Part I: Project Information

GEF ID
10868

Project Type
FSP

Type of Trust Fund
GET

CBIT/NGI
CBIT **No**
NGI **No**

Project Title
Integrated Management and Environmentally Sound Disposal of POPs Pesticides and Mercury in Healthcare and Agricultural Sectors in Sri Lanka

Countries
Sri Lanka

Agency(ies)
UNDP

Other Executing Partner(s)
Ministry of Environment (MOE)

Executing Partner Type
Government

GEF Focal Area
Chemicals and Waste

Sector

Taxonomy

Focal Areas, Chemicals and Waste, Influencing models, Demonstrate innovative approache, Transform policy and regulatory environments, Deploy innovative financial instruments, Strengthen institutional capacity and decision-making, Stakeholders, Beneficiaries, Type of Engagement, Information Dissemination, Partnership, Participation, Consultation, Private Sector, SMEs, Large corporations, Non-Grant Pilot, Civil Society, Community Based Organization, Trade Unions and Workers Unions, Non-Governmental Organization, Academia, Communications, Education, Public Campaigns, Behavior change, Awareness Raising, Local Communities, Pesticides, DDT - Other, Waste Management, Disposal, Plastics, Persistent Organic Pollutants, Uninentional Persistent Organic Pollutants, Best Available Technology / Best Environmental Practices, Mercury, Sound Management of chemicals and waste, Open Burning, Gender Equality, Gender Mainstreaming, Sex-disaggregated indicators, Gender results areas, Participation and leadership, Capacity Development, Capacity, Knowledge and Research, Knowledge Generation, Innovation, Knowledge Exchange, Learning, Indicators to measure change, Theory of change, Climate Change, Climate Change Mitigation

Rio Markers

Climate Change Mitigation

Significant Objective 1

Climate Change Adaptation

Significant Objective 1

Biodiversity

No Contribution 0

Land Degradation

No Contribution 0

Submission Date

1/31/2023

Expected Implementation Start

10/1/2023

Expected Completion Date

9/30/2028

Duration

60In Months

Agency Fee($)

478,800.00

A. FOCAL/NON-FOCAL AREA ELEMENTS

Objectives/Programs	Focal Area Outcomes	Trust Fund	GEF Amount($)	Co-Fin Amount($)
CW-1-1	Strengthen the sound management of industrial chemicals and their waste through better control, and reduction and/or elimination	GET	3,301,600.00	22,980,000.00
CW-1-2	Strengthen the sound management of agricultural chemicals and their wastes, through better control, and reduction and/or elimination	GET	1,738,400.00	10,177,800.00
		Total Project Cost($)	**5,040,000.00**	**33,157,800.00**

B. Project description summary

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.

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Component 1 - Strengthen the Policy, Regulatory and Institutional Frameworks for the management of POPs, Mercury and other Chemicals of Concern (CoC)	Technical Assistance	Outcome 1.1. Institutional Coordination Mechanism Strengthened. Regulatory frameworks for enforcement of the chemicals regulations updated. Outcome 1.2. National conditions to scale up the replacement of medical devices and dispose of wastes of mercury-contained medical devices enabled.	Output 1.1.1. 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 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.	GET	820,000.00	5,400,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
			Output 1.2.2. Finance framework for the procurement of mercury-free medical devices and HCWM disposal equipment developed.			

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Component 2 - Environmentally sound management disposal of obsolete stocks of Agrichemicals POPs, Mercury and their wastes	Investment	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. 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.	GET	2,000,000.00	13,200,000.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
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	Investment	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. 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 3.1.1. 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	GET	1,500,000.00	9,803,800.00

Project Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
			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	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
Component 4 ? Knowledge Sharing, Management & Evaluation	Technical Assistance	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.	GET	480,000.00	3,170,000.00
		Outcome 4.2. Monitoring and evaluation delivered during the project lifecycle.	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 Component	Financing Type	Expected Outcomes	Expected Outputs	Trust Fund	GEF Project Financing($)	Confirmed Co-Financing($)
			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			
				Sub Total ($)	**4,800,000.00**	**31,573,800.00**

Project Management Cost (PMC)		
GET	240,000.00	1,584,000.00
Sub Total($)	**240,000.00**	**1,584,000.00**
Total Project Cost($)	**5,040,000.00**	**33,157,800.00**

Please provide justification

C. Sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Recipient Country Government	Department of Chemical Management, Ministry of Environment	In-kind	Recurrent expenditures	3,380,000.00
Recipient Country Government	Central Environmental Authority	In-kind	Recurrent expenditures	200,000.00
Recipient Country Government	Central Environmental Authority	Public Investment	Investment mobilized	100,000.00
Recipient Country Government	Department of Sri Lanka Customs	In-kind	Recurrent expenditures	2,000,000.00
Recipient Country Government	Department of Sri Lanka Customs	Public Investment	Investment mobilized	150,000.00
Recipient Country Government	Department of Agriculture	In-kind	Recurrent expenditures	1,235,000.00
Recipient Country Government	Ministry of Health	In-kind	Recurrent expenditures	2,000,000.00
Recipient Country Government	Ministry of Health	Public Investment	Investment mobilized	12,000,000.00
Private Sector	Ceylon Waste Management (Pvt) Ltd	In-kind	Recurrent expenditures	6,250,000.00
Recipient Country Government	Central Bank of Sri Lanka	In-kind	Recurrent expenditures	140,000.00
Recipient Country Government	Federation of Sri Lanka Government Authority	In-kind	Recurrent expenditures	100,000.00

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
GEF Agency	UNDP	Grant	Investment mobilized	1,000,000.00
Recipient Country Government	Federation of Sri Lanka Government Authority	Public Investment	Investment mobilized	75,000.00
Private Sector	Asia Recycling (Pvt) Ltd.	In-kind	Recurrent expenditures	3,000,000.00
Private Sector	INSEE Ecocycle Lanka (Pvt) Ltd.	In-kind	Recurrent expenditures	1,527,800.00
			Total Co-Financing($)	**33,157,800.00**

Describe how any "Investment Mobilized" was identified

(A) CENTRAL ENVIRONMENTAL AUTHORITY (US $ 100,000): REFERS TO PUBLIC INVESTMENT MOBILIZED FOR PLANNING, COORDINATION, LOGISTIC ARRANGEMENTS, COMMUNICATIONS ETC. FOR THE ESTABLISHMENT OF CENTRALIZED CLINICAL WASTE TREATMENT FACILITIES AND PILOTING THE DISPOSAL OF INERT HEALTHCARE WASTE; (B) DEPARTMENT OF SRI LANKA CUSTOMS (US$ 150,000): REFERS TO THE PUBLIC INVESTMENT REQUIRED FOR UPGRADING THE BASELINE LABORATORY FACILITIES AND STRENGTHENING CAPACITIES AND SKILLS TO CARRY OUT CHECKS AND VERIFICATION AT THE ENTRY POINTS; (C) MINISTRY OF HEALTH (US $ 12,000,000): REFERS TO PUBLIC INVESTMENT MOBILIZED FOR THE EXPANSION OF THE HEALTHCARE WASTE MANAGEMENT INFRASTRUCTURE AND EQUIPMENT; (D) FEDERATION OF SRI LANKA GOVERNMENT AUTHORITY (US $ 75,000): REFERS TO THE ALLOCATION OF LAND FOR THE ESTABLISHMENT OF THE ENGINEERED LANDFILL FOR THE DISPOSAL OF TREATED HCW.

D. Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
UNDP	GET	Sri Lanka	Chemicals and Waste	POPs	1,738,400	165,148	1,903,548.00
UNDP	GET	Sri Lanka	Chemicals and Waste	Mercury	3,301,600	313,652	3,615,252.00
			Total Grant Resources($)		**5,040,000.00**	**478,800.00**	**5,518,800.00**

E. Non Grant Instrument

NON-GRANT INSTRUMENT at CEO Endorsement

Includes Non grant instruments? **No**

Includes reflow to GEF? **No**

F. Project Preparation Grant (PPG)

PPG Required **true**

PPG Amount ($)

150,000

PPG Agency Fee ($)

14,250

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount($)	Fee($)	Total($)
UNDP	GET	Sri Lanka	Chemicals and Waste	POPs	100,000	9,500	**109,500.00**
UNDP	GET	Sri Lanka	Chemicals and Waste	Mercury	50,000	4,750	**54,750.00**
				Total Project Costs($)	**150,000.00**	**14,250.00**	**164,250.00**

Core Indicators

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO?e (direct)	0	3585	0	0
Expected metric tons of CO?e (indirect)	0	0	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO?e (direct)				
Expected metric tons of CO?e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO?e (direct)		3,585		
Expected metric tons of CO?e (indirect)				
Anticipated start year of accounting		2028		
Duration of accounting				

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)				

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)

Indicator 9 Chemicals of global concern and their waste reduced

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
29.31	122.40	0.00	0.00

Indicator 9.1 Solid and liquid Persistent Organic Pollutants (POPs) removed or disposed (POPs type)

POPs type	Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
Alpha hexachlorocyclohexane	0.03	0.03		
Beta hexachlorocyclohexane	0.03	0.03		
DDT	0.01	0.01		
Lindane	0.03	0.03		
Technical endosulfan and its related isomers	20.41	22.50		

Indicator 9.2 Quantity of mercury reduced (metric tons)

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
8.80	99.80		

Indicator 9.3 Hydrochloroflurocarbons (HCFC) Reduced/Phased out (metric tons)

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

Indicator 9.4 Number of countries with legislation and policy implemented to control chemicals and waste (Use this sub-indicator in addition to one of the sub-indicators 9.1, 9.2 and 9.3 if applicable)

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
1	1		

Indicator 9.5 Number of low-chemical/non-chemical systems implemented, particularly in food production, manufacturing and cities (Use this sub-indicator in addition to one of the sub-indicators 9.1, 9.2 and 9.3 if applicable)

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)

Indicator 9.6 POPs/Mercury containing materials and products directly avoided

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

Indicator 9.7 Highly Hazardous Pesticides eliminated

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

Indicator 9.8 Avoided residual plastic waste

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

Indicator 10 Persistent organic pollutants to air reduced

Grams of toxic equivalent gTEQ (Expected at PIF)	Grams of toxic equivalent gTEQ (Expected at CEO Endorsement)	Grams of toxic equivalent gTEQ (Achieved at MTR)	Grams of toxic equivalent gTEQ (Achieved at TE)
	11.12		

Indicator 10.1 Number of countries with legislation and policy implemented to control emissions of POPs to air (Use this sub-indicator in addition to Core Indicator 10 if applicable)

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
1	1		

Indicator 10.2 Number of emission control technologies/practices implemented (Use this sub-indicator in addition to Core Indicator 10 if applicable)

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)

Indicator 11 People benefiting from GEF-financed investments

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	11,900	11,900		
Male	5,100	5,100		
Total	17000	17000	0	0

Provide additional explanation on targets, other methodologies used, and other focal area specifics (i.e., Aichi targets in BD) including justification where core indicator targets are not provided

Part II. Project Justification

1a. Project Description

(A) Global environmental problems and root causes

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.

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

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.

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[1]1. 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)[2]2. 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[3][3]. 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[4]4.

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.

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).

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.

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.

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. While the lifting of the ban does not concern POPs pesticides for which imported were banned under the Stockholm Convention, it is recognized that apart from strengthening boarder control to combat illegal import, the country will also need to tighten control on chemicals that are inside the country.

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.

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.

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

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.

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. 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.

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.

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.

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).

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.

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

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.

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.

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.

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.

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.

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.

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 burning[5]5.

(B) Barriers that need to be addressed

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.

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.

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).

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 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.

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 the Ceylon Waste Management (Pvt) Ltd.

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[6]6.

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.

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

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.

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.

INSEE Ecocycle Lanka (Private) Limited (formally M/s Holcim Geocycle), 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

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

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.

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).

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.

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, a subsidiary of Orange Electric, 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.

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).

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.

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.

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.

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.

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

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) Implementing Agency: Sri Lanka Ports Authority	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.
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

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.

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.

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, M/s Holcim Geocycle 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. M/s Holcim Geocycle, renamed as INSEE EcoCycle Lanka (Private) Limited. 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.

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.

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.

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.

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.

As mentioned before, the mercury recycling started as a CSR initiative in 2011 by Asia Recycling (Pvt) Ltd. (a private sector 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.

Ceylon Waste Management (Pvt) Ltd. is a new company 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 41metric 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 with Ceylon Waste Management to collaboratively finalize the plan and agreement for a viable solution to the export of mercury and mercury wastes.

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.

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.

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.

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, originally expected in late 2021, but delayed due to the COVID-19 pandemic and 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

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.

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.

It is anticipated that the outlook for sovereign debt service challenges may ease with the debt restructuring negotiations in progress with the IMF and other creditors which is expected to conclude by mid-2023. The Government already introduced some key reforms; i.e. increased taxes, compulsory retirement of public servants at the age 60, increased payments for utility such as electricity etc.

The current risk pertaining to socio-political and economic crisis is illustrated by a January 2023 article of the Sri Lanka Institute of Policy Studies, which is summarized as follows:

Debt restructuring negotiations with creditors started after the sovereign foreign debt default in April 2022. A bailout program is negotiated with International Monetary Fund (IMF) but it demands painful reforms and careful management of global economic forces and geopolitical relations.

