is 5 years (2023-2028).

The Project will assist MoH to attract private sector hospitals and health facilities to join the effort of phasing out mercury and mercury-added products, by creating awareness, sharing guidelines and inventory management systems etc. with them through the Private Health Services Regulatory Council, which is chaired by the Director-General of Health Services, and the Director of Private Health Sector Development is the Secretary.

1.3 Purpose and Scope of this ESMF

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

Thus this ESMF, as a management tool to assist in managing potential adverse social and environmental impacts associated with activities of this GEF-financed project, is in line with the requirements of UNDP's SES. The implementing partner of the project and the relevant members of the Project Management Unit will follow this ESMF during project implementation and ensure the environmental and social risks and impacts are fully assessed and management measures are put in place prior to the implementation of the relevant project activities.

This ESMF identifies the steps for detailed screening and 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 these adverse impacts. Its scope covers all project activities described in Section 1.1, including co-financing activities included in the project results.

1.3.1 Risk Categorization and Justification

During project development, the project was reviewed with UNDP's SESP. The SESP prepared for this project details the specific environmental and social risks that apply. The significance of each risk, based on its probability of occurrence and extent of impact, has been estimated following SES's Guidance Note and ToolKit.

Twelve potential risks have been identified for this project, six (6) of which are assessed as SUBSTANTIAL and six (6) as MODERATE. As a result, the overall risk categorization for this project is determined to be SUBSTANTIAL. **It was concluded that these risks relate to activities with potential adverse social and environmental risks and impacts that are more varied or complex but remain limited in scale and are of lesser magnitude which can be reversible, predictable, have smaller and contained footprint, with less risk of cumulative impacts,** this assessment is based on the specific evaluation of:

- The project won't reclaim land for the pilot/demonstration sites and activities nor will construct any new waste disposal facility (Landfill).
- Project sites (demonstrations/pilots) had been visited and assessed by Project Preparation team, which concluded that are no dispute the over land, and that no heritage sites and no indigenous people are present.
- The Impact Assessment for the baseline landfill sites (that were established entirely with co-financed not included in project results) were approved. The GEF project won't create new sites nor reclaim land, but will only build additional structure inside the legal landfills to house the clinical waste treatment

facilities. For this, additional ESIA on the potential impact of the CCWTF additional unit will be carried out to assess is potential incremental risks to the National Park bordering Aruwakkalu Landfill.

- The project won't promote incineration nor chemical treatment nor disposal of dangerous waste in Sri Lanka. The clinical waste treatment plant will use autoclaves (based only in hot steam to decontaminate the healthcare waste), while the treated waste output from Autoclaves is inert, safe and will be disposed in the same site as solid waste stream of the landfill, following the due procedures. Mercury wastes won't be treated in the country, it will be exported for final disposal in certified facilities. Also, obsolete pesticides will be collected and exported to certified treatment facilities.
- It has been assessed that, in case extreme weather conditions do impact the project, because of the nature of operations and safeguards proposed, these **impacts would be of medium magnitude, limited in scale (site-specific) and duration (temporary), can be avoided, managed and/or mitigated with relatively uncomplicated accepted measures, resulting in an risk impact assessment considered Intermediate (3)**, while the **likelihood of such events to impact the current screened locations sought are low (2) to moderate (3) = moderate.**
- Similarly, disposal activities had been carried out a number of times in previous UNDP projects in Central and South America, West and East Africa, Central and South Asia regions through GEF-funded projects. **UNDP has accumulated a strong tracking record of no accidental accidents and had gathered a network of qualified and certified service provides to carry these controlled procedures following the highest standards**.
- Yet, it is not possible to affirm that disposal activities promoted by the GEF project are risk-free. However, given the previous experiences as well as the set of internationally recognized risk management tools and procedures that are established and will be followed, **it is assessed that there is a low (2) to moderate (3) likelihood** that chemicals-related accident could happen given the relatively good infra-structure that will be used by the project, including availability of containers and liners for re-packing, good traffic conditions in Sri Lanka, and existing protocols at exporting ports to handle hazardous substances). In addition, specific SOPs will be incorporated in the sites that accumulate these wastes, and proper training and EPI will be furnished through the contractors that will handle the disposal procedures, from beginning to final disposal site.
- Nevertheless, in case any POPs or Mercury spills occurs as result of project activities, it is also recognized that this event would result in an adverse impacts on people and/or environment of considerable magnitude, spatial extent, and duration, However, these impacts are predictable, and can be reversible through application of the decontamination procedures that will be developed by the Project, **resulting in a risk impact assessment considered Extensive (4)** = **substantial**

It is also duly considered in the screening the lack of certainty about the risks below:

(a) Application of guidelines during decontamination of demonstration sites leading to exposure to workers, the community and environment and limiting access to land and natural resources to nearby communities (activities to be implemented with co-finance, thus not controlled by the Project):

(b) Potential damage to interim storage and disposal facilities for hazardous waste from flooding or other natural disasters that would be linked to any additional pilot demonstrations are to be selected during project implementation (if needed, considering there is one baseline Facility already functioning in the country). If needed, the targeted assessment (ESIA) is planned for these activities to assess this risk and propose mitigation measures if needed as part of the resulting ESMP.

1.4 Potential Social and Environmental Impacts

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.

1.4.1 Social and Environmental Benefits

The project contributes to Sri Lanka's commitment with Stockholm and Minamata Conventions and has the goal to strengthen the management of POPs/uPOPs and Mercury in Sri Lanka with a special focus on the health sector given the COVID-19 pandemic situation. The interventions will contribute to mercury-free alternatives in handling mercury and mercury waste generated from the implementation of the phaseout of mercury-containing device by the Health Sector, reduced illegal imports of banned chemicals under the Stockholm and Minamata Conventions, disposal of accumulated mercury and mercury waste stocks, POPs pesticides and cross-contaminated chemicals with POPs pesticides, improved coordination among agencies concerned with the two conventions through an integrated information management system, enhanced training and capacity building and improved final disposal facilities for health care waste.

The project will build the capacity of the duty-bearers (officials and other relevant stakeholders) and raise awareness among the health care sector, general public, and waste handlers and communities living nearby dumpsites and to contribute to healthy life and wellbeing and gender equality.

More specifically, the project will generate the following global environmental benefits:

a) Strengthened monitoring and verification capacity at the point of imports to Sri Lanka will prevent the illegal imports of 1,000 metric tons of HHPs and banned pesticides per year.

b) An annual reduction of the use of 800,000 mercury containing bulbs in the healthcare sector.

c) Disposal of 22.6 metric tons of solid and liquid POPS-pesticides/contaminated pesticides and cross-contaminated laboratory chemicals.

d) Disposal of 8.8 + 41 metric tons of mercury and related waste will be safely disposed.

e) Collection and disposal of mercury waste at piloted facilities.

f) Avoided emission of mercury and U-POPs to the environment.

g) Capacity building of 1,000 staff at the piloted HealthCare Facilities and 16,000 people working in the waste management sectors (healthcare and municipal solid systems) and at recycling industries, being that 70% estimated to be women.

1.4.2 Social and Environmental Risks

1.4.2.1 Risks Avoided through Project Design

Standard 1: The project does not involve activities related to biodiversity conservation, wildlife management or genetic resources, thus standards 1.3, 1.5, 1.6 and from 1.8 to 1.13 were not triggered.

Standard 2: The project won't carry on activities that can exacerbate vulnerability to climate change (2.3).

Standard 4: demonstration activities will be limited to retrofitting of existing facilities, and one waste treatment facility may be constructed or expanded in an already legalized established Landfill controlled by the Government of Sri Lana, thus therefore no influx of workers is expected in the targeted sites. Also, landfill is not located in areas with cultural heritage, hence Standard 4 was not fully triggered.

Standard 5: considering the demonstration activities will take place in legalized locations and within already built baseline Facilities, project won´t led to temporary or permanent and full or partial physical displacement, risk of forced evictions, nor impacts on or changes to land tenure arrangements and/or community-based property rights/customary rights to land, territories and/or resources, hence Standard 5 was not triggered.

Standard 8: Sri Lanka 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.

iv. The industrial sectors targeted by the project do not use mercury in their process nor products that contain mercury, so it also does not encompass any prerogative of Minamata Convention.

The project does not have promote alternatives methods of agricultural activity, this won´t make use of any agrochemicals.

1.4.2.2. Risks Identified

The following are the project risks and their significance as identified in the completed SESP:

- **Risk 1: Duty bearers and other relevant stakeholders may fall short of capacities to meet their legal/functional obligations while enforcing the systematic procedures and regulatory framework improved by the Project. This may impact the transparency of the regulatory system and the quality of national controls, risking the non-compliance to Country's commitments to the Stockholm and the Minamata Conventions (Moderate).** Sri Lanka has an important baseline regulatory framework on chemical waste management. There are by-laws, guidelines and voluntary standards in relation to mercury management. It also noted that Government Officers are subject to regular training and are aware of the baseline instruments. Thus, the project will proceed to review the baseline Regulatory frameworks linking these to the Central Control System and strengthen the Coordination Mechanism amongst the relevant institutions to improve enforcement of the baseline regulatory framework. – Associated with Activities under Outputs 1.1.2, 1.1.3 and 4.1.3.

- **Risk 2: Healthcare facilities, and healthcare related stakeholders, may not be involved in decision-making regarding the development of policy and regulatory frameworks and may be negatively affected by any restrictions on mercury-based products supply, as a change in the regulatory framework can materially impact their business model (including increase their operational costs), sector operations or supply chains for products used (Moderate).** The Stockholm Convention has banned the production and use of (obsolete) legacy POPs pesticides listed in 2005 for more than 10 years already. The national bans were already affected a number of years ago, and collection of obsolete pesticides started to occur. However, storage practices were unsound which led to cross-contamination with other pesticides and products stored at same facilities. Thus, project won't seek any new ban on other types of pesticides rather than improve enforcement systems to the highly regulated POPs ones. The Minamata Convention has established commitments to stop manufacturing and training of mercury-based medical devices from 2022 and from 2025. As Party to these Conventions, Sri Lanka is bound to comply with such international bidding commitments and thus needs to establish national mechanisms to cope with such bans. However, some stakeholders, particularly the healthcare facilities, as well as other small to medium sized enterprises that depend on mercury-based products (light bulbs, LCD monitors), especially those with limited financial resources, may not be able to access alternatives to replace the banned POPs and mercury-containing products... – Associated with Activities 1.1.1.1 and 1.1.1.2.

- **Risk 3: Inadequate participation of women in consultations, policy decision making and design of modalities for capacity building in the uptake of non-mercury technologies and safe management and disposal of obsolete mercury devices and health care waste (Moderate).** An assessment in a sample of health care facilities found a greater number of women in the area of nursing and amongst the cleaning staff. Considering the fact that women and children are most vulnerable to chemicals pollutions, the participation of women in the decision-making process and in the project activities is critical for its success. – Associated with all project activities, in particular Activities 4.1.1.3, 4.1.2.1 and 4.1.4.2.

- **Risk 4: Healthcare facilities and other stakeholders can be marginalized and do not benefit from the project due to lack of awareness of the green procurement standards, or do not have equal access to financing through the Green Finance Framework to be developed (Moderate).** If not aware of these potential financing instruments, small and medium-sized health facilities will not be incentivized to switch to mercury-free thermometers and sphygmomanometers. These groups will thus become marginalized and not benefit equally from the project. - Associated with Output 1.2.2, Activities 1.2.1.1, 1.2.2.1, 3.1.3.3.

- **Risk 5: Accidental release of mercury or POPs pesticides, and their wastes, during procedures for re/trans-packing, handling, transportation, storage and disposal of existent stockpiles can contaminate land, communities or immediate workers if unsound practices are used or if the proper Laws and Standards**

and the project's risk avoidance framework is not followed (Substantial). The project will dispose of a stock of about 22.6 metric tons of POPs pesticides (with cross-contaminated pesticides that were stored together) through export to qualified destruction facilities and will also export for final storage about 40 metric tons of mercury contained (and mercury contaminated) wastes to qualified final storage facilities, following the Basel Convention procedures. The project will proceed to re-pack, handle, transport, store and dispose these hazardous substances and their wastes, following International Standards and Guidelines established by the Stockholm and the Minamata Conventions. Major risk arises when trans-packing of wastes and materials, as any poor handling and gathering of wastes, movement of stocks and packages, loading and accommodation on trucks, transportation and unloading at disposal sites, and these are taken into consideration in project design. Similar disposal activities had been carried out a number of times in previous UNDP projects in Central and South America, West and East Africa, Central and South Asia regions through GEF-funded projects. UNDP has accumulated a strong tracking record of no accidental accidents and had gathered a network of qualified and certified service provides to carry these controlled procedures following the highest standards. Yet, it is not possible to affirm that these procedures are risk-free. However, given the previous experiences as well as the set of internationally recognized risk management tools and procedures that are established to be followed, it is assessed that there is a low (2) to moderate (3) likelihood that such accident could happen given the relatively good infra-structure that will be used by the project (such as availability of containers and liners for re-packing, good transit conditions in Sri Lanka, existing protocols at exporting ports to handle hazardous substances). In addition, specific SOPs will be incorporated in the sites that accumulate these wastes, and proper training and EPI will be furnished through the contractors that will handle the disposal procedures, from beginning to final disposal site. Nevertheless, in case any accident occurs, it is also recognized that such could result in adverse impacts on people and/or environment of considerable magnitude, spatial extent, and duration, but more limited than Extreme. However, these impacts are predictable, and can be reversible through application of the decontamination procedures that will be developed by the Project, resulting in a risk impact assessment considered Extensive (4). -Associated with Output 2.1.1, Activity 2.1.1.3 and Activity 2.1.2.3.

- **Risk 6: Subsequent implementation (related to replication and scaling up) of adopted strategies and plans (that will be developed with project support) will lead to activities that could result in accidental release of mercury or POPs pesticides, and their wastes, during procedures for re/trans-packing, handling, transportation, storage and disposal of stockpiles exposing the workers as well as the local communities living nearby if unsound practices are used or if the proper Laws and Standards and the project's risk avoidance framework is not followed.. (Substantial).** Under Component 1, the project will review the baseline Regulatory frameworks that govern the control of hazardous chemicals and disposal of their wastes. These frameworks will be linked to a single Central Control System and the project will strengthen the Coordination Mechanism amongst the relevant institutions that are responsible for the enforcement of the baseline regulatory framework. In parallel, under Components 2 and 3 the project will draft Healthcare Waste Management Systems and SOPs that will be tested during the waste disposal activities listed under Risk 4 (thus rationale for the rating is the same). All these will form a comprehensive Regulatory and Institutional base that will be further replicated once the project is completed with the objective of avoid formation of stockpiles in the future that can put the local systems at pressure and also avoid dumping and this contamination of environment and communities. Hence, upon project completion, the improved enforcement system in the country will continue to be enforced. Stakeholders that make use of controlled chemicals or the ones that are involved in the waste management chain will be required to apply the relevant regulations, guidelines and SOPs to properly collect and dispose their wastes following BAT/BEP at their own costs... - Associated with Activity 2.1.2.2, 3.1.2.1 and Output 3.2.2.
- **Risk 7: Damage to interim storage and disposal facilities for hazardous waste from flooding or other natural disasters/weather events (Moderate).** Mercury differs from other toxics and pollutants in that it is an element and cannot be broken down, degraded, or destroyed. Sri Lanka does not have capacities to arrange final disposal sites for mercury within its borders, thus the overall strategy is to proceed with interim solution of mercury and thus transfer the accumulated stocks to other country for final storage. In the other hand, is known that Climate change is already modifying the frequency and intensity of many weather-related events, and amongst the potential weather-related hazards screened in Sri Lanka, the one that can pose greater risk to interim storage facilities is flooding, but the project is also aware of any the occurrence landslides, erosion, or extreme weather conditions. It has been assessed that in case extreme weather conditions do impact the project, because of the nature of operations and safeguards proposed, these impacts would be of medium magnitude, limited in scale (site-specific) and duration (temporary), can be

avoided, managed and/or mitigated with relatively uncomplicated accepted measures, resulting in an risk impact assessment considered Intermediate (3), while the likelihood of such events to impact the current screened locations sought are low (2) to moderate (3).. – Associated with Output 2.1.1, Activity 2.1.1.3 and Activity 2.1.2.3.

