

GEF-8 PROJECT IDENTIFICATION FORM (PIF)

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General Project Information

Project Title

Strengthening Indonesia's Reduction and Elimination in the Distribution and Supply Chain of Mercury from National Health (SIRENE)

Region	GEF Project ID
Indonesia	11546
Country(ies)	Type of Project
Indonesia	FSP
GEF Agency(ies):	GEF Agency ID
UNDP	UNDP: 9660
Executing Partner	Executing Partner Type
Ministry of Environment and Forestry, Republic of Indonesia	Government
GEF Focal Area (s)	Submission Date
Chemicals and Waste	3/20/2024

Project Sector (CCM Only)

Taxonomy

Capacity, Knowledge and Research, Focal Areas, Chemicals and Waste, Influencing models, Transform policy and regulatory environments, Strengthen institutional capacity and decision-making, Demonstrate innovative approaches, Stakeholders, Civil Society, Private Sector, Local Communities, Gender Equality, Gender Mainstreaming, Knowledge Generation, Knowledge Exchange, Learning, Capacity Development

Type of Trust Fund	Project Duration (Months)
GET	60
GEF Project Grant: (a)	GEF Project Non-Grant: (b)
6,590,000.00	0.00
Agency Fee(s) Grant: (c)	Agency Fee(s) Non-Grant (d)
626,050.00	0.00
Total GEF Financing: (a+b+c+d)	Total Co-financing
7,216,050.00	32,950,000.00
PPG Amount: (e)	PPG Agency Fee(s): (f)
150,000.00	14,250.00
PPG total amount: (e+f)	Total GEF Resources: (a+b+c+d+e+f)
164,250.00	7,380,300.00

Project Tags

CBIT: No NGI: No SGP: No Innovation: No

Project Summary

Provide a brief summary description of the project, including: (i) what is the problem and issues to be addressed? (ii) what are the project objectives, and if the project is intended to be transformative, how will this be achieved? (iii), how will this be achieved (approach to deliver on objectives), and (iv) what are the GEBs and/or adaptation benefits, and other key expected results. The purpose of the summary is to provide a short, coherent summary for readers. The explanation and justification of the project should be in section B “project description”. (max. 250 words, approximately 1/2 page)

Medical waste and hospitals wastewater contribute to the anthropogenic mercury emissions to the environment, and more specifically, medical waste incinerators are regarded as considerable source of mercury emission in Indonesia. Many instruments used in hospitals, health care facilities and laboratories in Indonesia contain mercury, such as thermometers, sphygmomanometers, dental amalgam, medical batteries, electrical equipment, thermostat probes in gas appliances, pressure gauges, gastrointestinal tubes, lamps, cleaners and degreasers, laboratory chemicals and pharmaceutical products.

This project will support the government of Indonesia and relevant stakeholders in the healthcare sector to eliminate mercury in the distribution and supply chain of medical devices through policies and regulations, establishing a system to track, collect and safely dispose of existing mercury-containing wastes through BAT/BEP, and establishing a mechanism for the sustainable replacement of MCMDs. The project will also support the circular practices of electronic medical devices that are free from mercury to prevent future buildup of e-waste from the healthcare sector.

The project will reduce and safely dispose of 20 metric tons of mercury from Indonesia’s Health sector and avoid emissions of 20 g TEQ/year of UPOPs. 100 mt of POP-containing plastics will be collected and safely disposed of. 20,000 tons of recyclable plastic and metals material will be collected and recycled. 100,000 people directly involved in these supply chains (35,000 female and 65,000 male) will benefit from this initiative.

Indicative Project Overview

Project Objective

This project will assist the Government of Indonesia to eliminate mercury in the distribution and supply chain of mercury containing medical devices (MCMDs) from the health sector, establish systems and introduce technologies for mercury safe disposal and create mechanism for the sustainable and circular introduction of mercury free medical devices (MFMD)

Project Components

1. Policy and regulatory frameworks strengthened to support the phase-out of mercury containing medical devices (MCMDs) in the health sector.

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
940,000.00	4,700,000.00

Outcome:

1.1 Regulations/ policies strengthened, proposed and/or operationalized to prohibit the use of MCMDs in health care facilities.

1.2 Gender-sensitive and inclusive Capacity Building activities carried out for government staff (both national and sub-national) to enhance policy enforcement and oversight.

Output:

1.1.1. Regulatory and policy frameworks proposed for total phase out the use of mercury-containing medical devices.

1.1.2. Gender sensitive regulatory and policy framework concerning mercury collection, distribution, temporary storage, and disposal Developed/ strengthened.

1.2.1. coordination and cooperation Mechanisms between central and local governments established and strengthened.

1.2.2. Phase-out of use of MCMDs oversight and Hg elimination commitments enforced for health facilities.

1.2.3. All levels of Governmental institutions in charge of the regulatory systems for mercury collection, distribution, and storage capacitated in new rules and regulations.

1.2.4. Inventories of stocks of Hg wastes and MCMDs are updated and assessed and real situation of mercury use, collection and storage in Health Care Facilities (HCF) are known.

2. Technical and institutional capacities of private sector stakeholders enhanced on MCMDs phase-out and environmentally sound mercury-containing medical waste management improved.

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
1,169,900.00	3,550,000.00

Outcome:

2.1. MCMDs and their wastes are collected, stabilized (solidified) and disposed of in environmentally sound manner, in accordance with national regulations, international guidelines and Best Environmental Practices (BEP) and based on Gender sensitive principles.

Output:

2.1.1. Gender sensitive technical guidance/guidelines on mercury, MCMDs and their wastes for collection, distribution, and temporary safe storage are developed and established.

2.1.2. Health facility management capacities to address mercury-free medical devices are strengthened through gender-sensitive capacity building.

2.1.3. Pilot plant for mercury temporary storage from medical devices containing mercury established.

2.1.4. Gender and Social Inclusive (GESI) awareness programme on MCMDs replacement, collection and disposal to health facilities is created and implemented.

3. Circular models are developed and piloted to promote and sustain the large scale replacement to mercury-free alternatives for MCMDs.

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
3,968,590.00	19,212,000.00

Outcome:

3.1. Technical guidelines developed on lifecycle management of mercury-free alternatives.

3.2. Mercury-free medical devices piloted in selected health care facilities, collection and recycling guidelines developed for end-of-life products and disposal technologies/strategies piloted taking into consideration gender and social inclusive approaches.

3.3. Financing mechanisms to support replication and scale up of MCMDs replacement in collaboration with local fund providers/banks assessed.

Output:

3.1.1. Circular models for mercury-free medical devices (MFMDs) to support MCMDs accelerated replacement assessed.

3.1.2. Green and Gender-sensitive Procurement and Technical Guidelines for circular management of mercury-free medical devices developed.

3.2.1. Medical Devices manufacturers, distributors, and suppliers had incorporated circular economy principles on disposal of Hg-based and electronic-based devices in their CSRs and/or other relevant internal practices, Policies or strategies.

3.2.2. One (1) pilot at the laboratory scale for mercury stabilization and solidification technology are implemented.

3.2.3. Hg stabilization and solidification strategies and solutions upscaled to 4 (four) locations in partnership with Public-Private selected institutions.

3.3.1 Development of gender-sensitive financing mechanisms that explored in collaboration with local fund providers/banks and new/revamped finance solutions proposed.

M&E

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)

197,700.00	3,288,000.00
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Outcome:

4.1. Monitoring and evaluation activities carried out as per GEF requirements.

4.2. Learning and knowledge sharing activities carried out and knowledge products developed and shared (including lessons-learned from the perspective of gender-equality and social inclusion implementation).

Output:

4.1.1. Assessed and applied Social and Environmental Screening Procedure (SESP).

4.1.2. Gender Action Plan and awareness raising activities on collection, transport, storage and disposal of mercury and mercury waste.

4.1.3. Periodic monitoring, and reporting, Project Implementation Reports (PIR), Mid-Term Review and Terminal Evaluation.