The IMF bailout will help Sri Lanka to access bilateral and multilateral financial support for economic recovery. The IMF?s four-year US$ 2.9 billion program will provide limited liquidity. It is hoped that the program will catalyse other official lenders, private investors and creditors confidence. But Sri Lanka?s complex creditor landscape; China, India and Japan as its largest bilateral creditors alongside primarily US-based private bond holders, makes working out a solution acceptable to all, difficult. China has been unwilling so far to take a cut in principal repayments, preferring to refinance payments with

fresh loans. Sri Lanka is continuing to persuade creditors to arrive at a mutually agreeable formula in 2023.

Sri Lanka was amongst top five countries with the highest food price inflation during most of 2022. Poverty in the country increased and is expected to grow further as the country falls into a prolonged recession. The GDP reduction in 2022 is expected to be close to 9% and a further contraction of 3?4 % in 2023.

Getting IMF support also demands stringent financial discipline preventing the government from spending to tackle recession. Accordingly, taxes are being hiked and expenditures are being cut. Governments with low resources is unable to help those who are/will be worse off from the reforms. The situation also accelerated brin drain as many to seek migration.

Reform agenda is politically fraught, even with a strong and stable government. While crisis may stimulate positive economic overhaul and long term benefits, it is risky with absence of political stability in Sri Lanka.

The above explained risk which the country faces was recognized and analyzed in depth during project formulation. While it is a tough risk to manage, the government is confident that reforms will continue to increase government revenue, even if a change of governments happens over the project period. The Government commitments seems to be forthcoming despite continuing discussions with IMF, the conclusion of which is expected in the coming month or so, will ease risk even further.

The health sector which was a priority for traditional funding allocation is expected to be a continued priority and the Ministry of Health is confident of their ability to allocate pledged amounts of co-funding.

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.

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.

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.

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.

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

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.

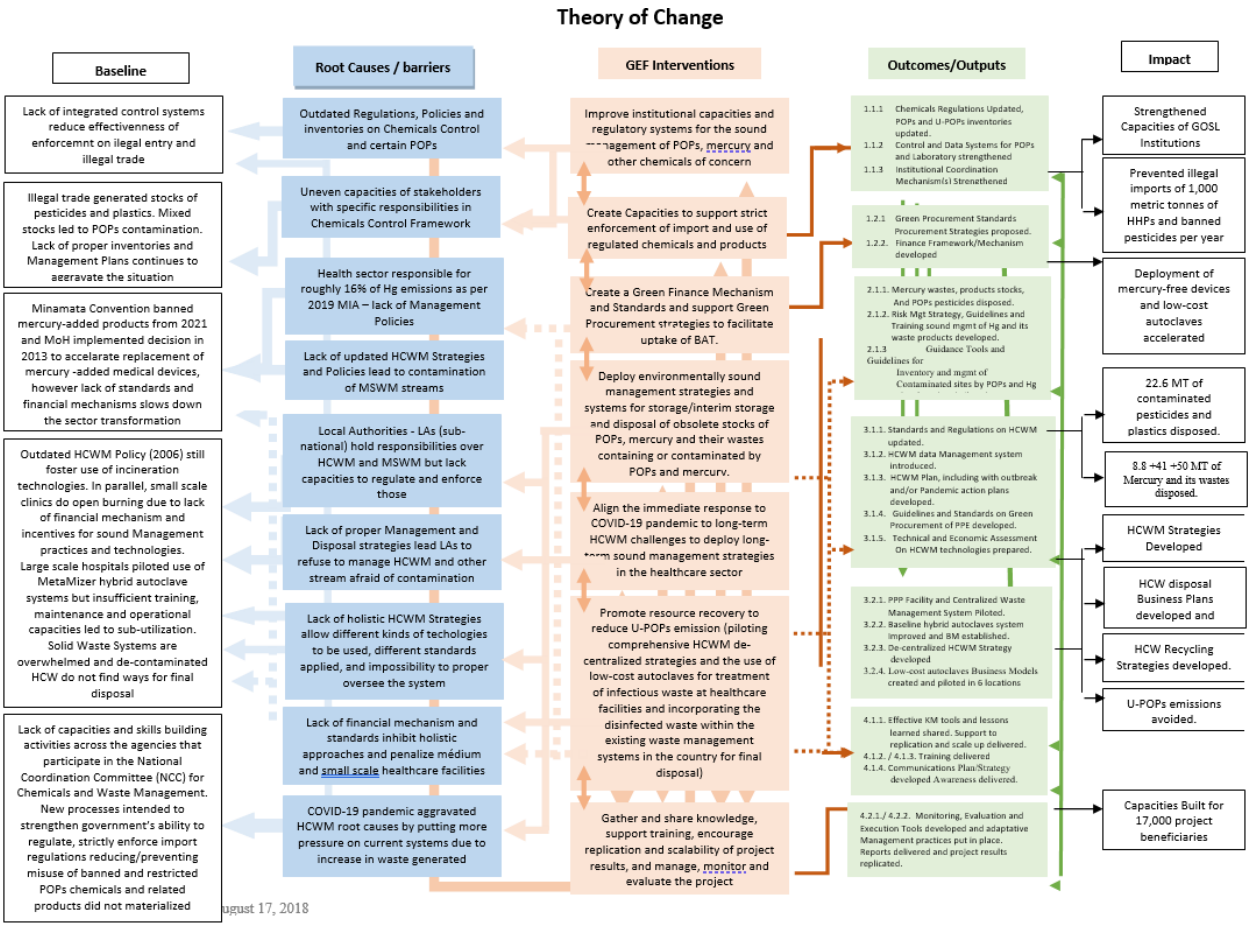
(ii) Deploy environmentally sound management strategies and actions for storage/interim storage and disposal of obsolete stocks of POPs pesticides, mercury and their wastes (containing or contaminated by POPs and mercury).

(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. The Project will also foster South-South Cooperation through using experience and lessons learned from other GEF projects, and collecting and sharing experience and lessons learned from this Project with other countries, especially exchanging experience with the Bilateral Project UNDP implements in Bangladesh, Maldives and Bhutan funded by Japan, to improve HCWM as COVID-19 response, will communicate to each other and generate additional resources on how to adapt HCWM systems to respond to outbreaks and pandemics generated crisis through a regional workshop during the year 3

Theory of Change

The Project?s Theory of Change can be presented in the diagram below:



The Project Design

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

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.

The Project aims to update the NIP formulated in 2015 and updating inventories will help to review policy and legal context, and implementation of POPs control in Sri Lanka. The initial NIP submitted to the Stockholm Convention in 2007 had preliminary inventories of PCBs, Pesticides and Unintentional Dioxins/Furans. The 2015 updated NIP addresses 22 POPs including the initial 12 POPs. The POPs listed in 2013 (hexabromocyclododecane (HBCD)) and in 2011 (hexachlorobutadiene,

pentachlorophenol and polychlorinated naphthalenes) were not addressed in the latest NIP. POPs inventories that will be carried out under this Project will include new POPs in updating the 2015 NIP, with management strategies incorporated in the NIP Update to ensure the country?s compliance.

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 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.

Sri Lanka drafted a National Policy on Green Procurement (Pending final Cabinet approval). According to MoE, Green Procurement Standards will be enforced step-wise as mandatory requirements across all public institutions as a component of public procurement.

The Government through the implementation of the National Green Procurement Policy (NGPP) across public institutions, anticipates attracting new and innovative financing such as green financing.

Reference-https://wedocs.unep.org/bitstream/handle/20.500.11822/37487/GPPSL.pdf

The Project will facilitate implementation of green procurement standards by adapting institutional mechanism and specifications and standards of NGPP and the national framework for Eco Labeling inclusive of certification schemes for health sector. NGPP will be implemented by the Ministry of Health starting with the hospitals where pilot/demonstration actions of the project will take place.

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 and investment in the integrated and comprehensive healthcare waste management (HCWM), tapping into existing finance frameworks in the country. 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 provide financing opportunity and incentives especially for the private sector to make investments to address challenges in the deployment non mercury alternatives and non-incineration technology in health sector.

One of the mechanisms proposed is for the project to work with and through the Sustainable Banking and Financing Network (SBFN) which is a network of over 20 member private banks committed to support the private sector to engage in sustainable development work.

The SBFN member banks (i.e. Seylan Bank, Commercial Bank) have already invested on setting up their sustainable finance units within the banks and have started extending sustainable finance i.e. renewable energy projects.

Work was mainly initiated with international schemes and is continuing having shifted to use banks? own funding too by now. The Sustainable Financing Roadmap introduced by the Central Bank of Sri Lanka requires all banks to gradually start engaging in sustainable and green financing and the progress of which need to be reported to the Central Bank on annual basis.

The Central Bank of Sri Lanka (CBSL) has developed the Road Map for Sustainable Finance in 2018, and Sri Lanka Green Finance Taxonomy in March 2022. Therefore the policy foundation for GFF is already exist.

The project will build on these existing platforms and channels to tailor GFF for health sector; private sector to supply and invest in BAT/BEP and in HCWM. The project will work with CBSL and SBFN to identify how the existing sustainable and green financing frameworks can be adapted to the requirements identified by the health sector mercury phaseout and waste management. Viable demonstrations conducted on HCWM in partnership with private sector with concessional financing subsidized by the project will generate much information for solidifying GFF for health sector. The project will negotiate with interested members of SBFN to participate in pilot demonstrations an extend credit to private sector investors of pilot HCWM based on bank guarantee provided by the project. The project will also support subsidizing interest rate only for the first two pilot projects conducted during project implementation to share the risk and encourage private sector to engage in HCWM. Private sector already engaged in alternative digital equipment supply will also benefit from the overall GFF targeted for health sector. The bank guarantee in the long term will be converted to a revolving fund to provide green investments for healthcare sector.

The Project is also promoting HCWM to be integrated with the overall municipal waste management channels and systems in the country as guided by the new National Waste Management Policy. Waste management is a high priority area for government development agenda, including NDC for emission reduction targets and as such there is substantial donor interest i.e. World Bank, JAICA, KOICA., and also potential for negotiating ITMOs. Private sector interest is also acknowledged by the National policy and concessional financing is likely to be introduced for waste sector. The project aims to incorporate lessons learnt from the private sector participating in pilot demonstrations to develop innovative financing schemes for waste management inclusive of HCWM.

The project will facilitate bringing private sector and banks/CBSL to define an appropriate GFF for healthcare sector and test it by implementation. The SBFN members who are already engaged in extending sustainable finance will adopt and implement GFF. The project will provide initial subsidy for the demonstration so that banks and private sector will be encouraged as the risks will be shared with the project until lessons of running HCWM project are clear. Banks have indicated their interest to promote private sector investment in HCWM in the long term based on viable business models.

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 facilities 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 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 Asia Recycling (Pvt) Ltd. 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.

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, Divisioanl 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 additional to creating safe interim storages 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.

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.

The Total Budget and Work Plan and the Budget Note for the GEF grant are presented in the two tables

below:

Table 2: Total Budget and Work Plan

Total Budget and Work Plan			
Atlas Award ID:	00143931	Atlas Output Project ID:	00131850
Atlas Proposal or Award Title:	Integrated Management and Environmentally Sound Disposal of POPs Pesticides in the Agricultural Sector and Mercury & Waste in the Healthcare Sector in Sri Lanka		
Atlas Business Unit	LKA10		
Atlas Primary Output 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 No.	6677		
Implementing Partner	Ministry of Environment		

Atlas Activity (GEF Component)	Atlas Implementing Agent (Responsible Party, IP, or UNDP)	Atlas Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Account Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Amount Year 5 (USD	Total (USD)	See Budget Note:
COMPONENT 1: Strengthen the Policy, Regulatory and Institutional Frameworks for the management of POPs, Mercury and other Chemicals of Concern (CoC)	**MoE**	**62000**	**GEF**	71600	Travel	1,000	1,000	1,000	1,000	1,000	**5,000**	1
				72100	Contractual Services - Companies	50,000	50,000	0	0	0	**100,000**	2
				72500	Supplies	1,000	1,000	1,000	1,000	1,000	**5,000**	3
				75700	Training, Workshops and Confer	3,200	2,200	1,800	1,800	2,600	**11,600**	4
					Sub-Total MoE	**55,200**	**54,200**	**3,800**	**3,800**	**4,600**	**121,600**	
	UNDP			71200	International Consultants	0	8,000	8,000	4,000	0	**20,000**	5
				71300	Local Consultants	20,000	90,000	15,000	15,000	5,000	**145,000**	6
				71600	Travel	1,000	1,000	1,000	1,000	1,000	**5,000**	7
				72100	Contractual Services - Companies	40,000	140,000	120,000	100,000	0	**400,000**	8
				72200	Equipment and Furniture	0	82,000	0	0	0	**82,000**	9
				75700	Training, Workshops and Confer	12,800	8,800	7,200	7,200	10,400	**46,400**	10
					Sub-Total UNDP	**73,800**	**329,800**	**151,200**	**127,200**	**16,400**	**698,400**	
				TOTAL COMPONENT 1		**129,000**	**384,000**	**155,000**	**131,000**	**21,000**	**820,000**	
COMPONENT 2: Environmentally sound management disposal of obsolete stocks of Agrichemicals POPs, Mercury and their wastes	**MoE**	**62000**	**GEF**	71600	Travel	6,400	6,400	6,400	6,400	6,400	32,000	11
				72100	Contractual Services-Companies	100,000	280,000	270,000	70,000	0	720,000	12
				72500	Supplies	3,000	3,000	3,000	3,000	3,000	15,000	13
				75700	Training, Workshops and Confer	8,800	24,800	24,800	16,800	12,800	88,000	14
					Sub-Total MoE	**118,200**	**314,200**	**304,200**	**96,200**	**22,200**	**855,000**	
	UNDP			71200	International Consultants	9,000	8,000	8,000			25,000	15
				71300	Local Consultants	42,000	42,000	42,000	42,000	42,000	210,000	16
				71600	Travel	1,600	1,600	1,600	1,600	1,600	8,000	17