- **Risk 8: Adverse impacts to biodiversity and natural ecosystems resulting from the construction and operation of the Centralized Clinical Waste Treatment Facilities (CCWTF) within the baseline engineered (sanitary) landfill (Substantial).** The project will work with baseline engineered landfill facilities established and licensed in Sri Lanka. Engineered landfill is a highly regulated facility that allows final disposal of solid waste in a secure manner by avoiding or minimizing the impacts on the environment: it is an engineered pit, in which layers of solid waste are filled, compacted and covered for final disposal. It is lined at the bottom and sides to prevent groundwater pollution, having a leachate collection and treatment system; groundwater monitoring; gas extraction and a cap system. The capacity and the site are chosen based on an environmental impact assessment. Thus, the project won't reclaim land nor construct any new waste disposal facility (Landfill). The project intends to use the baseline proposed site in Arawakkalu landfill, co-financed by the Government, located at the borders the Sundarapola forest reserve, North Western Province, to establish an also controlled Chemicals Waste Treatment Facility (CCWTF). The Landfill has been established in reclaimed land that previously hosted cement manufacturing facility. The Environmental Impact Assessment (EIA) and its public consultations demonstrated in the specific area of the landfill that are no dispute the over land, and that no heritage sites and no indigenous people are present. However, the "enlarged" project area of influence could also encompasses the community district of Puttalam (as the landfill operations can trigger economic activities of the community, such as the ones that can be created around the transportation roots, most notably, food and beverage, but also sales of small goods), and the district is the origin of ethnic Karavas group, thus Standard 6.1 is triggered. Finally, the CCWTF will be established following the most recent BAT/BEP, to receive untreated biological healthcare waste, proceed to decontaminate it with hot steam autoclaves, which will allow the biological waste to be further processed at the same landfilling facility once become inert. – Associated with Activity 3.2.1.1.
- **Risk 9: Health and safety risks to workers of the engineered landfill as well communities during establishment and operation of the CCWTF and inappropriate behavior by additional security personnel who may be recruited by the landfill operator (Substantial).** Engineered landfill is a highly regulated fenced and controlled facility that counts with security personnel funded by its operators on a 24x7 basis. The engineered landfill also counts with their own staff responsible for its day-to-day operations. Both construction and operation of the incremental CCWTF within the landfill area may expose current workers and the community to health and safety risks such as injuries, risk exposure to infectious and hazardous waste (if transport accidents happen), and air emissions (if decontamination autoclaves are not used properly or present technical defect). In addition, the landfill operator may be required to deploy additional Security guards to secure the CCWTF facilities. Though the landfill is a fenced and secured place in which local community has no access, these staff may still not be properly trained on how to properly deal with the local community given regional/local cultural practices when they can come to contact in outside duty hours (and if the personnel is not hired from the local community workforce), which may lead to grievances by other workers or nearby residents. The maintenance of Security Officers is fully funded by non-GEF resources (co-funding) originated from the landfill operator. Associated with Activity 3.2.1.1.
- **Risk 10: Improper application of guidelines developed by the project during decontamination of demonstration sites (both during project implementation and after project completion) can lead decontamination and disposal workers, community located in affected area and surrounding environment to be exposed to POPs pesticides and Mercury, which can extend the range of the contamination and limit access to land and natural resources of nearby communities (Substantial).** Mercury is used in a range of medical devices and has been the most used type of technology for sphygmomanometers and thermometers for many years. However, these products are fragile and are subject of break during their using in healthcare facilities. The project considers that these mercury spills in hospitals, clinics and labs are occurring in a rolling basis due to the handling and breaking of such devices, already exposing doctors, nurses, other health care workers and patients to elemental mercury. At room temperature significant amounts of liquid elemental mercury transform to a gas, exposing workers or patients in the area to potentially highly toxic levels. Thus, certain level of contamination in the healthcare units sites can exist. In addition, the project has identified 22.6 metric tonnes of POPs pesticides and contaminated pesticides being stored in the Interprovincial Agriculture Office of Ampare. Although the

storage facility does have proper condition, the containers of Pesticides may be already compromising, which could lead to leakages. However, until proper EPI-equipped teams are not able to enter and start re-packing the pesticides, is not possible to know the real condition of all containers nor to assess any extent of damages due to potential leakages. Associated with Activity 2.1.3.2.

- **Risk 11: Increased consumption of resources and GHG and other emissions and generation of waste from autoclaving and recycling activities (Moderate).** Depending on the technology used by existing recyclers, recycling of plastic, aluminium, glass and other materials that will be piloted by the project may use a large amount of resources such as water and energy and lead to increased GHG and other air emissions. The technology and method use for autoclaving in the demonstration facilities may also lead to toxic emissions and residual waste, exposing workers and the local communities to health hazards. Residual waste requiring adequate disposal will be generated from these activities, taking into consideration that current practices in Sri Lanka fall short of international best practice. Associated with Activity 3.1.3.1, Output 3.1.5, Output 3.2.3

- **Risk 12: Project service contractors may make use of working practices that do not meet the national labour laws, international standards/treaties, and Occupational Risk and Hazardous Guidelines, or may employ child or apply forced labor practices, leading to risk of workers exposure to health and safety risks during re/trans-packing, handling, transportation and decontamination activities (Substantial).** Healthcare workers in the medical sector already have some baseline sensitivity and knowledge on safe handling of mercury and healthcare wastes, therefore lowering the risk associated with the decommissioning aspect of the work. Additionally, the project aims to promote de-contamination and recycling of healthcare wastes and for this will engage with companies and workers cooperatives in the recycling industries to create strategies that can promote recycling practices, increase income and potentially generate "green jobs". It is important to note that Forced and Child Labour is illegal in Sri Lanka. However, the practice still exists in some sectors, including hazardous activities such as construction. Associated with Output 2.1.1, Activity 2.1.1.3, Activity 2.1.2.3, Activity 2.1.3.2, Activity 3.1.3.1, Activity 3.2.1.1, Output 3.1.5, Output 3.2.3.

1.4.2.3. Summary on the Standards Triggered

- **Human Rights** (P2, P3) and **Accountability** (P5, P6, P13, P14): This is due to potential inability of duty bearers, mainly government officials, to meet their obligations by properly enforcing legislation related to the import of hazardous chemicals or to monitor and verify POPs and POPs containing imports. This is addressed through Project activities that include needs-based training. Some healthcare facilities, as well as other small to medium sized enterprises, especially those with limited resources, may not be able to provide alternatives to banned POPs and mercury-containing products.

- **Gender Equality and Women's Empowerment**: (P9, P10) The project may reproduce gender discrimination through limiting women's ability to contribute to decision-making and to benefit from the project.

- **Standard 1 - Biodiversity Conservation and Sustainable Natural Resource Management:** (1.1., 1.2, 1.4, 1.7, 1.14) Risks to biodiversity during construction and operation of the CCWTF as the landfill in the North Western Province, which borders a forest reserve. In addition, biodiversity may be affected through the accidental release of mercury and POPs into the environment if improper handling, storage, transport and disposal of stockpiles and site decontamination during the pilot demonstrations and as a result of unproperly adopted strategies and plans.

- **Standard 2 - Climate Change and Disaster Risks:** (2.1, 2.2, 2.4) This standard is triggered due to potential flooding or other damage to interim storage and disposal facilities and the CCWTFs or increased GHG emissions due to project operations. Mitigation measures for this risk will be included in the pursuant ESMPs that will be prepared for each activity.

- **Standard 3 - Community Health, Safety and Security:** (all) Risks to community health and safety have been identified for two main types of activities. The first is construction and operation of the two CCWTFs, which will be addressed by the ESIAs and pursuant ESMPs that will include a Pollution Prevention and Management Plans and Occupational Health and Safety Plans. The second are the demonstration pilots for handling, storage, transport and disposal of stockpiles of Mercury and POPs and site decontamination. The ESIAs and ESMPs (including the Pollution Prevention and Management Plan and Waste Management Plan) address this risk.

- **Standard 6 – Indigenous People:** (6.1). For establishing the CCWTF, the project will work with baseline HCWM facilities established and licensed in Sri Lanka. The Landfill has been established in reclaimed land that previously hosted cement manufacturing facility. The Environmental Impact Assessment (EIA) and its public consultations demonstrated in the specific area of the landfill that are no dispute the over land, and that no heritage sites and no indigenous people are present. However, the "enlarged" project area of influence could also encompasses the community district of Puttalam (as the landfill operations can trigger economic activities of the community, such as the ones that can be created around the transportation roots, most notably, food and beverage, but also sales of small goods), and the district is the origin of ethnic Karavas group, thus Standard 6.1 is triggered. The ESIA will assess the risk that may result from the proximity of this community and propose mitigation measures and plans in line with S6.
- **Standard 7 - Labour and Working Conditions:** (all) Working conditions within the CCWTFs and project demonstration activities may be in contravention to principles and standards of ILO fundamental conventions, hence triggering this standard.
- **Standard 8 - Pollution Prevention and Resource Efficiency:** (8.1, 8.2, 8.3, 8.6) Pollution may result from various project activities including during construction and operation of the CCWTF and implementation of the demonstration pilots. In addition, implementation of the management plans and strategies that will be developed by the project may also lead to pollution events and accidental releases that need to be addressed.

Table 1.1: Summary of safeguards triggered based on screening conducted during project preparation

Principle / Standard	Risk Rating	Assessment and Management
Overarching Principle: Leave No One Behind		
Human Rights	**Moderate**	**SESA, SEP, Training**
Gender Equality and Women's Empowerment	**Moderate**	**GAP, SESA**
Sustainability and Resilience		
Accountability	**Moderate**	**SESA, SEP, Training**
Project-level Standards		
Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management	**Substantial**	**ESIA, ESMP, SESA**
Standard 2: Climate Change and Disaster Risks	**Moderate**	**ESMP**
Standard 3: Community Health, Safety and Security	**Substantial**	**ESIA, ESMP, SESA**
Standard 4: Cultural Heritage	-	-
Standard 5: Displacement and Resettlement	-	-
Standard 6: Indigenous Peoples	**Substantial**	**ESIA, ESMP**
Standard 7: Labour and Working Conditions	**Substantial**	**ESIA, ESMP, SESA, LMP**
Standard 8: Pollution Prevention and Resource Efficiency	**Substantial**	**ESIA, ESMP, SESA**
Number of risks in each risk rating category		
High	0	
Substantial	3	
Moderate	9	
Low	0	
Total number of project risks	12	
Overall Project Risk Categorization	**Substantial**	
Number of safeguard standards triggered	**8**	

1.4.2.4. Activities that Require Further Screening

The project will support the disposal of residual mercury-contained waste generated from the replacement of mercury-containing medical devices and dental amalgam (Output 2.1.1), disposal of a stock of about 22.6 metric tons of (POPs pesticides with cross-contaminated chemicals that were stored together) (Activity 2.1.1.3) and safe mercury extraction and disposal from equipment and bulbs coming from healthcare facilities (Activity 2.1.2.3).

The project will initially work with the baseline storage facility implemented by the Government of Sri Lanka with support from a bilateral donor. This baseline facility has been built following national legislations and

international standards on safety. However, during project implementation further assessment on future needs for potential expanded storage capacity will be carried out to verify If any new facilities need to be established.

If concluded that additional facility is need, a targeted ESIA will be undertaken to determine the extent of the assessment/management needed and considerations will be made that facilities are not located in areas classified as high risk due to landslides, erosion, floods or extreme weather conditions.

Once the site is selected, the targeted assessment planned for these activities will assess this risk and propose mitigation measures if needed as part of the resulting ESMP, this Activity 2.1.2.3 will only be able to proceed upon the development if these additional targeted Management Plans.

1.4.2.5. Activities not implemented by Project Funds

Sites Decontamination

The Activity 2.1.3.2 will develop and introduce guides and standards for decontamination of sites contaminated with POPs pesticides, POPs chemicals and mercury. The strategy and guides will be tested at two sites, one for site contaminated with POPs pesticides and one contaminated with mercury. GEF funds cannot be used to conduct sites decontamination.

Thus, any decontamination activity that may rise during project implementation will be carried out with co-finance outside project funds. In addition, as scale up and replication effects, decontamination activities would continue in the future, after project completion, based on the Guidelines developed by the project. Thus, the project will carry on an Environmental Risk Assessment to align the local regulation to UNDP´s SES and provide tools for the project team to monitor the risks associated with the actual site decontamination/remediation.

This Assessment will contain, but won't be limited, to the identification and characterization of the scope (e.g., the extent of contamination, proximity to human populations, depth to groundwater, proximity to surface water or sensitive habitats), analysis of the hazard level and toxicity, analysis of exposure and analysis of risks to determine the level of management and remediation possible. An ESMP will then be developed for each site that will include a *Pollution Prevention and Management Plan* and an *Occupational Health and Safety Plan*.

Construction Activities

Site visits were conducted during project preparation and have found that the solid waste landfill in the North Western Province, which is under construction, borders the Sundarapola forest reserve. This landfill has been subject to Environmental Impact Assessment (EIA) as required by National Regulations, and it has been approved by the relevant authorities. **The project won't reclaim land nor construct any new waste disposal facility (Landfill)**. The project will use the baseline proposed site of this solid waste landfill constructed by the Government (co-finance) at the borders the Sundarapola forest reserve, North Western Province, to adjust the establishment of a Chemicals Waste Treatment Facility (CCWTF) following the most recent BAT/BEP.

A scoped **ESIA**, following UNDP SES, will be conducted for the CCWTF (Activity 3.2.1.1) that is proposed to be constructed within the landfill limits. The ESIA that will be prepared for the project will assess current alignment of the landfill's EIA to UNDP SES, as well as expand the assessment on social-related principles and potential incremental risks on biodiversity from construction and operation of the CCWTFs. If needed, the resulting **ESMP** would include a **Biodiversity Management Plan** if the risks to Biodiversity are found and are considered to be unavoidable, taking into consideration the location of the Sundarapola Forest Reserve.

During project implementation, the Project Monitoring Unit team will establish a monitoring mechanism to follow up the establishment and initial operation of the CCWTF so to oversight the potential environmental and social risks inherent to the co-financed component.

2. Legislation and Institutional Framework for Environmental and Social Matters

Sri Lanka has adopted over 80 regulations that directly or indirectly relates to protecting and conserving the natural environment and human health. While most of these laws address specific issues pertaining to environment in the respective sector, it was the introduction and enactment of the National Environmental Act (NEA) that provided the overarching legal basis for regulation of pollution and protection of the environment from all sources in a comprehensive manner. The Ministry of Environment was established in December 2001 and has the overall responsibility to manage the environment and natural resources of the country. Under the umbrella of the Ministry of Environment, the Central Environmental Authority operates with the objective of integrating environmental considerations into the development process of the country.

2.1 National Legislation, Policies and Regulations

The following legislation is relevant to the implementation of the project and its pilot intervention activities.

- The **Constitution of Sri Lanka** contains several provisions relating to the environment such as Article 18 which states that "It is the duty of every person of Sri Lanka to protect nature and conserve its riches" and Article 27 (14) that declares that "The state shall protect, preserve and improve the environment for the benefit of the community". The 13th Amendment to the Constitution created a new institution at the provincial level for environmental protection and management. Each provincial government under this Amendment has legislative and executive powers over environmental matters (Articles 154 (A), 9, 19 and (III) 17).
- The **National Environmental Act (NEA) No. 47 of** 1980 is the basic national decree for protection and management of the environment in Sri Lanka. The NEA has seen several amendments in the past in a bid to continually make improvements and to respond to the challenging needs of the time. There are two main regulatory provisions in the NEA implemented by the Central Environmental Authority (CEA) through which impacts on the environment from the process of development is assessed, mitigated and managed: (1) The Environmental Impact Assessment (EIA) procedure for major development projects. Regulations pertaining to this process have been published in 1993 and (2) The Environmental Protection License (EPL) procedure for the control of pollution. Regulations pertaining to this process have been published in 1990.
- The **Coast Conservation Act (CCA) No.57 of 1981** states that projects located wholly or partly within the coastal zone must undergo an approval process irrespective of its size. Only those projects located totally outside the Coastal Zone will be subject to the approval process laid down in the National Environmental Act. Therefore, any development work taking place within this zone falls under the jurisdiction of Coast Conservation Department.
- The **Fauna and Flora Protection Ordinance (FFPO) Amended Act No. 49 of 1993** includes EIA provisions stating that any development activity of any description proposed to be established within a national reserve or within one mile from the boundary of any national reserve, is required to be subjected to EIA/IEE, and written approval should be obtained from the Director General, Department of Wildlife Conservation prior to implementation of such projects.
- The **Flood Protection Ordinance, Act No. 22 of 1955** provides for the acquisition of land or buildings or part of any land or building for the purpose of flood protection.
- The **State Land Ordinance, Act No. 13 of 1949** provides guidelines for (1) the protection of natural water springs, reservoirs, lakes, ponds, lagoons, creeks, canals, and aqueducts, (2) the protection of the source, course and bed of public streams, (3) The prevention of soil erosion and (4) the preservation of water supply sources.
- The **Soil Conservation Act, No. 25 of 1951** provides for the conservation of soil resources, prevention or mitigation of soil erosion, and for the protection of land against damage by floods and droughts. Under the Act, it is possible to declare any area defined as an 'erodible area' and prohibit any physical construction.
- The **Urban Development Authority, Law, No. 41 of 1978** promotes integrated planning and implementation of social, economic and physical development of areas which are declared as urban development areas. The Municipal Councils and Urban Councils share with Pradeshiya Sabha (legislative bodies that preside over the third-tier municipalities in the country) powers regarding the approval of building plans, control of solid waste disposal, sewerage and other public utilities Antiquities Ordinance
- **The Antiquities Ordinance of 2000** requires that an Archaeological Impact Assessment (AIA) be conducted for new projects.
- **The Land Acquisition Act (LAA) No.9 of 1950** lays down the general procedure for the acquisition of private lands for a 'public purpose' (e.g., development projects). **The Land Acquisition and Payment of Compensation Regulations of 2009** provides for the payment of compensation on the basis of 'market value'. **The Land Acquisition (Payment of Compensation) Regulations of 2013** provide for development projects to be designated as 'specified projects' that qualify to establish Land Acquisition

and Resettlement Committees to which the persons affected by land acquisition can make their representations. The regulations provide for a comprehensive compensation package including compensation for non-titleholders.