4.2.1. Lessons-learned and best practices for knowledge management are collected and shared at national and international levels.

Component Balances

Project Components	GEF Project Financing (\$)	Co-financing (\$)
1. Policy and regulatory frameworks strengthened to support the phase-out of mercury containing medical devices (MCMDs) in the health sector.	940,000.00	4,700,000.00
2. Technical and institutional capacities of private sector stakeholders enhanced on MCMDs phase-out and environmentally sound mercury-containing medical waste management improved.	1,169,900.00	3,550,000.00
3. Circular models are developed and piloted to promote and sustain the large scale replacement to mercury-free alternatives for MCMDs.	3,968,590.00	19,212,000.00
M&E	197,700.00	3,288,000.00
Subtotal	6,276,190.00	30,750,000.00
Project Management Cost	313,810.00	2,200,000.00
Total Project Cost (\$)	6,590,000.00	32,950,000.00

Please provide justification

PROJECT OUTLINE

A. PROJECT RATIONALE

Briefly describe the current situation: the global environmental problems and/or climate vulnerabilities that the project will address, the key elements of the system, and underlying drivers of environmental change in the project context, such as population growth, economic development, climate change, sociocultural and political factors, including conflicts, or technological changes. Describe the objective of the project, and the justification for it. (Approximately 3-5 pages) see guidance here

Global Environmental Problems and Root Causes

1. Mercury (Hg) persists in the environment for long periods by cycling back and forth between the air and soil. It is a global pollutant able to travel over long distance via air and water, leading to both local and global mercury contamination. In the atmosphere, can stay up there up to 2 years, and being transported and deposited around the world. As a heavy metal it is highly volatile and liquid at room temperature, bio-accumulative and harmful to health and the environment. It has many adverse effects on the brain, reproduction, respiratory and immune systems, and it is a highly potent neurotoxin that impacts the function and development of the central nervous system in both people and wildlife. Exposure to mercury is particularly dangerous for pregnant and breastfeeding women, as well as children, since mercury is most harmful in the early stages of development.

2. Medical waste and hospitals wastewater contribute significantly in amounts to the anthropogenic mercury emissions to the environment. Specifically, medical waste incinerators are regarded as considerable source of mercury. Many instruments used in hospitals, health care facilities and laboratories contain mercury. Source of mercury in medical facilities include thermometers (fever and industrial), sphygmomanometers (blood pressure monitors), dental amalgam, medical batteries, electrical equipment, thermostat probes in gas appliances, pressure gauges, gastrointestinal tubes, lamps (fluorescent, high-intensity discharge (HID) and ultraviolet), cleaners and degreasers, laboratory chemicals (fixatives, stains, reagents, preservatives) and pharmaceutical products. The use of mercury-containing equipment devices could release mercury into the environment due to the breakage and leakage of the mercury-containing medical devices, or in the case of dental care, evaporates when it was being formed or casted as dental fillings.

3. The Mercury Initial Assessment (MIA) Report for Indonesia, and its mercury inventory data, reports that hospitals and healthcare facilities tend to release mercury into the atmosphere through the incineration of medical waste (the fourth-largest source of mercury). These facilities are also responsible for mercury pollution in water bodies from the untreated wastewater for as much as 5% of all releases in wastewater. In addition, from the Health Sector's perspective, more than 18,383 Health Care Facilities across the country (including Hospitals and Primary Health Care - (PHC) Units), have been using mercury containing medical devices (MCMD) of different types (thermometers, sphygmomanometers, dental amalgam, blood pressure devices, vacuum gauges, etc.).

4. The Government of Indonesia acknowledges the need for a project to strengthen its national capacity to manage mercury in the Health Care Sector. The MoH inventoried the devices that contain mercury in all provinces of Indonesia from 2020-2023 and reported 48,581 units of mercury containing thermometers and 128,365 units of mercury containing sphygmomanometers stored in health facilities across the country. Among these, 5,856 units of mercury containing thermometer and 24,382 units of mercury containing sphygmomanometer are still in use.

5. While 20% of the hospitals use their own incinerators, most of the waste is dumped in landfills or in illegal dumping hotspots together with Municipal Solid Waste (MSW). Integrating the healthcare waste management strategy into the municipal strategies, increasing coordination among responsible institutions at all levels and eventually setting up a healthcare waste management system that is able to identify, segregate, collect and transport MCMDs and mercury-contained wastes are important components of a more effective approach to healthcare waste management, avoiding Hg emissions and leakages in the process.

6. A priority area for capacity building is the enhancement of a gender-inclusive technical and scientific understanding of managing healthcare waste. Building capacity for providing waste handling and treatment facilities and its respective technical guidelines is critical to improve the management of healthcare waste, considering that a large proportion of healthcare waste workers are females in different positions, also minding that women and children are adversely affected by mercury and other hazardous waste.

7. Hazardous wastes from the health care sector needs to be integrated into the national waste management strategy. When it comes to financing, funds to establish the appropriate waste management infrastructure are provided by the government and privately owned hospitals. To improve the effectiveness of public-private partnerships in managing healthcare waste, it is important to build capacity with waste operators and collectors. Drawing attention to the negative impact of inadequate waste management in healthcare centers and hospitals and among the broader public will require education and awareness raising campaigns as well as a more active involvement in monitoring and advocating for environmentally sound management of healthcare waste.

Country's Responsibilities in front of the Minamata Convention

8. The Minamata Convention on Mercury is a global response to the threat of pollution resulting from mercury and its wastes. The Indonesian government ratified the Convention through Law No. 17 of 2017 concerning the Ratification of the Minamata Convention. The use of mercury in Indonesia is found in mining, as per its MIA, industrial and health activities. Mercury is known as a chemical element, which because of its nature is used to produce commercial products. In the mining sector, especially Small-Scale Gold Mining (ASGM), elemental mercury is used for gold purification through amalgamation.

9. In other sectors, mercury was used actively in electrical and electronic equipment such as lights, batteries, mechanical devices such as barometers and thermostats, and in dental health as an amalgam for tooth hole cover.

10. Article 11 of the Convention mandate that each Party shall take appropriate measures so that mercury is managed in an environmentally sound manner, considered in accordance with the guidelines developed under the Basel Convention. In line with this provision the Indonesia's National Mid Term Plan 2020-2024 has also listed mercury as a chemical that is included in the hazardous and toxic waste category, so that the reduction and elimination of mercury has a role in overcoming pollution and damage to the natural resources and environment.

11. Indonesia has issued two (2) Government Regulations (PP) related to mercury. First, Government Regulation number 74 of 2001 concerning Management of Hazardous Toxic Materials (B3), which states that mercury is categorized as B3 type and has limited use. Second, PP No. 101 of 2014 concerning B3 Waste Management states that waste containing mercury must be managed. The Indonesian government has drawn up a national action plan with roadmaps for the reduction and eventual elimination of Mercury by 2030. It has also established a mercury research and monitoring committee.

12. Specifically in the area of mercury-contained medical devices (MCMD) The Government of Indonesia plans to accelerate the replacement of MCMD for mercury-free medical devices (MFMD), to create/strengthen national capacities to treat, stabilize and solidify mercury (in line with international guidelines) and address current challenge concerning collection and packaging MCMDs safely, transport and store them in line with hazardous waste guidelines within the very special context of Indonesia's geography which is an archipelagic country, to finally, dispose of the mercury waste safely.

Barriers to be addressed

13. Government of Indonesia has limited capacity to fully enable a proper environmental sound healthcare waste management for MCMDs and mercury-contained wastes. It is important to build up the national capacities, taking into consideration local gender and social sensitivities and perspectives, to review and develop an integrated approach for healthcare waste management as a whole. In Indonesia, the only available treatment option for healthcare facilities, mandated by the Ministry of Health, which is insufficiently evaluated and monitored, is incineration.

14. Indonesia also faces significant challenges to collect, transport and dispose mercury. In this regard, the collection of mercury from health sector will require to be handled properly. There is a need to implement an environmentally safe and traceable technology for temporary storage of collected mercury at national scale and the lack of collaborative partnerships with the private sector who play central role in collection, storage and treatment and landfilling of mercury waste.