				72100	Contractual Services-Companies	65,000	237,000	180,000	65,000	65,000	612,000	18
				72200	Equipment and Furniture	0	268,000	0	0	0	268,000	19
				75700	Training, Workshops and Confer	2,200	6,200	6,200	4,200	3,200	22,000	20
					Sub-Total UNDP	**119,800**	**562,800**	**237,800**	**112,800**	**111,800**	**1,145,000**	
				TOTAL COMPONENT 2		**238,000**	**877,000**	**542,000**	**209,000**	**134,000**	**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	**MoE**	**62000**	**GEF**	71600	Travel	4,000	6,800	8,000	6,000	6,000	30,800	21
				72500	Supplies	3,000	3,000	3,000	3,000	3,000	15,000	22
				75700	Training, Workshops and Confer	6,000	14,000	14,000	14,000	10,000	58,000	22
					Sub-Total MoE	**13,000**	**23,800**	**25,000**	**23,000**	**19,000**	**103,800**	
	UNDP			71200	International Consultants	0	10,000	10,000	0	0	20,000	24
				71300	Local Consultants	40,000	70,000	70,000	30,000	5,000	215,000	25
				71600	Travel	1,000	1,700	2,000	1,500	1,500	7,700	26
				72100	Contractual Services – Companies	0	401,000	397,000	291,000	50,000	1,139,000	27
				75700	Training, Workshops and Confer	1,500	3,500	3,500	3,500	2,500	14,500	28
					Sub-Total UNDP	**42,500**	**486,200**	**482,500**	**326,000**	**59,000**	**1,396,200**	
				TOTAL COMPONENT 3		**55,500**	**510,000**	**507,500**	**349,000**	**78,000**	**1,500,000**	
Component 4: Knowledge Sharing, Management & Evaluation	**MoE**	**62000**	GEF	71600	Travel	3,000	3,000	3,000	3,000	3,000	15,000	29
				72500	Supplies	2,000	2,000	2,000	2,000	2,000	10,000	30
				75700	Training, Workshops and Confer	1,500	16,500	16,500	16,500	16,500	67,500	31
	UNDP			71300	Local Consultants	25,000	25,000	25,000	25,000	25,000	125,000	32
				72100	Contractual Services - Companies	16,260	26,260	26,260	26,260	16,260	111,300	33
					Sub-Total KM	**47,760**	**72,760**	**72,760**	**72,760**	**62,760**	**328,800**	
				71300	Local Consultants	6,640	6,640	6,640	6,640	6,640	33,200	34
				71600	Travel	4,000	6,000	6,000	6,000	4,000	26,000	35
				75700	Training, Workshops and Confer	8,000	0	0	0	0	8,000	36
				71200	International Consultants	0	0	21,000	0	21,000	42,000	37
				71300	Local Consultants	0	0	14,000	0	14,000	28,000	38
				71600	Travel	0	0	7,000	0	7,000	14,000	39
					Sub-Total M&E	**18,640**	**12,640**	**54,640**	**12,640**	**52,640**	**151,200**	
				TOTAL COMPONENT 4		**66,400**	**85,400**	**127,400**	**85,400**	**115,400**	**480,000**	
PROJECT MANAGEMENT COST	**MoE**	**62000**	**GEF**	71600	Travel	3,100	3,100	3,100	3,100	3,100	15,500	40
				72500	Supplies	1,000	1,000	1,000	1,000	1,000	5,000	41
				73100	Rental & Maintenance Premises	4,000	4,000	4,000	4,000	4,000	20,000	42
				74200	Audio Visual&Print Prod Costs	0	1,000	1,000	1,000	5,353	8,353	43
	UNDP			64397	Services to projects -CO staff	15,061	11,384	8,475	9,117	6,610	50,647	44
				71400	Contractual Services -Individual	26,500	26,500	26,500	26,500	26,500	132,500	45
				72800	Information Technology Equipment	5,000	0	0	0	0	5,000	46
				74100	Professional Services	600	600	600	600	600	3,000	47
				TOTAL PROJECT MANAGEMENT COSTS		**55,261**	**47,584**	**44,675**	**45,317**	**47,163**	**240,000**	
				PROJECT TOTAL		**544,161**	**1,903,984**	**1,376,575**	**819,717**	**395,563**	**5,040,000**	

*Remarks: For UNDP as Atlas/Quantum implementing agent, UNDP shall provide execution support services. These will include administrative and operation supports per services listed in LOA for UNDP support services and engagement of Responsible Parties (if any) on behalf of the Implementing Partner. These services shall follow UNDP's rules and regulations.

Table 3: Budget Notes

Budget Note No.	Project Output (Description)
COMPONENT 1: Strengthen the Policy, Regulatory and Institutional Frameworks for the management of POPs, Mercury and other Chemicals of Concern (CoC)	
1	Travel costs of IP officials, experts and key stakeholders for review and strengthening national policy, regulatory and institutional frameworks for management and disposal of POPs pesticides and cross-contaminated chemicals, mercury-contaminated medical devices, and enforcement mechanisms. **Total $5,000**
2	One subcontract of an entity or institute to support Activity 1.1.1.2 to complete inventory of New POPs and U-POPs and with NIP updated, **$100,000**
3	Supplies to support workshops and strengthening activities of national capacities and POPs pesticides and mercury waste disposal, **$5,000**
4	A total of 5 meeting and workshops at $2,320 each conducted for the coordination of stakeholders and capacity building to support baseline regulations review, centralization of Chemicals Control System, establishment of green procurement standards and Green Finance Framework, **total $11,600**
5	International consultant to support Activity 1.2.2.1 Development of Green Finance Framework, $650/day for 30 workdays, round up to **$20,000**
6	Technical Advisor to support Component 1, 62.5 working days at $400/day, $25,000; National consultants to support Activity 1.2.1.1 Hg inventory preparation (75 working days at $400/day, $30,000); Activity 1.2.1.2 development of green procurement system (75 working days at $400/day, $30,000); Activity 1.2.2.1 development of Green Finance Framework (75 working days at $400/day, $30,000); and Activity 1.1.3.1 training and awareness (75 working days at $400/day, $30,000), **Total $145,000**
7	Travel costs of international and national consultants for review and strengthening national policy, regulatory and institutional frameworks for management and disposal of POPs pesticides and cross-contaminated chemicals, mercury-contaminated medical devices; strengthen enforcement mechanisms over 5 years. **Total $5,000**
8	One subcontract to undertake Activities 1.1.2.1, 1.1.2.2, and 1.1.2.3 to facilitate the deployment and expansion of the Centralized Digitalized MIS successfully linking the various databases ($100,000); a second subcontract to undertake Activities 1.1.2.4, 1.1.2.5, and 1.1.2.6 to support laboratory facilities improvements and capacities strengthening of RoP and CEA ($300,000), **total of two subcontracts $400,000**
9	Laboratory equipment to upgrade baseline facilities at Department of Sri Lanka Customs, Activities 1.1.2.4 and 1.1.2.5, **$82,000**
10	A total of 19 meeting and workshops at $2,442 each conducted for the coordination of stakeholders and capacity building to support baseline regulations review, centralization of Chemicals Control System, establishment of green procurement standards and Green Finance Framework, **rounded up to $46,400**
COMPONENT 2: Environmentally sound management disposal of obsolete stocks of Agrichemicals POPs, Mercury and their wastes	
11	Travel costs of IP officials, experts and key stakeholders to support environmentally safe disposal of POPs pesticides and cross-contaminated chemicals, development of Risk Management Strategy, inventory of POPs pesticides and mercury contaminated sites and test of Guidance and Guidelines at two sites, **$32,000**
12	One subcontract between CEA and selected entity(ies) to undertake Activity 2.1.2.3 to have mercury extraction restarted and environmentally safe disposal of mercury waste resumed ($400,000); one subcontract for Activity 2.1.3.1 for inventory of de-centralized storage facilities of obsolete POPs pesticides completed and risk management strategy developed ($120,000); one subcontract to completed the disposal of 22.6 MT of POPs contaminated pesticides stored with cross-contaminated chemicals, Activity 2.1.1.3 ($100,000); one subcontract to complete the inventory and a safe disposal plan of the decentralized storage facilities of obsolete POPs pesticides and mercury contaminated sites developed ($100,000). **Total four subcontracts $720,000**
13	Supplies to support safe disposal of POPs pesticides and cross-contaminated chemicals, mercury and mercury wastes, development of Risk Management Strategy, Technical Guidance & Training materials for sound management of wastes containing mercury, and Guidance Tools and Guidelines for inventory of contaminated sites and test of tools and guidelines at two contaminated sites, **$15,000**
14	A total of 35 meetings and workshops at $2,514 each conducted to mobilize extension officers and officials healthcare workers to create awareness and capacity to facilitate sound management and environmentally safe disposal of POPs pesticides and cross-contaminated chemicals, mercury and wastes generated, **rounded up to $88,000**
15	International consultants to provide technical support to achieve Output 2.1.1 Environmentally safe disposal of residual mercury stooks, mercury-contained waste; Output 2.1.2 Development of Risk Management Strategy, Technical Guidance & Training materials for sound management of waste containing mercury; and Output 2.1.4 Development of Guidance Tools and Guidelines for inventory of mercury and POPs contaminated sites. 38 working days at $650/day, rounded up to **$25,000**
16	Technical Advisor to support Component 2, 125 working days at $400/day, $50,000; National consultants for Output 2.1.2, Activities 2.1.2.1 and 2.1.2.2 to develop Risk Management Strategy, review, update and incorporate most recent BEP to develop technical guidelines and training materials for management for sound management of wastes containing mercury, for a total of 400 workdays at $400/day, $160,000. **Total $210,000**
17	Travel costs of international consultants, Technical Advisor and National Consultants to support environmentally safe disposal of POPs pesticides and cross-contaminated chemicals, development of Risk Management Strategy, inventory of POPs pesticides and mercury contaminated sites and test of Guidance and Guidelines at two sites, **$8,000**
18	One subcontracts for Activity 2.1.1.1 to accomplish safe disposal of 8.8 MT Hg ($57,000); a second subcontract for Activity 2.1.1.2 to complete disposal of 20 MT of the 41 MT mercury waste at Ceylon Waste Management ($130,000); a third subcontract for Activity 2.1.3.2 with guidelines and standards developed for undertaking inventory of contaminated sites and the developed guides for decontamination tested at two pilot sites (one for site contaminated with POPs pesticides and one for site contaminated with mercury) ($100,000); a fourth subcontract for Activities 2.1.2.1 and 2.1.2.2 with collection, storage and safe disposal of an estimated of 50 MT of mercury wastes generated from replacement of mercury-containing medical devices at healthcare facilities undertaken during the five-year duration of the project ($325,000), **total of four subcontracts $612,000**
19	Procurement of laboratory equipment to support baseline facilities at Department of Sri Lanka Customs being upgraded, **$268,000**
20	A total of 9 meetings and workshops at $2,442 each conducted to mobilize extension officers and officials healthcare workers to create awareness and capacity to facilitate the sound management and environmentally safe disposal of OPPs pesticides and cross-contaminated chemicals, mercury and wastes generated, **rounded up to $22,000**
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	
21	Travel costs of IP officials, experts and key stakeholders to support review and update of HCWM strategies and plants, develop National Plan for Harmonized Treatment and Disposal of HCW in emergencies, develop guidelines and standards for green procurement, optimization of metamere operation, piloting of integrated collection and recycling at 6 healthcare facilities, establishment of two Centralized Clinical Waste Treatment Facilities. **Total $30,800**