It is worth noting that although Strategic Environmental Assessment is still not a mandatory requirement in Sri Lanka, the Cabinet of Ministers has approved using this tool for policies, programs and plans. Therefore, all Ministries, departments and authorities who are responsible for implementing a new policy, plan or program should carry out a Strategic Environmental Assessment prior to implementation and submit a copy of the assessment report to the Central Environmental Authority for review and comments.

Regarding Indigenous Peoples, the Vedda community in the country who are primarily the 'forest dwellers' and dependent on forest resources for their livelihoods is recognized by various sources as 'indigenous people'. The Vedda communities as separate indigenous populations are not unequivocally identifiable in Sri Lanka. The Veddas are recognized as citizens of Sri Lanka under the Citizenship Act of 1948. They enjoy all rights and privileges enshrined in the constitution to which any other citizen is entitled to irrespective of ethnicity, religion, location, vocation, caste and creed.

2.2 International Agreements and Treaties

Sri Lanka is a signatory to several multilateral agreements and conventions that are relevant to the project. These include but are not limited to the following:

- Vienna Convention for the Protection of the Ozone Layer, 1985
- Montreal Protocol on Substances that deplete the Ozone Layer, 1989
- United Nations Framework Convention on Climate Change, 1993
- Kyoto Protocol, 2002
- Convention on Biological Diversity, 1994
- Basel Convention on the Control of Trans-boundary movements of Hazardous Wastes and Their Disposal, 1992
- Rotterdam Convention, 2006
- Stockholm Convention on Persistent Organic Pollution, 2005
- C029 - Forced Labour Convention, 1950
- C087 - Freedom of Association and Protection of the Right to Organise Convention, 1995
- C098 - Right to Organise and Collective Bargaining Convention, 1972
- C100 - Equal Remuneration Convention, 1993
- C105 - Abolition of Forced Labour Convention, 1957
- C111 - Discrimination (Employment and Occupation) Convention, 1998
- C138 - Minimum Age Convention, Minimum age specified: 16 years, 2000
- C182 - Worst Forms of Child Labour Convention, 2001

2.3 Gaps in Policy Framework

Further analysis of the legal and policy frameworks that apply to Sri Lanka will be completed during implementation of this ESMF, specifically as part of the SESA, ESIA and ESMP processes. At this stage, the main gap that has been identified is that despite the requirement for public policies, strategies and plans to undergo a SESA, no clear process for this assessment and its approval exists in the legislation.

3. Procedures for Screening, Assessing and Managing Social and Environmental Impacts

This ESMF has been developed as part of UNDP's due diligence process in the project cycle, following the screening of the UNDP-supported project ***"Integrated Management and Environmentally Sound Disposal of POPs Pesticides in the Agricultural Sector and Mercury & Waste in the Healthcare Sector in Sri Lanka"*** with the SESP template.

In accordance with the SES, and due to the **Substantial overall risk category,** social and environmental assessments, including the identification of management mechanisms to mitigate identified risks, must be undertaken such that no project activity that is being assessed for potential impacts can commence before the

associated assessment has been undertaken and management plans are in place, as described in the sections that follow.

3.1 Strategic Environmental and Social Assessment for Upstream Activities

A Strategic Environmental and Social Assessment (SESA) will be undertaken during the following:

- Any new regulations that may be proposed under Activity 1.1.1.1 that may have a significant impact on the use and/or avaialbliity of POPs and mercury containing products.-
- Development of management plans for mercury and mercury-containing waste from obsolete medical products (Activity 2.1.2.2)
- Development of HCWM Strategy (Activity 3.1.2.1) and the de-centralized non-incineration HCWM Strategy for medium to small scale health care facilities (Output 3.2.2).

The SESA will be carried out by independent experts in accordance with national requirements and UNDP's SES policy and the UNDP SES Guidance Note on Assessment and Management to identify and assess social and environmental impacts associated with the proposed regulations in a participatory manner with stakeholders as follows:

1. Identify social and environmental priorities to be included in planning and policy processes.
2. Assess gaps in the institutional, policy, and legal frameworks to address these priorities.
3. Identify potential adverse social and environmental impacts associated with policy options.
4. Engage decision makers and stakeholders to ensure a common understanding and broad support for implementation.
5. Formulate policy and institutional measures needed to close policy and legal gaps, address institutional weaknesses, and avoid adverse social and environmental impacts.

The SESA process will ensure that economic impacts on healthcare facilities or other affected stakeholders are taken into consideration in the decision-making process while developing legislation banning or restricting the import or use of chemicals and ensure that affordable and environmentally friendly alternatives are available for banned chemicals. Any institutional and capacity gaps identified during this process will be addressed through the training that will be conducted for the specified activities.

The SESA will consist of an assessment of impacts that integrates environmental and social considerations into policies, plans and strategies and evaluates their interlinkages with economic considerations. It will evaluate the effect of supported regulatory/policy changes on a broad, cross sectoral basis with the aim of making policy decisions and other upstream actions more sustainable.

Information and strategies identified will inform decision making and will be used to guide assessments of downstream activities.

Although the steps and format of a SESA vary depending on the method and topic, key stages for carrying out a SESA would typically include those identified in Figure Error! ***No text of specified style in document.****-1*. A SESA process would be undertaken for each new legislation, management plan and strategy such that these steps would progress as part of its drafting and feed into each other in an iterative manner. This means that each SESA may engage different stakeholders and address topics or potential conflicts that are specific to topic.

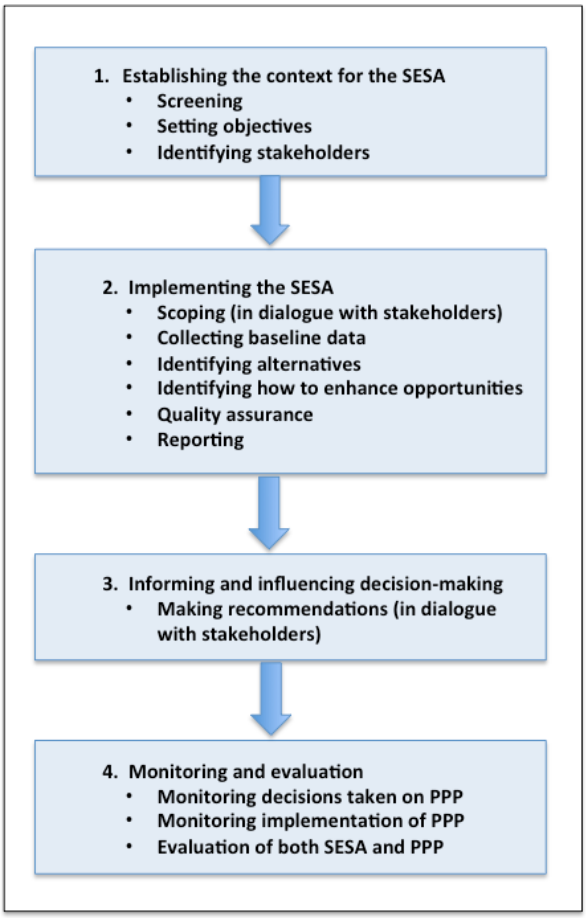

*Figure **Error! No text of specified style in document.**-1: Basic Stages of a SESA*

The SESA process will result in the identification of measures (e.g., policies, institutional strengthening, governance reform) to address and manage anticipated adverse social and environmental risks and impacts, including a summary Action Matrix (Annex 9.2 of this ESMF presents a checklist of generic questions for preparing a SESA and an indicative sample of the Action Matrix), if needed. Where applicable, a final or advanced draft of ESMF as framework for managing social and environmental risks during implementation of the proposed strategies/plans will be prepared.

3.2 ESIAs and ESMPs for the Two CCWTFs (Activity 3.2.1.1)

A scoped ESIA will be conducted for each CCWTF prior to commencement of two CCWTFs (Activity 3.2.1.1.), guaranteeing that no activities that may cause adverse social and environmental impacts are to proceed until assessments are completed and the associated site-specific ESMP is in place. Implementation and monitoring of identified risk management and mitigation measures is required throughout the life cycle of the project.

The ESIA will address potential health and safety risks to workers and the community and damage to biodiversity and natural ecosystems from construction and operation of the CCWTF.

The preparation of the ESIAs will require the retaining of an external consultant. This cost has already been included in the overall budget of the project.

- Per the SES, the ESIA will assess project activities at the scale deemed appropriate for compliance with the SES.
- The ESIA will identify environmental and social sensitive receptors within the activity's area of influence.
- It will address all relevant issues related to the SES Overarching Principles and Project-level Standards, as identified in the project's SESP and any other issues identified in the course of the ESIA.
- As appropriate for compliance with UNDP's SES (including relevant national/international frameworks), the ESIA will include consultations toward FPIC, and the assessments/studies required under SES Standard 6.

- A key output of the ESIA is an ESIA report and ESMP, as described next.

The output of each scoped ESIA will be an ESIA report (indicative outline can be found in Annex 9.3) and site-specific ESMPs for each CCWTF. The ESMPs will define desired social and environmental management outcomes and specify social and environmental indicators, targets, or acceptance (threshold) criteria to track ESMP implementation and effectiveness. It will also provide estimates of the human and financial resources required for implementation and monitoring and identify organizational structure and processes for implementation. They will likely include an Occupational Health and Safety Plan and Pollution Prevention and Management Plan. For the CCWTF in the North Western Province, which borders the Sundarapola forest reserve, the resulting ESMP will include a Biodiversity Management Plan that safeguards biodiversity in the area are improved through adhering to or supporting the development of a Management Plan for the area if none exist. An indicative outline of the ESMP can be found in Annex **Error! Reference source not found.Error! Reference source not found.** of th is ESMF.

3.3 Additional Scoped Assessments and Management Plans

Scoped assessments (ESIAs) will be conducted for each pilot tackling risks related to accidental release of hazardous material due to mismanagement and natural disasters and occupational health and safety in accordance with UNDP's SES policy and the UNDP SES Guidance Note on Assessment and Management. This applies to the following activities:

1. Residual Mercury-contained waste generated from the replacement of mercury-containing medical devices and dental amalgam disposed of (Output 2.1.1)
2. Disposal of a stock of about 22.6 metric tons of (POPs pesticides with cross-contaminated chemicals that were stored together) (Activity 2.1.1.3)
3. Safe mercury extraction and disposal from equipment and bulbs coming from healthcare facilities (Activity 2.1.2.3).
4. Demonstration of the application of Guides and Standards for identification of Mercury and POPS contaminated sites (Activity 2.1.3.2).
5. Testing strategies to improve recycling of plastics, aluminum and glass materials (Activity 3.1.3.1),
6. Integrated recycling programs piloted in six (6) facilities (Output 3.1.5)
7. Business models for de-centralized HCWM systems (low-cost autoclaving) piloted in six (6) medium-to-small scale facilities (Output 3.2.3)
8. Baseline hybrid autoclaves operation and maintenance practices, at large scale healthcare facilities, are improved, and their operational Business Models is developed.

Each assessment will be developed and carried out by independent experts and will design appropriate avoidance, mitigation, management, and monitoring measures. The output will be an ESMP for each pilot activity. Each ESMP will define desired social and environmental management outcomes and specify social and environmental indicators, targets, or acceptance (threshold) criteria to track ESMP implementation and effectiveness. It will also provide estimates of the human and financial resources required for implementation and monitoring and identify organizational structure and processes for implementation. An indicative outline of the ESMP can be found in Annex 9.4 of this ESMF.

In addition to Targeted ESMP(s), the following Targeted Management Plans will be developed as follows:

(a) Spill Prevention and Management Plan (Activity 2.1.1.3, Activity 2.1.2.3);
(b) Biodiversity Management Plan, if needed (Activity 3.2.1.1);
(c) Pollution Prevention and Management Plan (Activity 3.2.1.1, Activity 3.1.3.1, Output 3.1.5, Output 3.2.3
(d) Occupational Health and Safety Plan (Activity 3.2.1.1, Activity 3.1.3.1, Output 3.1.5, Output 3.2.3
(e) Code of Conduct for Construction and Security Workers (Activity 3.2.1.1).

3.4 Labour Management Procedures

UNDP S7 requires that written labour management procedures (LMP) be established that set out the conditions under which project workers will be employed or engaged and managed. This applies to all third-party contractual arrangements with the private sector (or any other entity).

Therefore, all private sector actors (or any other entity) that will be engaged in the project, particularly under the pilots, will adhere to the LMP to ensure compliance with SES prior to engagement in any project activity. Private enterprises that will provide services within the project shall also sign a safeguards commitment letter to implement all measures stipulated in the ESMF.

Section 9.5 provides a template for this LMP that will be developed during the inception phase of the project. To the extent that provisions of national law and employer policies satisfy the requirements of S7, these would be applied, and the applicable party would not need to duplicate such provisions in additional project-specific labour management procedures. An assessment, undertaken as part of the targeted assessments, should identify whether the applicable party (employer, contractor) has appropriate human resources policies and Occupational Health and Safety management procedures to address and manage identified labour risks and impacts and to meet the S7 requirements.

Additional guidance can be found in the UNDP SES Guidance Note on Standard 7: Labour and Working Conditions.

3.5 Updates to Project SESP

During implementation, the project SESP will be updated:

1. if the SESA or other assessments identify new information/risks relevant to the SESP.
2. when determined necessary by the Project Manager (after consideration of the advice from PMU staff with responsibility for safeguards), the Project Board, or UNDP; and/or
3. if the project is substantively revised or circumstances change in a substantive or relevant way.

3.6 Other Relevant Assessments and Plans

If needed, the findings of the SESAs, ESIAs and targeted assessments may be used to update the project's Gender Action Plan and Stakeholder Engagement Plan (SEP) as determined appropriate by the safeguards consultants. The SEP will ensure all affected people will be engaged throughout the project.

The SESP has identified requirements for the following additional stand-alone targeted management plans:

(a) Stakeholder Engagement Plan: has been developed. The plan provides terms of reference and modalities for managing stakeholder engagement in project activities at each site and with each community.

(b) Gender Action Plan: has been prepared. Updates will be informed by the ESIAs, and progress against relevant benchmarks.

Component	Outcomes - Outputs - Activities	RISKS	ESMF Applicable?		Assessments and Mgt. Plans
			YES	NO	
Component 1 - Strengthen the Policy, Regulatory and Institutional Frameworks for the management of POPs, Mercury and other Chemicals of Concern (CoC).	Activity 1.1.1.1	Risk 2 Risk 3	X		SESA GAP SEP
	Outputs 1.1.2	Risk 1	X		GAP SEP
	Output 1.2.2	Risk 4	X		GAP SEP
Component 2 - Environmentally sound management disposal of obsolete stocks of Agrichemicals POPs, Mercury and their wastes	Output 2.1.1	Risk 5 Risk 7 Risk 12	X		ESIA ESMP SEP OHSP CoC GRM
	Activity 2.1.1.3	Risk 5 Risk 7 Risk 12	X		ESIA ESMP SEP CoC GRM
	Activity 2.1.2.2	Risk 6	X		SESA

					SEP
	Activity 2.1.2.3	Risk 5 Risk 7	**X**		ESIA ESMP SEP CoC GRM
Component 3 - Establish Healthcare Waste Management (HCWM) Systems to effectively prevent U-POPs emissions, and develop Business Models for waste disposal at Healthcare Facilities which are aligned to the national COVID-19 recovery efforts	Activity 3.1.3.1	Risk 11	**X**		ESIA ESMP GAP CoC LMP PPM GRM
	Activity 3.1.2.1	Risk 6	**X**		SESA SEP
	Output 3.1.5	Risk 11 Risk 12	**X**		ESIA ESMP GAP CoC LMP PPM GRM
	Activity 3.2.1.1.	Risk 8 Risk 9 Risk 12	**X**		ESIA ESMP (incl. BDM) GAP CoC LMP PPM GRM
	Output 3.2.2	Risk 6	**X**		SESA SEP
	Output 3.2.3	Risk 11 Risk 12	**X**		ESIA ESMP GAP CoC LMP PPM GRM
Component 4 – KM & Evaluation	Output 4.1.3.	Risk 1	**X**		SEP

SESA - Strategic Environmental and Social Assessment

GAP - Gender Action Plan

SEP - Stakeholders Engagement Plan

ESIA - Environmental and Social Impact Assessment

ESMP - Environmental and Social Management Plan

SIP - Spill Prevention and Management Plan

BMP - Biodiversity Management Plan

OHSP - Occupational Health and Safety Plan

CoC - Code of Conduct for Construction and Security Workers

GRM - Grievance Redress Mechanism

LMP - Labour Management Plan

PPM - Pollution Prevention and Management Plan

4. Institutional Arrangements and Capacity Building

4.1 Roles and Responsibilities for Implementing this ESMF

The roles and responsibilities of project staff and associated agencies in implementation of this ESMF are elaborated upon below.