15. It is recognized that worst practices as open burning of amalgam or burning of amalgam in residential areas still exist in Indonesia. In addition, the Health Care sector appears as an important driver of mercury pollution too, due to the huge numbers of hospitals, Primary Health Care (PHC) and other minor health facilities. Therefore, the aim of the project, to reduce or definitively eliminate mercury from the distribution and supply chain of MCMD should bring outcomes that will provide global environmental benefit as well national one.

16. Though policy and regulatory framework for healthcare waste is in place by the Ministry of Health (MoH), coordinated action with other departments at national and subnational levels are still missing. With the Ministry of Environment and Forestry playing the leading role, other relevant stakeholders from public sector and agencies need to be closely such as Ministry of Health; Ministry of Villages; National Research and Innovation Agency (BRIN); Ministry of Women and Children Protection.

17. Finally, Healthcare waste (in which MCMDs and their mercury containing wastes are inserted) is ranked as high priority by the Government of Indonesia. In terms of capacity building, the waste streams require attention in the fields of regulation, financing and awareness raising. It is emphasized that the compliance with relevant international regulations and Multilateral Environmental Agreements (MEAs) as well as the adoption of life cycle management as an overarching principle of waste management policies are important elements in improving the healthcare waste management in Indonesia. On the other hand, insufficient coordination among responsible institutions, the lack of law enforcement and low budget allocations are highlighted as some of the structural deficiencies in Indonesia's healthcare waste management system. Capacity building has a crucial role to play in enhancing human capacities in the areas of healthcare waste streams.

18. On the Business as Usual (BAU) Scenario, without support from the GEF, the replacement of MCMDs for MFMDs would continue but at a slower pace and the local capacities to handle and dispose their wastes would not be created or, if created, would not be scaled up at national level, leading to deficiencies into the Article 11 of the Minamata Convention implementation and also increasing the risks of unsound management of mercury. Indonesia islands distant from larger urban center would suffer the most. Private Sector stakeholders would also have different levels of engagement and responsible to support disposal

solutions and MFMD alternatives, which are usually electronics, would be phased-in in a much slower pace and without proper consideration of their circular economy to avoid the build but of future e-waste stocks.

B. PROJECT DESCRIPTION

Project description

This section asks for a theory of change as part of a joined-up description of the project as a whole. The project description is expected to cover the key elements of good project design in an integrated way. It is also expected to meet the GEF's policy requirements on gender, stakeholders, private sector, and knowledge management and learning (see section D). This section should be a narrative that reads like a joined-up story and not independent elements that answer the guiding questions contained in the PIF guidance document. (Approximately 3-5 pages) see guidance here

Project Objective(s)

1. This project will assist the Government of Indonesia to eliminate mercury in the distribution and supply chain of mercury containing medical devices (MCMDs) from the health sector, establish systems and introduce technologies for mercury safe disposal and create mechanism for the sustainable and circular introduction of mercury free medical devices (MFMD).

Project Design/Framework

2. Acknowledging the baseline situation, the Project will directly work with 3,122 hospitals, 10,260 Primary Health Care (PHC) and more than 5,000 health care facilities located across Indonesia, in coordination with other ministries and agencies and relevant stakeholders, specially from the private sector, to perform actions that will lead to reaching the intended objective through:

Component 1 - Policy and regulatory frameworks strengthened to support the phase-out of mercury containing medical devices (MCMDs) in the health sector

3. The Ministry of Environment and Forestry has been actively working with locals and regional authorities to encourage the establishment of provincial and district action plans to reduce and eliminate mercury. The project will engage with the Ministry of Health; Ministry of Energy and Mineral Resources; Ministry of Cooperative and Medium and Small Enterprises; Ministry of Villages; National Research and Innovation Agency (BRIN); Ministry of Women and Children Protection; Ministry of Industry, Ministry of Trade, Ministry of Finance, BAPPAENAS) to strengthen collaboration and the governance network around the distribution and supply chain of mercury containing medical devices (MCMD), together with intensive engagement activities on mercury pollution by central government, it is expected to drastically minimize the risk of contamination by mercury due to mishandling and learning how spills should handle and how mercury waste is disposed of.

4. Referring to the recommended actions outlined in Minamata Initial Assessment (MIA), in component 1, the project will perform activities meant to develop and establish gender-sensitive and gender-responsive regulatory and policy frameworks in regard with the total phase-out of MCMDs, regulatory frameworks concerning mercury collection, distribution, temporary storage, and disposal. It will strengthen the capacity of Indonesia at national and sub-national levels to enhance policy enforcement by strengthening coordination and cooperation, enforcing commitments, and ensuring inclusive processes in a gender and social inclusive manner.

5. Under the coordination of the Ministry of Health (assisted by health institutions at the provincial and district levels), the project will facilitate and organize a gender-sensitive and gender-responsive strategy to totally phase-out of mercury-containing medical devices and assistance the substitution by mercury-free medical devices. The Ministry of Health will issue policies and regulations to all health facilities including

hospital of class A, B, C, and D and primary health care (PHC) and other health care facilities consisting of 3 levels, namely: main (that has specialized medical care), middle, and primary (a people-centered rather than disease-centered service that addresses the majority of a person's health needs throughout their lifetime including physical, mental and social well-being).

6. In the end, Healthcare Units are expected to commit not using mercury-containing medical devices and to establish schedules/roadmaps towards the replacement of baseline MCMDs for MFMDs, including establishing circular strategies to assure that MFMDs are properly disposed of at their EOL (end-of-life). The Governance and Regulatory structure will also enforce sanctions on health service institutions that do not comply with agreed commitments. Policies regarding oversight and supervision will be issued to strictly monitor the commitment of all health facility institutions.

Component 2: Technical and institutional capacities of private sector stakeholders enhanced on MCMDs phase-out and environmentally sound mercury-containing medical waste management improved.

7. At present, all unused and broken MCMDs are still stored in the health facility units. The facility units have limited experience in handling collected MCMDs, and face challenges to comply with regulatory framework for mercury transport and storage, also lacking capacity to safely transport MCMDs from the health facility units to mercury storage. In addition, the geographical challenges unique to Indonesia which consists of thousands of islands and bring concerns due to a general lack of understanding and knowledge about the dangers of mercury are factors that hamper the collection and distribution of MCMDs and will be addressed within this component.

8. Prior to final stabilization and storage, the project will assist the Government of Indonesia to develop methods and techniques for transporting and collecting mercury originating from medical devices in safe temporary storage. The collection has a requirement to guarantee that the packaging is safe. The transportation needs a requirement of vehicle (ship) and permit to deliver mercury waste. Mercury collected from health care facilities requires good and safe handling. Indonesia has a unique geographical large area. There are many big and small islands. Besides culture, social and economic factors could influence the mercury handling styles, even though there is a guidance for it. The other aspect for consideration is how to transport the substance from one island to the other requires certain kind of water vehicles (transport mode). The Government of Indonesia has to provide licensed ships (boats) able to deliver it (since not all ships have permits to transport hazardous waste) and hence, digital tools will also be used to support proper control over Hg stocks during these procedures.

9. A series of gender-sensitive activities will also be implemented in component 2, including: assess the situation of mercury use, collection, storage in Health Care Facilities (HCF), develop and strengthen the policy and regulatory framework in regard with mercury collection, distribution and temporary storage, develop and establish the technical guidance on the mercury collection, distribution and temporary safe storage, conduct capacity development for all level related institutions in charge for the mercury collection, distribution and store at safe temporary storage, and assess potential for establish pilot mercury temporary storage from mercury-containing medical devices in at least 5 (five) areas.