22	Supplies required to support meetings and workshops and pilot programmes at the 6 healthcare facilities and the establishment of two CCWTFs, $3,000/year for a total of **$15,000**
23	A minimum of 25 workshops at $2,320 each conducted to support the establishment of HCWM to prevent U-POPs emissions and to raise awareness to promote the replacement of mercury-containing medical devices and safe disposal of mercury wastes generated. **Total $58,000**
24	International consultant to provide technical support Activity 3.1.3.3 to develop the Green Finance Framework to facilitate green recovery in healthcare sector, 30 days at $650/day, rounded up to **$20,000**
25	Technical Advisor to support Component 3, 62.5 working days at $400/day, total $25,000; Private Sector Liaison and Business Development Expert (for 4 years at a total of 250 working days at $400/day, sub-total $100,000) to support Activity 3.1.5.1; National consultant to support Output 3.1.3 on development of Green Finance Framework (75 working days at $400/day for a total of $30,000); to develop Green Procurement System (75 working days at $400/day for a total of $30,000); and to conduct studies on metameres, Output 3.1.4 (75 working days at $400/day for a total of $30,000). **Total $215,000**
26	Travel costs of international and national consultants to support review and update of HCWM strategies and plants, develop National Plan for Harmonized Treatment and Disposal of HCW in emergencies, develop guidelines and standards for green procurement, optimization of metamere operation, piloting of integrated collection and recycling at 6 healthcare facilities, establishment of two Centralized Clinical Waste Treatment Facilities. **Total $7,700**
27	Two subcontracts for Activity 3.1.5.3to engage two (2) NGO/CSOs to promote women entrepreneurship in development and green jobs ($20,000 each for a total of $40,000 for the two subcontracts); one subcontract for Activities 3.1.1.2 and 3.1.5.1 to have MIS system established in the 6 HCFs ($100,000); one subcontract for Activity 3.2.3.1 to have Metamere optimization completed ($200,000); and one subcontract for Activity 3.2.1.1 for the establishment of 2 CCWTFs ($399,500 for each subcontract). **Total of six (6) subcontract $1,139,000**
28	A minimum of 6 workshops at $2,442 each conducted to support the establishment of HCWM to prevent U-POPs emissions and to raise awareness to promote the replacement of mercury-containing medical devices and safe disposal of mercury wastes generated. **Total rounded down to $14,500**
COMPONENT 4: Knowledge Sharing, Management & Evaluation	
	Knowledge Management
29	Travel costs for training, knowledge sharing, promotion and public awareness on lessons learned to promote environmentally sound management of POPs/chemicals and mercury wastes, **$15,000**
30	Supplies to support documentation of knowledge and lessons-learned, production and printing of reports and media materials, **$10,000**
31	27 meetings, seminars and workshop organized for knowledge sharing, training and awareness raising, **$67,500**
32	Fulltime Communication and Training Expert to support the KM and M&E delivery of Component 4, at $15,500/year sub-total $77,500; Monitoring and Evaluation Specialist for 118 working days at $400/day, rounded up to $47,500, **Total $125,000**
33	Subcontract for engagement of NGO/CSO for watchdog and public awareness and grievance addressing, $30,000; Development of communication strategy $81,300, **total $111,300**
	Monitoring and Evaluation
34	Social and Environmental Safeguards Specialist at $400/day, 52 workdays for monitoring of social and environmental risks ($20,800), and 31 workdays for monitoring GMAC by the Project Gender Expert at $400/day ($12,400). **Total $33,200**
35	Travel costs for periodic and annual monitoring missions on safeguards management framework, environmental and social risks, coordination management and progress made in reaching GEF core indicators over 5-year project duration ($20,000) and learning missions ($6,000), **Total $26,000**
36	Inception Workshop costs at **$8,000**
37	International consultant to conduct MTR and TE at 30 working days each, at $700/day fee. **Total $42,000**
38	National consultant to conduct MTR and TE at 35 working days each, at daily fee of $400/day fee. **Total $28,000**
39	International travel costs for international consultant to conduct MTR and TE, at $5,000/mission for MTR and TE, and domestic travel costs for international and national consultants to conduct MTR and TE at $2,000 each evaluation. **Total $14,000**
Project Management Costs	
40	Travel costs to support smooth project implementation and monitoring of progress, **$15,500**
41	Office and miscellaneous supplies, **$5,000**
42	Rental and maintenance for premises of PMU, **$20,000**
43	Printing, publications and electric and media costs, **$8,353**
44	COS to NIM costs based on UPL, **$50,647**
45	5-year staff costs for Project Manage ($15,500/year), Project Assistance ($5,500/year) and Finance and Procurement Assistant ($5,500/year), **Total $132,500**
46	Information Technology Equipment, **Total $5,000**
47	UNDP Annual audit costs at $600/year, **Total $3,000**

(H) Alignment with GEF focal area

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".

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 CO2 eq.

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

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 4: 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 **GEF Co-Financing: USD 5,400,000** (Central Environmental Authority, Department of Sri Lanka Customs, Central Bank of Sri Lanka)	(c) Deployment of the green procurement scheme and access to Green Finance Mechanism(s) **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. (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. (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., Ceylon Waste Management (Pvt) Ltd).	(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 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) 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 products in line with the baseline National Policies set by the MoH, to ensure long term sustainability.	(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, 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. **GEF Co-Financing: USD 9,803,800** (Central Environmental Authority, Ministry of Health, Federal of Sri Lanka Local Authorities, INSEE Ecocycle Lanka (Pvt) Ltd., UNDP)	(d) Pilot HCWM strategies and low-cost non-incineration technologies to facilitate sound environmental management. **GEF Grant for Component 3: USD1,500,000**

Table 5: List of Co-Finance

Co-financing source	Co-financing type	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	Public 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	6,250,000	Yes	In-kind contribution to support

	Management (Pvt) Ltd.			Outputs 2.1.1 and 2.1.2mon 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 to support Output 3.2.1 for last mile solution for HCW processed by CCWTF Eastern Province, and to support the 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**		

(J) Global environmental benefits (GEFTF)

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.

(K) Climate Risk Screening

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.[7].

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.

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 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.

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.

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 CO2 eq emission reduction will be achieved.

(L) Innovativeness, Sustainability and Potential for Scaling Up:

Innovation

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).

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).

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

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.

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

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.

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.

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.

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

The project will foster South-South Cooperation through

(1) using experiences and lessons learned from other GEF projects, specifically the Global HCWM in GEF-3 and the African HCWM project, to incorporate and adapt these lessons to healthcare sector in Sri Lanka considering the country?s context and practicalities.

(2) collecting experiences and lessons learnt from the HCWM work of the GEF-7I projects and share with other countries, considering the pressing needs for such information in the region after COVID-19. Especially exchanging experience with the Bilateral Projects UNDP implements in Bangladesh, Maldives and Bhutan funded by Japan, to improve HCWM as COVID-19 response, will communicate to each other and generate additional resources on how to adapt HCWM systems to respond to outbreaks and pandemics generated crisis through a regional workshop during the year 3 of project implementation.

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

[2] 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*

[3] 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*

[4]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

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

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

[7] 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

1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.

Please refer to **Annex E: Project Map (s) and Coordinates** in CEO Endorsement Request file.

Note that picture files cannot be uploaded in this section as they look incomplete in the printouts.

1c. Child Project?

If this is a child project under a program, describe how the components contribute to the overall program impact.

n/a

2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

Civil Society Organizations Yes

Indigenous Peoples and Local Communities Yes

Private Sector Entities Yes

If none of the above, please explain why:

Please provide the Stakeholder Engagement Plan or equivalent assessment.

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.

The Stakeholder Identification and Consultation Process

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.

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 Analysis

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.

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).

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 6: 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 Licenseland 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 BoP.	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 Agriculture, ITI, Sri Lanka Standards Institute	Powers and duties given by the section 27 of Control of Pesticides Act No. 33 of 1980 and section 18 of Control of Pesticides (Amendment) Act No. 6 of 1994	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 more sophisticated testing.	Potential to enhance the existing facilities
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"

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 7: 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. Setting guidelines on the subject discussed.	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 health institutions. A joint project proposal preparation is in progress for disposal of Hg containing medical waste	Disposal of CFL bulbs is very costly No recyclers readily available No way of disposing of the Hg containing thermometers and barometers. Inadequate finances. No monitoring mechanism	Device a monitoring system for regularly monitoring the use and proper disposal of mercury containing devices
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.	

Stakeholder	Mandate	Roles and responsibilities	Present activities	Progress	issues / constraints / challenges / risks	Recommendations
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.

Stakeholder	Mandate	Roles and responsibilities	Present activities	Progress	issues / constraints / challenges / risks	Recommendations
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

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 below 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 8: 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 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 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 mercury management.	Member organizations of the Sri Lanka Banks' Association's Sustainable Banking Initiative (SLBA SBI)	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., 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 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 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

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

In addition, provide a summary on how stakeholders will be consulted in project execution, the means and timing of engagement, how information will be disseminated, and an explanation of any resource requirements throughout the project/program cycle to ensure proper and meaningful stakeholder engagement

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 6, covering details related to means of engagement, objectives, Stakeholders to be engaged, main responsible agencies, location, time and resources required.

Table 9: Stakeholder Engagement during the project implementation phase

Means of Engagement	Objectives	Stakeholders to be engaged	Main responsible agencies	Location	Time
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 pro implementati
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 pro implementati
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 Incept Period

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 Incept Period
▪ For Component 1: Strengthen the Policy, Regulatory and Institutional Frameworks for the management of POPs, Mercury and other Chemical					
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 firs quarters of th project implementati period.
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 pro implementati
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 firs quarters of th project implementati period.

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 pro implementatio
▪ 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 pro implementatio
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 pro implementatio
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 pro implementatio

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 pro implementatio
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 pro implementatio
▪ For Component 3: Establish Healthcare Waste Management (HCWM) Systems to effectively prevent U-POPs emissions, and develop Business 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 pro implementatio

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 pro implementatio
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 pro implementatio
▪ 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 pro implementatio
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 pro implementatio

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 pr implementati
	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 pr implementati
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 projec implementati
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 projec implementati
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 projec implementati
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
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 evaluation rep finalized
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 a inception wor
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 duri project implementati
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 week after received request
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 duri project implementati
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 af received the complaint
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 af received the complaint
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 af received the complaint

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.

Select what role civil society will play in the project:

Consulted only; Yes

Member of Advisory Body; Contractor;

Co-financier;

Member of project steering committee or equivalent decision-making body;

Executor or co-executor;

Other (Please explain)

3. Gender Equality and Women's Empowerment

Provide the gender analysis or equivalent socio-economic assesment.

Globally, it is estimated that 70% of all the healthcare workers are women[8] . 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.

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%)[9]. Therefore, women will greatly benefit from the project in terms of improved health and safety of working conditions.

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.

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.

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.

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.

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.[10] 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[11]. 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[12]. 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.[13].

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 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.

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[14]7. 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.[15]8 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.[16]9

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[17]10. 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[18]11. 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:

(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:

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 10):

Table 10: 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

A Gender Action Plan (GAP) was developed at the PPG stage, outlining actions to be taken during project implementation, as descried in Table 11 below:

Table11: 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 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 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	# direct project beneficiaries disaggregated by gender (individual people) 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	Baseline survey Gender expert
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	Gender Expert Meetings

			obsolete or outdated chemicals)	
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 UPOPs emission reduction achieved:	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	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

	4.2 gTEQ/y (North western province); 6.92 gTEQ/y (Eastern province)	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	Resources committed for gender action plan. Baseline and post-facto surveys designed and implemented for all awareness activities	Gender Action Plan and gender-sensitive Communication Plan implemented # of gender actions successfully implemented and monitored	Gender expert Comms material Training workshops

	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	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	# of gender specific communication material developed on POPs, UPOPs, COCs and Mercury	

[8]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

[9] 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)

[10] World Economic Forum 2020

[11] 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.

[12] 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

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

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

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

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

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

[18] Field observations from the data collection team

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment?

Yes

Closing gender gaps in access to and control over natural resources; Yes

Improving women's participation and decision making Yes

Generating socio-economic benefits or services or women Yes

Does the project?s results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement

Elaborate on the private sector's engagement in the project, if any.

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.

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.

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.

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

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.

Asia Recycling (Pvt) Ltd. which 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.

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.

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 12: List of Co-Finance

Co-financing source	Co-financing type	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 to support Outputs 2.1.1 and 2.1.2mon 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 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**		

5. Risks to Achieving Project Objectives

Elaborate on indicated risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, the proposed measures that address these risks at the time of project implementation.(table format acceptable):

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 13: 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 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	MoE MoH MoA Department of Sri Lanka Customs UNDP

				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 framework can materially impact their business model (including increase their operational costs), sector operations or supply chains for products used	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 (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	MoE MoH MoA UNDP Demonstration medical facilities

				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 technologies and safe management and disposal of obsolete mercury devices and health care waste	Social and Environmental Operational Organizational Regulatory Strategic	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* **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.	MoE MoH MoA UNDP Demonstration Facilities

				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.	
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	MoE MoH UNDP Demonstration Facilities Central Bank of Sri Lanka

				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**).	
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 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	MoE MoH UNDP Demonstration Facilities

				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. 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 stakeholders are taken into consideration in the decision-making as well as their capacities to comply with the regulatory system.	MoE MoH MoA UNDP Demonstration Facilities

				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 = 2 **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	MoE MoH MoA UNDP Demonstration Facilities

				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 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 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	MoE MoH MoA UNDP Demonstration Facilities

				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*	MoE MoH MoA UNDP Demonstration Facilities

				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.	
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	Social and Environmental Operational Organizational Regulatory Health	I = 4 L = 4 **Moderate**	**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*	MoE MoH MoA UNDP Demonstration Facilities

	pesticides and Mercury, which can extend the range of the contamination and limit access to land and natural resources of nearby communities			**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 (**Activity 2.1.4.2**), 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.	
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 (**Activity 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 (**Output 3.2.4**.).	MoE MoH MoA UNDP Demonstration Facilities

				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.	
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 = 2 **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	MoE MoH MoA UNDP Demonstration Facilities

				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 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	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

	Sector to honour their committed co-financing				
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 = 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
16	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
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

6. Institutional Arrangement and Coordination

Describe the institutional arrangement for project implementation. Elaborate on the planned coordination with other relevant GEF-financed projects and other initiatives.