Note: This ESMF does not cover the specific roles and responsibilities associated with implementation of the subsequent ESMPs; those will be defined in the ESMPs, as required per this ESMF.

Implementing Partner (Ministry of Environment):

- Ensure that the required SESA, ESIAs and ESMPs 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;
- Hold responsibility and accountability to UNDP for overall management of the project, including compliance with UNDP SES.

Project Board (comprised of UNDP, Ministry of Environment, Ministry of Health, Ministry of Agriculture):

- 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;
- Provide strategic guidance to implementation of the Project including oversight for safeguards and the implementation of this ESMF.

UNDP:

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

Project Management Unit:

- Supervise and manage implementation of measures defined in this ESMF;
- Assign specific responsibilities for implementation of this ESMF, including monitoring, and community consultations on the draft ESIAs and ESMPs to a staff member(s) of the PMU (this includes lead responsibility by the Project Safeguards/Gender Officer to implement the ESMF and ensure that all management plans are in place prior to commencement of relevant activities);
- Maintain relevant records associated with management of environmental and social risks, including updated SESPs, assessments, evidence of consultations and FPIC, 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;
- Ensure that all service providers are informed of their responsibilities for the day-to-day compliance with the ESMF.

In addition, the site-specific ESMPs will describe the roles and responsibilities in the implementation of those plans. Those new roles and responsibilities will be assessed and integrated, as appropriate, as part of the participatory decision making and implementation proceedings of the project.

4.2 Capacity Building

Specialists with expertise in social and environmental safeguards will be engaged to support the completion of the SESAs, ESIAs and ESMPs. These experts will support UNDP staff on safeguards responsibilities and approaches.

During the inception phase, training on the ESMF and relevant SES requirements will be conducted targeting all national stakeholders, with focus on the public sector and local UNDP staff. In addition, the SESA and scoped ESIAs/ESMPs will 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, training of operators on pollution control measures, etc.

During project implementation, UNDP will provide advice to project team as needed to support the implementation of this ESMF and the SESAs, ESIAs and ESMPs and pursuant measures.

5. 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. The project also has prepared a SEP and Gender Action Plan, which are annexed to the Project Document, Annexes 7 and 9, 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 SEP 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, Social and Environmental Management System Requirements, para. 20) 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 ESIA documents including ESMPs;
- Final ESIA including ESMPs;
- Any required social and environmental monitoring reports.

This ESMF (and project SESP) will be translated and disclosed via the UNDP Sri Lanka website in accordance with UNDP SES policy. The subsequent ESMPs will also be publicly disclosed via the UNDP Sri Lanka website once drafted, finalized and adopted only after the required period for disclosure has elapsed.

These requirements for stakeholder engagement and disclosure will be adhered to during the implementation of this ESMF, and the subsequent implementation of the resulting ESMPs.

6. 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 Environment), or the GEF.

6.1 UNDP's Accountability Mechanisms

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

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/

6.2 Project-level Grievance Redress Mechanism

The project will assess GRM requirements in consultation with affected peoples 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 Project Safeguards Specialist and based on the details provided below.

Interested stakeholders may raise a grievance at any time to the Project Management Unit (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 will 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 Section 9.6.

Further information on GRM can be found in the UNDP Guidance Note on Social and Environmental Standards - Stakeholder Engagement – Supplemental Guidance: Grievance Redress Mechanisms.

7. ESMF Implementation

Funding for implementation of the ESMF is included in the individual project budget. The estimated costs are indicated in ***Table*** *Error! No text of specified style in document.****-1*** 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 *Error! No text of specified style in document.****-1: Breakdown of Costs for ESMF Implementation***

Item	Budget Cost (USD)
Social and Environmental Safeguards Specialist to support safeguards activities	20,800 *(Included in the budget of the part-time Social and Environmental Safeguards Specialist)*
Contracted Company for SESAs	20,000 (*Included in budgets of various subcontracts*)
Contracted Company for ESIAs, targeted assessments and ESMPs	80,000 (*Included in budgets of various subcontracts)*
Travel expenses for consultations	2,500 *(This amount is in addition to travel budget in Components 1, 2 and 3 in association with other duty travel)*
SESP Capacity building/training expenses	7,500 *(Included in budget of the Social and Environmental Safeguards Specialist and Communication and Training Expert)*
Audio-visual & print production expenses	1,000 *(Included under BL74200 under PM)*
Total	**131,800**

8. 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 ESMP. The ESMF monitoring and evaluation plan is outlined in below table.

Table** Error! No text of specified style in document.**-2: ESMF M&E plan and estimated budget

Monitoring Activity	Description	Frequency / Timeframe	Expected Action	Roles and Responsibilities	Cost
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 Project Officer	None
Development of SESAs, ESIAs, targeted assessments and ESMPs in line with project activities	Carried out after inception phase for validation of identified risks and mitigation measures, drafted in participatory manner	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	External service providers (environmental and social) Project Officer with guidance from UNDP and Project Manager	100,000
Implementation of mitigation measures and monitoring of potential impacts as per the subsequent ESMPs	Permanent and participatory implementation and monitoring of impacts and mitigation measures, in accordance with ESMPs	Continuous, once each ESMP is in place	Implementation of ESMPs and other measures Monitoring of environmental and social risks, and corresponding management plans as relevant	Project Manager, UNDP CO, Project Officer, Site Coordinators	None
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, KM/Communications Officer	None
Annual project quality assurance	The quality of the project will be assessed against UNDP's quality standards to identify project strengths and weaknesses and to inform management decision making to improve the project	Annually	Areas of strength and weakness will be reviewed and used to inform decisions to improve project performance	M&E Officer with support from Project Officer	None
Review and make course corrections	Internal review of data and evidence from all monitoring actions to inform decision making	At least annually	Performance data, risks, lessons and quality will be discussed by the Project Board and used to make course corrections	Project Board (considering stakeholders' opinions)	None
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	None
Project review	Project Board will 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	None

9. Annexes

9.1 SESP

(Please see Annex 5 above**)**

9.2 Indicative outline of Action Matrix for SESA

UNDP Social and Environmental Standards:
Action Matrix for SESA – Indicative Outline

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

Table 9.1. Indicative sample of an action matrix for summarizing SESA recommendations, including measures to address anticipated social and environmental risks and impacts

Strategic Priority 1
Example: Enhance community participation and benefits in sector X

Priority reform area	Short term actions (1- 2 years)	Short term monitorable outcomes	Medium-term actions (3-5 years)	Medium-term monitorable outcomes	Long-term actions (> 5 years)	Final outcomes
Women's participation and employment in sector X	*Establish mechanisms to enhance women's participation in local government and in negotiations involving companies in sector X*	*Increase participation in negotiations Increase in female employment Female participation in training programmes*	*Awareness programs for women's rights Refine and strengthen mechanisms for women's participation*	*Significant increase in female employment and training programmes*	*Reformed procedures for promoting women's participation in local and regional development*	*Gender differences significantly reduced in sector X and local and regional development processes*
Community disputes with companies in sector X	*Establish a dispute resolution mechanism on social and environmental issues that is accessible to community*	*Disputes between companies in sector X and local communities resolved more speedily with less conflict*	*Strengthen ability of Community representatives in use of mediation to resolve disputes. Strengthen ability of local governments and community representatives to investigate and motivate legal procedures against companies in sector X with poor social and environmental performance*	*Increase percentage of satisfactory settlements Time taken to settle disputes declines*	*Extend and adapt dispute resolution system to other industries associated with sector X*	*Disputes reduced and managed effectively*

9.3 Indicative outline of Environmental and Social Impact Assessment (ESIA)

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

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

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

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

(3) Project description: Concisely describes the proposed project and its geographic, social, environmental, and temporal context, including any offsite activities that may be required (e.g., dedicated pipelines, access roads, power supply, water supply, housing, and raw material and product storage facilities), as well as the project's primary supply chain. Includes a map of sufficient detail, showing the project site and the area that may be affected by the project's direct, indirect, and cumulative impacts. (i.e. area of influence).

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

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

(a) Environmental risks and impacts, including: any material threat to the protection, conservation, maintenance and rehabilitation of natural habitats, biodiversity, and ecosystems; those related to climate change and other transboundary or global impacts; those related to community health and safety; those related to pollution and discharges of waste; those related to the use of living natural resources, such as fisheries and forests; and those related to other applicable standards.[27]

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

(6) Analysis of alternatives: systematically compares feasible alternatives to the proposed project site, technology, design, and operation – including the "without project" situation – in terms of their potential social and

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

environmental impacts; assesses the alternatives' feasibility of mitigating the adverse social and environmental impacts; the capital and recurrent costs of alternative mitigation measures, and their suitability under local conditions; the institutional, training, and monitoring requirements for the alternative mitigation measures; for each of the alternatives, quantifies the social and environmental impacts to the extent possible, and attaches economic values where feasible. Sets out the basis for selecting the particular project design.

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

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

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

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

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

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 or as a stand-alone document.[28] 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, indigenous peoples).

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

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

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

(5) Grievance redress mechanism: Describes effective processes for receiving and addressing stakeholder concerns and grievances regarding the project's social and environmental performance.

Describe mechanisms to provide stakeholders and potential affected communities avenues to provide feedback or grievances, and receive responses, with regard to the implementation of specific activities, policies, or regulations.

(6) Implementation action plan (schedule and cost estimates): For all four above aspects (mitigation, monitoring, capacity development, and stakeholder engagement), ESMP provides (a) an implementation schedule for measures that must be carried out as part of the project, showing phasing and coordination with overall project implementation plans; and (b) the capital and recurrent cost estimates and sources of funds for implementing the

[28] 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.

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.

9.5 Labour Management Procedures Template

The Labour Management Procedures (LMP) facilitates planning and assists responsible parties to ensure that project implementation adheres to the requirements of SES Standard 7 on Labour and Working Conditions. The LMP (a) sets out the written labour procedures for the project, (b) identifies the main labour requirements and risks associated with the project, and (c) helps the project developer to determine the resources necessary to address project labour issues and risks and sets out an action plan.

The LMP summarizes key labour-related risks and issues and may be supplemented by more targeted analyses and plans (e.g., such as an occupational safety and health action plan, WBG EHS sector specific guidelines, ISO standards, contractor management matrices, etc.). The LMP (as with supporting analyses) should be undertaken by experts with relevant expertise.

The LMP may be prepared as a stand-alone document, or form part of other environmental and social management documents. The LMP is a living document, which is initiated early in project preparation, and is reviewed and updated throughout development and implementation of the project.

In preparing and updating the LMP, project developers should refer to the requirements of national law and S7 and its Guidance Note. The content of the LMP is indicative: some issues may not be relevant to the project while some projects may have other issues that need to be captured from a planning perspective. Where national law addresses requirements of S7 this should be noted in the LMP.

Where project workers under a single project may be engaged under significantly different circumstances (e.g., different regions of a country, different employment arrangements), it may be necessary to ensure that these differences are appropriately addressed in the LMP, or separate LMPs may need to be developed.

For projects utilizing an ESMF given that specific activities and/or subprojects have yet to be defined, the development of the LMP may need to be deferred. The ESMF should address as many potential issues outlined in the LMP as is feasible during project development, and the ESMF should include procedures for undertaking a specific LMP once locations and activities are defined.

A concise and up to date LMP will enable different project-related parties, for example, staff of the project implementing unit, contractors and sub-contractors and project workers, to have a clear understanding of what is required on a specific labour issue. The level of detail contained in the LMP will depend on the type of project and information available. Where relevant information is not available, this should be noted and the LMP should be updated as soon as possible.

Below is an indicative outline of the LMP.

1. **Overview of Labour Use in the Project:** This section describes the following, based on available information:
    a. *Number of Project Workers*: The total number of workers to be employed on the project, and the different types of workers: direct workers, contracted workers, temporary or seasonal workers and community workers. Where numbers are not yet firm, an estimate should be provided.
    b. *Characteristics of Project Workers*: To the extent possible, a broad description and an indication of thelikely characteristics of the project workers e.g., local workers, national or international migrants, female workers, workers between the minimum age and 18.
    c. *Timing of Labour Requirements*: The timing and sequencing of the project's labour requirements in terms of numbers, locations, types of jobs and skills required.
    d. *Contracted Workers*: The anticipated or known contracting structure for the project, with numbers andtypes of contractors/subcontractors and the likely number of project workers to be employed or engaged by each contractor/subcontractor. If it is likely that project workers will be engaged through brokers, intermediaries or agents, this should be noted together with an estimate of the number of workers that are expected to be recruited in this way.
    e. *Migrant Workers*: If it is likely that migrant workers (either domestic or international) are expected towork on the project, this should be noted and details provided.

2. **Assessment of Key Potential Labour Risks*:*** This section describes the following, based on available information:

    a. *Project activities*: The type and location of the project, and the different activities the project workerswill carry out, including primary supplier(s)
    b. *Key Labour Risks:* The key labour risks that may be associated with the project (see, for example, thoseidentified in S7 and the GN). These could include, for example:
        - the conduct of hazardous work, such as working at heights or in confined spaces, use of heavy machinery, or use of hazardous materials
        - likely incidents of child labour or forced labour, with reference to the sector or locality
        - discriminatory policies or practices that deny equal opportunity
        - restrictions on freedom of association and collective bargaining
        - likely presence of migrants or seasonal workers
        - risks of labour influx or gender based violence
        - possible accidents or emergencies, with reference to the sector or locality
        - general understanding and implementation of occupational health and safety requirements

3. Brief overview of labour legislation, agreements and potential gaps with Standard 7:

- **Core Labour Standards:** This section sets out the key aspects of national legislation implementing the ILO fundamental rights at work, i.e., prohibition of child labour/minimum working age; prohibition of forced labour, non-discrimination/equal opportunity; and freedom of association and collective bargaining. The overview should highlight any material gaps between national law and S7.9-19.
- **Terms and Conditions:** This section sets out the *key aspects* of national labour legislation with regards to term and conditions of work, and how national legislation applies to different categories of workersidentified in Section 1. The overview focuses on legislation which relates to the items set out in S7, paras.5-8 (i.e., wages, deductions and benefits) and any material gaps with S7. The section should alsoidentify the terms of any existing collective agreements that stipulate workplace terms and conditions.
- **Occupational Safety and Health (OSH):** This section sets out the *key aspects* of the national labour legislation with regards to occupational health and safety, and how national legislation applies to the different categories of workers identified in Section 1. The overview focuses on legislation that relatesto the items set out in S7, paras. 20-25 and any material gaps with S7.

4. **Responsible Staff:** This section identifies the functions and/or individuals within the project responsible for (as relevant):

    - engagement and management of project workers
    - engagement and management of contractors/subcontractors
    - occupational safety and health (OSH)
    - training of workers
    - addressing worker grievances

    In some cases, this section will identify functions and/or individuals from contractors or subcontractors, particularly in projects where project workers are employed by third parties.

