



Project Implementation Report

(1 July 2022 – 30 June 2023)

Project Title:	Introduction of an Environmentally Sound Management and Disposal System for PCB Wastes and PCB-contaminated Equipment
GEF ID:	4446
UNIDO ID:	130249
GEF Replenishment Cycle:	GEF-5
Country(ies):	Indonesia
Region:	SA - Southeast Asia
GEF Focal Area:	Persistent Organic Pollutants (POPs)
Integrated Approach Pilot (IAP) Programs ¹ :	NA
Stand-alone / Child Project:	NA
Implementing Department/Division:	ENV / IPM
Co-Implementing Agency:	N/A
Executing Agency(ies):	Ministry of Environment and Forestry
Project Type:	Full-Sized Project (FSP)
Project Duration:	60 months
Extension(s):	5
GEF Project Financing:	USD 6,000,000.00
Agency Fee:	USD 600,000.00
Co-financing Amount:	USD 24,372,130.00
Date of CEO Endorsement/Approval:	10/6/2010
UNIDO Approval Date:	7/26/2013
Actual Implementation Start:	10/10/2013

¹ Only for **GEF-6 projects**, if applicable

Cumulative disbursement as of 30 June 2023:	USD 5,824,970.06
Mid-term Review (MTR) Date:	5/31/2017
Original Project Completion Date:	12/31/2018
Project Completion Date as reported in FY22:	3/31/2023
Current SAP Completion Date:	9/30/2023
Expected Project Completion Date:	9/30/2023
Expected Terminal Evaluation (TE) Date:	9/30/2023
Expected Financial Closure Date:	9/30/2023
UNIDO Project Manager ² :	Carmela Centeno

I. Brief description of project and status overview

Project Objective

This PCB Project has two main objectives, namely: a) To introduce and implement a PCBs management system to reduce and/or eliminate releases from PCB wastes stockpiles and PCBs containing equipment; and (b) To dispose of at least 3,000 tonnes of PCB wastes and PC-containing equipment in ESM.

Baseline

The Republic of Indonesia signed the Stockholm Convention on Persistent Organic Pollutants (POPs) on 23 May 2001 and ratified the multilateral environmental agreement on 11 June 2009. Among obligations mandated to parties are the development of the National Implementation Plan (NIP) for POPs and inventory and phasing-out PCBs toward banning the use of PCB-contaminated equipment until 2025 and complete disposal of PCBs wastes by 2028.

The submission of the original NIP and the updated version in 2008 and 2015, respectively, were part of "Enabling Activities" funded by GEF and implemented by UNIDO. Both NIPs adopted National inventory of PCBs, banning the use of PCB-contaminated equipment until 2025 and complete disposal of PCBs wastes by 2028 as among Indonesia's Priority Action Plans. As stated in both NIPs, future projects/activities deemed necessary to support the Government of Indonesia (GoI) to implement the identified action plans and, hence, fulfill their obligation to the Stockholm Convention.

This GEF-funded project, namely Introduction of an Environmentally-Sound Management (ESM) and Disposal System for PCBs Wastes and PCB-contaminated Equipment (a.k.a. The PCB Project) shall strengthen Gol's policy and technical capacity to carry out ESM of PCBs.

² Person responsible for report content

Please refer to the explanatory note at the end of the document and select corresponding ratings for the current reporting period, i.e. FY23. Please also provide a short justification for the selected ratings for FY23.

In view of the GEF Secretariat's intent to start following the ability of projects to adopt the concept of adaptive management³, Agencies are expected to closely monitor changes that occur from year to year and demonstrate that they are not simply implementing plans but modifying them in response to developments and circumstances or understanding. In order to facilitate with this assessment, please introduce the ratings as reported in the previous reporting cycle, i.e. FY22, in the last column.

Overall Ratings ⁴	verall Ratings ⁴ FY23 FY22	
Global Environmental Objectives (GEOs) / Development Objectives (DOs) Rating	Moderately Satisfactory (MS)	Moderately Satisfactory (MS)

This project shall substantially contribute to the Global Environmental Benefit identified under the GEF Chemical and Waste focal area, through elimination PCBs and PCB containing waste namely:

- Reduced risks on human health and the environment through reducing and eliminating production, use and releases of Persistent Organic Pollutants and their waste
- Reduced risks on human health and the environment through sound management of chemicals and waste of global concern

While number of PCB disposed until FY23 was only less than 3% than 3,000 tons, the Government of Indonesia with support of the project have organized an extensive awareness raising and capacity building on PCB issues and PCB management, respectively. As MoEF is committed to improve monitoring and compliance mechanisms in collaboration with the Directorate General of Law Enforcement and the Directorate General of Pollution and Environmental Degradation Control (through the PROPER program), number of PCB wastes disposed beyond project period is expected to increase. Sufficient amount of reagents and chemicals to dispose the remaining amount to reach 3,000 tons will be provided to PPLi.

Implementation	Satisfactory (S)	Moderately Satisfactory (MS)
Progress (IP) Rating	Salistactory (3)	Moderately Satisfactory (WS)

Implementation Progress of the project within this reporting period is 98% (against 95% disbursement and 98% time spent). Referring to project management dashboard for monitoring, the remaining progress towards 100% accomplishment depends on accomplishment of Terminal Report, the organization of Closing Workshop and disposal of at least 3,000 tons. As explained above, the latter issue will be anticipated by provision of sufficient amount of reagents and chemicals will be provided to PPLi to dispose the remaining target, most likely beyond project duration.

Implementation progress, hence, considered as Satisfactory.

Of 12 original and new risks identified, 7 are already at Low level while 5 are still at Moderate level. Overall risk rating, should be therefore Moderate (M).

³ Adaptive management in the context of an intentional approach to decision-making and adjustments in response to new available information, evidence gathered from monitoring, evaluation or research, and experience acquired from implementation, to ensure that the goals of the activity are being reached efficiently

⁴ Please refer to the explanatory note at the end of the document and assure that the indicated ratings correspond to the narrative of the report

II. Targeted results and progress to-date

Please describe the progress made in achieving the outputs against key performance indicator's targets in the project's **M&E Plan/Log-Frame at the time of CEO Endorsement/Approval**. Please expand the table as needed.

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY23
Component 1 – Policy	and Regulatory F	ramework		
Outcome 1: Legislation meet relevant obligation			cluding incentive r	nechanism, adopted and endorsed to
Output 1.1: Policy and Regulatory framework reviewed, formulated and adopted	A set of regulatory instruments compliant with Stockholm requirements on PCBs (Annex A, part II) adopted.	Currently, to implement the Convention, Indonesia has banned 10 POP chemicals through GR No. 74/2001. Except for the banning of PCB use, this legislation does however not contain specific provision on PCBs management and disposal.	Regulatory instruments, like a regulation framework on PCBs or an official guidance on PCBs Management is drafted, submitted to the relevant legislative bodies, and officially adopted.	Under the previous reporting period (July 2021 – June 2022), the project has successfully achieved main target, outputs and Key Performance Indicator under this component, such as: - Target: A new set of guidance/guidelines particularly focusing on PCBs drafted, implemented and endorsed (100%) - Output 1.1: Regulatory instruments, like a framework regulation on PCBs or an official guidance on PCB management is drafted, submitted to the relevant legislative bodies, and officially adopted (100%) - KII: Regulatory instrument on PCB adopted (100%) Specific activity planned under this section in FY 2021 – 2022 was dissemination of MR 29/2020 to industries. This was successfully addressed under this reporting period by having a hybrid dissemination event attended by 495 participants representing industries. Previously was lacking of specific regulation to guide PCB management in the country, Indonesia is now equipped with: - Ministerial Regulation No. 29 year 2020 on PCB Management (MR 29/2020) - Standard Operational Procedures for Management and Handling of PCB - Technical Guidance for Sound Management of PCB

and/or strive to address four of five GEFs target priorities (facilitated through all GEFs projects) to assist policy development in countries parties to the Stockholm Convention such as: 1. Policy to put code/label on equipment free of PCBs and those containing PCBs 2. Policies for inspecting and monitoring PCB disposal 3. Policies to restrict expansion of industries not implementing BAT/BEF in reducing releases of PCP 4. Guidelines on ESM and disposal of PCB wastes and decontamination of PCB-contaminated oil and equipment. Building upon achievements in the previous period, effort undertaken by the Project within the remaining of project duration (as covered under this reporting period) aims at levering compliance of PCB owners with adoption of environmentally sound management of PCB. The effort is particularly in line with GEF's prontites #3 and #4 above. To address these specific targets would require a systematic policy and operational approach that entails support from other Echelon 1 and Echelon 2 units with the Ministry of Environmental Pollution and Degradation Control. In this regard, the project is currently supporting McEF in updating and optimizing compliance instruments for monitoring of electrical equipmen and material susceptible for PCB contamination (transformers, capacitors and dielectric oil), McEF in own the process of integrating parameters for PCB monitoring and initial assessment as among critera in the Public Disclosure Program for Environmental Continuance in the continuance in the continuance in the capacity in the process of integrating parameters for PCB monitoring and initial assessment as among critera in th	Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY23
initial assessment as among criteria in the Public Disclosure Program for Environmental Compliance	Project Strategy	KPIs/Indicators	Baseline	Target level	Outputs delivered under this component significantly contribute to and/or strive to address four of five GEF's target priorities (facilitated through all GEF's projects) to assist policy development in countries parties to the Stockholm Convention such as: 1. Policy to put code/label on equipment free of PCBs and those containing PCBs 2. Policies for inspecting and monitoring PCB disposal 3. Policies to restrict expansion of industries not implementing BAT/BEP in reducing releases of POP 4. Guidelines on ESM and disposal of PCB wastes and decontamination of PCB-contaminated oil and equipment. Building upon achievements in the previous period, effort undertaken by the Project within the remaining of project duration (as covered under this reporting period) aims at levering compliance of PCB owners with adoption of environmentally sound management of PCB. The effort is particularly in line with GEF's priorities #3 and #4 above. To address these specific targets would require a systematic policy and operational approach that entails support from other Echelon 1 and Echelon 2 units with the Ministry of Environment and Forestry, namely the Directorate General of Law Enforcement and the Directorate General of Environmental Pollution and Degradation Control. In this regard, the project is currently supporting MoEF in updating and optimizing compliance instruments for monitoring of electrical equipment and material susceptible for PCB contamination (transformers, capacitors and dielectric oil). MoEF is now in the process of integrating
to be developed to address large,					parameters for PCB monitoring and initial assessment as among criteria in the Public Disclosure Program for Environmental Compliance (PROPER). Specific approaches are