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.

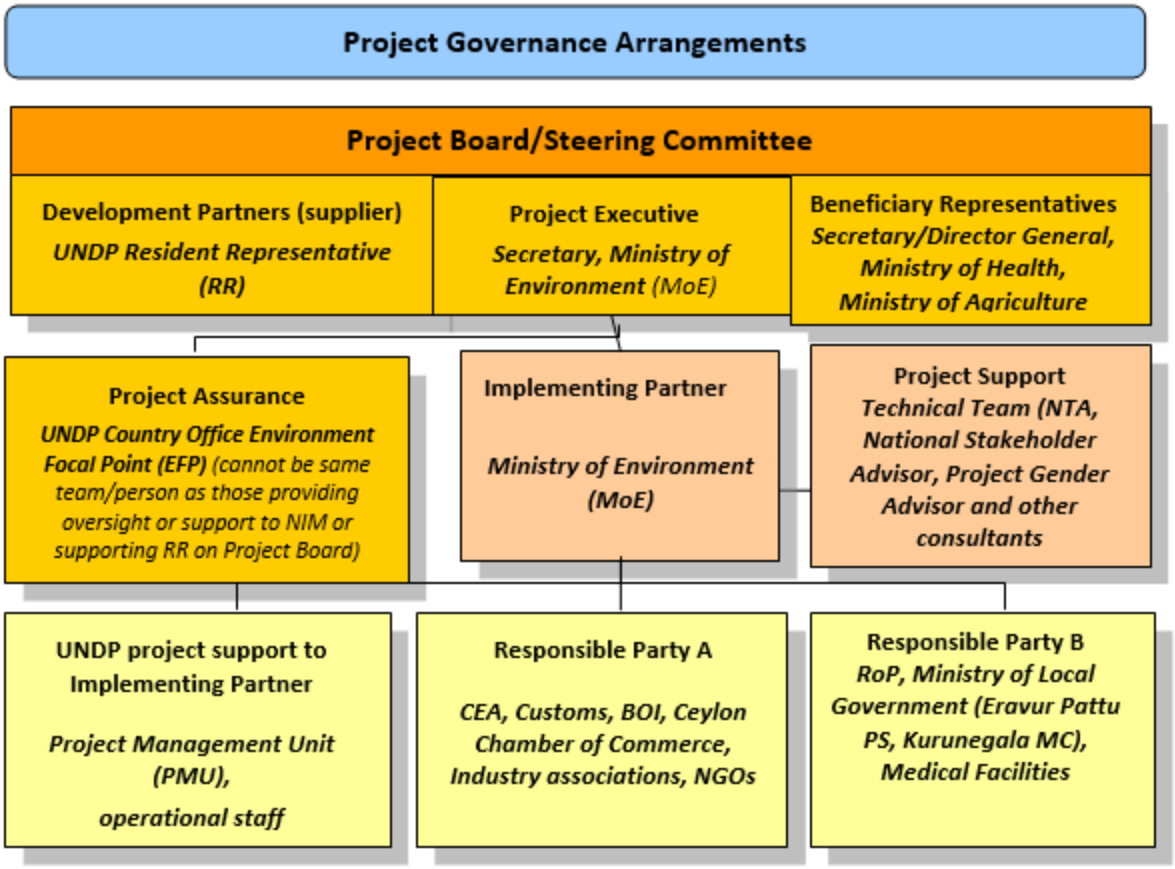
Responsible Party B: The Responsible Party B includes RoP, Ministry of Local Governments and medical facilities guided by the Implementing Partner, they are responsible for carrying out demonstration project activities to promote and facilitate the replacement of mercury-containing medical devices and 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-?-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.

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. 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.

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) 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. ?ssue 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:

o 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.

o Review project performance based on monitoring, evaluation and reporting, including progress reports, risk logs and the combined delivery report.

o The project board is responsible for making management decisions by consensus.

o 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.

o 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:

o 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.

o Appraise annual work plans prepared by the Implementing Partner for the Project; review combined delivery reports prior to certification by the implementing partner.

o Address any high-level project issues as raised by the project manager and project assurance;

o 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);

o Provide high-level direction and recommendations to the project management unit to ensure that the agreed deliverables are produced satisfactorily and according to plans.

o Track and monitor co-financed activities and realisation of co-financing amounts of this project.

o Approve the Inception Report, GEF annual project implementation reports, mid-term review and terminal evaluation reports.

o Ensure commitment of human resources to support project implementation, arbitrating any issues within the project.

? Risk Management:

o Provide guidance on evolving or materialized project risks and agree on possible mitigation and management actions to address specific risks.

o 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.

o Address project-level grievances.

? Coordination:

o Ensure coordination between various donor and government-funded projects and programmes.

o 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.

7. Consistency with National Priorities

Describe the consistency of the project with national strategies and plans or reports and assesments under relevant conventions from below:

NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc.

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.

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.

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.

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.

8. Knowledge Management

Elaborate the "Knowledge Management Approach" for the project, including a budget, key deliverables and a timeline, and explain how it will contribute to the project's overall impact.

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.

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.

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.

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.

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.

The project will engage a fulltime Communication and Training Expert to support develop a communication plan for KM implementation. Two NGOs will be subcontracted to carry out watchdog, public awareness and grievance addressing functions.

Specifically, the timeline and KM activities can be summarized as follows:

Year 1

Recruitment of a fulltime Communication and Training Expert;

Development of a communication strategy/plan, mechanism and timeline for its implementation;

Development of an integrated data management system, and training materials and related implementation strategy.

Year 2

Preparation of knowledge products and training materials on revised policies, regulatory frameworks and technical standards;

Preparation of knowledge products and training materials on updated NIP and related management strategies, including new POPs updated;

Preparation of knowledge products and training materials relating to Green Procurement Standards;

Preparation of knowledge products and training materials relating to Green Finance Framework.

Preparation of knowledge products and training materials on Technical Guidance on sound management and disposal of POPs pesticides, mercury and mercury wastes.

Production of knowledge products and training materials related to updated HCWM Strategies and standards, as well as the finalized National Plan for Harmonized Treatment and Disposal of HCW in emergencies;

Organize public awareness events;

Conduct training for customs officers on the control and monitoring of POPs, mercury and other CoCs.

Year 3

Compile knowledge and experience gained in demonstration of comprehensive HCWM and resource recovery at the 6 healthcare facilities;

Compile knowledge and experience gained and training materials on the optimal operation of the 20 MetaMizer hybrid autoclave systems and the results of safe treatment of infected wastes;

Compile knowledge and experience gained and training materials on the results of the waste management systems demonstrated at the two Centralized Clinical Waste Treatment Facilities (CCWTFs);

Organize public awareness events and promotion activities starting year 2 through year 5;

Conduct four workshops on Training of Trainer (TOT) and 24 training programmes on Gender Action, Project Communications strategy and sound management and disposal of chemicals, CoCs, mercury and mercury wastes and avoidance of emission releases over Years 2 and 3.

Year 4 and 5

Conduct 8 TOT and 16 training programmes on environmentally sound management and disposal of chemicals, CoCs, mercury and mercury wastes, and on improved integrated and comprehensive healthcare waste management;

Produce knowledge products on sound management of chemicals and on knowledge and experience gained, and lessons-learned on the results of demonstration projects;

Organize domestic and international workshops to share knowledge, experience and lessons-learned.

9. Monitoring and Evaluation

Describe the budgeted M and E plan

The project results, corresponding indicators and mid-term and end-of-project targets in the Project Results Framework will be monitored annually and 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. The Monitoring Plan included in Annex details the roles, responsibilities, and frequency of monitoring project results.

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

Additional mandatory GEF-specific M&E requirements will be undertaken in accordance with the GEF Monitoring Policy and the GEF Evaluation Policy and other relevant GEF policies[19]. 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.

GEF Core Indicators:

The GEF Core indicators included as Annex 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 indicator status. The updated monitoring data should 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):

The terms of reference, the review process and the final MTR report will follow the standard UNDP templates and UNDP guidance for GEF-financed projects available on the UNDP Evaluation Resource Center (ERC).

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 under review.

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

The final MTR report and MTR TOR will be publicly available in English and will be posted on the UNDP ERC by 7 June 2026. A management response to MTR recommendations will be posted in the ERC within six weeks of the MTR report?s completion.

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 GEF-financed projects available on the UNDP Evaluation Resource Center. TE should be completed 3 months before the estimated operational closure date, set from the signature of the ProDoc and according to the duration of the project. Provisions should be taken to complete the TE in due time to avoid delay in project closure. Therefore, TE must start no later than 6 months to the expected date of completion of the TE (or 9 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 30 June 2028. A management response to the TE recommendations will be posted to the ERC within six weeks of the TE report?s completion.

Final Report:

The project?s terminal 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[20] and the GEF policy on public involvement[21].

Table 14: Monitoring Plan

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

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[22]	Frequency	Responsible for data collection	Means of verification	
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	Risk the che farr gov par fem agr hea in H dec acc opp tec acc Ass stal Mo hea che rele par pro the con par Car

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[22]	Frequency	Responsible for data collection	Means of verification	
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	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 Risk management strategy,	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 Guidelines for decontamination of sites and two tested areas	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	Ris an che ide spi ma wo pa sto Ass De im re du de int

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[22]	Frequency	Responsible for data collection	Means of verification	
		technical guidance and training materials tested at two contaminated sites	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 Project Manager Project Management Unit	Inventory results of stock at Asia Recycling Progress Report (Service Provider) Disposal Report Consultant Report	Ris wo dis Ass ma for an mit
	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 (Total of 5,747 MT of CO_2 eq over 16-year	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 Project Management Unit	Progress Report Facilities' Operation Report Consultant Report	Ris wa in Ass rec HC im mit

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[22]	Frequency	Responsible for data collection	Means of verification	
		duration)						
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 National healthcare waste management	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	Ris res ag Ass Aw bu mi ap

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[22]	Frequency	Responsible for data collection	Means of verification	
		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	Ris inp ne un ch rel Ass Aw am pri mit am
Project Outcome 1.2: National conditions to scale up the replacement of medical devices and dispose of wastes of mercury-contained medical	**Indicator 7** Green procurement standards established to facilitate systematic and coordinated replacement of mercury-free	Survey and data collection finalized on POPs Pesticides and mercury inventories to update NIP and plans developed to collect data on	Green procurement standards established and appropriately applied	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	Annually Reported in DO tab of the GEF PIR	MoE MoH/Medical Supplies Division Project Manager Project Management	Green procurement standards Consultant Report Progress and Annual Report Training and Workshop	Ris Pol Pro yet the Ass agr the de pro

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[22]	Frequency	Responsible for data collection	Means of verification	I
devices enabled.	alternative products and introducing HCWM technologies and processes	establishing inventors for new POPs chemicals		annual reports		Unit	Report	for
	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	Ris alte not bus sec loa Ass off evo incl priv
Project Outcome 2.1 Effective Management System for environmentally sound disposal of mercury stocks, mercury-containing wastes, obsolete stocks of POPs-agro	**Indicator 9** Quantity of mercury stock, mercury-containing wastes and dental amalgam environmentally disposed of. Inventory of mercury/POPs	Inventory of mercury contaminates sites finalized and data incorporated into NIP Update Inventory of POPs pesticide contaminated sites	POPs pesticides and cross-contaminated chemicals and mercury waste disposed Sound management of POPs and mercury achieved	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/RoP Demonstration Medical Facilities Project Manager Project	Progress and Annual Report Consultant Report Demonstration Facilities Report Training and Workshop Report Process	Ris wo env dis dec Ass red dev imp mit

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[22]	Frequency	Responsible for data collection	Means of verification	
pesticides and cross-contaminated chemicals, pesticides and their containers, implemented.	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	developed, and NIP updated Risk management strategy, technical guidance and training materials finalized and tested at two locations	Guidance for decontamination of contaminated sites with mercury and POPs agro pesticides available			Management Unit	documentation of testing of decontamination	
	Indicator 10 Number of Technical Guidance and training materials	Gender responsive guidelines on mercury and mercury waste handling and storage and	Inclusive Technical Guidance and Training Materials to facilitate sound chemical and	Baseline data from PIF and PPG reports, collected through desk studies, investigation, studies, interviews	Annually Reported in DO tab of the GEF PIR	MoE MoH Demonstration Facilities Project	Progress and Annual Report Consultant Report Training and Workshop	Ris cor get cor des gui