5. **Policies and Procedures:** This section sets out:

    - **Management systems:** Relevant management systems ***in place*** to implement S7, e.g., human resources policy, anti-harassment policy, staff handbook, grievance procedure, OSH management system, etc. These can be referenced or annexed to the LMP, together with any other supporting documentation. Where relevant, it identifies applicable national legislation.
    - **Age of Employment:** Details regarding (see S7 paras. 16-19 and GN):
        - the minimum age for employment on the project
        - the process that will be followed to verify the age of project workers
        - the procedure that will be followed if underage workers are found working on the project
        - the procedure for conducting risk assessments for workers aged between the minimum age and

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- Where incidences of **child labour** are identified, describe how these will be remediated

- **Forced Labour:** Where the risk of forced labour has been identified, this section outlines how this risk will be mitigated, and how any instances of forced labour will be addressed (see S7 para. 14 and GN).
- **Occupational safety and health:** Where significant health and safety risks have been identified, summarize how these will be addressed in a manner consistent with national labour and employment regulations and the requirements of S7. (Note that a specific OSH plan may be necessary.)
- **Terms and Conditions:** This section sets out details regarding (see S7 paras. 5-8):
  - specific wages, hours and other provisions that apply to the project
  - maximum number of hours that can be worked on the project
  - any collective agreements that apply to the project. When relevant, provide a list of agreements and describe key features and provisions
  - other specific terms and conditions (e.g., benefits)
  - "Beyond compliance" initiatives e.g., to promote local employment or the hiring of traditionally underrepresented groups
- **Grievance Mechanism:** This section sets out details of the grievance mechanism that will be provided for direct and contracted workers and describes the way in which these workers will be made aware of the mechanism (S7, paras. 26-28).
- **Contractor Management:** This section sets out details regarding (see S7, paras. 29-31 and GN):
  - the selection process for contractors/third parties
  - the contractual provisions that will be put in place relating to contractors for the management of labour issues, including OSH
  - the procedure for managing and monitoring the performance of contractors
- **Community Workers:** Where community workers will be involved in the project, this section sets out details of the terms and conditions of work and identifies measures to check that community labour is provided on a voluntary basis. It also provides details of the type of agreements that are required and how they will be documented. This section sets out details of the grievance mechanism for community workers and the roles and responsibilities for monitoring such workers.
- **Primary Supply Workers:** Where a significant risk of violations of core labour standards[29] or serious safety issues in relation to primary suppliers has been identified, this section sets out the procedure for monitoring and reporting on primary supply workers (S7 paras. 32-34)

6. **Action Plan** This section sets out details of actions required to achieve and maintain compliance with national lawand S7, including responsibilities, timelines and cost/resource estimates. The Plan will also include monitoring and reporting requirements appropriate to the nature of the project and associated labour risks and impacts. The Action Plan includes the following elements:

   - Summary of required measures identified in above sections of the LMP.
   - Describe schedule, institutional arrangements, and responsibilities and mechanisms for carrying out the identified measures, indicating who is responsible and when actions will be undertaken.
   - Describe the monitoring framework for the project and key indicators for measuring progress in implementing the identified measures.
   - Budget and Financing: Include an appropriately costed plan, with itemized budget sufficient to satisfactorily undertake the identified measures.

[29] Child labour, forced labour, non-discrimination and equal opportunity, freedom of association and collective bargaining.

9.6 Sample Terms of Reference: Project-level Grievance Redress Mechanism

Source: Guidance Note on Stakeholder Engagement, UNDP Social and Environmental Standards (SES), October 2017

I. Mandate

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.

II. Functions

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.

III. Composition

The GRM will be composed of:

[Name of Implementing Partner] as the Secretariat and either:

(a) A standing GRM Sub-Committee [made up of x, y, z PB members],

and/or

(b) Ad hoc GRM Task Teams in response to specific requests for grievance.

The GRM Sub-Committee will be balanced in composition (government and non-government) and should not include any PB members with a direct interest or role in the grievance/dispute.

IV. [Name of Implementing Partner]

In its role as GRM Secretariat, [Name of Implementing Partner] will perform the following core functions:

- Publicize the existence of the GRM and the procedure for using it.
- Receive and log requests for dispute resolution.
- Acknowledge receipt to the requestor.
- Determine eligibility.
- Forward eligible requests to the PB for review and action.
- Track and document efforts at grievance/dispute resolution and their outcomes.

V. Project Board/GRM Sub-Committee/GRM Task Team

The Project Board/GRM Sub-Committee and/or GRM Task Team will perform the following core functions:

- Take direct action to resolve the grievance/dispute (e.g. bring the relevant parties together to discuss and resolve the issue themselves with oversight by the PB).
- Request further information to clarify the issue, and share that information with all relevant parties, or ensure that a government agency represented on the PB took an appropriate administrative action to deal with a complaint.
- Refer the grievance/dispute to independent mediation, while maintaining oversight; or
- Determine that the request was outside the scope and mandate of the PB and refer it elsewhere (e.g. Ministry of Justice and Police or to the courts).

VI. Communicating a Grievance

(i) Who can Submit a Grievance?

A Grievance can be sent by any individual or group of individuals that believes it has been or will be harmed by the Project.

If a Grievance is to be lodged by a different individual or organization on behalf of those said to be affected, the Claimant must identify the individual and/or people on behalf of who the Grievance is submitted and provide written confirmation by the individual and/or people represented that they are giving the Claimant the authority to present the Grievance on their behalf. The GRM will take reasonable steps to verify this authority.

(ii) How is the Grievance Communicated?

The GRM shall maintain a flexible approach with respect to receiving Grievances in light of known local constraints with respect to communications and access to resources for some Stakeholders. A Grievance 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:

[Implementing Partner to add address, phone number, fax, etc.]

To facilitate communications with and between the GRM and potential Claimants, the GRM will receive support from the PB members' institutions, local government, and civil society organizations

(iii) What information should be included in a Grievance?

The Grievance should include the following information:

(a) the name of the individual or individuals making the Complaint (the "Claimant").

(b) a means for contacting the Claimant (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 Grievance is made, and written confirmation by those represented of the Claimant's authority to lodge the Grievance on their behalf.

(d) the description of the potential or actual harm.

(e) Claimant's statement of the risk of harm or actual harm (description of the risk/harm and those affected, names of the individual(s) or institutions responsible for the risk/harm, the location(s) and date(s) of harmful activity).

(f) what has been done by Claimant thus far to resolve the matter.

(g) whether the Claimant wishes that their identity is kept confidential.

(h) the specific help 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.

VII. Logging, Acknowledgment, and Tracking

All Grievances and reports of conflict will be received, assigned a tracking number, acknowledged to Claimant, recorded electronically, and subject to periodic updates to the Claimant as well as the office file.

Within one (1) week from the receipt of a Grievance, the GRM will send a *written* acknowledgement to Claimant of the Grievance received with the assigned tracking number.[30]

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 Claimant and other relevant Stakeholders.

iv. Any requests, offers of, or engagements of a Mediator or Facilitator.

v. The date and records related to the proposed solution/way forward.

vi. The acceptance or objections of the Claimant (or other Stakeholders).

vii. The proposed next steps if objections arose.

viii. The alternative solution if renewed dialogues were pursued.

ix. Notes regarding implementation.

x. Any conclusions and recommendations arising from monitoring and follow up.

IX. Maintaining Communication and Status Updates

Files for each Grievance will be available for review by the Claimant and other Stakeholders involved in the Grievance, or their designated representative(s). Appropriate steps will be taken to maintain the confidentiality of the Claimant if previously requested.

The GRM will provide periodic updates to the Claimant regarding the status and current actions to resolve the Grievance. Not including the acknowledgment of receipt of the Grievance, such updates will occur within reasonable intervals (not greater than every thirty (30) days).

X. Investigation and Consensus Building

Within one (1) week of receiving a Grievance, [Implementing Partner] will notify the PB/**GRM Sub-Committee (GRM SC)/GRM Task Team (GRM TT)** and any other relevant institutions of the receipt of the Grievance.

[30] Oral acknowledgments can be used for expediency (and also recorded), but must be followed by a written acknowledgment

[IF THE PB, RATHER THAN A PRE-DESIGNATED GRM SC OR GRM TT IS THE PRIMARY BODY RECEIVING COMPLAINTS: The PB will identify a specific team of individuals drawn from the PB and/or their respective institutions to develop a response to the Grievance. The names of these individuals will be made available to the Claimant.]

The designated PB members/GRM SC/GRM TT will promptly engage the Claimant and any other relevant Stakeholders deemed appropriate, to gather all necessary information regarding the Grievance.

Through the PB members/GRM SC/GRM TT, the GRM will have the authority to request from relevant Government institutions any information (documents or otherwise) relevant to resolving the Grievance and avoiding future Grievances of the same nature.

As necessary, the PB members/GRM SC/GRM TT will convene one or more meetings with relevant individuals and institutions in [national capital], or elsewhere in [name of country] as needed.

The objective of all investigative activities is to develop a thorough understanding of the issues and concerns raised in the Grievance and facilitate consensus around a proposed solution and way forward.

The PB members/GRM SC/GRM TT will procure the cooperation of their respective staff with the investigation.

At any point during the investigation, the PB members/GRM SC/GRM TT may determine that an onsite field investigation is necessary to properly understand the Grievance and develop an effective proposed solution and way forward.

XI. Seeking Advisory Opinion and/or Technical Assistance

At any point after receiving a Grievance and through to implementation of the proposed solution and way forward, the PB members/GRM SC/GRM TT may seek the technical assistance and/or an advisory opinion from any entity or individual in [country] or internationally which may reasonably be believed to be of assistance.

XII. Making Proposed Actions and Solutions Public and Overseeing Implementation

The PB members/GRM SC/GRM TT will communicate to the Claimant one or more proposed actions or resolutions and clearly articulate the reasons and basis for proposed way forward.

If the Claimant does not accept the resolution, the PB members/GRM SC/GRM TT will engage with the Claimant to provide alternative options.

If the Claimant accepts the proposed solution and way forward, the GRM will continue to monitor the implementation directly and through the receipt of communications from the Claimant and other relevant parties. As necessary, the GRM may solicit information from the relevant parties and initiate renewed dialogue where appropriate.

In all communications with the Claimant and other stakeholders, the GRM will be guided by its problem-solving role, non-coercive principles and process, and the voluntary, good faith nature of the interaction with the Claimant and other stakeholders.

XII. Monitoring and Evaluation

Bi-annually, the GRM will make available to the public, a report describing the work of the GRM, listing the number and nature of the Grievances received and processed in the past six months, a date and description of the Grievances received, resolutions, referrals and ongoing efforts at resolution, and status of implementation of ongoing resolutions. The level of detail provided with regard to any individual Grievance will depend on the sensitivity of the issues and Stakeholder concerns about confidentiality, while providing appropriate transparency about the activities of the GRM. The report will also highlight key trends in emerging conflicts, Grievances, and dispute resolution, and make recommendations regarding:

i. Measures that can be taken by the Government to avoid future harms and Grievances.

ii. improvements to the GRM that would enhance its effectiveness, accessibility, predictability, transparency, legitimacy, credibility, and capacity.

XIII. Mediation

For the option of independent mediation, mediators on the roster/panel should have at least the following qualifications:

- Professional experience and expertise in impartial mediation.
- Knowledge of [project type and activities in the country] and the region, including an understanding of indigenous and tribal culture and practices.
- [National and local language, as appropriate] proficiency.
- Availability in principle for assignments of up to 20 days.
- Willingness to declare all relationships and interests that may affect their ability to act as impartial mediators in particular cases.

If mediation succeeded in resolving the dispute or grievance, the outcome will be documented by [Implementing Partner] and reviewed by the Task Team. If it is unsuccessful, stakeholders will have the option to return to the PB members/GRM SC/GRM TT for assistance.

XIV. 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.

Gender Analysis and Gender Mainstreaming Action Plan

1. Summary

Sri Lanka has had some notable achievements in gender equality. Universal franchise was extended to all people, men and women, as far back as 1931 at the first election to the State Council of Ceylon far ahead the region and even some Western countries. Free education is offered by public schools and girls are more likely to complete 13 years of mandatory schooling than boys. Girls perform better in schools; secure 60% of university enrolment including 49% in STEM areas; and become 69% all graduates. However, Sri Lanka's international position vis-a-vis gender has seen a decline. In 2006, Sri Lanka ranked among the top 20 countries in the World Gender Gap Report. In 2020 the country had declined to the 102nd place among 153 countries assessed.[31] The 2010 Human Development Report introduced the Gender Inequality Index (GII) to measure the loss in human development due to inequality between female and male achievements in three dimensions- reproductive health, empowerment, and economic activity.[32] Sri Lanka has a GII value of 0.401, ranking it 90 out of 162 countries in 2019.

51.5% of the population of 21 million are female, yet women holding higher, and management professions are the minority; only 25% are Senior Professors and hardly any in the University Grants Commission and Standing Committees, 20% in management, 23% Judges, 5% Parliamentarians etc. Women's contribution is higher and significant and even critical in diverse sectors, although bulk of female jobs are of lower ranks. i.e., Women have 25% jobs in industry and provide 45% contribution to economically significant export industry, 35% jobs in agriculture, and 40% jobs in service sector.

ADB's Gender Equality Diagnostic (2016) delves into the issue of women's economic participation in Sri Lanka. The report highlights that women are more likely than men to be unemployed, under-employed or out of the labour force. The report also points out that women 's skills and education are underutilized in economy, and that women are often confined to informal sector employment, without adequate safeguards or low wage-earning employment in critical economic sectors such as plantations or garment manufacture.[33] Women from the poorer regions of the country have limited access to land, housing, savings, and basic economic infrastructure (loans, entrepreneurship or vocational/technology training). Rural women, excluded from the agricultural workforce for lack of land ownership and equitable access to capital and technology, are most likely to undertake other exploitative forms of employments such as in factories or service segments without social protection (janitorial, road sweepers). Heterogenous as they may be, most of them have subsistence-level jobs (except for informal employers who report the highest earnings of all but make up only a very small share in the labor force) with low pay, few benefits, and little protection.[34]

Gender and Chemicals: This analysis focuses on the specific chemicals (POPs, Mercury, U-POPS and other Chemicals of Concern in agriculture and healthcare sectors.

Exposure and Impacts

Even though Sri Lanka has banned almost all POPs agro pesticides, there are several Chemicals of Concern still being used in the fields and linked to many long-term health issues, including sub-fertility. Women working in agricultural fields, small farms, home gardens, including in the flower industry, are exposed to these pesticides. Since POPs are most harmful to the fetus, preventing exposure of pregnant women is critical. Health problems for women caused

[31] World Economic Forum 2020

[32] Reproductive health is measured by maternal mortality and adolescent birth rates; empowerment is measured by the share of parliamentary seats held by women and attainment in secondary and higher education by each gender; and economic activity is measured by the labour market participation rate for women and men.

[33] ADB (2016) Sri Lanka: Gender Equality Diagnostic of Selected Sectors. https://www.adb.org/sites/default/files/institutional-document/189841/sri-gender-quality-diagnostic.pdf

[34] World Bank (2020) Informality, job quality and Welfare in Sri Lanka

by pesticides include acute poisonings (including deadly ones), uterine and breast cancer, infertility, delayed menopause, and other diseases.

In the health sector, nurses and medical staff handing mercury-containing equipment, waste handlers disposing of mercury containing electronics, medical equipment are at direct risk of exposure. Tests in many countries have demonstrated that many women have elevated levels of mercury in the blood, hair, urine, and breast milk[35]. Mercury is toxic for the nervous system, the cardiovascular system and the kidneys Mercury is one of the most chemicals in human use. What is even more troubling is that mercury can cross the placenta and accumulate in fetal tissues. Prenatal exposure to mercury poses a health threat particularly to the developing brain.[36] Methylmercury crosses the blood-brain barrier and also the placenta from mother to baby. It can cause mental impairments and learning disabilities, eye and hearing damage during pregnancy as a result of their mother's exposure. Mercury can be passed on to the baby though breast milk.[37]

Women are further exposed to chemicals at the households (soaps, detergents, shampoos, disinfectants) at a regular level when carrying out their caregiver duties and household chores.

Livelihood choices: Sri Lanka's population is yet largely rural and farm dependent. Even in peri-urban areas women are engaged in small scale cultivation and home gardens. It is generally male agricultural workers who spray pesticides and chemicals in the paddy farms and other open field cultivations, including in plantations (tea, especially). Their occupational risks and exposure are also significant[38]. Anecdotal evidence from recent field visits shows that in the northern province, where illegally sourced POPs agro pesticides are available, women are engaged in field application as well[39]. Women either directly use pesticides and CoCs in field and gardens or are tasked with their disposal and storage at home. Over 90% of women working in export-oriented horticulture (floriculture, ornamental plants and high-value fruit and vegetables) are women. Floriculture and horticulture require significant quantities of agro pesticides, hence women are exposed to CoCs daily – directly handling them or through air/skin contact from being in confined greenhouse conditions. There are several companies importing bulk quantities of pesticides and repackaging them for local use with new labels and brand names. Women and men working in such factories will be directly exposed to chemical contaminants. The threat of illegally sourced POPs has increased due to the ban of all chemical agriculture inputs in 2021. It is also noted, in anecdotal evidence and field observations, that women in the northern and eastern provinces, where such illegal sourced POPs are available, are directly engaged in field level agro pesticide application.

Women consist around 70% of the healthcare staff and are directly engaged in handling hazardous wastes including drugs, infectious waste, radioactive wastes and chemicals waste generation points in hospital wards and clinics. In Sri Lanka 95% of nursing staff and over 60% of health care assistants are women, placing them at the forefront of possible exposure to hazardous waste at points of waste generation, segregation and disposal. Nurses most often use mercury containing medical equipment -thermometers and sphygmomanometers, and they are tasked with retiring broken mercury-containing equipment. Women healthcare workers are exposed to prick injuries when handling sharps (some healthcare facilities report 2-3 prick injuries a week due to unsafe handling or non-segregated disposal). While nurses and attendants are given the hepatitis B vaccination, janitors are now provided with this facility posing greater risk to them. Nurses are relieved from waste handling when pregnant and lactating. Handling and storage of obsolete or retired mercury containing equipment could result in unintentional exposure. Transmission in the community is greater when women healthcare workers and janitors are exposed to hazardous chemicals due to several reasons:

1. Nurses and attendants handle patients and onward transmission could be a risk.
2. Many janitors and healthcare attendants come from low-income backgrounds and therefore live in cramped and often under-ventilated housing. They also do not have occupational safeguards that are

[35] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7143275/

[36] https://hej-support.org/women-and-mercury-new-approaches-to-minimizing-mercury-exposure/

[37] Mercury exposure and its effects on fertility and pregnancy outcome: https://onlinelibrary.wiley.com/doi/full/10.1111/bcpt.13264

[38] Long term chemical exposure has been linked to various chronic ailments including unexplained rise in kidney disease in some farming districts of Sri Lanka

[39] Field observations from the data collection team

accessible to state sector employees such as nurses and attendants- medical covers, quality and frequency of change of PPP, awareness and monitoring proper use of PPP etc.