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY23
				with electrical equipment and materials. In 2023, MoEF registered more than 3,000 companies in the PROPER. Integration of sound management of PCB into PROPER would increase adoption and implementation of PCB management by industries registered in the PROPER. Especially as major industrial sectors that own most of PCBs (and electrical equipment) are registered participants of PROPER such as Oil and Gas, Power Generation, Chemicals/Petrochemicals, Pulp and Papers, Smelter/Metalurgy, Mining and Iron and Steel. All together, major entities under these sectors could account for at least 30 - 50% of transformers and capacitors in the country. As a start, the project has suggested MoEF to engage 500 companies which covers companies participating in the national PCB inventory (and used/owned/stored PCB equipment) and new identified companies whose profiles match PCB ownership/possession. This should be accounted as among project's most important exit or sustainability strategies, to which project's remaining resources should be
Output 1.2: Economic and market-based incentives proposed for disposal of PCB-containing equipment and wastes.	An incentive mechanism for supporting the timely ESM disposal of PCBs equipment and waste agreed and implemented	No incentive mechanism for ESM management of PCBs in place	An incentive mechanism, based on sound market analysis and subject to a financial and sustainability assessment, is adopted in due time to support PCBs disposal within project timeframe.	Allocated as necessary. Main target output under this subcomponent is: an incentive mechanism, based on a sound market analysis and subjected to a financial and sustainability assessment, is adopted in due time to support PCBs disposal within project timeframe (Output 1.2). This output directly contributes to and/or strive to address another GEF's target priority such as: 1. Policies on investment, tax, and custom to encourage the use of imported alternative safe technologies; To respond with this inquiry, the project has accomplished and delivered a formulation of economic instruments and market-based incentives (Output 2) through comprehensive research involving

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY23
				industries (potential owners of PCB, central and local governments, NGOs, universities and research centres).
				A comprehensive research document on Economic Instrument and Incentive Mechanism (Output 1.2) has been well-developed through industries-targeted research and a focus group discussion.
				As the output, this has been considered 100% achieved as the current hazardous wastes management regime in the country does not acknowledge a state-based incentive for industries (especially private industries) to manage hazardous wastes. This becomes the main reason, to establish sound management of PCB in the country, the government opts for prioritize policy compliance over developing and introducing economic incentives (subsidies, tax period, tax deduction etc). Accordingly, as reported in the previous reporting period, the Project
				could not further undertake any necessary actions towards ensuring full adoption of this economic scheme to the government.
				However, as a critical lesson learned from the project, a total USD 20,000 financial incentive provided to owners of PCBs through the Operating Entity (c.q. PT. PPLi) as cost deduction to every tonnage of PCB disposed has levered an economic income of at least USD
				135,000 to dispose 40 tons of PCB. This is a proof that a financial incentive mechanism through a proper channel should not be overlooked by the government of Indonesia as it would result in tonnage of PCB disposed for the
				sake of environmental protection and economic gain, which will positively impact on creation and/or maintenance of new job opportunities, income and welfare. In
				other case, provision of technical support to PCB owners also resulted in disposal of at least 22 tons of PCB, valued at more than USD 74,000 for the operating entity. A

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY23
				total of 62 tons PCB were disposed and USD 209,000 were gained from such interventions.
				While the government prioritizes implementing the provisions of MR 29/2020 (over economic incentive), which mandate PCB stockpiles/wastes management for owners, companies participating in the PROPER would be granted more flexible timelines, which can also be considered as incentive for them. During this reporting period, UNIDO provided technical advices and management perspectives to strengthen the integration of PCB into PROPER.
				A combination of financial and technical incentives, as proven under this project, would achieve not only target under SDG 12, but also levers impacts on other SDGs. With the incoming "regulatory incentive" provided by PROPER, there should be more rational reasons for industries to adopt and implement sound management of PCB in the country.
Component 2 – Institutional Capacity Building and Development				
Outcome 2: Strengthened institutional capacities on PCB management at central government level and at provincial				

level in selected province	•		nagomoni ai conii	
Output 2.1: Capacity on PCB management built/ strengthened among government staff in the central level.	Capacity building needs for governmental institutions are assessed. Number of training addresses identified needs is designed and carried out successfully.	PCB inventory team was established during the PPG, this team can serve as initial PCB working group to be trained on ESM.	A PCB working group of at least 10 selected people will be trained on all technical, regulatory, financial, health and safety aspects of Environmentally Safe Management of PCBs enabling them to conduct training to other relevant stakeholders.	Under the previous reporting period (July 2021 – June 2022), the project has successfully achieved main targets and outputs under this component. Target at outcome level is At least 20 core staff (focal points) covering local governments at provincial level in Java Island intensively trained to implement PCB management awareness and training to other relevant stakeholders. Outcome level target under this section have been 100% delivered against set of targets set in the project document and beyond. For example, of only 20 core staff targeted for training of trainer, the project has successfully trained 190

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY23
				core government staff from several provinces in Java and Sumatera.
				PCBfree website management training for MoEF's staff was conducted. This was successfully organized involving 5 key staff of MoEF who are responsible for website management and social media communication.
				Particularly for this sub-component, the project has delivered: - Target: A PCB working group of at least 10 selected people will be trained on all the technical, regulatory, financial, health and safety aspect of Environmentally Safe Management of PCBs enabling them to conduct training to other relevant stakeholders.
				Output 2.1: Capacity on PCB management built/strengthened among government staff in the central and provincial level
				Both target and Output for section 2.1 have been 100% achieved.
				As previously reported, a Technical Working Group (TWG) was established consisting of members from MoEF, the Ministry of Energy and Mineral Resources, the Agency of Assessment and Development of Technology (now Agency for National Research and Innovation/BRIN), PT. PPLi (as the Operating Entity) and UNIDO. The TWG has been successfully carried assessment, selection and evaluation of appropriate non-thermal disposal facility for Indonesia.
				A team of selected operator from PT. PPLi was trained on technical and safety aspects for operation of non-thermal disposal facility established and commissioned at PPLi. The team is the key for sustaining the operation of facility at PT. PPLI and for the business-to-business approach for PCB disposal.

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY23
Output 2.2: Canasity	Number of stoff	Limited number	DCR inventory	Various training activities, workshops, and the provision of necessary equipment have been meticulously designed and successfully implemented to enhance technical capabilities. Overall, under this section (Output 2.1) the project has been able to delivered a total of 22 trainings with 1,056 participants consisted of 376 female (36%) and 680 male (64%).
Output 2.2: Capacity built/strengthened, including laboratory capacity, to conduct extended inventory on PCBs in selected provinces covering at least Java island	Number of staff trained to conduct proper inventory. Availability of a PCBs inventory covering at least all the provinces of Java Island, based on site survey, questionnaires and sampling. Availability of a PCBs management plan drafted and agreed by relevant stakeholders.	Limited number of staff are able to conduct inventory of PCBs. Data on PCBs contaminated equipment are not sufficient to establish a sound PCB management plan, which indeed has never been implemented. Efforts carried out in the course of the PPG in updating the inventory of PCB in Indonesia suggest that up to 40% of the transformers tested may have a PCB content higher than 50 ppm.	carried out covering at least Java Island.	Targets anticipated under this section are: PCB inventory team established At least one laboratory accredited to analyze PCBs A PCB inventory (including labelling and registration of identified PCB equipment in the project PCB database) carried out, covering at least all the provinces of Java Island A PCB management plan for the project, based on inventory outcome and priority considerations, which can be used as a model for the country PCB management plan, drafted and agreed among relevant stakeholders. As reported in the previous PIR FY 2021 – 2022, all the anticipated targets above have been fully achieved 100%. Those targets contribute to 100% achievement of main anticipated output under this section, namely: Capacity built/strengthened to conduct extended inventory on PCBs in selected provinces covering at least Java Island. As reported, two series of national extended PCB inventory were carried out in 2015 – 2016 and 2019 – 2020. At each Serie, a PCB Inventory Team was established by combining field technical team and government team (local and central). The PCB Inventory Team was successfully carried out inventory in Java and Sumatra in cooperation with central and particular local government who assisted on

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY23
				administrative aspects on the field—which served as key success for inventory of more than 4,500 samples from more than 1,100 industries.
				All tested transformers were label referring to the results of PCB analysis by both Dexsil (100%) and GC-ECD (10%). All data are stored as registered MoEF's database with more than 3,000 tons PCB were identified. This contributes to KII 2 Amount of PCBs equipment, which have been already identified and registered in the project database, committed for disposal (equipment weight) at 100%.
				A comprehensive report for the inventory was compiled with an additional statistical analysis covering national extrapolation for PCB stockpiles in the country, for both in used transformers and wastes.
				The statistical report has become among main references for the development of Indonesia's 1st PCB Management Plan.
				Through efficient use of resources, the project has been able to established 2 accredited public laboratories for PCB analysis instead of 1 anticipated by the project (as per project document) and strengthened 2 existing PCB laboratories. The 2 accredited PCB laboratories are situated at and operated by MoEF (PSIKLH, previously PUSARPEDAL) and BRIN. The laboratories are equipped with the latest Gas
				Chromatography Electron Capture Detector (GC-ECD) and Automatic Sample Preparation Unit.
				The other 2 PCB laboratories improved by the project are PLN Pusertif's laboratory and PPLi's laboratory with the provision of Automatic Sample Preparation Unit and a GC-ECD, respectively.
				Two activities planned under this section in FY 2021 – 2022 were:

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY23
				Preparation and implementation of handover of equipment for PCB analysis Technical assistance and capacity building on PCBs Management provided for PLN
				Both planned activities were successfully organized. Handover of all equipment for PCB analysis at MoEF, BRIN, PLN and PPLi have been successfully accomplished. All equipment at four laboratories are now registered as the state's assets and are eligible for having national budget for operational and maintenance. This handover ensures/facilitates sustainable operation and maintenance of PCB laboratories beyond project management.
				Trainings target not only core government staff but, among other, also core staff of State-Owned Electrical Company (PT. PLN) particularly those from Environmental Division. As the largest electricity producer and distributor in Indonesia, PLN own and operate most of transformers (and capacitors). The company has a total of 553,178 installed transformers, with 2,326 units in substations and 550,852 units in distribution stations.
				PLN trainings have positively impacted on adoption and implementation of sound management, such as: 1. Nation-scale self PCB inventory. At the time, PLN has accomplished PCB testing to power and transmission transformers (in addition to 5,000 samples provided by the project)
				2. Ongoing development/drafting of PLN Standard for PCB Management which will serve as a high-level national instruction for adoption of PCB management by all business unit (power, transmission and distribution)

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY23
				3. Ongoing mandatory development/drafting of PCB Management Plan by all business unit. This management plan would consist of strategies (objectives, outputs/targets and actions plan) in all stages of sound management of PCBs
				Particularly on training on the development of PCB Management Plan (roadmap), a total of two sessions were supported by the project, with a total of participants nearly 100 individuals covering units in Java and Sumatera. The roadmap document to guide PLN toward PCB-free by the end of 2028 is in its final stages and will soon receive approval from its high-level management. MoEF highly appreciates this development and is committed to extend its continued technical support to PLN. Considering commitment and all efforts, progress and ongoing results
				achieved by PLN so far, it is undoubted that PLN would appear as the project's champion for PCB management from which lesson learned and best practices could be harvested to be distributed to industries (private and state-owned).
				As previously reported, a PCB management guide, including a comprehensive annex with technical information on handling PCB waste and PCB-contaminated equipment, has been prepared and used to provide guidance to industries.
Component 3 – Pilot E	nvironmentally-S	ound Managemer	nt of PCBs	
Outcome 3: ESM of PCI disposal of targeted PCI		collection, packagii	ng, registration, lab	peling, transportation, storage and
Output 3.1: Operating entity (OE) selected	selection of an operating entity		disposal	The anticipated output under this section is to have an Operating Entity (OE) selected to sustainably operate and maintain the established non-thermal PCB disposal facility. As the target, this section anticipates:

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY23
			handling and disposal selected. Technical and analytical capacity of the operating entity upgraded as needed.	 Institutional capacity of candidate entities for PCB handling and disposal assessed. One operating entity for PCB handling and disposal selected. Technical and analytical capacity of the operating entity upgraded as needed. Output and targets under this section have been reported in FY 2021 – 2022 as 100% achieved. The Ministry of Environment and Forestry (MoEF) has selected PT. Prasadha Pamunah Limbah Industry (PPLI) through a rigorous process in compliance with government regulations and mechanism. Following the selection, PPLi has gained a comprehensive technical training for the operation and maintenance of the facility as well as on-job training session are ready to operate non-combustion technology to its fullest potential. Most importantly, as facilitated by the project, PPLi also gain a comprehensive understanding of an integrated business model (the socalled one-stop PCB management solution) tailored to the specific requirements of PCB management. Selection of PPLi—as a private company (with only 5% government share)—meets project's target on having public-private partnership (PPP) in sound management of PCB in the country. PPP is another project's exit strategy to ensure the continuity and sustainability of PCB disposal in the country toward PCB free by 2028.
Output 3.2: Pilot ESM system for PCBs established on the identified PCB owners sites	The overall procedure for PCBs equipment identification, labelling, tracking and transportation are established with proper technical code of practices and implemented.	and disposal of hazardous wastes exist, these do not cover PCBs containing	Code of practices for packaging, transportation, labelling, tracking, temporary storage and disposal of PCBs drafted, translated in English and	The anticipated output under this section is: Pilot ESM system for PCBs established on identified PCB owners' sites. The correspond targets to this output are: - Code of practices for packaging, transportation, labeling, tracking, temporary storage and disposal of PCBs drafted, translated in English and Indonesian, and approved

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY23
Project Strategy	RPIS/III GICALOTS	Daseille	Indonesia, and approved. Operating entity properly equipped and licensed for carrying out packaging, transportation, labeling, tracking, temporary storage and disposal.	- Operating entity properly equipped and licensed for carrying out packaging, transportation, labeling, tracking, temporary storage and disposal In previous reporting period (FY 2021 – 2022) it has been reported that the technical code of practices was developed for Indonesia. The code of practices serves as a valuable resource in guiding and supporting owners of PCB in their efforts to ensure environmentally responsible and sound management of PCB. During this reporting period, however, the project has achieved a significant progress by having PPLI been granted a technical license from MoEF for the operation of nonthermal PCB disposal facility. The granted of technical license has accomplished the achievement of Key Impact Indicator (KII) 2 under the project, that is Disposal facility established, tested and permitted for an overall disposal capacity suitable to cover or exceed project needs compliant with the requirement of Stockholm Convention. KII 2 is now at 100%. Following the receival of the operational license and to acquire a deeper technical comprehension of the operational procedures of the technology/facility for PCB processing, PPLI has commenced an independent full-scale operation with the support of UNIDO and its contractors, particularly for the troubleshooting. This took place with this reporting period as was an anticipated activity under the previous FY 2021 – 2022 report (PCBs disposal facility operation and troubleshooting training for Operating Entity). Another significant achievement made under this period is the handover of PCB processing facility from the project (UNIDO) to the Government of Indonesia (GoI)

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY23
Output 3.3: PCB treatment facility established or functional	overall disposal capacity suitable to satisfy or exceed project needs. Amount of PCBs	enough disposal capacity in the country to satisfy the need of PCBs disposal in compliance with the SC BAT/BEP criteria and deadline. There is currently not enough disposal capacity for disposing of the	criteria, for a capacity suitable to fulfill or exceed project	which turns their status as a State-Owned Asset (<i>Barang Milik Negara</i> /BMN). Following the completion of the handover process (from UNIDO to the GoI) PPLI shall submit a Leasing Proposal/Application to utilize the BMN which would formalized by the signing of a Cooperation Agreement between PPLI and MoEF. Currently, the process is still ongoing by PPLI preparing the proposal/application for submission to MoEF. Output under this section correspond with two target and one KII. Targets under this section are: One or more suitable disposal facilities, compliant with the SC BAT/BEP criteria, for a capacity suitable to fulfil or exceed project needs, established, tested and permitted 3000 tons of PCBs equipment or waste disposed by means of such facility This is the only Output that slightly does not reach 100% achievement until this reporting period. Achieving at 99.5%, the output still could not deliver target to dispose at least 3,000 tons of PCB wastes until the end of this reporting period. Until the reporting period, the amount of destroyed PCB waste remains low (around 80 tons or less than 3% of the target). Referring to deliberate discussions held during several occasions with MoEF and PPLi, it is concluded that relatively low legal/law enforcement as among the main causes. This contributes to low achievement of KII 4 Amount of PCBs equipment treated (weight of PCBs containing equipment) at 2.75% of 3,000 tons targeted (or around 80 tons). In Indonesia's legal system, an MR (including MR 29/2020) cannot have any sanctioning mechanism. Possession of PCB could not be considered as violation to law, except

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY23
Project Strategy	KPIs/Indicators	Baseline	Target level	for pollution and overdue storage of PCB wastes. To respond to this situation, the newly acting National Project Director of the project (c.q. MoEF's acting Director of Hazardous Chemicals Management) has suggested to organize a workshop. The workshop will provide an opportunity for industries to directly be informed about MoEF's near future plan to increase legal approach to urge industrial compliance to adopt sound management of PCB. The main target of the workshop is to encourage compliance with regulations on PCB management. The workshop is also expected to collect feedbacks to improve monitoring instruments for the implementation of regulations related to PCB management. This should be reflected as an activity under the next FY 2023 – 2024. Despite this low level disposal target (less than 3%), the project in cooperation with MoEF and PPLi have taken necessary measures such as: Reagents and material required for disposal of 3,000 tons PCB waste will be provided to PPLI PPLI has been able to carry out commercial activities after being granted temporary operational permission by MoEF
				- PPLI has deployed its human resources to acquire more PCB wastes/stockpiles from the respective potential owners/industries
				Several anticipated activities in FY 2021 – 2022 were: 1. Commissioning of the facility in PPLI 2. Facility launching 3. Review of environment survey result on PCBs pollutant surround PPLi. Report provided by PPLI 4. Treatment maximum 3,000-tons of PCB wastes.