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[22]	Frequency	Responsible for data collection	Means of verification	R
	prepared and utilized to achieve sound chemical management.	training conducted	mercury management	and on-site visits. Data for verification to be collected from progress reports and annual reports		Manager Project Management Unit	Report	Ass incr sect for will to a incl
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	Risk peo with Ass Awa con sup CSO con sup
	Indicator 12 Comprehensive HCWM inclusive of MIS and efficient resource recovery demonstrated in six (6) healthcare facilities Sub Core Indicator 10.1:	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 progress reports and annual reports	Annually Reported in DO tab of the GEF PIR	MoE MoH Partnering NGOs Demonstration Medical Facilities Project Manager Project Management	Progress and Annual Report Consultant Report Demonstration Medical Facilities Training and Workshop Report	Risk with ente eng recy Ass stre incl eng thro part
	Reduction of UPOPs emission to air					Unit		

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[22]	Frequency	Responsible for data collection	Means of verification	
	achieved: 4.2 gTEQ/y (North western province); 6.92 gTEQ/y (Eastern province)					Unit		
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	Ris Me aut the ger Ass De suc bas pil site dis CC sce sec
	Indicator 14 Business Models for CCWTF integrated with waste management systems of the country piloted in two (2) locations in two	Non incineration options introduced for processing HCW at the two CCWTF are operated as self-sustaining business models	CCWTFs established Non-incineration options introduced	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 MoPC&LG CCWTFs Project Manager Project Management Unit	Progress and Annual Report Consultant Report CCWTFs Report Training and Workshop Report	Ris pol wil agr the Ass wil agr aut Mo risk

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[22]	Frequency	Responsible for data collection	Means of verification	
	provinces							pol ma ele
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	Ris sta cyc Ass pro e b frie sel
	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 progress reports and annual reports	Annually Reported in DO tab of the GEF PIR	MoE MoH MoA Partnering NGOs Gender Expert Safeguard Expert Project Manager Project Management	Progress and Annual Report Experts Report Training and Workshop Report	Ris par aw Ass cos i.e. soc pul int par aw

Results Monitoring	Indicators	Targets	Description of indicators and targets	Data source/Collection Methods[22]	Frequency	Responsible for data collection	Means of verification	
						Unit		
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	Ris exp sta the Ass kee sou cap kn thr

Table 15: 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 fra**
Inception Workshop and Report	8,000	Inception Workshop with 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
Preparation of the annual GEF Project Implementation Report (PIR)	None	Annually typically betwee
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 30 June 2026
Independent Terminal Evaluation (TE)	42,000	By 30 April 2028
TOTAL indicative COST	**151,200**	

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

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

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

[22] 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.

10. Benefits

Describe the socioeconomic benefits to be delivered by the project at the national and local levels, as appropriate. How do these benefits translate in supporting the achievement of global environment benefits (GEF Trust Fund) or adaptation benefits (LDCF/SCCF)?

The Global Environmental Benefits (GEB) of this project at the CEO Endorsement stage, include additional disposal quantities in mercury and mercury-contained wastes as compared to what was presented at the PIF stage. The total environmentally sound disposal quantities will include: 22.6 MT of POPs pesticides and cross-contaminated agrochemicals stockpiles (9 MT of liquid and 13.6 MT of solid) from the agricultural sector; 8.8 + 41 +50 = 99.8 MT of mercury and mercury-contained wastes from healthcare facilities. The additional 50 MT of mercury and mercury wastes is the quantity that will be generated from the demonstration activities carried out, plus an estimated 3,585 MT of CO_2 eq emission, will be avoided during the five year duration of the Project.

In addition to reducing the quantities of stockpile POPs pesticides and cross-contaminated agrochemicals in the agricultural sector and mercury and mercury-contained wastes in the healthcare sector, the Project will strengthen human and instrument capacities in laboratory analysis, and provision of portable gas analyzers to enable Customs officials for quick detecting, testing, and verifying imported products, to carry out checks and verifications so as to control illegal imports at entry point. Together with the establishment of a centralized digitized information management system, the effective monitoring of import, appropriate use as intended, and the safe disposal of POPs pesticides, agrochemicals and mercury-containing medical devices, and a strengthened institutional coordination mechanism, will reduce/prevent misuse of banned and restricted POPs chemicals and related products, generate economic and social benefits to protect human health and the environment.

The Green Finance Framework (GFF) that will be developed for promoting mercury phase-out in the healthcare sector will help to address challenges in the deployment of non-incineration HCWM technology to reduce UPOPs emissions that will result through open burning or incineration. This will ensure that the interest and wellbeing of small and medium sized healthcare facilities and other stakeholders will be taken into consideration to minimize negative social and economic impacts on these entities.

Through the proposed review, an update and adaption of policies, regulatory frameworks and technical standards is expected to be carried out under this Project. It will facilitate and improve the procedures for implementation related to the Pesticide Control Act (use of illegal agrochemicals), Import Expert Control Act and Custom Ordinance (HS code review), National Environment Act (monitoring Environmental Protection Licensing, and Scheduled Waste Management Licensing), draft national policy on Chemical Management, gender responsive mercury and mercury waste management in the healthcare sector, as an effective mean to control/reduce emissions of POPs to air. As a result, UPOPs emission reduction in the amount of 4.2 gTEQ/year and 6.92 gTEQ/year will be achieved at the Northwestern and Eastern provinces respectively.

With the technical guidance and training materials prepared for the sound management of wastes containing mercury, and the standards and regulations on HCWM revised, the environmentally safe management of healthcare wastes that will happen in many healthcare facilities will generate significant social and economic

benefits in safeguarding workers? health for a large population of hospital staff that includes doctors, nurses, paramedics, cleaning and security personnel.

The Project will also pilot integrated recycling program at six (6) healthcare facilities that will partner with the private sector to assess on recycling potential so as to facilitate the proper collection, recycling and reuse of valuable materials. A direct positive effort of this intervention may yield opportunities to creation of ?green jobs? relating to HCW recycling, as it will explore alternative income generation opportunities by facilitate the partnership between hospitals, Local Authorities and waste collectors.

The establishment of two (2) Centralized Clinical Waste Treatment Facilities (CCWTFs) using non-incineration technology and linked to an existing landfill will support the MoH with a PPP model to operate such HCW treatment facilities that will also treat HCW from small and micro healthcare facilities that are not able to operate in a sustainable manner. Together with the development of a de-centralized non-incineration HCWM strategy for medium and small-scale healthcare facilities, the Project will push forward interventions that will provide substantial economic and social benefits to these small and medium healthcare facilities.

Strengthened policy, regulatory, institutional, monitoring and analysis frameworks to control and address illegal import, and promotion of safe use and disposal of agricultural and healthcare wastes, will safeguard human health and the environment. Knowledge and experience gained, as well as lessons learned through implementation of project activities and positive results of the demonstrations, will be shared to facilitate long-term sustainability and raise awareness for the healthcare sector personnel. Such interventions on environmentally sound management are consistent with the national and local priorities, which will not only generate local and national benefits, but will contribute to global human health and a safe environment.

11. Environmental and Social Safeguard (ESS) Risks

Provide information on the identified environmental and social risks and potential impacts associated with the project/program based on your organization's ESS systems and procedures

Overall Project/Program Risk Classification*

PIF	CEO Endorsement/Approval	MTR	TE
High or Substantial	High or Substantial		

Measures to address identified risks and impacts

Elaborate on the types and risk classifications/ratings of any identified environmental and social risks and impacts (considering the GEF ESS Minimum Standards) and any

measures undertaken as well as planned management measures to address these risks during implementation.

Please refer to the SESP for details in terms risks and management measures.

Supporting Documents

Upload available ESS supporting documents.

Title	Module	Submitted
PIMS6677 Sri Lanka POPs Pesticides and HCWM_Annex 9_Draft ESMF_JM - reviewed and commented1-clean	**CEO Endorsement ESS**	
PIMS6677 Sri Lanka POPs Pesticides and HCWM_Annex 5_SESP_18Jan2023_clean	**CEO Endorsement ESS**	
PIMS6677 - SRL HCMW PIF _ PreSESP draft4_26082021_JM_responses CLEAN_JM	**Project PIF ESS**	

ANNEX A: PROJECT RESULTS FRAMEWORK (either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

Annex A: 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 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 especially the vulnerable and marginalized, are more resilient to climate change and disaster risks, have enhanced water and food security, and equitably benefit from and increasingly sustainable management and protection of the environment and natural resources				
	Objective and Outcome Indicators	**Baseline**	**Mid-term Target**	**En**
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 di (11,900 fe 750,000 i beneficiar 300,000 n beneficiar at 6 hospi 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 o POPs pest Plastic co agrochem disposed electric sw Inventorie mercury- finalized Risk mana technical materials contamina
	Indicator 3: Sub indicator 9.2: Quantity of Mercury reduction	None	8.8 MT of mercury and mercury waste safely disposed	8.8 +41 M mercury w Additiona mercury w a result of
	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 resource recovery work piloted in six (6) hospitals	3,585.1 M result of r to the env resource r hospitals,

				The total 16-year p CO_2 eq
Project component 1	**Strengthen the Policy, Regulatory and Institutional Frameworks for the management of POPs, Mercury and other Chemicals of Con**			
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	Integrate system ac agencies access to Procedur related to (use of ill Import Ex Custom C review), M (monitori responsiv waste ma sector National manage and upda and to be
	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 inver POPs and updated a 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 **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 **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 Nationally accepted green procurement system developed for health sector	Survey an on POPs P inventorie plans dev establishi POPs che

	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 50 numbe related to 10 medica finance/g replacem filled devi
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 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 sites final incorpora Inventory contamin NIP updat Risk mana technical materials 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 re mercury a handling a conducte
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 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 Healthcare Facilities which are aligned to the national COVID-19 recovery efforts**			
Project Outcome 3.1	**Indicator 11:** Number of standards and regulations on HCWM	Lacking sound and adequate HCWM	Review of standards and regulation on HCWM initiated and personnel	Three (3) regulation

Update HCWM Strategies and Plans that reflect BAT/BEP which can prevent/reduce Auto emissions, minimize plastic waste generation and improve recycling practices.	reviewed and revised and National Plan for Harmonized Treatment and Disposal of HCW in emergency developed	strategies and disposal system	and experts assigned to develop the National Plan	revised, a Harmoniz Disposal finalized a
	Indicator 12: Comprehensive HCWM inclusive of MIS and efficient resource recovery demonstrated in six (6) healthcare facilities Sub-Core Indicator 10.1 – Reduction of UPOPs emissions to air achieved	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) fac HCWM in evaluated 4.2 gTEQ/y 6.92 gTEQ/
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 mon **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 Me systems a condition
	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 incin introduce the two C self-susta
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 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				
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 worksh 40 training targeting 5 male Gender Ac Communi
	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 dir female, 5, indirect be female, 30
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 results. **Output 4.1.2.** Training programs developed. Capacities of Public Officers and healthcare facilities staff on U-POPs and Mercury (avoidance of) rele 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 im				
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 ac managed smooth im achieveme inception Financial A Terminal E 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 **Output 4.2.2.** Implementation Tools (budget revisions, financial control and project management) applied as required and adaptive management actio the project lifecycle.				

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

	STAP comment	UNDP response at CEO ER
1	The proponents have provided a theory of change showing the baseline, root causes, barriers, interventions, and expected outcomes and impacts, including the benefits to Sri Lanka's environment and public health. However, the causal pathways of how the interventions lead to desired outcomes need to be more explicit. Also, the assumptions underlying the theory of change need to be included. The proponent may review STAP's theory of change primer for details on improving the theory of change: https://stapgef.org/resources/advisory-documents/theory-change-primer	Theory of Change (ToC) has been reviewed and adjustments made, as contained in the UNDP Project Document and CEO Endorsement Request
2	Piloting of technologies such as autoclaves is coupled with standards and policy reform to provide a requisite repertoire of enabling conditions for project success. However, less information is provided on the proposed "Green Finance Framework." We suggest that more details on the framework, including how it will be developed, the expected stakeholders to engage, the business model to be promoted, and criteria for accessing finance, should be presented	A Green Finance Framework (GFF) will be developed for the promotion of mercury phase-out in healthcare sector. Public and Private Partnership (PPP) schemes will be promoted as many government and private healthcare will need upfront investment from their current inappropriate HCWM practices. The Project will coordinate with Central Bank of Sri Lanka (CBSL) who has launched Sri Lanka Green Finance Taxonomy in March 2022. CBSL has recognized 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. (1) The Lines of investment from CBSL are expected to be expanded to include "greening" of healthcare sector (HCWM and Hg elimination) investments. (2) Business Model, criteria for disbursing finance, concessional loans from CBSL to private banks and Green Bonds mechanisms will be worked out during implementation of the project activity. (3) development of criterion and demonstration of identification, selection, verification and reporting of the green healthcare projects will be implemented during project implementation
3	Global Environment Benefits: more information and clarification are needed on how the expected GEBs were estimated. For example, data and information on how	The total environmentally sound disposal quantities will include: 22.6 MT of POPs pesticides and cross-contaminated agrochemicals stockpiles (9 MT of liquid and 13.6 MT of solid) from the agricultural sector; 8.8 +