3. Janitors share very confined spaces as changing rooms and possibly use each other's uniforms, boots and gloves.

Strategies for gender mainstreaming: Literature review of international studies point to several key strategies that support the goal of empowering women and protecting them from hazardous chemicals. Some of these can support gender integration and mainstreaming in the local context and be specifically tailored to support project outcomes. Some specific strategies are recommended at outcome level for this project:

Strategy	Outcome
Integrating gender-specific issues and strategies into national plans (NIP, SIP), regulations (EPL) and guidelines (NHCWM) and recommendations on safe storage and disposal of obsolete chemicals including POPS	Outcome 1.1, Outcome 2.1 Outcome 3.1
Gender sensitive decision making enabled by collecting and making available gender disaggregated data	Outcome 4.2 Outcome 2.1
Training for decision makers (Ministries and PMU) on gender-sensitive approaches to hazardous waste management	Outcome 1.1
Gender sensitive awareness material developed and available	Outcome 4.1 and 4.2
Occupational safety-related interventions designed and implemented	Outcome 3.1 and 3.2
Building capacity, training and awareness on safe handling of hazardous chemicals for both men and women in the frontlines	Outcome 3.1 and 4.1
Integrating gender sensitivity to green procurement guidelines and process e.g. For mercury free alternatives in the health sector	Outcome 2.1

2. Country Gender Context

General background

Sri Lanka has always enjoyed high human development, owing to historical investments in social welfare, health services and education. Sri Lanka's Human Development Index (HDI) value for 2019 is 0.782— in the high human development category— positioning it at 72 out of 189 countries and territories[40]. Between 1990 and 2019, Sri Lanka's life expectancy at birth increased by 7.5 years, mean years of schooling increased by 2.3 years and expected years of schooling increased by 2.8 years. Sri Lanka's GNI per capita increased by about 229.4 percent between 1990 and 2019. In 2018 Sri Lanka transitioned into middle-income category[41], however recent economic crisis and its spillover impacts have compromised this situation. While no comprehensive socio-economic impact assessment is available to date it is likely that the crisis has significantly aggravated underlying poverty and inequality, pushing a large segment of 'near poor'[42] into real income poverty. According to the World Bank, widespread job and income losses following the COVID crisis is estimated to have led to sharp increase in poverty: from 9.2% in 2019 to 11.7% in 2020, measured at the US$ 3.20 level. World Bank further estimates that much of the impact of job losses to be borne by the lower-middle income earning strata – between the second and fourth decile of income earners. The economic crisis pushed up inflation to double digits in November 2021 and to 60.8% by July 2022. The Year-on-Year food inflation reached 90.9% in July 2022. The fuel crisis has been particularly punishing to daily wage earners and SME sectors considerably. A combination of the depreciated rupee and inflation has devalued salaries by over 60% to the extent that pre-crisis living is near impossible under the current circumstances. The manufacturing and service

[40] UNDP Human Development Report 2020

[41] https://data.worldbank.org/country/sri-Lanka

[42] In 2016, the World Bank assessed that Sri Lanka's near-poor accounted for around 25% of the population, largely in urban settings.

sectors are particularly hard hit by price increases in energy costs, unavailability of fuel for operations and transport, import restrictions, floating currency, and tripled freight rates. Small businesses have been adversely affected by revised interest rates that have nearly doubled.

51.5% of the population of 21 million are female. Sri Lanka has had some notable achievements in gender equality. Universal franchise was extended to all people, men and women, as far back as 1931 at the first election to the State Council of Ceylon. far ahead the region and even some Western countries. Sri Lanka records an iimpressive 98% literacy and near total achievement of primary schooling. Free education is offered by public schools and girls are more likely to complete 13 years of mandatory schooling than boys. Tertiary institutions have more enrolment of females, this includes faculties such as medicine, law and humanities. There is a disparity is STEM education, especially engineering, but this gap is also closing rapidly. However, Sri Lanka's international position vis-a-vis gender has seen a decline. In 2006, Sri Lanka ranked among the top 20 countries in the World Gender Gap Report. In 2020 the country had declined to the 102nd place among 153 countries assessed.[43] The 2010 Human Development Report introduced the Gender Inequality Index (GII) to measure the loss in human development due to inequality between female and male achievements in three dimensions- reproductive health, empowerment, and economic activity. Reproductive health is measured by maternal mortality and adolescent birth rates; empowerment is measured by the share of parliamentary seats held by women and attainment in secondary and higher education by each gender; and economic activity is measured by the labour market participation rate for women and men. Sri Lanka has a GII value of 0.401, ranking it 90 out of 162 countries in 2019.

Girls perform better in schools; secure 60% of university enrolment including 49% in STEM areas; and become 69% all graduates. Yet women holding higher, and management professions are the minority; only 25% are Senior Professors and hardly any in the University Grants Commission and Standing Committees, 20% in management, 23% Judges, 5% Parliamentarians etc. Women's contribution is higher and significant and even critical in diverse sectors, although bulk of female jobs are of lower ranks. i.e., Women have 25% jobs in industry and provide 45% contribution to economically significant export industry, 35% jobs in agriculture, and 40% jobs in service sector.

The main reasons for this position, which overshadows gender achievements in education and life expectancy are the low levels of political representation, and the low levels of participation in the labour market. In Sri Lanka, 5.3 percent of parliamentary seats are held by women, and female participation in the labour market is 35.4 percent compared to 74.6 for men. This is contrary to achievements in education- 79.2 percent of adult women have reached at least a secondary level of education compared to 81.0 percent of their male counterparts. Sri Lanka has the 14th largest gender gap in labour force participation globally. Unemployment rate for women, at 7.4, is more than double that of men at 3.3.

The low nutritional status of women and children have been an issue of long concern. The prevalence of anemia in the general population at 25.2% denotes low nutrition despite income, and around 20% of pregnant and lactating women are anemic and low birth weight was recorded at 18% (15.6% male and 20.6% female). Other studies have noted iron deficiency among adolescent girls and young women working in Sri Lanka's export processing zones (garment manufacturing) and tea plantations.[44] Non-communicable diseases such as diabetes meletus, hypertension and heart disease is increasing among male and female segments. Sri Lanka's population is ageing and with higher life expectancy, most of the aged population are women. They have inadequate access to health care in the absence of well-staffed geriatric units, for aged and non-mobile persons. Dependency is high among aged females as they do not have savings or access to pensions, having primarily taken on caregiver roles or informal employment. Non communicable diseases such as breast and uterine cancers are also on the rise in Sri Lanka. Breast cancer is the most common cancer among Sri Lankan females with an incidence of 24.7 per 100,000 in 2010. Data from the Sri Lanka National Cancer Registry has shown that breast cancer incidence is rising with over 3000 new cases being diagnosed annually[45].

[43] World Economic Forum 2020

[44] https://www.adb.org/sites/default/files/institutional-document/189841/sri-gender-quality-diagnostic.pdf

[45] Fernando A, Jayarajah U, Prabashani S, Fernando EA, Seneviratne SA. Incidence trends and patterns of breast cancer in Sri Lanka: an analysis of the national cancer database. BMC Cancer. 2018

Women also face legal discrimination in certain important areas, i.e., the Land Ordinance is partial to landowners having male heirs. The customs in central parts of the country, requires Sinhala women to leave their inheritance upon marriage and leaving home; specific laws of Tamil community enforce guardianship of women which is passed from father to husband preventing property ownership and Muslim women may own property which husbands are entitled to use without permission or sharing income generated based on it.

Women in leadership and political participation

With universal franchise, women right to become members of parliament was assured[46]. The present Constitution of Sri Lanka guarantees equal rights to all its citizens without discrimination on the ground of sex.[47] However women are poorly represented in government. Only 5.3% of all current parliamentarians are female and the country ranks 182 among 192 countries in female representation in government. The average for developing countries is around 20%. Even lower are elected women representatives in local and provincial governments (around 4%).

The Government of Sri Lanka became a State Party to the UN Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW) and ratified it in 1981. Sri Lanka also ratified the International Covenant on Economic, Social and Cultural Rights in 1966. These international instruments impose obligations on States but there are lacunae in the incorporation of their provisions in national legislation[48].

The Women's Charter of 1993 identifies the economic rights of women based on the provisions in CEDAW. It has outlined seven critical areas through a rights-based approach endorsing the responsibility of the state to take necessary measures in realizing equality for women. However, till to date the Women's Charter has remained a policy document without legal validity. There have been few changes in the legal status of women as, despite the guarantee of fundamental rights and nondiscrimination in the 1978 Constitution, the Women's Rights Bill is yet to be approved. Gender-based discrimination in inheritance rights, in settlements, and in personal laws of different communities are yet to be eliminated. The ILO Conventions that are a part of the international framework for labour rights have not all been ratified or incorporated in national legislation[49]. International Labour Organization (ILO) conventions pertaining to occupational health have not been ratified.

Labour Force and employment conditions

ADB's Gender Equality Diagnostic (2016) delves into the issue of women's economic participation in Sri Lanka. The report highlights that women are more likely than men to be unemployed, under-employed or out of the labour force. The report also points out that women 's skills and education are underutilized in economy, and that women are often confined to informal sector employment, without adequate safeguards or low wage-earning employment in critical economic sectors such as plantations or garment manufacture.[50]

The International Labour Organization's (ILO) conventions pertaining to occupational health have not been ratified by Sri Lanka. However, in 2007, the ILO-supported National Policy for Decent Work, and its offshoot, the National Plan for Decent Work, set some standards for the workforce in its four components: (i) jobs of acceptable quality; (ii) rights at work according to international standards; (iii) participatory social dialogue; and (iv) social protection of the unemployed, the sick, and the elderly. As pointed out earlier, female representation in the labour force is low - at 35%- for a middle-income country. In the labor force, there are several vulnerable categories - landless laborers, subsistence farmers, plantation laborers, migrant workers, domestic workers, janitorial, casual labour and security

[46] GoSL, 'National Action Plan for the Protection and Promotion of Human Rights, 2011–2016'

https://www.ohchr.org/Documents/Issues/NHRA/NPASriLanka2011_2016.pdf

[47] The Sri Lanka Constitution (1978) recognises the right to equality and non-discrimination (Art,12(2)), the right of every citizen to engage in any lawful occupation or enterprise (Art 14(g)), and the entitlement to freedom of association (Art 14 c and d).

[48]CENWOR, Review of the of the Implementation of Beijing Platform for Action – Sri Lanka 1995-2014, Labour Rights, particularly of Women in the Work Force, p 261
https://lk.one.un.org/wp-content/uploads/2016/05/Review-of-the-implementation-of-Beijing-platform-for-action-Sri-Lanka-1995-2014.pdf

[49] ibid

[50] ADB (2016) Sri Lanka: Gender Equality Diagnostic of Selected Sectors. https://www.adb.org/sites/default/files/institutional-document/189841/sri-gender-quality-diagnostic.pdf

services and factory employees. Women form the majority of those who are engaged in such vulnerable occupations. In fact, Sri Lanka's main export earning economic activities rest on the shoulders of vulnerable women. This includes tea plantation labourers, garment factories and migrant labour (mostly women domestic workers in the Middle Eastern countries). Women from the poorer regions of the country have limited access to land, housing, savings, and basic economic infrastructure (loans, entrepreneurship or vocational/technology training). Rural women, excluded from the agricultural workforce for lack of land ownership and equitable access to capital and technology, are most likely to undertake other exploitative forms of employments such as in factories or service segments without social protection (janitorial, road sweepers).

Sri Lanka labor market is broadly stratified into three segments, each with significantly different pay and job quality. Workers in the public sector enjoy high monthly pay, shorter working hours, a large number of holidays in addition to paid leave, formal social security, and a high level of job security. Formal, private sector employees enjoy slightly lower monthly wages, but their earnings distribution is in fact more similar to that of informal employees than to that of public sector workers. They are entitled to social security but work longer hours, reducing their average hourly pay. Most but not all of them receive paid leave. The last group comprises informal workers, the most vulnerable group by any measure. Heterogenous as they may be, most of them have subsistence-level jobs (except for informal employers who report the highest earnings of all but make up only a very small share in the labor force) with low pay, few benefits, and little protection.[51] Unlike employees in the public and private sectors who have a pension fund or provident fund for security in old age, the informal sector workers have no such schemes and face a resource-less old age. The poor have no means to participate in the contributory pension for farmers, those engaged in fishing, and the self-employed. Women are more vulnerable than men as their life expectancy is higher, and many are unlikely to have accumulated adequate resources to enjoy a satisfactory quality of life in their old age, in the absence of extensive geriatric care facilities and support networks.

3. Gender, Chemicals and Hazardous Wastes

Both men and women are exposed to chemicals- in their daily lives, in their work and indirectly through water or air. However, men and women have different perceptions, priorities and exposure pathways/risks to chemicals and hazardous wastes. A report on Women and Chemicals produced by WECF (Women in Europe for a Common Future)[52] alludes that the biological differences between women and men, and their social roles as caregivers, mothers are reasons for the differences between priorities of women and men, and why many environmental activists and scientists have been women, for example Dr. Rachel Carson in the USA who observed the reproductive health effects of DDT in birds and worried what it would mean for children. Many women activists who followed Carson, have had some personal experience and exposure related health concerns such as cancers, birth defects in children and endocrine disorders.

It is noted that women's biological makeup, biological roles, behaviour patterns and economic activities may expose them to greater degree of harmful chemicals. FAO and WHO developed criteria to identify highly hazardous pesticides or Chemicals of Concern (CoCs) including for acute toxicity; carcinogenicity, mutagenicity and reproductive toxicity based on categories 1A and 1B of the Global Harmonized System (GHS); and pesticides known to cause a high incidence of severe or irreversible adverse effects. The NGO Pesticide Action Network (PAN) developed a list of CoCs, based on the FAO/WHO criteria with additional indicators for endocrine disruption, high environmental concern and hazard to ecosystem services. This list currently contains 426 pesticide active ingredients. However, neither sets of criteria differentiate between harmful effects on women and men.[53] The analysis below will present available baseline information on the four components under three distinct areas of concern; 1) Health impacts on men and women, 2) Gendered routes of exposure and 3)Economic conditions of women related to the project.

1) Health impacts and 2) gendered routes of exposure.

[51] World Bank (2020) Informality, job quality and Welfare in Sri Lanka

[52] https://www.wecf.org/wp-content/uploads/2018/12/WomenAndChemicals_PublicationIWD2016.pdf

[53] https://www.wecf.org/wp-content/uploads/2018/12/WomenAndChemicals_PublicationIWD2016.pdf

Agro pesticides are a growing issue of concern as the pesticides market continues to expand. POP agro pesticides are linked to various cancers, neurological disorders, immune suppression, reproductive disorders like miscarriages, pre-term delivery, menstrual disorders, shortened period of lactation in nursing mothers, and other diseases like endometriosis and type II diabetes. The Stockholm Convention bans POPs almost worldwide. At the moment the production and use of 25 chemicals (14 of them pesticides) is prohibited. This ban includes chemicals like lindane, PCB, endosulfan, aldrin and heptachlor. In Sri Lanka, all POPs are banned except for monocrotophos [54] used for the control of a weevil that infects coconut plantations.

Even though Sri Lanka has banned almost all POPs agro pesticides, there are a number of Chemicals of Concern still being used in the fields and linked to many long term health issues, including sub-fertility. Women working on small farms as well as women working in the agricultural fields, including in the flower industry, are exposed to these pesticides. Since POPs are most harmful to the fetus, preventing exposure of pregnant women is critical. Women are further exposed to chemicals at the households (soaps, detergents, shampoos, disinfectants). Health problems for women caused by pesticides include acute poisonings (including deadly ones), uterine and breast cancer, infertility, delayed menopause, and other diseases. Although some of the risks for women from POPs and CoCs are well known, there are few awareness-raising and capacity-building activities addressing women's needs. Many biomonitoring studies show that POPs can be found in human bodies, even some that have been prohibited for a long time. POPs accumulate in fatty tissue, and women generally have more of this than men. They enter and contaminate the fetus while it is still in the mother's womb. Breast milk also contains POPs, so children are further exposed to them during nursing. However, breastfeeding is general the best option for the child and highly encouraged by the health sector.