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY23
				Results of those activities under this FY 2022 – 2023 reporting period are as follow: 1. The non-thermal PCB disposal facility has been fully commissioned as narrated under section 3.2 2. The facility has been officially fully launched in May 2023 inviting industries, partner ministries, local government and media/press 3. PPLi fully supports regular environmental PCB monitoring at their site, to be integrated with their regulator PCB monitoring 4. Only around 80 tons PBC were disposed until this reporting period Efforts are currently formulated to optimize scenario that shall increase the opportunity of the facility to received and process more volume of PCB waste, thus further increasing its operational capacity (see previous narrative on an anticipated workshop to be implemented next FY).
Component 4 - Public	awareness raisir	ng and advocacy o	campaigns	
Outcome 4: Increased p	ublic awareness o	n issues concernin	g PCBs	
Output 4.1: Stakeholders engagement including NGOs and civil society established	Number of stakeholders targeted and participating in raising awareness initiatives.	Identification of target stakeholders for raising awareness on PCBs issues never carried out.	At least 2 universities, one NGO, 2 public institutions, 2 waste management companies identified and participated in raising awareness initiatives.	 Target to be achieved under this section is: At least 2 universities, one NGO, 2 public institutions, 2 waste management companies identified and participating in raising awareness initiatives. Target and, hence, output under this section has been achieved above 100% expectation as previously reported. As an overall achievement under this section, awareness raising activities (seminar and workshops) have reached and engaged more than 4,000 participants representing universities, NGOs, public institutions (central and local governments, waste management companies, laboratories, etc). They were all reached and engage through facilitation of 19 awareness raising and advocacy events of various

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY23
				scales (from local, regional to national).
				There were no specific activities anticipated under this section in FY 2021 – 2022 report.
				Efforts to introduce the PCBs Project regarding PCB management during the reporting period were carried out through the participation of the PCBs Project in two regional-scale exhibition events in Bali, Indonesia, and a global event in Geneva, Switzerland. The Indonesian delegation showcased the latest developments in the PCB management facility at PPLI, which received a positive response from visitors.
				In Geneve, the so-called PCB Fair was organized in Geneve Switzerland in May 2023 during Conference of Parties of the Basel, Rotterdam and Stockholm (BRS) Conventions. The booth reached and closely engaged more than 72 participants of nearly of participating parties in discussion, games and photo session (including high level participants from countries and the secretariate).
				IN the next FY 2023 – 2024 the project is anticipating a regional-scale workshop which could also be considered under Component 5 as a closing workshop.
Output 4.2: Development and implementation of training and awareness raising programs	Awareness raising material. Number of awareness raising events held. Outcome of	No awareness raising material on PCBs is available in the country, either for the general public or for specific stakeholders.	Awareness raising materials specifically developed for universities, operators of PCBs owners (i.e., utilities, large factories), public institutions	Target to be achieved under this section is: - Awareness raising material specifically developed for: Universities, Operators of PCBs owners (i.e., utilities, large factories), public institutions and NGOs
	questionnaire surveys.		and NGOs.	As reported in previous reporting period, output and target under this section has been 100% reached and beyond. Awareness raising materials (leaflets, brochures, videos, website, etc) and social media channels were designed and delivered to reach and

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY23
				engage specific stakeholders and general public.
				While there were no specific activities anticipated under this section in FY 2021 – 2022 report, two publications were produced and distribute (in hard and soft copies) to visitors in GEF Asia-Pacific Workshop in Bali and the PCB Fair booth in Geneve, in addition to one collaborative video (Indonesia, the Philippines and India) and a video produced by PPLi explaining PCB disposal facility.
				To ensure broader reach and accessibility, all materials pertaining to PCB awareness raising, PCB management and other reports and deliveries have been made available on a dedicated PCB management website managed by MoEF. This website shall serve as a main platform, enabling wider audience to access and be benefited from the resourceful information on PCB knowledge.
				Detail of awareness raising materials are available under section VII Knowledge Management.
Component 5 - Monito	oring and Evaluati	ion		
Outcome 5: Effective pr	oject monitoring ar	nd evaluation imple	mented	
Output 5.1: M&E mechanism designed and implemented	Types of monitoring and evaluation mechanisms and activities established.		Inception Meeting is established at the initial stage of project implementation. Project Steering Committee	As reported in previous reporting period, most targets under this section have been achieved, except for Terminal Evaluation, Project Terminal Report and an additional Closing Workshop (the latter could also be considered under Component 4).
			(PSC) is established and PSC Meeting is organized annually. Annual Work Plan and Project Implementation Reviews (PIR) prepared and	The regular monitoring and evaluation mechanisms have been diligently implemented, encompassing the involvement of both external and internal PMU (Project Management Unit) evaluators. These mechanisms are conducted through various means, including Project Steering Committee (PSC) Meetings and Project Strategic Meetings. Through these evaluation processes, the progress and effectiveness of the project are

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY23
Project Strategy	KPIs/Indicators	Baseline	submitted annually. Mid-term external evaluation is carried out. Final external evaluation is carried out. Terminal Report is completed. Project Management Information System is established.	continually assessed, allowing for informed decision-making and strategic adjustments as necessary. The combination of external and internal evaluators ensures a comprehensive and objective evaluation of the project's activities and outcomes. During this reporting period, the final PSC Meeting was organized on 28 February 2023 which resulted, among others, in critical project nocost extension until the end of September 2023. Obstacles and challenges faced by the project in order to achieve the project targets were regularly monitored and evaluated, enabling PMU (UNIDO and the government to decide or elaborate strategy for coping with various project's technical and administrative issues. For instance on how to optimize supervision mechanisms toward PCB management compliance by industries through two possible approaches: PROPER program and monitoring instruments. Other achievements during this reporting period include the drafting of the Project Completion Report, as well as the completion of the handover process from UNIDO to MoEF equipment for PCB sample preparation and analysis at MoEF
				(PSIKLH), BRIN, PLN and PPLi, (see section 2.2).

III. Project Risk Management

1. Please indicate the <u>overall project-level risks and the related risk management measures</u>: (i) as identified in the CEO Endorsement document, and (ii) progress to-date. Please expand the table as needed.

	Risks	Risk level FY 22	Risk level FY23	Mitigation measures	Progress to-date	New defined risk ^[1]
1	Delays in the adoption of guidance	L	L	Adoption of official guidance as an alternative to the development of a full	As reported since previous reporting period, this risk is no	

	document and other regulatory tools on PCB management			regulation, will ensure a faster approval. The institutional capacity building component of the project will provide training to the government and other stakeholders and may reduce the risk.	longer relevant to the project, since the guidance had been adopted by the lex specialist regulation MR P29/2020 concerning PCBs Management, that have been issued on December 2020. Risk level remains Low.	
2	Lack of driving force for PCB owners and industrial stakeholders to participate and have their PCB wastes disposed	L	L	Provisions of financial incentive for disposal (channelled through the Operating Entity) and technical support—as an alternative to formalize economic and incentive mechanisms—shall motivate adoption and implementation of PCB disposal by wastes owners.	High profiles companies/industries from oil and gas, power generation, automotive, manufacture and cement industries have adopted, developed initial or moderate sound management plan and disposed their PCBs. Considering the prevailing low compliance ratio among PCB owners, the project will conduct a workshop aiming to promote more effective PCB waste destruction in line with environmentally-sound management principles, in accordance with national policies and applicable international regulations. Participants will engage in in-depth discussions and analysis on the challenges and constraints related to PCB management, including regulatory mechanisms to enhance PCB owner compliance. A coaching clinic session will also be held to provide benefits to participants, who in this case are PCB owners, in developing strategic measures aligned with the prevailing PCB management regulations in Indonesia.	
3	Lack of willingness for local staff	L	L	The training will deliver competences which will represent a competitive	As explained in the previous reporting period, The importance	

	and other stakeholders to participate in the trainings			advantage for the career of people trained, and which will be useful not only on ESM of PCBs but also on the ESM of hazardous waste and chemicals. As a minimum, the project will benefit from the competences of the PCB inventory group already established at PPG stage.	of environmental inspection at the district/city level has been recognized since the dissemination of MR P29/2020 last year. The government is in the process of preparing environmental inspectors, starting with a PCB management workshop with the industry to ensure that inspectors can effectively enforce the law related to PCB management.	
4	Delay in the identification or installation of a building to house the facility that will demonstrate an ESM of PCBs will affect the project implementation schedule	M	L	The operating entity will be selected during the initial phase of the project and their commitment secured. To assist the operating entity prepare their own financial study, a business plan and several feasibility studies will be prepared.	Risk has been appropriately solved with OE co-financed provisions of building and infrastructures to host PCB disposal equipment. Commissioning was accomplished, steady state is reached/on progress and technical operational capacity is built. Currently, the OE is independently operating the facility, enabling them to gain a better understanding of technical aspects related to operations and establish a solid foundation in business management. The OE will closely collaborate with MoEF who shall actively monoitor PCB management activities conducted by PCB owners.	
5	Delay in the issuance of environmenta I and other local permits will affect the project implementation schedule.	L	L	The selection of a Project Site or operating entity that has previous experience in obtaining environmental and other local permits for operation would reduce or eliminate this risk.	Technical operational license has been granted by OE. OE and MoEF is now entering leasing agreement for sustainable business operation.	
6	Inability of the OE to operate the selected technology to	L	L	Trained Manager and operators of the Disposal Facility and an effective Monitoring and Evaluation	Following appropriate trainings PPLI has demonstrated their ability to operate and	

	dispose PCBs and PCB containing equipment in an environmenta lly sound manner			component of the Project in place would reduce or eliminate this risk.	troubleshoot the facility successfully and independently.	
7	Exposure of the operators and workers of the facilities and the community to the hazards of PCBs	L	L	Extensive awareness raising campaigns and proper training will be undertaken to ensure that the community/ies, operators and workers of the facility understands the risks and impacts of PCBs to human health and environment.	In general, besides equipping the working area with an exhaust system capable of extracting air contaminated by Perchloroethylene and PCBs, unofficially PPLI has conducted air quality testing in the workplace, which indicates no surpassing of safe indicators. Moving forward, PPLI plans to conduct regular testing according to their SOP. Therefore, UNIDO has provided PPLI with manual air quality testing equipment that can be operated by PPLI.	
8	Delay in the selection of the stakeholder to implement the public awareness component may affect the project implementatio n	L	L	The establishment of selection criteria for the selection of stakeholders will reduce the risks.	Awareness raising activities have been fully accomplished.	
9	Delay in installation and commission of PCBs disposal facility due to Covid-19 global pandemic and travel restriction	М	L	Maintaining adequate communication and coordination with the Ministry of Foreign Affair to get updated on travel restriction policy from Italy and Malaysia as well as arrangement for working visas.	As reported previously the installation has been completed.	
10	Delays in project implementatio n and low-	L	L	Carefully selected success indicators and the adaptive monitoring practice will enable timely	Regular updates on the progress and achievements, as reflected in the Project's	

	quality performance			implementation and high- quality results.	monitoring dashboard, are provided to the PMU. These updates provide specific and upto-date information, facilitating productive discussions and enabling swift and accurate decisionmaking and coping strategy.	
11	The project could not identify sufficient amount of PCBs stockpiles to meet project's goal/target (disposal of 3,000 tons)	М	L	Two series of extended PCBs inventory have been accomplished in Sumatra and Java. In addition, support was provided to PLN self PCB inventory.	Sufficient amount of 3,000 tons PCB has been identified under two phases PCB inventory (with few tons have been disposed during commissioning of PCB disposal facility).	
12	Delay in setting-up and/or agreeing on disposal cost of PCBs between OE and MoEF	L	L	The Ministry of Environment and Forestry, in close coordination with the Ministry of Finance, is setting-up the most appropriate renting cost of the facility for PPLI under the public-private partnership mechanism.	The renting cost is a capital expense that shall influence the whole operational cost at PT. PPLi and eventually disposal cost per kg/tonnage. Good progress and communication however were taking place facilitated by the project between PPLI and MoEF, involving the Ministry of Finance, specifically the Directorate General of State Assets (DJKN), to obtain clarity on the procedures for setting the renting cost. Following advice from DJKN, PPLI is currently preparing a lease application proposal to be submitted to MoEF, which includes the proposed renting cost.	