10. The project will facilitate the engagement of the Implementing Partner with the National Agency for Research and Innovation (BRIN), as the responsible institution in collaboration with the Ministry of Health, which will coordinate the collection, distribution, and implementation of safe techniques for mercury temporary storage. It will be assured that appropriate Best Available Techniques/ Best Environmental Practices (BAT/BEP) are applicable through the guidelines and guidance instruments. The scope of work will include designing an effective collection strategy, determining the appropriate type of transportation, and processing the permits, determining temporary storage locations, and providing safe temporary storage techniques for mercury, piloting their application in, at least, 1 (one) temporary storage site to be selected during project preparation.

Component 3: Circular models are developed and piloted to promote and sustain the large scale replacement to mercury-free alternatives for MCMDs.

11. The project will closely work with the National Agency for Research and Innovation (BRIN) and, in addition with other relevant research institutions in Indonesia to develop, introduce and promote applicable non mercury technology to the health care facilities / hospitals. The project will implement an environmentally safe and traceable technology for temporary storage of collected mercury at national scale, (in line with Article 10, paragraph 4, of the Minamata Convention, in terms of “enhancing capacity-building for the environmentally sound interim storage of such mercury and mercury compounds”).

12. From the beginning the project will involve the private sector (including NGOs) in collecting, operating the stabilization/solidification equipment, and landfilling the stabilized and solidified mercury waste. Hence, the project will facilitate the government to work with the private sector that has the facilities to collect and store the mercury waste. In this respect, an arrangements/agreements framework will be prepared, as a memorandum of understanding (MOU) between the Ministry of Environment and Forestry and relevant private sectors institutions.

13. The health sector has shown significant progress to reduce MCMD by not using these devices and temporarily storing these in Health Care Facilities. However, the progress has not been followed up by the provision of appropriate storage depot, transportation mode, and final disposal facilities. This is due to the limited availability of sufficient technology to carry out the final processing of MCMD.

14. A high-quality technology that guarantees preventing potential hazard to human health and the environment considering persistent characteristics of mercury is critical for the success introduction of the safe temporary storage facility as intermediary step would then be transported to the location of processing facilities, in which the mercury waste will be processed in the solidification/stabilization equipment. After that, the solidified mercury will be transferred (transported) to safe final storage.

15. The project will improve capacities of one (1) national laboratory by assisting with the introduction of a laboratory scale mercury stabilization and solidification technology. This activity will provide important knowledge/lessons/technology transfer capabilities to local partners and institutions for the scale up and strengthening of their capacities to operate larger scale mercury stabilization/solidification equipment/facilities to strengthen in at least 4 (four) cluster areas, namely: (1) Sumatera (covering only Sumatera); (2) Kalimantan (covering only Kalimantan); (3) Sulawesi (covering Sulawesi, Maluku, and Papua); (4) Java (covering Java, Bali, and Nusa Tenggara). The project is expected to provide national-wide impacts through the presence of Cluster Areas, and specific locations and partner will be selected either during project preparation phase or during the initial 1 year of implementation. The final safe storage needs for Indonesia will then be assessed and potential final disposal sites identified and recommended for the Government (either local or for export).

Component 4: Project results monitored, documented, and shared.

16. The Government of Indonesia monitoring and evaluation capacity concerning the achievement of project outputs and outcomes and lack of dissemination concerning the lessons (best practices) being learned from the project will be strengthened with this component.

17. To achieve optimum outcomes, the project will perform several activities consisting of assessing and applying Social and Environmental Screening Procedure (SESP) and enhancing gender-equality and social inclusion (GESI) to accelerate mercury reduction in health sectors, collecting lessons-learned and best practices for knowledge management at national and international communities, assuring effective and efficient project management in compliance with GEF and UNDP, implementing Gender Action Plan and awareness raising activities on collection, transport, storage and disposal of mercury and mercury waste.

18. Semi-annual, annual, mid-term and final monitoring and evaluation to detect obstacles and provide the necessary solutions will be strictly implemented to ensure the successful achievement of the output and outcome of the project.

Theory of Change (ToC)

19. There are 4 (four) root problems and 4 (four) barriers that have been identified hindering Indonesia to avoid the adverse effects due to mercury releases originating from the health sector. The root problems are categorized into:

- (a) Limited institutional capacity – Indonesia has limited regulatory framework and policies on mercury reduction and phase-out. It lacks capacity on the enforcement of law for the implementation of relevant regulatory framework and policies to reduce and phase-out MCMDs. Weak supervision and control on the distribution and supply chain of MCMDs. Weak coordination between central and local government agencies in health sector.
- (b) Limited technical capacity – Indonesia has very limited experience in handling collected MCMDs. Lack of norms and regulatory framework for mercury transport and storage. Limited capacity to transport and collect MCMDs from health facilities.
- (c) Limited access to available and appropriate technology – the country has limited capacity to access available and appropriate technology (BAT/BEP) in compliance with Minamata Convention. It has lack of guideline on the proper handling of mercury containing waste. Lack of information concerning stockpile of mercury containing waste.
- (d) Limited capacity to monitor – the country has weak monitoring and evaluation concerning the achievement of project outputs and outcomes. Lack of dissemination concerning lessons-learned obtained from the project.

20. Meanwhile, there are barriers clustered into:

- (a) Limited pollical capacities – Indonesian top management has low support/back up to coordinate and supervise the domestic mercury circulation. It has low awareness concerning the danger of mercury. Lack community approach to increase knowledge and awareness about the health hazard on Hg.
- (b) Geographical constraints – the country has geographical (situational) factors on safe mercury and mercury waste handling. Lack of concern due to general lack of understanding and knowledge about the danger of mercury.
- (c) Limited public knowledge – It has weak (limited) participation from related stakeholders. It is worsened by the situation of weak support from top management.
- (d) Limited budget available – It has low budget allocation. Low human resource capacity. Low involvement of relevant stakeholders.

21. To cope with these problems and barriers, the project has 4 (four) components expected to achieve the objective focusing on:

- (a) Strengthening policy and regulatory frameworks to support the phase-out of MCMDs.
- (b) Enhancing technical and institutional capacity on MCMDs phase-out and mercury-containing medical waste management.
- (c) Developing and piloting circular models to promote mercury-free alternatives for MCMDs.
- (d) Monitoring, documenting, and sharing project results and best practices