Mercury is highly toxic. Many severe, irreversible, and deadly diseases are associated with mercury exposure. There are three forms of mercury, i.e. elemental (or metallic) mercury, inorganic mercury compounds, and organic mercury compounds. Routes of human exposure to mercury includes food like fish, seafood, wildlife and even rice. Mercury vapor can be inhaled during mercury evaporation in different processes, including from dental amalgam restorations and handling broken equipment containing mercury.

Mercury is also found in non-food products like cosmetics and medical accessories and aids such as dental amalgam fillings, sphygmomanometers and thermometers. Mercury containing skin lightening creams is also a known route of mercury exposure for women.[55] Nurses and medical staff handing mercury-containing equipment, waste handlers disposing of mercury containing electronics, medical equipment are at direct risk of exposure. Tests in many countries have demonstrated that many women have elevated levels of mercury in the blood, hair, urine, and breast milk[56]. Mercury is toxic for the nervous system, the cardiovascular system and the kidneys Mercury is one of the most chemicals in human use. What is even more troubling is that mercury can cross the placenta and accumulate in fetal tissues. Prenatal exposure to mercury poses a health threat particularly to the developing brain.[57] Methylmercury crosses the blood-brain barrier and also the placenta from mother to baby. It can cause mental impairments and learning disabilities, eye and hearing damage during pregnancy as a result of their mother's exposure. Mercury can be passed on to the baby though breast milk.[58] Pregnant women are recommended as far as possible to not eat certain fish, since methylmercury bioaccumulates in the food chain, especially in fish.[59] Ministry of Health conducts testing for mercury on food fish annually.[60] Mercury levels in the tested samples were low[61] hence the Ministry does not deem it necessary to warn pregnant women against mercury exposure through fish in pre-natal clinics.

[54] Monocrotophos is highly regulated. However, gaps and lapses in the enforcement practice has been observed on during field investigations by the PPG team.

[55] https://hej-support.org/women-and-mercury-new-approaches-to-minimizing-mercury-exposure/

[56] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7143275/

[57] https://hej-support.org/women-and-mercury-new-approaches-to-minimizing-mercury-exposure/

[58] Mercury exposure and its effects on fertility and pregnancy outcome: https://onlinelibrary.wiley.com/doi/full/10.1111/bcpt.13264

[59] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7143275/

[60] This practice was started by the Environmental Health Unit in 2018 and was done twice before Covid-19 pandemic.

[61] Except in some imported dry fish varieties

Livelihood choices or economic conditions that increase exposure

Farmers and horticultural workers: Sri Lanka's population is yet largely rural and farm dependent. Even in peri-urban areas women are engaged in small scale cultivation and home gardens. It is generally male agricultural workers who spray pesticides and chemicals in the paddy farms and other open field cultivations, including in plantations (tea, especially). Their occupational risks and exposure are also significant[62]. Anecdotal evidence from recent field visits shows that in the northern province, where illegally sourced POPs agro pesticides are available, women are engaged in field application as well[63]. Women either directly use pesticides and CoCs in field and gardens or are tasked with their disposal and storage at home. Over 90% of women working in export-oriented horticulture (floriculture, ornamental plants and high-value fruit and vegetables) are women. There are government programmes and low-interest loans which promote this as a home-based livelihood for women. Floriculture and horticulture require significant quantities of agro pesticides; hence women are exposed to CoCs daily – directly handling them or through air/skin contact from being in confined greenhouse conditions. There are several companies importing bulk quantities of pesticides and repackaging them for local use with new labels and brand names. Women and men working in such factories will be directly exposed to chemical contaminants. Factories that repackage pesticides are highly regulated by the Registrar of Pesticides. They employ both women and men; and a mandatory test every 6 months to determine levels of exposure. The threat of illegally sourced POPs has increased due to the ban of all chemical agriculture inputs in 2021. Meetings at the Registrar of Pesticides and anecdotal evidence from agriculture extension services, point to an influx of banned pesticides from neighbouring India, which still allow many of the POPs which are banned in Sri Lanka. It is also noted, in anecdotal evidence and field observations, that women in the northern and eastern provinces, where such illegal sourced POPs are available, are directly engaged in field level agro pesticide application.

Women working in the health sector: Women consist around 70% of the healthcare staff and are directly engaged in handling hazardous wastes including drugs, infectious waste, radioactive wastes and chemicals waste generation points in hospital wards and clinics. In Sri Lanka 95% of nursing staff and over 60% of health care assistants are women, placing them at the forefront of possible exposure to hazardous waste at points of waste generation, segregation and disposal. Nurses most often use mercury containing medical equipment -thermometers and sphygmomanometers, and they are tasked with retiring broken mercury-containing equipment. Women healthcare workers are exposed to prick injuries when handling sharps (some healthcare facilities report 2-3 prick injuries a week due to unsafe handling or non-segregated disposal). While nurses and attendants are given the hepatitis B vaccination, janitors are now provided with this facility posing greater risk to them. Nurses are relieved from waste handling when pregnant and lactating. Handling and storage of obsolete or retired mercury containing equipment could result in unintentional exposure.

Transmission in the community is greater when women healthcare workers and janitors are exposed to hazardous chemicals due to several reasons:

1) Nurses and attendants handle patients and onward transmission could be a risk.
2) Many janitors and healthcare attendants come from low-income backgrounds and therefore live in cramped and often under-ventilated housing. They also do not have occupational safeguards that are accessible to state sector employees such as nurses and attendants- medical covers, quality and frequency of change of PPP, awareness and monitoring proper use of PPP etc.
3) Janitors share very confined spaces as changing rooms and possibly use each other's uniforms, boots and gloves.

It is noted that there is a notable discrepancy between larger hospitals serving urban areas in terms of safety precautions and usage of safety measures in handling hazardous waste and smaller hospitals serving rural areas. There is a wide discrepancy between technical staff (nurses, technical officers, janitorial supervisors) and non-technical staff (health care assistants and janitors) when it comes to following safety guidelines in handling healthcare waste. Janitorial service managers in healthcare facilities surveyed for the project have said that they would like to recruit more men, but due to the low pay and long hours they are not able to recruit male workers

[62] Long term chemical exposure has been linked to various chronic ailments including unexplained rise in kidney disease in some farming districts of Sri Lanka

[63] Field observations from the data collection team

while there is a higher demand from women. Interviews point out that these are mostly very poor and vulnerable women (single mothers, widows, older women without skills, school dropouts etc.).

Women and men living adjacent to waste dumps, hospitals, open burning pits etc.: Collection, storage and disposing of agro pesticides, bulk pesticide containers, mercury containing equipment and other healthcare waste is of direct concern to the project. There are many men and women directly and indirectly coming in to contact with hazardous material and their residues. These could be in several different livelihood and economic situations.

1) Farmers, waste handlers and collectors of POPs/pesticide containers
2) Those working in storage facilities which are storing used chemical containers
3) Waste workers engaged in open burning and disposal
4) Low-income communities living near dump sites and open burning sites, or around hospitals who are exposed to air pollution from improper storage, incomplete combustion of incinerators and open burning.

Generally, both men and women who handle pesticides, work in storage facilities and are tasked with disposal are from low-income communities (farmers, sanitary workers, janitorial staff) who do not have access to safety equipment or have the awareness and knowledge required for safe handling and disposal. There is very little data on women's engagement in the waste management hierarchy. This is not a problem confined to Sri Lanka, as most regional comparator countries report a dearth of gender segregated data and gender related information on waste management. Even more scarce is the availability of data on production and handling of hazardous wastes, gender dimensions of managing hazardous waste etc.

4. Specific gender related barriers related to Project Components

Component 1. Strengthen the policy, regulatory and institutional frameworks for the management of POPs, mercury and other Chemicals of Concern (CoC)

Generally, the national policy making process is not informed or influenced by gender analysis. In effect this results in gender-neutral, or more accurately, gender-blind policies and associated policy tools.

Sri Lanka has a National Implementation Plan (NIP) for the Stockholm Convention, which has developed a detailed action plan to deal with POPs. This Action Plan does not have any gender-specific interventions. Guidelines issued by the Ministry of Health on the phase out of Mercury[64] do not acknowledge gender based concerns i.e. safety for pregnant nurses or janitors handling damaged Mercury equipment by both men and women, or the procedure to be followed during an accidental spill or exposure.

Licensing processes managed by the Central Environmental Authority such as EPL (Environment Protection License) and SWML (Scheduled Waste Management License) for hazardous waste generating/ disposal operations have not considered gender-related exposure and risks.

Analysis of policies and regulatory environment related to POPs, CoCs and Mercury management all policies have not considered possible gender implications of chemical import, processing (repacking), selling, use, storage and final disposal.

Currently, there is gender integration in the NIP/ SIP or the National Guidelines for Healthcare Waste Management.

The lack of gender-consideration in the policy and regulatory frameworks, combined with the lack of specific information on gender related exposure and impacts mean that gender-specific strategies and programmes cannot be developed for use and disposal of agro pesticides and mercury and other hazardous chemicals in the healthcare sector. The lack of disaggregated data, specific studies on gendered exposure and impacts on women/children result in lack of evidence to make gender sensitive regulations and policy directives. There is no evidence that the Ministry of Women's Affairs or National Child Protection Authority has been consulted in the design and roll out of many of

[64] Management of Mercury in the Health Sector. Ministry of Health 2013. Letter detailing guidelines issued by the Secretary of Health to Provincial Councils, Provincial Secretaries of Health, Provincial Directors of Health Services, Medical Superintendents of hospitals District Medical Officers, Medical Officers of Health and Director NHS.

these policies, guidelines, and regulations. For example, the guidelines for Good Agriculture Practice (GAP) currently being rolled out in Sri Lanka does not contain gender-specific safeguards especially considering women in their reproductive ages or older women.

Component 2. Environmentally sound management disposal of obsolete stocks of Agrichemicals POPs, Mercury and their wastes

In 2019, all of the obsolete chemicals (25 MT) which have been accumulated since 1970, stored at the Inter-provincial warehouse of the Department of Agriculture in Ampara was incinerated by Ministry of Agriculture /RoP through government budget allocation using kiln facilities at INSEE. All these chemicals are in the custody of Department of Agriculture (DoA) and not a private company. Six centers have been established so far for collection of pesticide packaging materials including the glass and plastic bottles island wide and those sites are located in Sita Eliya, Polannaruwa, Bataatha, Polhena, Makandura and Karadiyanana. The accumulated materials in these centers are collected by licensed recyclers. The officials in these areas are instructed to maintain and report the quantities recycled to ROP but it is not happening as expected.

While it is largely men who are involved in managing the storage and transport of obsolete chemicals, baseline surveys revealed that women officials were involved in the storage monitoring and some women sanitary workers were involved in loading and unloading at final disposal sites.

There is no written risk assessment process (to determine chemical handling risks, especially if pregnant, lactating or women are involved) and the PPG team could not find specific recommendations on handling these very toxic chemical stocks (including the type and quality of safety gear, type of short and long-distance transportation, loading and unloading protocols etc). Not having such a guideline or recommendation, even for one time disposal, can put the handlers at significant risk. Men and women officials inspecting the storage sites are also at risk from vapours from broken or leaking containers. Not having or inadequate guidelines and adherence to them can expose people working in these warehouses and exposed to vapours in enclosed environments.

Agrochemical companies claim that they communicate risks and recommend safe handling of agrochemicals, even distribute safety gear but people generally ignore them, due to practical challenges. Protective gear and safety equipment suitable for Sri Lanka's hot and humid environment is not readily available nor are locally appropriate, environmentally friendly alternatives to Chemicals of Concern (CoCs) still being used.

Component 3: Establish Healthcare Waste Management (HCWM) Systems to effectively prevent U- POPs emissions and develop Business Models for waste disposal at Healthcare Facilities which are aligned to the national COVID-19 recovery efforts.

There is a National Guideline for Health Care Waste Management, a guideline for the management of infectious Covid-19 related waste and instructions from the Ministry of Health on how to manage Mercury in the health sector. Assessments conducted during the PPG, and the rapid assessment carried out in 2020 revealed that these guidelines are not strictly followed, especially by the smaller healthcare units (district, rural hospitals) and even in the larger hospitals there is inadequate awareness of the prescriptions of these guidelines, and lack of adherence due to insufficient resources for the prescribed process/equipment or due to perceived inconvenience when following the guidelines. Mercury management in hospitals is also found to be less than satisfactory where disposal and storage of retired mercury containing equipment is concerned. There are no reports of accidental exposure to Mercury from the surveyed hospitals. However, it is unclear of the level of awareness of the staff to respond to such emergencies.

Since nurses and janitorial staff are largely female, the risk burden lies on their shoulders. Nurses and janitorial supervisors interviewed during the assessments had little idea of the national guideline but had received training and awareness sessions based on these guidelines – so were aware of the prescriptions. However, adherence varied.

Hospital waste management committees are generally headed by senior medical and administrative officers -both male and female. Gender-specific issues and decisions however are not brought up. Example is the safety of women janitorial staff working nightshifts or travelling long distances at very early hours. Even during Covid-19 pandemic, when there were no public transportation options, janitors were required to walk long distances at 3-4 am to report

to work.[65] One positive decision reported in both hospitals is that nurses who are pregnant or lactating are relieved from waste handling duties. While janitorial supervisors do excuse pregnant janitors from heavy work, the nature of the employment and the lack of paid medical leave, and the ability of the service provider to simply replace the worker with another (without pay) leads to janitors not disclosing pregnancy or other health complications until it becomes too late. Due to the lack of male janitors, women are tasked with carrying heavy loads, feeding autoclaves, taking out autoclaved residues, open burning of PPEs and come into daily contact with disinfectants and other cleaning agents.

Occupational safety remains an issue, especially with janitorial workers. The adherence to safety gear remains low due to 1) discomfort in heat and humid working conditions, 2) complaints of low-quality gear (boots/gloves) that causes skin irritation, 3) unavailability of appropriate gear, sorting bags, transport carts, storage space and 4) unavailability of proper washing and sanitary facilities and resting places for janitorial staff, and to store personal protective gear.

Component 4. Knowledge sharing, management & evaluation

There is considerable information in the public space on impacts of chemicals and hazardous waste on men and women, but especially focusing on the impacts on women in their reproductive ages or menopausal stages which makes them more susceptible to chemical exposure, and storage in the body fat[66]. Localized information on impacts of chemicals on both men and women are generally not available, as public awareness material or research studies. For example, women working in horticulture are not educated on the impacts of There is especially a dearth of information and sex disaggregated data on the areas that are directly relevant to the project -women engaged in application, packaging, and disposal of agro pesticides; women engaged in managing mercury containing equipment in the health sector; and women janitorial staff who are directly in contact with broken mercury containing equipment or discarded agro pesticides in waste collection centres or dumps.

Regular training for effective and safe waste handling, health, and safety precautions for women at reproductive or menopausal stages, and training and information on responding to health emergencies arising from accidental exposure to Mercury or other hazardous wastes is lacking. Refresher training, when guidelines are updated, transmission of messages from waste management committee to nurses and janitorial staff in the frontlines in the hospitals needs to be streamlined.

General public's awareness on waste handling is low; lack of household level segregation of hazardous material (batteries, chemicals, drugs, needles) and open burning is commonly practiced. Many types of plastics, aluminium based packaging, cans, bottles etc are burnt with little awareness of consequences. Public awareness is generally lacking on impacts of chemicals, safety precautions, government's efforts to ban POPs, illegal entry, and application of POPs pesticides, replacing Mercury containing equipment etc. While the government has taken some commendable steps in regulating dangerous chemicals considering their health and environmental impacts, there is little outward transmission of these key decisions and their implications. Due to lack of information, there is demand for illegally imported POPs and other banned chemicals for pest and weed control in agriculture.

Gender training to hospital administration, janitorial service companies, including janitorial supervisors etc., is unavailable. This leads to a lack of consideration for specific gender issues, and the lack of gender sensitive approaches in recruitment, occupational safety and working conditions, procurement and deployment of waste handling equipment and PPEs.

5. Strategies for gender mainstreaming

Literature review of international studies point to several key strategies that support the goal of empowering women and protecting them from hazardous chemicals. Some of these can support gender integration and mainstreaming in the local context and be specifically tailored to support project outcomes to:

[65] Interviews with janitors from Moneragala District General Hospital and Ashroff Memorial Hospital in Kalmunai

[66] https://www.wecf.org/wp-content/uploads/2018/12/WomenAndChemicals_PublicationIWD2016.pdf

• strengthen women's rights, in particular their participatory rights, in all aspects of decision making, chemical production, use and disposal; • implement the precautionary principle for chemicals which are harmful or suspected to be harmful to human health and environment, by regulatory measures. • protect the most vulnerable, children and pregnant women, by mandatory labelling of all chemicals in products to ensure the right to know; and making them the norm (and not the exception) for developing safe threshold limits.