	preventing illegal imports will help avoid 1000 metric tons of HHPs should be provided, including current baseline information, assumptions, and calculations. Similar information should be provided on how the 800,000 mercury-containing bulbs were estimated. We also encourage that estimates of materials containing POPs and mercury and avoided uPOPs should be done as indicated in the PIF, given that these are essential benefits from the project	41 +50 = 99.8 MT of mercury and mercury-contained wastes from healthcare facilities. The additional 50 MT of mercury and mercury wastes is the quantity that will be generated from the demonstration activities carried out, plus an estimated 3,585 MT of CO_2 eq emission, will be avoided during the five year duration of the Project. In addition, UPOPs emission reduction of 4.2 gTEQ/y for the Northwestern province and 692 gTEQ/y for the Eastern province will be achieved
4	Useful information on climate risks and impacts in Sri Lanka were provided, which we commend. The risk of flooding of interim storage facilities due to changing climate was also noted. The project will involve some form of engineered landfill that could be susceptible to climate risk. We encourage that this should be considered in the project's climate risk screening and management.	In addition to the pre-SESP conducted at the PIF stage, a full SESP was conducted at PPF stage including assessment of climate risk of the interim storage and disposal facilities for hazardous wastes at the landfill from flooding or other natural disaster. The risk has been rated "Moderate" as reflected in the Risk log. Considerations were made that the pilot facilities selected at PPG stage to establish the Centralized Clinical Waste Treatment Facilities (CCWTFs) are not located in areas classified as high risk due to landslides, erosion, floods or extreme weather conditions. An 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.
5	Further, on risks, the project is largely dependent on successful enactment and enforcement of new policies and regulations. There is a risk of the project goal being jeopardized if these policies are not successfully implemented or if there is inadequate buy-in or enforcement. This risk should be recognized in the risk management section of the PIF, and management options should be considered for this risk.	Sri Lanka has an extensive set of policies, acts, procedures and systems used in the agriculture and healthcare sectors for controlling of POPs pesticides and on mercury (importation, manufacture, formulation, packing/repacking, labelling, distribution and sale in Sri Lanka) in compliance of the Stockholm and Minamata Conventions. The Project will carry out regulatory review/adaptation to allow the "rule of law" of the regulatory framework to ensure effective enforcement. Awareness will be raised and training materials and programs developed (guide by UNDP SES)for relevant officials. During the PPG stage, extensive consultations with key stakeholders, including women, disadvantage and marginal groups, have been conducted to ensure engagement and buy-in. These key stakeholders will continue to be closely and frequently engaged during project implementation, as reflected in the Stakeholder Engagement Plan. The SESP conducted during PPG stage, rated "Moderate" in terms of a) Duty bearers, and other relevant stakeholders may fall short of capacities to meet their obligation of better enforcement, and b) Healthcare facilities and other stakeholders are not involved in decision-making regarding the development of policy and regulatory framework, as reflected in the Risk log.

6	Another area that the project managers should pay more attention to during project implementation that is not as directly expressed in the proposal is multistakeholder engagement and social and behavioral responses to interventions	During PPG stage, extensive consultations have been conducted with a wide range of key stakeholders, including Local Authorities (LAs), NGO and CSOs. farmers, chemicals importers and distributors, healthcare facilities, healthcare personnel and workers, patients, academia, public and private institutions etc. A Stakeholder Engagement Plan has been developed at PPG stage, these key stakeholders will continue to be engaged during project implementation. In addition, NGO/CSOs will be subcontracted for women entrepreneurship in development and green jobs, and to interact with the communities and residents for watchdog and public awareness and grievance addressing.
7	(Outcomes) Yes – very clear metrics of GEB calculations are provided though it would be helpful to have some footnoting and backup of how they were calculated.	As indicated in the response to Comment 3 above, the total quantities of environmentally safe disposal will include: (1) Stockpiles of 22.6 MT of POPs agro pesticides and chemicals contaminated with POPs agro pesticides, in good storage condition. The quantify was verified after inventory undertaken during PPG stage; (2) 8.8 MT of r(residual/waste) mercury from de-commissioned CFL light bulbs and medical devices at storage at Asia Recycling (Pvt) Ltd.; (3) 41 MT of mercury waste at storage at Ceylon Waste Management (Pvt) Ltd.; (4) 50 MT of mercury and mercury-contained wastes that will be generated at the demonstration healthcare facilities during the 5-year project duration, at an estimate of 10 MT generated per year. (5) Emission reduction of 3,585 MT CO_2 eq at end of 5-year project completion. Avoidance calculated based on "After the Project" as compared to "Business as Usual" for the North-western Province and the Eastern Province. North-western Province: Business as Usual: 1,726.2 MT CO_2 eq; After the Project:: 89.30 MT CO_2 eq **Avoided: 1,636.9 MT CO_2 eq** Eastern Province: Business as Usual: 2,055.00 MT CO_2 eq After the Project: 106.80 MT CO_2 eq **Avoided: 1,948.2 MT CO_2 eq** **TOTAL Avoided: 3,585.1 MT CO_2 eq** (6) UPOPs emission reduction: North western Province 4.2 gTEQ/year Eastern Province 6.92 gTEQ/year **Total UPOPs emission reduction: 11,12 gTEQ/year, or a total projected emission reduction of 111.2 gTEQ for 10-year period**

	Risk management table is also included. Suggest considering risk of unsuccessful policy enactment. Climate risk screening with adequate citations provided. Suggest considering climate impact on landfills	Kindly refer to response to Comment 4 above. The SESP conducted at PPG stage has evaluated this risk and the planned Management Measure as reflected in the Risk log will be implemented during project implementation.
	Comments by Germany	
	Germany approves the following PIF in the work program but asks that the following comments are taken into account: Suggestions for improvement to be made during the drafting of the final project proposal: • The PIF is well reasoned and designed. As the projects aims to support the transformation of Healthcare Waste Management Systems. • Please refer explicitly to how this project's design or steering ensures that the measures are sustainably aligned with the Strategic Approach to International Chemicals Management (SAICM) and its priorities.	The project has been designed to undertake environmentally sound disposal of stockpiled POPs pesticides and mercury-containing wastes; promote the replacement of mercury-containing medical devices; establish Healthcare Waste Management (HCWM) system, and update HCWM strategies and plans that reflect BAT/BEP to effectively prevent/reduce U-POPs emissions; pilot integrated recycling programs; develop Public Private Partnership (PPP) for a Centralized Waste Management system and develop de-centralized non-incineration HCWM strategy for medium and small scale health care facilities. The project will improve regulatory frameworks and strengthen national capacities through relevant policy adjustments and increased stakeholders awareness including private, public and health care facilities; human and instrument capacities will be strengthened to improve enforcement of illegal imports, green procurement and green finance will be promoted to ensure sustainability. The project activities are designed to align with SAICM objectives of *Risk Reduction* to minimize risks to human health; *Knowledge and Information* to ensure knowledge and information on chemicals and chemicals management are sufficient to enable chemicals to be adequately assessed and managed safely throughout their life cycle; *Governance* to achieve the sound management of chemicals through their life cycle by means of appropriate national, regional and international mechanisms; *Capacity-building and technical cooperation* to increase capacity for the sound management of chemicals throughout their lifecycle; and *Illegal international traffic* through strengthening of human resources and instruments to enhance enforcement at point of entry. In designing, selecting and implementing BAT/BEP for the project, the project will follow and utilize IOMC relevant tools.

ANNEX C: Status of Utilization of Project Preparation Grant (PPG). (Provide detailed funding amount of the PPG activities financing status in the table below:

PPG Grant Approved at PIF: **US$ 150,000**			
Project Preparation Activities Implemented	***GETF/LDCF/SCCF Amount ($)***		
	Budgeted Amount	***Amount Spent Todate***	***Amount Commit***
Personnel – International and National Consultants	115,000	63,709	
Travel	19,000	-	12,0
Contractual Services – Companies		34,944	
Contractual Services – Individual		7,555	18,0
Supplies, Miscellaneous Expenses and Exchange Loss	5,250	(746)	4,5
Training, Workshops & Conference	10,750	1,985	8,0
Total	150,000	107,447	42,5

ANNEX D: Project Map(s) and Coordinates

Please attach the geographical location of the project area, if possible.

Please refer to **Annex E: Project Map (s) and Coordinates** in CEO Endorsement Request

Note: picture files cannot be uploaded in this section as they look incomplete in the printout.

ANNEX E: Project Budget Table

Please attach a project budget table.

Expenditure Category	Detailed Description	Component (USDeq.)							Total (USDeq.)	Responsible Entity ***
		Component 1	*Component 2*	*Component 3*	*Component 4*	*Sub-Total*	*M&E*	*PMC*		(Executing Entity receiving funds from the GEF Agency)[1]
Equipment	Laboratory equipment to upgrade baseline facilities at Department of Sri Lanka Customs, Activities 1.1.2.4 and 1.1.2.5, **$82,000**	*$82,000*				***$82,000***			**$82,000**	UNDP
Equipment	Procurement of laboratory equipment to support baseline facilities at Department of Sri Lanka Customs being upgraded, **$268,000**		*$268,000*			***$268,000***			**$268,000**	UNDP
Equipment	Information Technology Equipment, **Total $5,000**					***$0***		*$5,000*	**$5,000**	UNDP
Sub-contract to executing partner	COS to NIM costs based on UPL, **$50,647**					***$0***		*$50,647*	**$50,647**	UNDP
Contractual services-Individual	5-year staff costs for Project Manage ($15,500/year), Project Assistance ($5,500/year) and Finance and Procurement Assistant ($5,500/year), **Total $132,500**					***$0***		*$132,500*	**$132,500**	UNDP
Contractual services-Company	One subcontract of an entity or institute to support Activity 1.1.1.2 to complete inventory of New POPs and U-POPs and with NIP updated, **$100,000**	*$100,000*				***$100,000***			**$100,000**	MoE
Contractual services-Company	One subcontract between CEA and selected entity(ies) to undertake Activity 2.1.2.3 to have mercury extraction restarted and environmentally safe disposal of mercury waste resumed ($400,000); one subcontract for Activity 2.1.3.1 for inventory of de-centralized storage facilities of obsolete POPs pesticides completed and risk management strategy developed ($120,000); one subcontract to completed the disposal of 22.6 MT of POPs contaminated pesticides stored with cross-contaminated chemicals, Activity 2.1.1.3 ($100,000); one subcontract to complete the inventory and a safe disposal plan of the decentralized storage facilities of obsolete POPs pesticides and mercury contaminated sites developed ($100,000). **Total four subcontracts $720,000**		*$720,000*			***$720,000***			**$720,000**	MoE
Contractual services-Company	One subcontract to undertake Activities 1.1.2.1, 1.1.2.2, and 1.1.2.3 to facilitate the deployment and expansion of the Centralized Digitalized MIS successfully linking the various databases ($100,000); a second subcontract to undertake Activities 1.1.2.4, 1.1.2.5, and 1.1.2.6 to support laboratory facilities improvements and capacities strengthening of RoP and CEA ($300,000), **total of two subcontracts $400,000**	*$400,000*				***$400,000***			**$400,000**	UNDP

Expenditure Category	Detailed Description	Component (USDeq.)							Total (USDeq.)	Responsible Entity ***
		Component 1	*Component 2*	*Component 3*	*Component 4*	*Sub-Total*	*M&E*	*PMC*		(Executing Entity receiving funds from the GEF Agency)[1]
Contractual services-Company	One subcontracts for Activity 2.1.1.1 to accomplish safe disposal of 8.8 MT Hg at a Asia Recycling (Pvt) Ltd. ($57,000); a second subcontract for Activity 2.1.1.2 to complete disposal of 20 MT of the 41 MT mercury waste at Ceylon Waste Management (Pvt) Ltd. ($130,000); a third subcontract for Activity 2.1.3.2 with guidelines and standards developed for undertaking inventory of contaminated sites and the developed guides for decontamination tested at two pilot sites (one for site contaminated with POPs pesticides and one for site contaminated with mercury) ($100,000); a fourth subcontract for Activities 2.1.2.1 and 2.1.2.2 with collection, storage and safe disposal of an estimated of 50 MT of mercury wastes generated from replacement of mercury-containing medical devices at healthcare facilities undertaken during the five-year duration of the project ($325,000), **total of four subcontracts $612,000**		*$612,000*			***$612,000***			**$612,000**	UNDP
Contractual services-Company	Two subcontracts for Activity 3.1.5.3to engage two (2) NGO/CSOs to promote women entrepreneurship in development and green jobs ($20,000 each for a total of $40,000 for the two subcontracts); one subcontract for Activities 3.1.1.2 and 3.1.5.1 to have MIS system established in the 6 HCFs ($100,000); one subcontract for Activity 3.2.3.1 to have Metamere optimization completed ($200,000); and one subcontract for Activity 3.2.1.1 for the establishment of 2 CCWTFs ($399,500 for each subcontract). **Total of six (6) subcontract $1,139,000**			*$1,139,000*		***$1,139,000***			**$1,139,000**	UNDP
Contractual services-Company	Subcontract for engagement of NGO/CSO for watchdog and public awareness and grievance addressing, $30,000; Development of communication strategy $81,300, **total $111,300**				*$111,300*	***$111,300***			**$111,300**	UNDP
International Consultants	International consultant to support Activity 1.2.2.1 Development of Green Finance Framework, $650/day for 30 workdays, round up to **$20,000**	*$20,000*				***$20,000***			**$20,000**	UNDP
International Consultants	International consultants to provide technical support to achieve Output 2.1.1 Environmentally safe disposal of residual mercury stocks, mercury-contained waste; Output 2.1.2 Development of Risk Management Strategy, Technical Guidance & Training materials for sound management of waste containing mercury; and Output 2.1.4 Development of Guidance Tools and Guidelines for inventory of mercury and POPs contaminated sites. 38 working days at $650/day, rounded up to **$25,000**		*$25,000*			***$25,000***			**$25,000**	UNDP
International Consultants	International consultant to provide technical support Activity 3.1.3.3 to develop the Green Finance Framework to facilitate green recovery in healthcare sector, 30 days at $650/day, rounded up to **$20,000**			*$20,000*		***$20,000***			**$20,000**	UNDP
International Consultants	International consultant to conduct MTR and TE at 30 working days each, at $700/day fee. **Total $42,000**					***$0***	*$42,000*		**$42,000**	UNDP