^[1] New risk added in reporting period. Check only if applicable.

2. If the project received a sub-optimal risk rating (H, S) in the previous reporting period, please state the
actions taken since then to mitigate the relevant risks and improve the related risk rating. Please also elaborate
on reasons that may have impeded any of the sub-optimal risk ratings from improving in the current reporting
cycle; please indicate actions planned for the next reporting cycle to remediate this.

N/A		

3. Please indicate any implication of the COVID-19 pandemic on the progress of the project.

The implications of the COVID-19 pandemic on the project's progress involve the following aspects:

- 1) Completion of the installation of PCB processing facilities;
- 2) Completion of the commissioning of PCB waste processing facilities; and
- 3) Delay in addressing one out of five target activities in Component-1, namely: Policies for inspecting and monitoring PCB disposal.

Particularly for point number three (3), similar to the other work targets mentioned in points (1) and (2) that have been reported in the previous reporting period, the COVID-19 pandemic has shifted one out of five project's work targets under Component-1 related to formulating a law enforcement strategy to the final period of PCBs Project implementation. However, the Project will organize a workshop to provide a solid foundation for the government to move forward in promoting compliance among PCB owners.

4. Please clarify if the project is facing delays and is expected to request an extension.

During the PSC Meeting organized at the end of February 2023, PSC members agreed that the project was still to some extend severely impacted by restrictions during Covid-19, particularly on setting up PCB disposal facility. At the time PSC meeting was organized, the project however demonstrated significant progress toward commissioning and steady-state operation of PCB disposal facility, where vendor was obliged to make improvements to certain parts of the installed technology, resulting in the need for an extended time for commissioning following necessary repairs.

Considering the good progress and the inauguration of the facility to public wide, the PSC members agreed to grant the project the 5th no-cost extension until the end of September 2023. No further extension is requested.

5. Please provide the **main findings and recommendations of completed MTR**, and elaborate on any actions taken towards the recommendations included in the report.

The following are recommendations provided by MTR and the latest status following adequate responses from the project:

- 1. Project to be extended beyond October 2018 by 1 year.
 - Actions toward recommendation:
 - The PCB Project has been granted the fifth (5th) no-cost extension for several reasons until the end of September 2023.
- 2. Review possibility of adopting it as a Ministerial Decree on Draft Official Guidance drafted, including Technical Code of Practice as Annex, and Economic Instrument and Incentive Mechanism. Actions toward recommendation:
 - Ministerial Regulation P29/2020 on PCBs Management was issued and adopted by Gol by December 2020 taking into account critical technical and administrative aspects from the Codes of Practices. Economic Instrument and Incentive Mechanism has been developed, submitted and received by MoEF.
- 3. Research document on economic incentive drafted. The document can ensure making PCBs inventory the responsibility of the owner, ensure reporting on the status of PCBs in use. ensure

targeted inspection programs, or other ad-hoc site inspections at PCB owners, and guidance on avoidance of cross-contamination

Actions toward recommendation:

Major technical approaches in sound management of PCB have been stipulated under MR P29/2020 as industries' responsibilities/obligations.

4. For a continuation of PCB analysis, project to consider procuring the analysis equipment and transferring it to an appropriate laboratory, for e.g. the BPPT

Actions toward recommendation:

PCBs Laboratory has been successfully established and accredited at BPPT (now BRIN). In addition, another laboratory was established and supported from the PCB Project, at PUSARPEDAL (now PSIKLH) and two laboratories are improved with provisions of additional equipoment from the project (i.e., automatic preparation sample unit for PLN and GC-ECD fro PPLi).

5. To draft procurement requirement to be started as soon as practically possible and Business Plan to be prepared regarding to the EMS of PCBs activities

Actions toward recommendation:

The drafting of business plan for OE is no longer considered as priority since the selected OE (PPLI) is an experienced hazardous wastes company with an extensive portfolio in the business

6. Consider to conduct one lecture/presentation (for eg. 45 mins.) in the Chemical Engineering Course at the National University to provide brief information on EMS of PCB project activities as part of public awareness raising activity.

Actions toward recommendation:

This has not been carried out due to limited personnel at PMU to perform multiple tasks.

IV. Environmental and Social Safeguards (ESS)

1. As part of the requirements for projects from GEF-6 onwards , and based on the screening as per the UNIDO Environmental and Social Safeguards Policies and Procedures (ESSPP), which category is the project?
☐ Category A project
☐ Category B project
☐ Category C project
(By selecting Category C, I confirm that the E&S risks of the project have not escalated to Category A or B).

Please expand the table as needed.

	E&S risk	Mitigation measures undertaken during the reporting period	Monitoring methods and procedures used in the reporting period
(i) Risks identified in ESMP at time of CEO Endorsement	N/A	N/A	N/A
(ii) New risks identified during project implementation (if not applicable, please insert 'NA' in each box)	N/A	N/A	N/A

V. Stakeholder Engagement

1. Using the previous reporting period as a basis, please provide information on **progress, challenges and outcomes** regarding engagement of stakeholders in the project (based on the Stakeholder Engagement Plan or equivalent document submitted at CEO Endorsement/Approval).

Stakeholder Engagement Strategy under the project, while might not be distinctively differentiated, could be categorized into three groups referring to its main purpose, namely:

- 1. Strategy to Increase Public Awareness
- 2. Strategy to Deliver Capacity Building
- 3. Strategy to Promote Adoption Sound Management of PCB

Under this section, the last strategy (Strategy to Promote Adoption Sound Management of PCB) would be discussed at length with regards to its impacts on project's ability to achieve **disposal target of at least 3,000 tons PCB wastes (under Component 3)** and to achieve **KII 4 Amount of PCBs equipment treated (weight of PCBs containing equipment)**. Both target and key impact indicator are not performing as good as the successful results of awareness raising and capacity building.

Strategy to Promote Adoption Sound Management of PCB aims at encouraging industries or owners of electrical equipment to take voluntary actions towards identification of PCB, labelling, safe handling, safe packaging and storage and disposal of PCB. Until this reporting period (FY 2022 – 2023) number of industries taking of voluntary adoption on sound management of PCB might not be completely recorded given the fact that reporting mechanism as stipulated under MR 29/2020 has not fully effective. Several notable industries identified under this project to adopt sound management of PCB (by excluding those participating in two phases of PCB inventory) are:

- PT. PLN (state-owned electrical company)
- PT. Pertamina Hulu Energy (state-owned oil and gas company)
- PT. Freeport Indonesia (mining)
- PT. Suzuki Indomobil Motor (automotive)
- PT. Goodyear Indonesia (manufacture)
- PT. Indocement Tunggal Prakarsa (cement industry)
- PT. Petrokimia Gresik (petrochemical)

While few of the above companies took action toward identification to disposal of PCBs as the results of dissemination on MR 29/2020, those who own and operate significantly huge/larger amount of transformers and capacitors took significant steps toward planning and/or implementation of PCB management following engagement through combination of the following strategies:

- Introduction to PCB, covering detail information on negative impacts of PCB on human health, environment, sources of PCB and most importantly potential economic, operational and legal impacts on or consequences to companies following possession PCB-contaminated equipment and and/or pollution of PCB to environment. Prominent cases of PCB pollution such as Yusho, Yuchen and Hudson River to PCB pollution cases in Indonesia were provided to industries.
- Dissemination of national legal and policy framework on PCB management (with additional information on Stockholm Convention), particularly the recently enacted MR 29/2020 on PCB management. All mandatory actions, technical guidance and deadline in the MR were disseminated to industries.
- Provision of capacity building targeting general audience to be followed up with dedicated technical backstopping only for companies that prove commitment with sufficient financial and technical capability. While capacity event might be considered as a "broadcasting", the technical backstopping is the "narrowcasting" where single company would explore more detail aspects of PCB management that fit their conditions. While effective, technical backstopping cover only very small number of companies given limited project's resource (expert) and time. Technical backstopping provided only since the end of 2020 therefore target only high profile/leading companies in their respective sectors.

- Project Synergy with international organizations that share common concern on PCB management. Asian Development Bank (ADB) and the World Bank (WB) were providing technical and financial assistance for PLN to develop and improve its distribution performance where PCB management at storage facility was one of critical parameter for PLN's compliance in the Results-Based Loan project that covered several regions in Indonesia. Having a synergy with UNIDO, ADB and WB have been able to delivered technical inputs for the project while UNIDO was benefited by higher commitment toward PCB management driven by financial incentives provided by the RBL project upon PLN's proven performance in PCB wastes management at their storage system.
- Financial support to subsidize disposal cost. Small amount of project's grant (USD 20,000) was provided to companies who were willing to send their PCB waste to PT. PPLi. The grant was managed by PPLI and progressively provided to PCB owner as cost deduction to every tonnage of PCB depending on the amount of PCB wastes to be disposed of. Through the scheme, a total of 62 tons PCB wastes were disposed (consisted of a mix of oil, metal and porous materials).