Some specific strategies are recommended at outcome level:

Strategy	**Outcome**
Integrating gender-specific issues and strategies into national plans (NIP, SIP), regulations (EPL) and guidelines (NHCWM) and recommendations on safe storage and disposal of obsolete chemicals including POPS	Outcome 1.1, Outcome 2.1 Outcome 3.1
Gender sensitive decision making enabled by collecting and making available gender disaggregated data	Outcome 4.2 Outcome 2.1
Training for decision makers (Ministries and PMU) on gender-sensitive approaches to hazardous waste management	Outcome 1.1
Gender sensitive awareness material developed and available	Outcome 4.1 and 4.2
Occupational safety-related interventions designed and implemented	Outcome 3.1 and 3.2
Building capacity, training and awareness on safe handling of hazardous chemicals for both men and women in the frontlines	Outcome 3.1 and 4.1
Integrating gender sensitivity to green procurement guidelines and process e.g. For mercury free alternatives in the health sector	Outcome 2.1

6. Gender Action Plan (GAP) for project implementation

	Objective and Outcome Indicators	Activity related to Gender Mainstreaming	Indicators and targets	Budget
Project Objective: To improve the regulatory framework, strengthen national capacities in agricultural chemicals and mercury management, and support the transformation of healthcare waste management systems.	**Mandatory** Indicator 1: # direct project beneficiaries disaggregated by gender (individual people)	Gender disaggregated data collection on; - men and women beneficiaries of project activities in the six healthcare facilities - Women in decision-making positions in hospitals and chemical waste disposal facilities - men and women engaged in different waste management activities in the centralized waste treatment facility -men and women trained to include gender considerations in waste	# direct project beneficiaries disaggregated by gender (individual people) 17,000 direct project beneficiaries (11,900 female, 5,100 male) indirect project beneficiaries (750,000 female,450,000 male 300,000) as indirect beneficiaries of improved HCWM of 6 hospitals and 2 CCWTF in two provinces	Baseline survey Gender expert

		management plans and programmes - men and women targeted by awareness programmes of the project -Indirectly targeting men and women farmers through the extension system by providing information on impacts of chemicals and a systematized way for container collection		
Component 1: Strengthen the policy, regulatory and institutional frameworks for the management of POPs, mercury and other Chemicals of Concern (CoC).				
Outcome 1.1. Institutional coordination mechanism strengthened. regulatory frameworks for the enforcement of chemicals regulations updated.	**Indicator 5**: Number of policies, regulatory frameworks, technical standards reviewed, updated and adapted, and coordination mechanism strengthened for improved chemicals, mercury and wastes management and strengthened enforcement	- Develop terms of reference to integrate gender into policy gap analysis - Ensure men and women stakeholders are involved /consulted in the policy gap analysis -Develop recommendations to address policy level gender integration gaps	Number of Gender-sensitive recommendations to minimize health risks associated with chemicals of concern produced to improve policies, regulations and guidelines (at least 05 recommendations covering NIP for SC/ Mercury Management guidelines in Health Sector, National Healthcare Waste Management Guideline, Pesticide use in GAP recommendations, and Guidelines on disposing of obsolete or outdated chemicals)	Gender Expert Meetings
Outcome 1.2. National conditions to scale up the replacement of medical devices and dispose of wastes of mercury-contained medical devices enabled.	**Indicator 7:** Green procurement standards established to facilitate systematic and coordinated replacement of mercury-free alternative products	Gender responsive aspects are included in the guideline for handling storage, transport etc., in restarting Hg waste management post disposal of accumulated stocks (guideline is being developed)	Gender sensitive guidelines for Hg waste handling is available	Gender expert Meetings

Component 2. Environmentally-sound management disposal of obsolete stocks of agrichemicals POPs, mercury and their wastes				
Outcome 2.1. Effective Management System for environmentally sound disposal of mercury stocks, mercury-containing wastes, obsolete stocks of POPs agro pesticides and cross-contaminated chemicals, pesticides and their containers, implemented.	**Indicator 10:** Number of Technical Guidance and training materials prepared and utilized to achieve sound chemical management.	Gender responsive guidelines on mercury and mercury waste handling and storage and training conducted	Number of gender responsive Technical Guidance and training materials prepared and utilized to achieve sound chemical management.	Gender expert Communication Expert Communication Material production
Component 3.Establish Healthcare Waste Management (HCWM) Systems to effectively prevent U- POPs emissions, and develop Business Models for waste disposal at Healthcare Facilities which are aligned to the national COVID- recovery efforts.				
Outcome 3.1 Update HCWM strategies and plans that reflect BAT/BEP which can prevent/reduce U-POPs emissions, minimize plastic waste generation and improve recycling practices.	**Indicator 11:** Number of standards and regulations on HCWM reviewed and revised and National Plan for Harmonized Treatment and Disposal of HCW in emergency developed **Indicator 12:** Comprehensive HCWM inclusive of MIS and efficient resource recovery demonstrated in six (6) healthcare facilities	Gender analysis conducted during PPG updated to inform standards and national guidelines on waste management Data on numbers and health condition of men and women directly engaged in waste management collected Awareness on health impacts and gender concerns of Hg and other hazardous hospital wastes. Pre-and-post assessment of impact of awareness sessions such as: : 1. Greater adherence to safety measures, 2. Reported improvement of knowledge of impacts Training of trainers (head nurses/ infection control	Number of standards and regulations on HCWM reviewed and revised to include gender-sensitive aspects and National Plan for Harmonized Treatment and Disposal of HCW in emergency developed 03 standards and regulations in HCWM reviewed and updated, (for Hg, NHCW and a National Plan for Harmonized Treatment and Disposal of HCW in emergencies)	Gender expert(s) Workshops Seminars Equipment

		committee and janitorial supervisors) and awareness, as well as practical safeguards introduced to improve safety of mercury waste and other hazardous waste management in hospital wards and disposal sites such as, 1. Availability of suitable PPEs and safer alternatives (cleaning/disposal) 2. Waste carts for transportation resized or amended for women's use 3. Resting facilities improved for men and women janitors 4. Access to regular health checks, hepatitis vaccination, relief from waste handling during pregnancy etc. for Janitorial Staff		
Outcome 3.2. Non-incineration HCWM Business Models are developed. Baseline treatment systems models and practices improved. Technical/ economic application of low-cost autoclaves demonstrated.	**Indicator 13:** Technical assistance provided to MoH to optimize operation of 20 MetaMizer hybrid autoclave systems and develop a viable operation for safe treatment of infected waste **Indicator 14:** Business Models for CCWTF integrated with waste management systems of the country piloted in two (2) locations in two provinces	Institutional policies and operational manual for the CCWTF is drafted to include gender equality principals providing equitable access to knowledge, technical training, job opportunities for men and women	CCWTF is guided by Gender sensitive operational/institutional policies # of men and women using protective gear when working in operational aspects of the CCWTF	Gender expert Training workshops

Component 4. Knowledge sharing, management & evaluation				
Outcome 4.1 Project communication and training tools developed. Effective knowledge management delivered.	**Indicator 15:** Number of workshop and person trained in Gender Action, Project Communication Strategy and sound management and disposal of chemicals, mercury, other CoCs, wastes and avoidance of releases. 12 workshops conducted to train 40 training programmes 5,000 (female) and 3,000 (male) Gender Action Plan and Communication Plan implemented **Indicator 16:** Number of people benefited from knowledge sharing and public awareness raising activities 17,000 direct (11,900 female, 5,100 male) and 750,000 indirect (450,000 female, 300,000 male) beneficiaries	Resources committed for gender action plan. Baseline and post-facto surveys designed and implemented for all awareness activities Gender sensitive contents and communication material developed for wider dissemination. Gender M&E activities supported Gender training to PMU and other key stakeholders Targeted training for women in waste handling occupations	Gender Action Plan and gender-sensitive Communication Plan implemented # of gender actions successfully implemented and monitored # of gender specific communication material developed on POPs, UPOPs, COCs and Mercury	Gender expert Comms material Training workshops

Annex 11: Procurement Plan

(Please see separate Excel file**)**

Annex 12: Letters of financial commitments

(Please see separate files attached)

Annex 13: 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

Dear *Mr. Jasinghe*,

1. Reference is made to consultations between officials of the Ministry of Environment under the Government of *Sri Lanka* (hereinafter referred to as "the Government") and officials of UNDP with respect to the provision of support services by the UNDP country office for nationally managed Project titled "Integrated Management and Environmentally Sound Disposal of POPs Pesticides in the Agricultural Sector and Mercury & Waste in the Healthcare Sector in Sri Lanka" (Project Number: 00143931Output Number: 00131850). 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 project and programme personnel;
(b) Identification and facilitation of training activities;
(c) Procurement of goods and services.

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 of the Agreement Between the Government of Democratic Socialist Republic of Sri Lanka and the United Nations Development Programme dated 20th March 1990 (the "SBAA"), including the provisions on liability and privileges and immunities, shall apply to the provision of such support services. The Government shall retain overall responsibility for the nationally managed programme or project through its designated institution. 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 SBAA.

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 nationally managed programmes and projects.

Yours sincerely,

_____
Signed on behalf of UNDP

Malin Herwig
Officer In Charge
UNDP Sri Lanka

_____
For the Government
Dr. Anil Jasinghe,
Secretary, Ministry of Environment.
{Date}

Attachment

DESCRIPTION OF UNDP COUNTRY OFFICE SUPPORT SERVICES

1. Reference is made to consultations between the Ministry of Environment, the institution designated by the Government of Sri Lanka, and officials of UNDP with respect to the provision of support services for the nationally managed Project, titled "Integrated Management and Environmentally Sound Disposal of POPs Pesticides in the Agricultural Sector and Mercury & Waste in the Healthcare Sector in Sri Lanka" (Project Number: 00143931 Output Number: 00131850).

2. In accordance with the provisions of the Standard Basic Assistance Agreement(SBAA) signed on 20th March 1990 and the Project Document, the UNDP country office shall provide support services for the Project as described below.

3. Support services to be provided:

No	Service Name	Schedule for the provision of the support services	Cost to UNDP of providing such support services (where appropriate)	Amount and method of reimbursement of UNDP (where appropriate)
1	**Human Resources for PMU staff under UNDP's contract**			The total direct project cost is USD 50,646.52 for support services which will be charge according to the UPL and LPL
	Identification and /or recruitment of project personnel - Project Manager - Project Assistant - Finance and Procurement Assistant	Year 1	2,750.29	
	Recurrent personnel management services: for example, Staff payroll management, contract renewals, HR & Benefits Administration and Management	Year 1 - Year 5	2,737.80	
2	**Procurement: Consultant recruitment & contractual services**			
	Procurement Process for 5 contracts valued at less than USD 50,000, which do not require the approval of a procurement committee • Procurement of goods/services Procurement of contractual services • Conduct HACT assurance activities (audits and spot checks)	Year 1- Year 5	1,328.00	
	Procurement Processes which require the approval of a procurement committee (above USD 50,000): • Procurement of contractual services for Individuals – 03 Nos • Procurement of contractual services for companies – 02 Nos	Year 1 - Year 2	3,280.72	
	Procurement Processes which require the approval of the Regional Procurement Committee (above USD 150,000):	Year 1- 2	3,606.60	

	• Contractual services to engage organizations/ companies - 4		
	Procurement Process for Individual Consultants: • 10 National consultants for Project Implementation • Three international Consultants for Project Implementation • Two national Consultants for the Mid-term Review and Terminal Evaluation. • Two international Consultants for the Midterm Review and Terminal Evaluation • Individual Contract extensions	Year 1 -Year 5	7,548.77
	Procurement of IT equipment for the Project Management Unit (PMU)	Year 1	47.46
	Vendor Profiling and Registration	Year 1 -Year 5	1,049.04
3	**Financial Services**		
	Payment processes for both Non PO and PO payments	Year 1 - Year 5	22,509.76
4	**Administrative Services**		
	Travel management and mobile bill settlement	Year 1 -Year 5	5,048.40
	IT support services to the PMU staff	Year 1 -Year 5	739.68
	TOTAL		**50,646.52**

4. Description of functions and responsibilities of the parties involved:

Implementation Modality: CO support to NIM modality, with UNDP's execution support. UNDP will be providing the following execution support as agreed upon with the Ministry of Environment.

The Implementing Partner is the Ministry of Environment.

UNDP will perform oversight functions, in line with GEF and UNDP corporate guidelines. The UNDP country office will provide the following execution support services to the project.

- Human Resource: Identification and/or recruitment of the staff for the Project Management Unit (PMU), who will be under a UNDP contract.
- Procurement: Identification, selection, and contracting of individual consultants and contractual services companies including payment to vendors. This will include:

  UNDP and companies or institutions will be tasked to provide execution support/ services to the Ministry of Environment in the implementation of the project. Towards this, UNDP Country Office will support the Ministry of Environment to identify and recruit technically competent organizations to deliver the project. The third-party execution support will be sourced through a competitive process, based on deliverable-based Terms of Reference. The recruited 'Third Party' organizations, responsible to the Ministry of

Environment for the results and deliverables, will function as 'Responsible Party/s' to the project and will deliver the project according to the agreed work plan and schedule.

  - Procurement of project consultants to conduct evaluations, such as the Mid Term Review, the Terminal Evaluation and the required project audits;
  - Procurement of IT equipment for PMU.

- Financial Services: Processing the payments as requested by the Ministry of Environment
- Administrative services to the Project: in particular the organizing of the Inception workshop and travel arrangements for participants; travel management for the Project Management Unit staff (under UNDP's contract) and IT support services.

Annex 14: 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 (Scale 1-3)		
				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					
			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
Core Indicator 6	**Greenhouse gas emission mitigated**					***(Tons)***
		Tons (6.1+6.2)				
		Entered		Entered		
		PIF stage	Endorsement	MTR	TE	
	Expected CO2e (direct)					
	Expected CO2e (indirect)					
Indicator 6.1	Carbon sequestered or emissions avoided in the AFOLU sector					
			Tons			
			Entered		Entered	
			PIF stage	Endorsement	MTR	TE
	Expected CO2e (direct)					
	Expected CO2e (indirect)					
	Anticipated Year					
Indicator 6.2	Emissions avoided					

			Hectares			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
	Expected CO2e (direct)			*3,585 MT*		
	Expected CO2e (indirect)					
	Anticipated Year			*2028*		
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**					***(Tons)***
			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**					***(Tons)***
			Metric Tons (9.1+9.2+9.3)			
			Expected		Achieved	
			PIF stage	PIF stage	MTR	TE
			29.3 MT	*122.4 MT*		
Indicator 9.1	Solid and liquid Persistent Organic Pollutants (POPs) and POPs containing materials and products removed or disposed					
POPs type			Metric Tons			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Alpha hexachloroc	(select)	(select)	*0.028*	*0.028*		
Beta hexachlorocyc	(select)	(select)	*0.028*	*0.028*		
DDT	(select)	(select)	*0.010*	*0.010*		
(select)	Lindane	(select)	*0.028*	*0.028*		
Endosulfan and iso	(select)	(select)	*20.406*	*22.506*		
(select)	(select)	(select)		*22.6 MT*		
Indicator 9.2	Quantity of mercury reduced					
		so	Metric Tons			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE

			8.8	99.8		
Indicator 9.3	Number of countries with legislation and policy implemented to control chemicals and waste					
			Number of Countries			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
			1	*1*		
Indicator 9.4	Number of low-chemical/non-chemical systems implemented particularly in food production, manufacturing and cities					
			Number			
		Technology	Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Core Indicator 10	**Reduction, avoidance of emissions of POPs to air from point and non-point sources**					***(Grams)***
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*		
Indicator 10.2	Number of emission control technologies/practices implemented					
			Number			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
Indicator 10.3	Number of countries with legislation and policy implemented to control chemicals and waste					
			Number of Countries			
			Expected		Achieved	
			PIF stage	Endorsement	MTR	TE
			1	*1*		
Core Indicator 11	**Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment**					***(Number)***
			Expected		Number Achieved	
			PIF stage		MTR	TE
			11,900	Female		
			5,100	Male		
			17,000	*Total*		

Annex 15: GEF 7 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 Forests
			☐High Carbon Stocks Forests
			☐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 Forests
			☐Tropical Dry Forests
			☐Temperate Forests
			☐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
	☐**Forests**		
		☐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 16: Partners Capacity Assessment and HACT Assessment

(Please see separate files attached:

Annex 16-1 Partner Capacity Assessment Tool (PCAT)

Annex 16-2 Micro Assessment

Annex 17: UNDP Project Quality Assurance Report

(Please see separate file attached)

Annex 18: UNDP Checklist for GEF project for CEO endorsement/approval

(Please see separate file attached including:

Annex 18-1 UNDP Checklist for GEF ProDoc for CEO endorsement

Annex 18-2 Minutes of the discussion on Internal Control Review

Annex 18-3 KPMG Report

Annex 18-4 HACT Micro Assessment

Annex 18-5 Summary of Assurance Significant Issues and Action Plan)