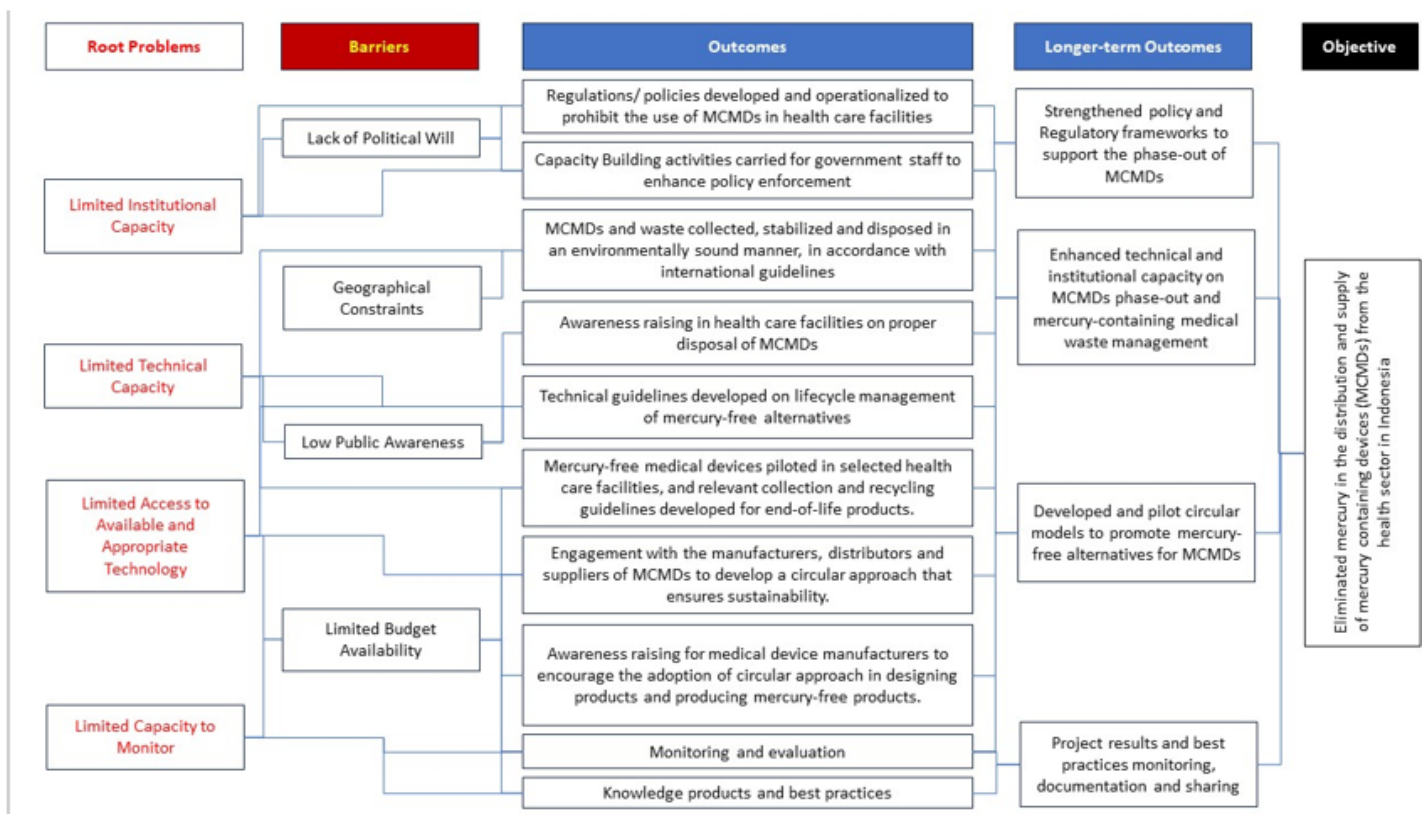


Fig 1 - Theory of Change

Integration, Transformation and Scale Up

22. The project aims for a holistic integration and transformation of interlinked sectors. Through streamlining and aligning regulations, promoting sound healthcare facility practices, engaging communities and raising public awareness, supporting research and development, this project will foster a cohesive ecosystem where stakeholders collaborate synergistically and facilitate the transformation of healthcare and waste management sectors in Indonesia.

23. This initiative seeks to harmonize existing policies and regulatory frameworks and establish clear ensuring a unified and robust approach towards phasing out mercury-containing medical devices (MCMDs), it will strengthen the strategic alignment of policies, thus ensuring all stakeholders—government bodies, healthcare institutions, and suppliers—are synchronized in their efforts, thereby accelerating the phase-out process and ensuring long-term sustainability and health sector resilience against mercury pollution.

24. The project will establish and implement clear procurement guidelines that prioritize the purchase and use of mercury-free MCMDs and establish circular economy strategies for MFMDs (which are electronic equipment). The project will also encourage the adoption of sustainable procurement practices and promote the development of local mercury-free alternatives in a circular manner to avoid/reduce the risk of building up future e-waste.

25. The project will also support research and innovation aiming to enable the environment for local innovative mercury-free MCMDs and sustainable waste management technologies. The project will facilitate collaboration between research institutions, healthcare providers, and industry partners to absorb and scale up these technologies during and after the project life cycle.

Incremental Cost Reasoning

26. It is acknowledged that Ministry of Environment and Forestry and the Ministry of Health of Indonesia have baseline level of capacities to handle issues related to healthcare waste management and mercury management. However, their capacities is still not fully adequate to conduct and complete the required mechanisms in full accordance with the Minamata Convention. Hence, without the GEF intervention, critical actions related to the Policy and Regulatory Frameworks and the Institutional Technical Capacities critical to support elimination of Mercury in healthcare sector may be delayed and not fully realized.

27. The GEF incremental support will also be essential to support Indonesia to better manage and coordinate the environmentally sound and safe mercury disposal by allowing governmental interventions to focus on the technological and physical changes required to properly collect, stabilize and dispose large quantities of Mercury, as well it will help Indonesia to allocate its limited resources effectively in the space of circular economy, reducing united adverse risks related to future build-up of e-waste coming from mercury-related alternative technologies in the medical devices sector.

Coordination and Cooperation with Ongoing Initiatives and Project.

Does the GEF Agency expect to play an execution role on this project?

No

If so, please describe that role here. Also, please add a short explanation to describe cooperation with ongoing initiatives and projects, including potential for co-location and/or sharing of expertise/staffing

1. The Implementing Partner (GEF Executing Agency) for the project will be the Ministry of Environment and Forestry (MOEF, as KLHK as for acronym in Bahasa Indonesia) and the project will be implemented over a period of six (6) years with UNDP acting as the GEF Implementing Agency.
2. The project is expected to be implemented through the National Implementation Modality (NIM). During PPG Phase, the MOEFCC and UNDP will consider all specific execution options to present the proposed Implementation Modality to the GEF.
3. This GEF project will cooperate and coordinate closely with ongoing initiatives to ensure sharing of information and lessons and collaboration in related activities as described in the Table below:

Table 1: Complementarity with existing Projects and Programs

Ongoing Initiatives	Complementarity with GEF 8 project
GEF Project ID 9755	<p>The project is supporting the development of Minamata Initial Assessment and National Action Plan for Artisanal and Small Scale Gold Mining and contributes to the protection of human health and the environment from the risks posed by unintentional and intentional emissions and releases, unsound use and management of mercury in Indonesia.</p> <p>This project will align with the MIA 9755 GEF-6 as it will build from the data and expertise and data collections systems created by 9755, and will expand this scope by tackling one specific sector that uses Hg (medical devices).</p>
Global Mercury Partnership	<p>The project (2021-2023) is focused on knowledge sharing and capacity building in Southeast Asia, targeting emissions from the coal combustion sector. Expertise and knowledge will be provided to allow stakeholders in the region to identify regionally appropriate means to reduce mercury emissions. The project has two geographical project areas – India and Indonesia.</p> <p>Thought the Global Mercury Partnership project aims to evaluate mercury emissions from the coal sector, the experiences related to unit-by-unit mercury emission inventory for the entire Indonesian coal fleet by learning lessons about the inventory development and how these experiences can be applied to the healthcare sector to update the MCMDs updated inventory required under the GEF-8 project proposal.</p>

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 CO₂e (direct)	0	0	0	0
Expected metric tons of CO₂e (indirect)	10000	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 CO₂e (direct)				
Expected metric tons of CO₂e (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 CO₂e (direct)				
Expected metric tons of CO₂e (indirect)	10,000			
Anticipated start year of accounting				
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)				
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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)
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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)
25.00	0.00	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)
Decabromodiphenyl ether (commercial mixture, c-decaBDE)	5.00			

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)
20.00			

Indicator 9.3 Hydrochlorofluorocarbons (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)

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)
100.00			

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)
20,000.00			

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)
20.00			

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)

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	50,000			
Male	50,000			
Total	100,000		0	0

Explain the methodological approach and underlying logic to justify target levels for Core and Sub-Indicators (max. 250 words, approximately 1/2 page)

1. Calculations are direct result of the achievement of the project's objective (at the end of implementation) and is calculate against the project lifecycle (5 years).

(a) 20 metric tons of mercury reduced from Indonesia's Health sector: calculated based on (i) stocks of MCMD contained materials within possession of healthcare units and universe of MCMDs that will be removed from use by the project (176,946 units of mercury containing medical device (MCMD) recorded in the baseline data. The MCMD that was distributed to all health care facilities in Indonesia).

(b) 20 g TEQ/year of UPOPs emissions avoided: calculated against the quantity of MCMDs that are diverted from incineration with the adoption of non-incineration dismantling and stabilization technologies.

(c) 100 mt of POP-containing plastic collected and disposed safely containing 5 tons of PBDEs which emissions will be avoided with avoided open burning.