By providing a total discounted of USD 20,000, the total revenue gained by PPLi for disposing 62 tons PCB wastes was USD 209,000. However, its positive impacts on preventing the leakage of PCB to environment is far greater. Combination of the above approaches provides critical lessons learned for other countries facing or sharing similar conditions/contexts.

Engagement of with Value Chain Actors

Another challenge for industrial compliance with PCB management was the lacking and/or absence of value chains to provide range of service providers along steps of PCB management from planning and implementation of identification and inventory sources of PCB, sampling and analysis, labelling, handling, packaging and storage and disposal.

PPLi as hazardous wastes management company could not provide all the necessary services along PCB management step and is positioned at the very end of value chain as waste processing. To ensure stockpiles of PCB waste are channelled along management cycle to PPLi, services provider at the "upstream" should be available to support PCB owners.

The Project engaged potential laboratories and project's partners (involved in previous project's activities) to discuss the opportunity and investments in PCB management services. The following investments were reported by the following service companies with a total of USD 2,775,000:

Company Name (with Hyperlink)	Services Provided	Investment In 2022 (USD)
PT. PPLI	Handling, packaging, transport, storage, disposal	1,802,300
PT. Petrolab Services	Analysis, PCB free oil purification, retrofilling and health	135,000
<u>Indonesia</u>	index analysis	
PT. Hyprowira	Analysis, PCB free oil purification, retrofilling	600,000
<u>Adhitama</u>		
PT. Ecoverse	Consulting, oil sampling, PCB rapid test	40,000
Indonesia Lestari		
M&I Materials	Esther-based dielectric oil	
(MIDEL)		

Investment ranged from building and infrastructure and PCB testing equipment. In 2022 these services companies reported economic gain of USD 537,000 from provisions of services on sampling, PCB analysis and disposal. The presence of these public PCB analysis laboratory serves as additional testing facility to three public PCB laboratory analysis (PLN Pusertif, BRIN, and MoEF PSIKLH). As reported in the previous reporting period, these emerging services companies continue to echo the dangers and urgency for PCBs management and offer solutions to the challenges faced by owners in managing their PCB.

Stakeholder Engagement in order to lever vibrant ecosystem of PCB management services should be considered as necessary, among others, to ensure the availability of highquality services along PCB management value chains. For instance, in this reporting period, the project identified and received

information from project's partners on several companies providing relevant services on PCB management as follow:

Services Provided	Investment In 2023 (USD)
Management consulting	
PCB analysis in emission	
PCB compliance audit under ISO 14001 and 45001	
PCB analysis	
	Management consulting PCB analysis in emission PCB compliance audit under ISO 14001 and 45001

2. Please provide any feedback submitted by national counterparts, GEF OFP, co-financiers, and other partners/stakeholders of the project (e.g. private sector, CSOs, NGOs, etc.).

N/A

3. Please provide any relevant stakeholder consultation documents.

Project Steering Committee minutes:

4446 INS PSC 2023 minutes.

GD link: https://drive.google.com/file/d/1WOpIWFFVcd6MzmY DBIIWLXJ8fzATAyv/view?usp=sharing

Official letters regarding 5th no cost-extension:

4446 INS 5th No Cost Extension.

GD link: https://drive.google.com/file/d/1Xkxl7GZtJOT47NxGHjvvAlaEDNP_Cgs1/view?usp=sharing

VI. Gender Mainstreaming

1. Using the previous reporting period as a basis, please report on the **progress** achieved **on implementing gender-responsive measures** and **using gender-sensitive indicators**, as documented at CEO Endorsement/Approval (in the project results framework, gender action plan or equivalent),

It is still the same with information reported in previous reporting period.

The PCB Project has Gender Marker 1. It means the project has limited expected contribution to Gender. However, to the optimum extent possible, the PCB Project strives to integrate gender dimension in the planning and implementation of project activities, particularly under component 4 Awareness Raising and Advocacy Campaign. Information/messages disseminated throughout the campaign are harnessed with gender dimension, particularly on how PCBs might differently affect the health and welfare of men and women. However, the presentation of women's involvement in various project activities ranges from 50% to 60%.

VII. Knowledge Management

1. Using the previous reporting period as a basis, please elaborate on any **knowledge management activities** / **products**, as documented at CEO Endorsement / Approval.

During this reporting period, five key topics were prominent for knowledge management activities and/or products:

Activities:

1. Handover of PCB waste processing technology to Government of Indonesia.

This theme encompasses several activities that have been well-documented for future publication purposes, namely:

- a. Field verification of the completeness details of each decontamination and dehalogenation system installed at PPLI;
- b. Second system commissioning and addressing deficiencies; and
- c. On-job training for PPLI operators who will operate both systems.
- 2. Project Steering Committee (PSC) Meeting.

This meeting discussed and opted for solution and/or directives progress, obstacles, and challenges faced by the PCBs Project in addressing project's outputs and targets. These various aspects are compiled by the Project Management Unit and was consulted with the Key Project's Stakeholders in the Project Steering Committee Meeting. In this reporting period, the specific concern for discussion was the fact that as of March 2023, the Project could not fully commissioned the PCB waste processing technology. This has hindered the handover from UNIDO to GoI (c.g. MoEF).

Considering the progress of achievement under this Component which reached 98% as recorded in project's monitoring system, PSC members agreed to the 5th no-cost extension of the implementation period of the PCBs Project until the end of September 2023.

3. The mechanism for establishing operational cooperation between the Operating Entity and MoEF.

As a prerequisite for the sustainability of PCB disposal activity after the completion of the PCBs Project, PPLI and MoEF should come into an agreement for the utilization of the state's asset taking into account all administrative and financial requirements/mechanisms. These requirements/mechanisms were briefed in detail by the Directorate General of State Assets (DJKN), allowing the PCBs Project to determine the necessary actions to secure sustainable cooperation between PPLI and MoEF.

On several occasions, DJKN provided necessary actions and guidance to be taken by each PPLi and MoEF. Several important points include the registration of PCB waste processing technology as the State's Assets, continued with Determination of Usage Status before submission of cooperation scheme and various supporting technical aspects are implemented. Currently, PPLI and MoEF are on track.

4. Launching of the PCB waste processing facility at PPLI.

The inauguration of the facility is important as it carries a strong message toward improved industrial compliance. The establishment of the PCB waste processing facility have attracted significant attention, particularly from the Director General of Hazardous and Toxic Waste Management (PSLB3), who urges an intensify dissemination and outreach toward industries compliance given the available project's timeframe and the stages involved in PCB management. Sixteen major companies, including PT. Pertamina Hulu Energy, PT. PLN, PT. Coca-Cola Europacific, and Nestle, responded positively to the readiness of the facility, which had been a hindering factor in the past. With the facility is ready for operation, the respective management of each industry may effectively plan for PCB management.

5. Compilation of Best Practices and Lesson Learned in PCB Management.

Iterative methodology development for PCB project implementation since 2013 have concluded innovative strategies and approaches for achieving the anticipated outputs and targets under each project component. Particularly, the project compiles elaborated inventory methods which is critical for the preparation of PCB database as the basis for planning and implementation of PCB management. These best practices and lesson learned were compiled and documented in two publications delivered in February 2023.

Products:

The above activities are provided as MoM, reports and publications available on the link provided below.

2. Please list any relevant knowledge management mechanisms / tools that the project has generated.

The knowledge management tool used by the PCBs Project Indonesia is Google Drive. Documentation of various activities conducted within a reporting period is stored and shared, including with the Government, Project Manager, and project partners who require and request access to specific project documents.

Project-related knowledge pertaining to activities carried out can be accessed through the following Google Drive link:

https://drive.google.com/drive/folders/1Z3_m68wlSzp5nyTNW4aV7UngGynFTsJD?usp=sharing

To connect to the Project website is through the following link:

https://pcbfreeindonesia.menlhk.go.id/

While compiled in the previous reporting period, the following social media platforms should be highlighted as part of knowledge management tools:

- YouTube Channel (@PCB Free Indonesia)
- Project social media platform: Facebook (@PCBFreeIndonesia), Instagram(@PCBFreeIndonesia), and Twitter (@pcbfreeindo)

In this reporting period, the project also contributes to facilitate knowledge management of UNIDO Worldwide PCB Project:

http://pcbspro.com/

VIII. Implementation progress

1. Using the previous reporting period as a basis, please provide information on **progress**, **challenges and outcomes achieved/observed** with regards to project implementation.

The PCBs Project fulfilled the mandatory activities, as endorsed by the CEO, to contribute to the Output achievement ratio. Additionally, non-mandatory activities were included, which are deemed crucial for achieving better results and are factored into the Output achievement ratio calculation.

During the reporting period, quantified achievement of mandatory (in red) and with summed mandatory and non-mandatory (in blue) achievements are as follow:

- 1. Component 1 (Outcome): Policy and Regulatory Framework: (100%) (100 %)
 - a. Output 1.1 Policy and regulatory framework reviewed, formulated and adopted: (100%) (100 %)
 - b. Output 1.2 Economic and market-based incentives proposed for disposal of PCB-containing equipment and wastes: (100%) (100 %)
- 2. Component 2 (Outcome): Institutional Capacity Building and Development: (100%) (500%)
 - a. Output 2.1 Technical and human resources capacity for PCB management strengthened: (100%) (800%)
 - b. Output 2.2 Extended inventory on PCBs undertaken in selected provinces covering at least Java Island: (100%) (200%)
- 3. Component 3 (Outcome): Pilot ESM of PCBs: (99.5%) (200%)
 - a. Output 3.1 Operating entity selected: (100%) (100%)
 - b. Output 3.2 Pilot ESM system for PCBs established on the above sites including labelling,

registration, tra	sportation:	(100%)	(200%))
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- c. Output 3.3 An overall amount of 3000 tons PCB wastes disposed of and PCB-containing equipment decontaminated based on selected technical options: (99%) (299%)
- 4. Component 4 (Outcome): Awareness Raising and Advocacy Campaign: (100%) (200%)
 - a. Output 4.1 Stakeholder engagement including NGOs and civil society established: (100%) (100%)
 - b. Output 4.2 Development and implementation of training and awareness programs: (100%) (300%)
- 5. Component 5 (Outcome): Monitoring and Evaluation: (111%) (91%)
 - a. Output 5.1.: M&E mechanism designed and implemented: (111%) (91%)

Meanwhile, quantification based on the activities described in the CEO endorsement document (mandatory only) contributed to the **Project Objective level** is (98%) (222%)

Key Impact Indicators (KII) are also very relevant to measure project's contribution to the establishment of ESM of PCBs in the country. Project's calculation to KIIs reflects not only project's strength, but also the most challenging parts where the remaining focus of the project's us be given, such as:

- KII 1: Regulatory instrument on PCB adopted 100%
- **KII 2**: Disposal facility established, tested and permitted for an overall disposal capacity suitable to cover or exceed project needs compliant with the requirement of Stockholm Convention **89%**
- KII 3: Amount of PCBs equipment, which have been already identified and registered in the project database, committed for disposal (equipment weight) 100%
- KII 4: Amount of PCBs equipment treated (weight of PCBs containing equipment) 2.74%
 Overall project's impact: 75%

2. Please briefly elaborate on any **minor amendments**⁵ to the approved project that may have been introduced during the implementation period or indicate as not applicable (NA).