Expenditure Category	Detailed Description	Component (USDeq.)							Total (USDeq.)	Responsible Entity ***
		Component 1	*Component 2*	*Component 3*	*Component 4*	*Sub-Total*	*M&E*	*PMC*		(Executing Entity receiving funds from the GEF Agency)[1]
Local Consultants	Technical Advisor to support Component 1, 62.5 working days at $400/day, $25,000; National consultants to support Activity 1.2.1.1 Hg inventory preparation (75 working days at $400/day, $30,000); Activity 1.2.1.2 development of green procurement system (75 working days at $400/day, $30,000); Activity 1.2.2.1 development of Green Finance Framework (75 working days at $400/day, $30,000); and Activity 1.1.3.1 training and awareness (75 working days at $400/day, $30,000). **Total $145,000**	*$145,000*				***$145,000***			**$145,000**	UNDP
Local Consultants	Technical Advisor to support Component 2, 125 working days at $400/day, $50,000; National consultants for Output 2.1.2, Activities 2.1.2.1 and 2.1.2.2 to develop Risk Management Strategy, review, update and incorporate most recent BEP to develop technical guidelines and training materials for management for sound management of wastes containing mercury, for a total of 400 workdays at $400/day, $160,000. **Total $210,000**		*$210,000*			***$210,000***			**$210,000**	UNDP
Local Consultants	Technical Advisor to support Component 3, 62.5 working days at $400/day, total $25,000; Private Sector Liaison and Business Development Expert (for 4 years at a total of 250 working days at $400/day, sub-total $100,000) to support Activity 3.1.5.1; National consultant to support Output 3.1.3 on development of Green Finance Framework (75 working days at $400/day for a total of $30,000); to develop Green Procurement System (75 working days at $400/day for a total of $30,000); and to conduct studies on metameres, Output 3.1.4 (75 working days at $400/day for a total of $30,000). **Total $215,000**			*$215,000*		***$215,000***			**$215,000**	UNDP
Local Consultants	Fulltime Communication and Training Expert to support the KM and M&E delivery of Component 4, at $15,500/year sub-total $77,500; Monitoring and Evaluation Specialist for 118 working days at $400/day, rounded up to $47,500, **Total $125,000**				*$125,000*	***$125,000***			**$125,000**	UNDP
Local Consultants	Social and Environmental Safeguards Specialist at $400/day, 52 workdays for monitoring of social and environmental risks ($20,800), and 31 workdays for monitoring GMAC by the Project Gender Expert at $400/day ($12,400). **Total $33,200**					***$0***	*$33,200*		**$33,200**	UNDP
Local Consultants	National consultant to conduct MTR and TE at 35 working days each, at daily fee of $400/day fee. **Total $28,000**					***$0***	*$28,000*		**$28,000**	UNDP
Training, Workshops, Meetings	A total of 5 meeting and workshops at $2,320 each conducted for the coordination of stakeholders and capacity building to support baseline regulations review, centralization of Chemicals Control System, establishment of green procurement standards and Green Finance Framework, **total $11,600**	*$11,600*				***$11,600***			**$11,600**	MoE

Expenditure Category	Detailed Description	Component (USDeq.)							Total (USDeq.)	Responsible Entity ***
		Component 1	*Component 2*	*Component 3*	*Component 4*	*Sub-Total*	*M&E*	*PMC*		(Executing Entity receiving funds from the GEF Agency)[1]
Training, Workshops, Meetings	A total of 35 meetings and workshops at $2,514 each conducted to mobilize extension officers and officials healthcare workers to create awareness and capacity to facilitate sound management and environmentally safe disposal of POPs pesticides and cross-contaminated chemicals, mercury and wastes generated, rounded up to **$88,000**		*$88,000*			***$88,000***			**$88,000**	MoE
Training, Workshops, Meetings	A minimum of 25 workshops at $2,320 each conducted to support the establishment of HCWM to prevent U-POPs emissions and to raise awareness to promote the replacement of mercury-containing medical devices and safe disposal of mercury wastes generated. **Total $58,000**			*$58,000*		***$58,000***			**$58,000**	MoE
Training, Workshops, Meetings	A total of 19 meeting and workshops at $2,442 each conducted for the coordination of stakeholders and capacity building to support baseline regulations review, centralization of Chemicals Control System, establishment of green procurement standards and Green Finance Framework, rounded up to **$46,400**	*$46,400*				***$46,400***			**$46,400**	UNDP
Training, Workshops, Meetings	A total of 9 meetings and workshops at $2,442 each conducted to mobilize extension officers and officials healthcare workers to create awareness and capacity to facilitate the sound management and environmentally safe disposal of OPPs pesticides and cross-contaminated chemicals, mercury and wastes generated, rounded up to **$22,000**		*$22,000*			***$22,000***			**$22,000**	UNDP
Training, Workshops, Meetings	A minimum of 6 workshops at $2,442 each conducted to support the establishment of HCWM to prevent U-POPs emissions and to raise awareness to promote the replacement of mercury-containing medical devices and safe disposal of mercury wastes generated. Total rounded down to **$14,500**			*$14,500*		***$14,500***			**$14,500**	UNDP
Training, Workshops, Meetings	27 meetings, seminars and workshop organized for knowledge sharing, training and awareness raising, **$67,500**				*$67,500*	***$67,500***			**$67,500**	MoE
Training, Workshops, Meetings	Inception Workshop costs at **$8,000**					***$0***	*$8,000*		**$8,000**	UNDP
Travel	Travel costs of IP officials, experts and key stakeholders for review and strengthening national policy, regulatory and institutional frameworks for management and disposal of POPs pesticides and cross-contaminated chemicals, mercury-contaminated medical devices, and enforcement mechanisms. **Total $5,000**	*$5,000*				***$5,000***			**$5,000**	MoE
Travel	Travel costs of IP officials, experts and key stakeholders to support environmentally safe disposal of POPs pesticides and cross-contaminated chemicals, development of Risk Management Strategy, inventory of POPs pesticides and mercury contaminated sites and test of Guidance and Guidelines at two sites, **$32,000**		*$32,000*			***$32,000***			**$32,000**	MoE

Expenditure Category	Detailed Description	Component (USDeq.)							Total (USDeq.)	Responsible Entity ***
		Component 1	Component 2	Component 3	Component 4	Sub-Total	M&E	PMC		(Executing Entity receiving funds from the GEF Agency)[1]
Travel	Travel costs of IP officials, experts and key stakeholders to support review and update of HCWM strategies and plants, develop National Plan for Harmonized Treatment and Disposal of HCW in emergencies, develop guidelines and standards for green procurement, optimization of metamere operation, piloting of integrated collection and recycling at 6 healthcare facilities, establishment of two Centralized Clinical Waste Treatment Facilities. **Total $30,800**			$30,800		$30,800			$30,800	MoE
Travel	Travel costs for training, knowledge sharing, promotion and public awareness on lessons learned to promote environmentally sound management of POPs/chemicals and mercury wastes, **$15,000**				$15,000	$15,000			$15,000	MoE
Travel	Travel costs to support smooth project implementation and monitoring of progress, **$15,500**					$0		$15,500	$15,500	MoE
Travel	Travel costs of international and national consultants for review and strengthening national policy, regulatory and institutional frameworks for management and disposal of POPs pesticides and cross-contaminated chemicals, mercury-contaminated medical devices; strengthen enforcement mechanisms over 5 years. Total **$5,000**	$5,000				$5,000			$5,000	UNDP
Travel	Travel costs of international consultants, Technical Advisor and National Consultants to support environmentally safe disposal of POPs pesticides and cross-contaminated chemicals, development of Risk Management Strategy, inventory of POPs pesticides and mercury contaminated sites and test of Guidance and Guidelines at two sites. **$8,000**		$8,000			$8,000			$8,000	UNDP
Travel	Travel costs of international and national consultants to support review and update of HCWM strategies and plants, develop National Plan for Harmonized Treatment and Disposal of HCW in emergencies, develop guidelines and standards for green procurement, optimization of metamere operation, piloting of integrated collection and recycling at 6 healthcare facilities, establishment of two Centralized Clinical Waste Treatment Facilities. **Total $7,700**			$7,700		$7,700			$7,700	UNDP
Travel	Travel costs for periodic and annual monitoring missions on safeguards management framework, environmental and social risks, coordination management and progress made in reaching GEF core indicators over 5-year project duration ($20,000) and learning missions ($6,000). **Total $26,000**					$0	$26,000		$26,000	UNDP
Travel	International travel costs for international consultant to conduct MTR and TE, at $5,000/mission for MTR and TE, and domestic travel costs for international and national consultants to conduct MTR and TE at $2,000 each evaluation. **Total $14,000**					$0	$14,000		$14,000	UNDP
Office Supplies	Supplies to support workshops and strengthening activities of national capacities and POPs pesticides and mercury waste disposal, **$5,000**	$5,000				$5,000			$5,000	MoE

Expenditure Category	Detailed Description	Component (USDeq.)							Total (USDeq.)	Responsible Entity ***
		Component 1	Component 2	Component 3	Component 4	Sub-Total	M&E	PMC		(Executing Entity receiving funds from the GEF Agency)[1]
Office Supplies	Supplies to support safe disposal of POPs pesticides and cross-contaminated chemicals, mercury and mercury wastes, development of Risk Management Strategy, Technical Guidance & Training materials for sound management of wastes containing mercury, and Guidance Tools and Guidelines for inventory of contaminated sites and test of tools and guidelines at two contaminated sites, **$15,000**		$15,000			$15,000			$15,000	MoE
Office Supplies	Supplies required to support meetings and workshops and pilot programmes at the 6 healthcare facilities and the establishment of two CCWTFs, $3,000/year for a total of **$15,000**			$15,000		$15,000			$15,000	MoE
Office Supplies	Supplies to support documentation of knowledge and lessons-learned, production and printing of reports and media materials, **$10,000**				$10,000	$10,000			$10,000	MoE
Office Supplies	Office and miscellaneous supplies, **$5,000**					$0		$5,000	$5,000	MoE
Other Operating Costs	Rental and maintenance for premises of PMU, **$20,000**					$0		$20,000	$20,000	MoE
Other Operating Costs	Printing, publications and electric and media costs, **$8,353**					$0		$8,353	$8,353	MoE
Other Operating Costs	UNDP Annual audit costs at $600/year, **Total $3,000**					$0		$3,000	$3,000	UNDP
	Grand Total	$820,000	$2,000,000	$1,500,000	$328,800	$4,648,800	$151,200	$240,000	$5,040,000	

*Remarks: For UNDP as Atlas/Quantum implementing agent, UNDP shall provide execution support services. These will include administrative and operation supports per services listed in LOA for UNDP support services and engagement of Responsible Parties (if any) on behalf of the Implementing Partner. These services shall follow UNDP's rules and regulations.

ANNEX F: (For NGI only) Termsheet

Instructions. Please submit an finalized termsheet in this section. The NGI Program Call for Proposals provided a template in Annex A of the Call for Proposals that can be used by the Agency. Agencies can use their own termsheets but must add sections on Currency Risk, Co-financing Ratio and Financial Additionality as defined in the template provided in Annex A of the Call for proposals. Termsheets submitted at CEO endorsement stage should include final terms and conditions of the financing.

n/a

ANNEX G: (For NGI only) Reflows

Instructions. Please submit a reflows table as provided in Annex B of the NGI Program Call for Proposals and the Trustee excel sheet for reflows (as provided by the Secretariat or the Trustee) in the Document Section of the CEO endorsement. The Agencys is

required to quantify any expected financial return/gains/interests earned on non-grant instruments that will be transferred to the GEF Trust Fund as noted in the Guidelines on the Project and Program Cycle Policy. Partner Agencies will be required to comply with the reflows procedures established in their respective Financial Procedures Agreement with the GEF Trustee. Agencies are welcomed to provide assumptions that explain expected financial reflow schedules.

n/a

ANNEX H: (For NGI only) Agency Capacity to generate reflows

Instructions. The GEF Agency submitting the CEO endorsement request is required to respond to any questions raised as part of the PIF review process that required clarifications on the Agency Capacity to manage reflows. This Annex seeks to demonstrate Agencies? capacity and eligibility to administer NGI resources as established in the Guidelines on the Project and Program Cycle Policy, GEF/C.52/Inf.06/Rev.01, June 9, 2017 (Annex 5).

n/a