(d) 20,000 tons of recyclable plastic and metals material collected and recycled.

(e) 10,000 metric tons of CO₂e emissions avoided: The reduction / elimination of 5% of the releases or emissions in 2022 is the baseline withing the total of 176,946 units of MCMDs that will go under non-incineration treatment and also due to the avoided open burning of healthcare related plastics.

(f) 100,000 people directly benefitted (50,000 female and 50,000 male): as per the targeted audience that GHG benefit from the project and will be selected in pilot sites and pilot units among 3,122 hospitals, 10,260 Primary Health Care (PHC) and more than 5,000 other health care facilities and the HCW collection and processing units/companies/institutions. In which at least 30% are expected to be women in line with national regulations related to gender inclusiveness in Indonesia.

2. Meanwhile, under the GEF-8 Programming strategies, the project will also emphasize the importance of eliminating harmful chemicals from supply chains that is able to contribute to the GHG reductions and more plastics waste management. Therefore, the project will contribute to the GHG emissions reduction through environmentally sound management of mercury containing medical devices starting from collection, transportation, temporary storage, stabilization by solidification to final storage. The project will properly reduce the impacts of plastics since it will ensure the implementation of proper plastics management linked to MCMDs in use and the new MFMDs being phased-in (project will manage medical devices that contain plastic components to reduce POPs emissions originating from plastic materials).

3. The project will ensure circular economy approach to reduce plastic production, consumption, and disposal. It will encourage the realization of a circular economy through the implementation of such circular practices by designing for reuse, recycling, repair, remanufacture of digital based mercury-free medical device. It will shift medical device users' behavior and foster markets for recycled material. To achieve such transformational change, the project will initiate the establishment of integrated control over the supply chain of the medical devices.

Key Risks

	Rating	Explanation of risk and mitigation measures
CONTEXT		
Climate	Low	The project will engage with collection and transport service providers to support the safe disposal of MCDM and Hg wastes, hence these services

		will lead to temporary increase of GHG emissions due to transport activities. However, the project will also promote the reduction of GHG emissions from unsound waste and HG disposal practices, hence the net emissions will be monitored during project cycle.
Environmental and Social	Moderate	The Government of Indonesia has certain precautions measures to coordinate and anticipate the risks with relevant partners that have certain level of capacity. UNDP SES Policy is also being applied to identify risks and promote proper risk avoidance/mitigation actions.
Political and Governance	Moderate	Indonesia will experience general election at national and sub-national levels. It may influence the project implementation, but it is unlikely to halt the project implementation achieving its outcomes and outputs based on previous experiences with GEF projects in similar situation.

INNOVATION

Institutional and Policy	Moderate	Indonesia is pursuing a 20-year development plan, spanning from 2005 to 2025. The plan is segmented into 5-year medium-term development plans called RPJMN (Rencana Pembangunan Jangka Menengah Nasional or Mid-term National Development Plan), each with a different set of development priorities (World Bank, 2023). Hence, despite of recent national elections and the change in power of ruling Party and the expectations around the follow up plan after 2025 and future elections that will occur during project lifecycle, it is considered that the Institutional and Policy related risk that could impact this project proposal is MODERATE, since the project serves to respond the country's commitment to the Minamata Convention, which is already well crystalized action within the institutional frameworks of the Ministries of Environment and Health.
Technological	Moderate	National Agency for Research and Innovation (BRIN) is committed to strengthen the progress of mercury reduction in medical devices and how to treat it in accordance with the Minamata Convention.
Financial and Business Model	Moderate	As per World Bank (2023) report, in July 2023 Indonesia regained upper-middle group according to the World Bank's income classification status after falling out in 2020 due to the impact of COVID-19 on the economy. With a post-pandemic recovery underway, poverty reduction has received a boost. As of March 2023, Indonesia's poverty rate was at 9.36 percent, after having risen to 10.2 percent in September 2020. Indonesia's economic growth is underpinned by a pick-up in private consumption and positive terms-of-trade. GDP growth is projected at 5.0 percent in 2023 and to an average of 4.9 percent over the medium term in 2024-2026. Hence, the project takes into consideration two (2) initial business model to support the financial sustainability of its actions: in one hand, support Government budgeting prioritization to fund the replacement of MCMDs by mercury-free devices under the usual procurement programmes for public healthcare units, while in the other hand, support private sector to identify BAT/BEP with better cost-

		effectiveness and identify financial mechanisms that can be used to upscale the structure of waste management of medical devices in the country.
EXECUTION		
Capacity	Moderate	Currently, the Implementing Partner (IP) or Executing Agency (EA) is involved in 6 on- going projects and 2 approved projects (some having significant delays and there are some known weaknesses of the IP in financial and procurement management from the assurance activities. As per GEF guidelines, at this PIF stage the implementation modality sought is Full National Implementation Modality (NIM), in which the IP or EA will be fully responsible for the execution activities. However, during the PPG phase, UNDP will conduct new assessment of EAs execution capacities, including closely looking into the workload of the EA’s department in charge of project and its ability to establish a Project Management Unit (PMU) team.
Fiduciary	Moderate	The Government of Indonesia has limited financial capacity to fund the program, but it has strong commitment to adhere to the Minamata Convention.
Stakeholder	Low	Relevant stakeholders have strong commitment to strengthen the efforts of the Government of Indonesia.
Other	Low	Risks may contain threat, but these may invite opportunities to address the development challenges.
Overall Risk Rating	Moderate	

C. ALIGNMENT WITH GEF-8 PROGRAMMING STRATEGIES AND COUNTRY/REGIONAL PRIORITIES

Describe how the proposed interventions are aligned with GEF- 8 programming strategies and country and regional priorities, including how these country strategies and plans relate to the multilateral environmental agreements.

Confirm if any country policies that might contradict with intended outcomes of the project have been identified, and how the project will address this.

For projects aiming to generate biodiversity benefits (regardless of what the source of the resources is - i.e., BD, CC or LD), please identify which of the 23 targets of the Kunming-Montreal Global Biodiversity Framework the project contributes to and explain how. (max. 500 words, approximately 1 page)

1. This project is in accordance with Indonesia strategic priority and Minamata Convention. Article 11 of Minamata Convention on Mercury mandate; is considered in accordance with the guidelines developed under the Basel Convention and in accordance with requirements that the Conference of the Parties shall adopt in an additional annex, in accordance with Article 27. The Ministry of Environment and Forestry request support to implement this article. In addition, the project is in line with Article 10, paragraph 4, of the Convention, in terms of enhancing capacity-building for the environmentally sound interim storage of such mercury and mercury compounds.

2. In line with GEF-Programming, as a main purpose this project intends to tackle environmental degradation originated by health sector using medical equipment containing mercury and in term of the strategy the project will promote a strong private sector engagement. GEF-8 Programming strategies seek to generate global environmental benefits through impactful outcomes. In this regard, the present project meets one of the eight Directions for GEF-8 Programming, namely Elimination of Harmful Chemicals from Supply Chain.

3. GEF-8 Programming strategies also emphasized Eliminating Harmful Chemicals from Supply Chains Integrated Program in which one of the major objectives is reducing emissions of GHGs. In this regard, the project will contribute to the reduction of GHGs emissions through environmentally sound management of mercury containing medical devices starting from collection, transportation, temporary storage, stabilization by solidification to final storage. In addition, because medical devices contain plastic components, managing mercury-containing medical equipment waste properly also reduces POPs emissions originating from plastic materials.

4. GEF-8 Programming strategies catalyze circular economy approaches to reduce plastic production, consumption, and disposal. The project will encourage the realization of a circular economy through implementation of circularity practices by designing for reuse, recycling, repair, remanufacture of digital based mercury-free medical device. In this regard, the project also will shifting medical device users' behavior and fostering markets for recycled material.

D. POLICY REQUIREMENTS

Gender Equality and Women's Empowerment:

We confirm that gender dimensions relevant to the project have been addressed as per GEF Policy and are clearly articulated in the Project Description (Section B).