Please tick each category for which a change has occurred and provide a description of the change in the related textbox. You may attach supporting documentation, as appropriate.

Results Framework	
Components and Cost	
Institutional and Implementation Arrangements	
Financial Management	
Implementation Schedule	This project under the 5 th no-cost extension, to be implemented until September 2023.
Executing Entity	
Executing Entity Category	
Minor Project Objective Change	
Safeguards	
Risk Analysis	
Increase of GEF Project Financing Up to 5%	

⁵ As described in Annex 9 of the *GEF Project and Program Cycle Policy Guidelines*, **minor amendments** are changes to the project design or implementation that do not have significant impact on the project objectives or scope, or an increase of the GEF project financing up to 5%.

Co-Financing	
Location of Project Activities	
Others	

3. Please provide progress related to the financial implementation of the project.

Total financial implementation (project's disbursement) as of 30 June 2023 is USD 5,824,970.06 which accounts for 95% of the GEF Grant. Component 3 accounts for 64% of the total expenditures. Description of main expenditures (by major outputs/WBS) is provided in the project delivery report below.

Co-financier	Type of Co- financing	Co-financing Amount (\$)
Ministry of Environment (National Government)	Grant	1,000,000
Ministry of Environment(National Government)	In-Kind	2,590,000
Agency for the Assessment and Application of Technology - BPPT (National Government)	Grant	154,830
Agency for the Assessment and Application of Technology – BPPT (National Government)	In-Kind	762,542
PT PLN (Persero) HQ (government-owned electrical utility company	Grant	17,305,277
PT PLN (Persero) Research and Development Unit (government-owned electrical utility company	Grant	100,040
PT Krakatau Daya Listik (Private Sector)	Grant	903,123
PT Krakatau Daya Listik (Private Sector)	In-Kind	1,063,410
PT Freeport Indonesia (Private Sector)	Grant	56,500
PT South Pacific Viscose	Grant	21,408
PT. Goodyear Indonesia	Grant	135,000
PT. Suzuki Indomobil Motor	Grat	48,000
GEF Agency UNIDO	Grant	165,000
GEF Agency UNIDO	In-Kind	250,000
Total Co-Financing		25,555,130

UNIDO	PROJECT DELIVERY REPORT	Project:	130249 - INTRODUCTION OF AN ENVIRONMENTALLY SOUND MANAGEMENT AND DISPOSAL SYSTEM FOR POSS WASTES AND PCB-CONTAMINATED EQUIPMENT IN INDONESIA (PIF)		Carmela Centeno	Project Validity: Status:	01.11.2013 - 30.09.2023 Implement
Reporting Period:	10.10.2013 - 30.06.2023	Project Theme:	Energy and Environment	Country:	Indonesia	Region	Asia and Pacific
Sponsor Nr.	Sponsor	Grant	Grant Description	Fund	Currency	Grant Status	Grant Validity
400150	GEF - Global Environment Facility	2000002465	INDONESIA: FSP - ESM	GF	USD	Authority to implement	10.10.2013 - 30.09.2023

	Description	Released Budget Current Year (a)	Obligations Current Year (b)	Disbursements Current Year (c)	Expenditures Current Year (d=b+c)	Total Agreement Budget (e)	Released Budget (f)	Obligations + Disbursements (g)	Funds Available* (h=f-g)	Support Cost (i)	Total Expenditures (j=g+i)
2000002465											
130249-1-01-01	Framework reviewed	USD	USD	USD	USD	USD	USD	USD	USD	USD	USD
1100	Staff & Intern Consultants	0.00	0.00	0.00	0.00	(8,000.00)	(8,000.00)	0.00	(8,000.00)	0.00	0.00
1500	Local Travel	0.00	0.00	0.00	0.00	(7,336.73)	(7,336.73)	663.27	(8,000.00)	0.00	663.27
1700	Nat.Consult./Staff	4,350.05	0.00	0.00	0.00	14,494.60	14,494.60	20,144,55	(5,649.95)	0.00	20,144,55
2100	Contractual Services	3,999.42	0.00	0.00	0.00	21,726.04	21,726.04	17,726.62	3,999.42	0.00	17,726.62
3000	Train/Fellowship/Study	130.34	0.00	0.00	0.00	(22, 147.33)	(22,147.33)	11,722.33	(33,869.66)	0.00	11,722.33
3500	International Meetings	2.19	0.00	0.00	0.00	3,786.55	3,786.55	3,784.36	2.19	0.00	3,784.36
5100	Other Direct Costs	105.23	1,123.97	0.00	1,123.97	1,836.42	1,836.42	2,855.16	(1,018.74)	0.00	2,855.16
9300	Support Cost IDC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	5,689.67	5,689.67
130249-1-01-01	Total	8,587.23	1,123.97	0.00	1,123.97	4,359.55	4,359.55	56,896.29	(52,536.74)	5,689.67	62,585.96
130249-1-01-02	Economic & Market-based Incentives	USD	USD	USD	USD	USD	USD	USD	USD	USD	USD

	Description	Released Budget Current Year (a)	Obligations Current Year (b)	Disbursements Current Year (c)	Expenditures Current Year (d=b+c)	Total Agreement Budget (e)	Released Budget (f)	Obligations + Disbursements (g)	Funds Available* (h=f-g)	Support Cost (i)	Total Expenditures (j=g+i)
130249-1-03-03	Establishment of PCB treatment facility	USD	USD	USD	U SD	USD	USD	USD	USD	USD	USD
1100	Staff & Intern Consultants	6,034.02	(8,853.14)	8,949.85	96.71	(168,821.49)	(168,821.49)	43,241.20	(212,062.69)	0.00	43,241.20
1500	Local Travel	19,399.64	6.59	17,558.61	17,565.20	(22,737.53)	(22,737.53)	59,428.03	(82, 165.56)	0.00	59,428.03
1600	Staff Travel	0.50	0.00	69.70	69.70	30.00	30.00	99.20	(69.20)	0.00	99.20
1700	Nat. Consult./Staff	34,770.11	19,024.34	39,100.66	58,125.00	42,527.21	42,527.21	185,882.10	(143, 354.89)	0.00	185,882.10
2100	Contractual Services	189,714.03	(37,283.49)	69,318.94	32,035.45	2,416,796.84	2,416,796.84	2,779,118.26	(362, 321.42)	0.00	2,779,118.26
3000	Train/Fellowship/Study	42,701.41	0.00	1,344.65	1,344.65	(31,029.70)	(31,029.70)	7,614.54	(38,644.24)	0.00	7,614.54
3500	International M eetings	1,233.55	0.00	0.00	0.00	2,172.44	2,172.44	938.89	1,233.55	0.00	938.89
4500	Equipment	23,094.20	0.00	0.00	0.00	(2,686,770.16)	***************************************	390, 135. 64	(3,076,905.80)	0.00	390, 135, 64
5100	Other Direct Costs	5,326.40	54.25	9,531.43	9,585.68	(450.00)	(450.00)	51,806.28	(52,256.28)	0.00	51,806.28
9300	Support Cost IDC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	351,826.69	351,826.69
130249-1-03-03	Total	322,273.86	(27,051.45)	145,873.84	118,822.39	(448,282.39)	(448,282.39)	3,518,264.14	(3,966,546.53)	351,826.69	3,870,090.83
130249-1-04-01	Stakeholder engagement established	USD	USD	USD	USD	USD	USD	USD	USD	USD	USD
1100	Staff & Intern Consultants	0.00	0.00	0.00	0.00	(5,000.00)	(5,000.00)	0.00	(5,000.00)	0.00	0.00
2100	Contractual Services	0.00	0.00	0.00	0.00	85,283.50	85,283.50	105,283.50	(20,000.00)	0.00	105,283,50
3000	Train/Fellowship/Study	0.00	0.00	0.00	0.00	(10,000.00)	(10,000.00)	0.00	(10,000.00)	0.00	0.00
4500	Equipment	0.00	0.00	0.00	0.00	(25,000.00)	(25,000.00)	0.00	(25,000.00)	0.00	0.00
5100	Other Direct Costs	0.00	0.00	0.00	0.00	7.69	7.69	7.69	0.00	0.00	7.69
9300	Support Cost IDC	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	10.529.12	10.529.12

IX. Work Plan and Budget
I. Please provide an updated project work plan and budget for the remaining duration of the project, as per ast approved project extension. Please expand/modify the table as needed.
Please fill in the below table or make a reference to a file, in case it is submitted as an annex to the report.