Yes

Stakeholder Engagement

We confirm that key stakeholders were consulted during PIF development as required per GEF policy, their relevant roles to project outcomes and plan to develop a Stakeholder Engagement Plan before CEO endorsement has been clearly articulated in the Project Description (Section B).

Yes

Were the following stakeholders consulted during project identification phase:

Indigenous Peoples and Local Communities: Yes

Civil Society Organizations: Yes

Private Sector: Yes

Provide a brief summary and list of names and dates of consultations

The project collaborates with manufacturers, distributors, and suppliers of MCMDs and their alternatives to foster a sustainable shift towards mercury-free and circular products. The involvement of the private sector will entail comprehensive capacity-building, technological innovation, and financial support mechanisms to facilitate the transition. Waste management companies will also be engaged to enhance the capacity on treating mercury-containing waste. Through partnerships with industry leaders, the project aims to promote

responsible production and procurement practices, encouraging the adoption of circular and environmentally friendly substitutes and the implementation of efficient waste management systems. By leveraging the expertise and resources of the private sector, this initiative endeavours to achieve lasting transformation, safeguard human health, and protect the environment from the adverse effects of mercury contamination.

The following stakeholders from the private sector have been identified:

Device manufacturers will be engaged during project PPG and implementation phases as critical stakeholders in the supply chain of alternative technologies to mercury in medical devices. The proper supply chain must be clearly informed about the project and its impacts, particularly to comply with the GOV requirements but also to assure proper standards and quality assurance of alternatives are in place.

1. Asosiasi Produsen Alat Kesehatan Indonesia (ASPAKI).
2. Perhimpunan Pengusaha Alat Kesehatan dan Diagnostik Indonesia (PPAKD).
3. Perkumpulan Distributor Alat Kesehatan Indonesia (PDAI).
4. Gabungan Perusahaan Alat Kesehatan dan Laboratorium Indonesia (GAKESLAB).
5. Indonesia Medical Device Association (IMDA).

Distributors and suppliers will be engaged during project PPG and implementation phases as critical stakeholders in the supply chain of alternative technologies to mercury in medical devices. Most important, these stakeholders also play dual role in the circular economy schemes to assure that proper take back mechanisms are in place for the alternative technologies to mercury medical devices.

1. Perkumpulan Distributor Alat Kesehatan Indonesia (PDAI).
2. Gabungan Perusahaan Alat Kesehatan dan Laboratorium Indonesia (GAKESLAB).
3. Asosiasi Distribusi dan Logistik Indonesia (ADLI).
4. Aliansi Distributor Alat Kesehatan Indonesia (ADAKI).

Waste management companies will be engaged during project PPG and implementation phases as critical stakeholders responsible for the proper management of disposed and waste containing mercury and mercury medical devices. These are critical partners to the project for the success of the Components 2 and 3 to assure that proper management, storage and disposal mechanism are introduced and sustained over time.

1. Asosiasi Perusahaan Pengelolaan Sampah Indonesia (APPSI).
2. Asosiasi Pengelolaan dan Pemrosesan Limbah Indonesia (APPLI).
3. Indonesia Solid Waste Association (InSWA).
4. Ikatan Pengusaha Jasa Lingkungan Indonesia (IPJLI).
5. Asosiasi Perusahaan Pengelolaan Limbah Elektronik Indonesia (APELINDO).
6. Environmental NGOs
7. Sustainable finance institutions – Indonesia Sustainable Finance Alliance (ISFA).

(Please upload to the portal documents tab any stakeholder engagement plan or assessments that have been done during the PIF development phase.)

Private Sector

Will there be private sector engagement in the project?

Yes

And if so, has its role been described and justified in the section B project description?

Yes

Environmental and Social Safeguard (ESS) Risks

We confirm that we have provided indicative information regarding Environmental and Social risks associated with the proposed project or program and any measures to address such risks and impacts (this information should be presented in Annex D).

Yes

Overall Project/Program Risk Classification

PIF	CEO Endorsement/Approval	MTR	TE
Medium/Moderate			

E. OTHER REQUIREMENTS

Knowledge management

We confirm that an approach to Knowledge Management and Learning has been clearly described in the Project Description (Section B)

Yes

ANNEX A: FINANCING TABLES

GEF Financing Table

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

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non-Grant	GEF Project Grant(\$)	Agency Fee(\$)	Total GEF Financing (\$)
UNDP	GET	Indonesia	Chemicals and Waste	Mercury	Grant	6,590,000.00	626,050.00	7,216,050.00
Total GEF Resources (\$)						6,590,000.00	626,050.00	7,216,050.00

Project Preparation Grant (PPG)

Is Project Preparation Grant requested?

true

PPG Amount (\$)

150000

PPG Agency Fee (\$)

14250

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non- Grant	PPG(\$)	Agency Fee(\$)	Total PPG Funding(\$)
UNDP	GET	Indonesia	Chemicals and Waste	Mercury	Grant	150,000.00	14,250.00	164,250.00
Total PPG Amount (\$)						150,000.00	14,250.00	164,250.00

Please provide justification

Sources of Funds for Country Star Allocation

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Sources of Funds	Total(\$)
Total GEF Resources					0.00

Indicative Focal Area Elements

Programming Directions	Trust Fund	GEF Project Financing(\$)	Co-financing(\$)
CW-3	GET	6,590,000.00	32950000
Total Project Cost		6,590,000.00	32,950,000.00

Indicative Co-financing

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Recipient Country Government	Ministry of Environment and Forest	In-kind	Recurrent expenditures	1600000
Recipient Country Government	Ministry of Health	In-kind	Recurrent expenditures	600000
Recipient Country Government	Ministry of Health/Ministry of Finance	Public Investment	Investment mobilized	6000000
Private Sector	Medical Devices Manufacturers, importing Companies	Grant	Investment mobilized	15000000
Private Sector	Medical devices/ Waste management companies that collect, dismantle, recyclers waste materials	In-kind	Recurrent expenditures	8000000

Private Sector	Waste Management Association	In-kind	Recurrent expenditures	750000
GEF Agency	UNDP	In-kind	Recurrent expenditures	1000000
Total Co-financing				32,950,000.00

Describe how any "Investment Mobilized" was identified

- The Ministry of Health, Ministry of Finance, will provide investments through green public procurement activities to speed up the replacement of medical devices that contain mercury for mercury-free medical devices as results of project activities related to policy strengthen and finance activities.

- Private sector, most notably, producers and importers of medical devices, will mobilize investments for retrofitting their facilities to produce mercury-free devices but also to establish national structures to test, calibrate, certify and service the alternative devices being phased-in by the project, which are mostly electronic ones. Also, companies will invest in local capacities to collect, recover, and treat mercury from old devices, including piloting technologies for stabilization and solidification of mercury.

ANNEX B: ENDORSEMENTS

GEF Agency(ies) Certification

GEF Agency Type	Name	Date	Project Contact Person	Phone	Email
GEF Agency Coordinator	Nancy Bennet	3/20/2024	Anderson Alves		nancy.bennet@undp.org
Project Coordinator	Anderson Alves	3/20/2024	Anderson Alves		anderson.alves@undp.org

Record of Endorsement of GEF Operational Focal Point (s) on Behalf of the Government(s):

Name	Position	Ministry	Date (MM/DD/YYYY)
Laksmi Dhewanthi	GEF Operational Focal Point for Indonesia	Ministry of Environment and Forestry	3/20/2024

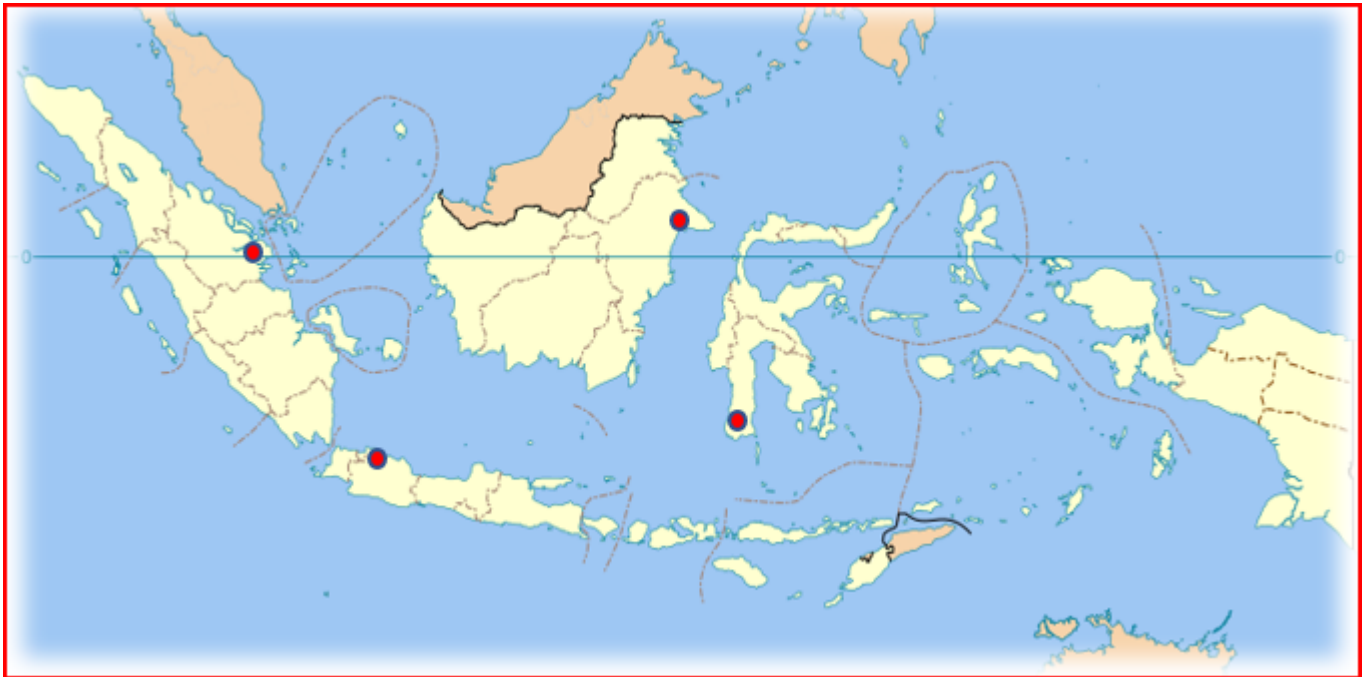
ANNEX C: PROJECT LOCATION

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

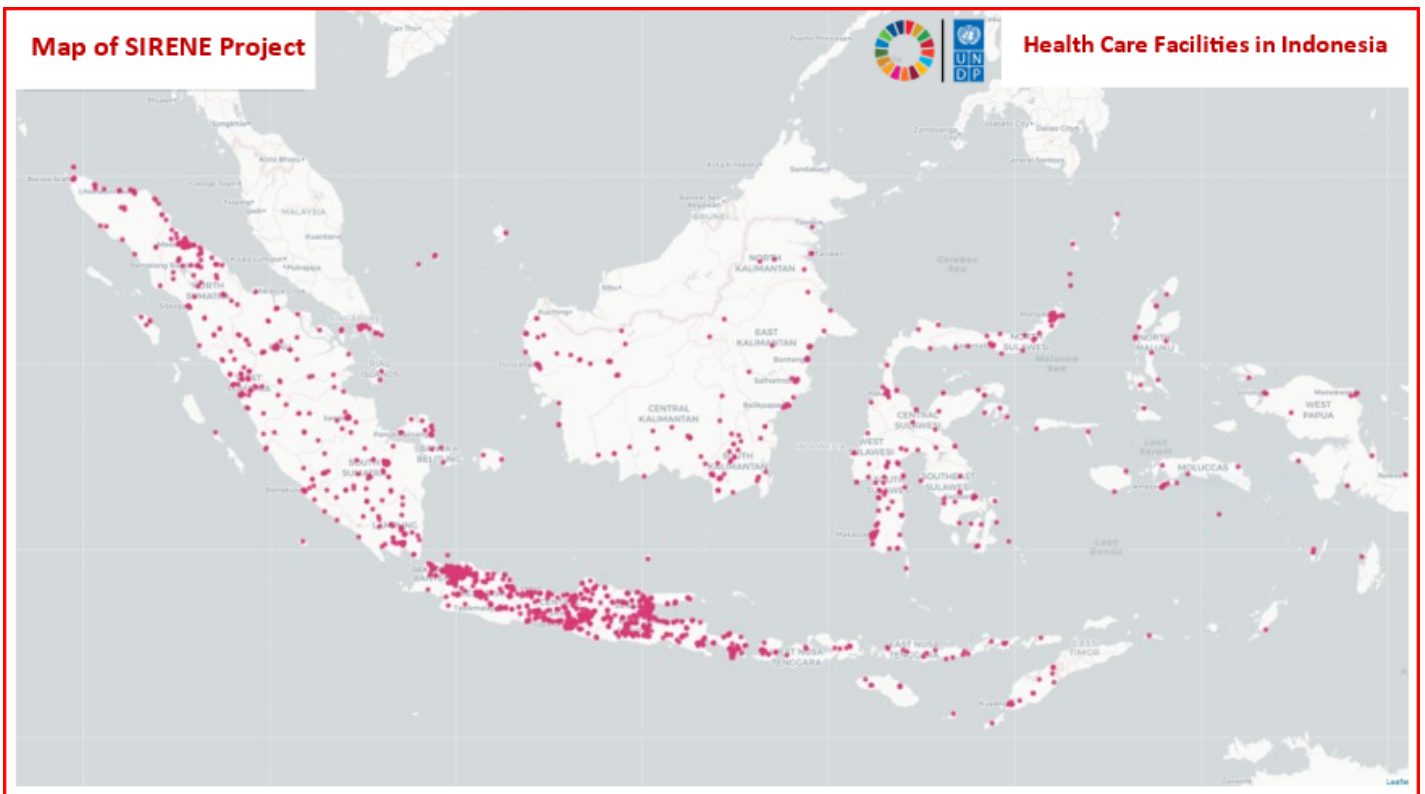
This project is managing the mercury collected from health care facilities and gold mining that no longer use mercury. Mercury management is carried out from the collection stage at the storage depot, transporting to the location of processing facilities, mercury processing itself, transporting the mercury processing product to landfill location, and landfilling itself.

The mercury waste is processed in the stabilization equipment. Then, it processed in the solidification equipment. After that, the solidified mercury is stored.

The equipment will be placed by cluster, namely Sumatera (cover only Sumatera), Kalimantan (cover only Kalimantan), Sulawesi (cover Sulawesi, Maluku, and Papua), and Java (cover java, Bali, and Nusa Tenggara). The points of location as illustrate in the following figure.



The SIRENE Project will have impacts on these following health care facilities in Indonesia:



ANNEX D: ENVIRONMENTAL AND SOCIAL SAFEGUARDS SCREEN AND RATING

(PIF level) Attach agency safeguard screen form including rating of risk types and overall risk rating.

Title

SIRENE - PIF Level pre-SESP-final13Mar2024

ANNEX E: RIO MARKERS

Climate Change Mitigation	Climate Change Adaptation	Biodiversity	Land Degradation
Significant Objective 1	No Contribution 0	No Contribution 0	No Contribution 0

ANNEX F: TAXONOMY WORKSHEET

Level 1	Level 2	Level 3	Level 4
Influencing Models	Transform policy and regulatory environments	Demonstrate innovative approaches	Strengthen institutional capacity/decision-making
Stakeholders	Private sector	Civil society	Local communities
Capacity, Knowledge and Research	Knowledge Generation and Exchange	Capacity Development	Learning
Gender Equality	Gender mainstreaming	(multiple selection)	(multiple selection)
Focal Area/Theme	Chemicals and wastes	(multiple selection)	(multiple selection)