Outputs by Project Component

Component 1: Policy and Regulatory Framework

Year 2023 Q3 GEF Grant Budget Available (US\$)

Outcome 1: Legislation and policies on Pomechanism, adopted and endorsed to meet rele		
Output 1.1.		USD 39,700
Remaining Activity:		
Workshop on PCB Management to		
industries.		
Output 4.2		
Output 1.2.		
Component 2: Institutional capacity building and		versment and provincial
Outcome 2: Strengthened institutional capacities level in selected provinces	s at central go	verninent and provincial
Ouput 2.1.		
Output 2.2.	П	
Component 3: ESM of PCBs		
Outcome 3: ESM of PCBs through proper colle	ction packagin	g registration labelling
transportation, storage and disposal of targete		
equipment demonstrated		
Output 3.1.		
Output 3.2.		
Output 3.3.	×	USD 135,000
Remaining Activity:		
Completion of remaining deliverables by		
the contractor.Review of environment survey result on		
PCBs pollutant surround PPLi. Report		
provided by PPLI.		
Treatment of maximum 3,000-tons of PCB		
wastes.		
Component 4: Public awareness raising and ad		
Outcome 4: Increased public awareness on issu	ues concerning	PCBs
Output 4.1.		
Output 4.2.		
Component 5: Monitoring and Evaluation		
Outcome 5: Effective project monitoring and eva		
Output 5.1.	\boxtimes	USD 150,000
Remaining Activity:		
Technical expert for for PCBs disposal		
facility in PPLi.		
Terminal External Evaluation.		
Terminal report preparation.		
Project Completion Report		
Project dissemination and closing		
workshop.		
Project handover (BAST) and		
administrative closing.		
	1	

X. Synergies

1. Synergies achieved:

Since February 2018, the project has been collaboratively working with the World Bank (WB) Indonesia and Asian Development Bank (ADB) Indonesia to support capacity building for PLN, the State Electrical Company. The synergy was manifested in training collaboration under "Power Distribution Development Program for Results (PforR) Project for Indonesia" covering Sumatera Island and ADB's Results-Based Loan Projects "Electricity Grid Strengthening in Sumatera" and "Electricity Grid Development Program in Eastern Indonesia".

PLN is an important partner with whom the project collaborates since the preparation of this project (during project preparation grant). Synergy with PLN has been extended to the 2nd PCBs Extended Inventory, where 5,000 units of PLN's offline transformers are being collected and tested for PCB-contamination and the improvement of PLN's Laboratory for PCBs Analysis by the provisions of Automated Sample Preparation unit and its auxiliaries provided by the project. In this reporting period, the most important synergy under technical backstopping context with PLN was capacity building for the development of PCB Management Plan.

A good synergy has also been established with the Indonesian Association of Iron and Steel Manufactures and Indonesia Pulp and Paper Association. Both associations facilitate engagement and coordination between the PBCs Project and their member industries.

Synergy with service companies is established to develop SOP on retrofilling as a mean to decontaminate online/operational PCB-contaminated transformer. This pilot is critical to demonstrate best practice to handle PCB-contaminated transformer and to inform PCBs owners that relevant value chain is available to solve their PCBs problem. Result and achievement from the first pilot is to be upscaled inviting potential companies.

At regional and global scale, the PCB Project Indonesia synergized with UNIDO PCB Projects in India and the Philippines and UNDP PCB Projects to compile shared best practices and lesson learned of PCB Management during a PCB Fair at COP BRS Convention in May 2023 in Geneve. Hard and soft copy materials were produced and distributed to booth's visitors.

3. Stories to be shared (Optional)

Single Country and Regional/Global Efforts to achieve Global Environmental Benefits from Sound Management of PCB

This project shall substantially contribute to the Global Environmental Benefit identified under the GEF Chemical and Waste focal area, through elimination PCBs and PCB containing waste namely:

- Reduced risks on human health and the environment through reducing and eliminating production, use and releases of Persistent Organic Pollutants and their waste
- Reduced risks on human health and the environment through sound management of chemicals and waste of global concern

Learning from the GEF Asia – Pacific in Bali in January 2023 and PCB during COP BRS Conventions in Geneve in May 2023, the project identified regional gap among countries implementing PCB management in Asia, Africa, Latin America and Europe. Such gaps derived from:

- Regional discrepancies on of policy and regulatory development in natural resources management including those against requirements and obligations under the Stockholm Convention
- Regional discrepancies on industrial development stages, particularly on adoption and use of green and sustainable technologies against obsolete and inefficient technologies
- Regional discrepancies in research and development, particularly on development and use of green chemicals and smart design
- Regional discrepancies on economic development, particularly income per capita and welfare standards

As PCB (and POPs) management required regional and global cooperation (given the nature of physical and chemical hazards of those chemicals), unjust technical and financial capability among parties across the regions would only result in accumulation of PCB (and POPs) chemicals on "poorer" or "less capable" parts of the world. Such accumulation would trigger again regional/global long-ranged transport of PCB making single country approach in PCB management less efficient and a waste of resources.

Given the remaining time for PCB disposal by 2028, it was encountered that some countries in Southeast Asia and Central Africa were still at initial or middle stages of implementation while more advance countries nearly accomplish with PCB disposal. In the Pacific, several small island countries might not be able to get rid of their PCB stockpiles as no adjacent countries near enough or willing to accept the waste while investing on disposal facility is far from economic with potential risks on the small and fragile ecosystem.

Indonesia PCB Project (in collaboration with India and the Philippines projects) as much possible provide valuable best practices and lesson learned trough printed and soft copy materials as well as video. Policy, regulatory, technology and economic state of development might not be far different from most developing and economic in transition countries in those regions.

However, tackling these global challenges to achieve GEBs would entail regional and global initiative facilitated by the three BRS Conventions to:

- Initiate and facilitate innovations for regional and/or global governance for management of PCB/POPs
- Serve as driving force for financial institutions reform toward green financing
- Nurture technology innovations (smart design, green chemicals and open sources) and research and education systems
- Facilitate a more intensive regional and global collaboration among countries of different capacity for PCB management

XI. GEO LOCATION INFORMATION

The Location Name, Latitude and Longitude are required fields insofar as an Agency chooses to enter a project location under the set format. The Geo Name ID is required in instances where the location is not exact, such as in the case of a city, as opposed to the exact site of a physical infrastructure. The Location & Activity Description fields are optional. Project longitude and latitude must follow the Decimal Degrees WGS84 format and Agencies are encouraged to use at least four decimal points for greater accuracy. Users may add as many locations as appropriate.

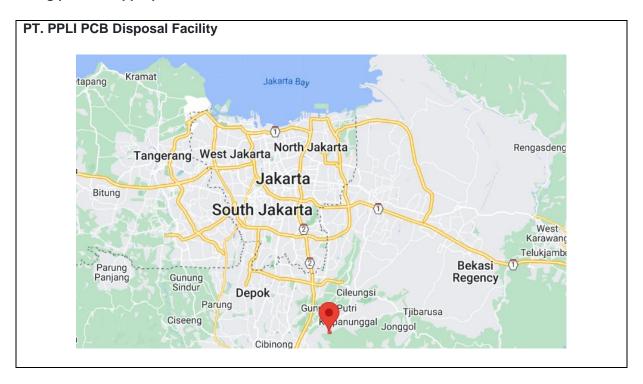
Web mapping applications such as OpenStreetMap or GeoNames use this format. Consider using a conversion tool as needed, such as: https://coordinates-converter.com

Please see the Geocoding User Guide by clicking here

Location Name	Latitude	Longitude	Geo Name ID	Location and Activity Description
Nambo village, Klapanunggal, Bogor Regency, West Java Province - INDONESIA	-6.47166667	106.9225556	PCB disposal facility 1642027	Location: PT. Prasadha Pamunah Limbah Industry. Activity:
				Decontamination and dechlorination of PCB wastes.
Serpong, Tanggerang, Pabuaran, Kota Tangerang Selatan, Banten - INDONESIA	-6.35847591	106.67328301	BRIN PCB Laboratory 1627459	Location: BRIN Activity: PCB Analysis

Serpong,	-6.35064033	106.66763907	MoEF PSIKLH	Location:
Tanggerang,			PCB Laboratory	MoEF - PSIKLH
Pabuaran, Kota				
Tangerang			1627459	Activity:
Selatan, Banten -				PCB Analysis
INDONESIA				•
Duren Tiga, Kec.	-6.25624229	106.83319164	PLN PUSERTIF	Location:
Pancoran, Kota				PLN PUSERTIF
Jakarta Selatan,			1645101	
DKI Jakarta -				Activity:
INDONESIA				PCB Analysis

Please provide any further geo-referenced information and map where the project interventions is taking place as appropriate.











BRIN PCB Laboratory (with geo reference link)



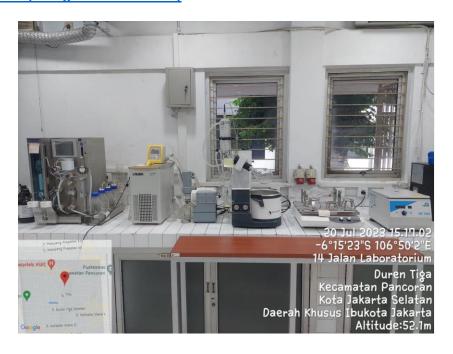


MoEF - PSIKLH (with geo reference link)





PLN PUSERTIF (with geo reference link)



EXPLANATORY NOTE

- 1. **Timing & duration:** Each report covers a twelve-month period, i.e. 1 July 2022 30 June 2023.
- 2. **Responsibility:** The responsibility for preparing the report lies with the project manager in consultation with the Division Chief and Director.
- 3. **Evaluation:** For the report to be used effectively as a tool for annual self-evaluation, project counterparts need to be fully involved. The (main) counterpart can provide any additional information considered essential, including a simple rating of project progress.
- 4. **Results-based management**: The annual project/programme progress reports are required by the RBM programme component focal points to obtain information on outcomes observed.

Global Envir	Global Environmental Objectives (GEOs) / Development Objectives (DOs) ratings					
(HS) Project is expected to achieve or exceed <u>all</u> its major global environment objectives, and yield substantial global environmental benefits, without mass shortcomings. The project can be presented as "good practice".						
Satisfactory (S) Project is expected to <u>achieve most</u> of its <u>major</u> global environmental objectives and yields satisfactory global environmental benefits, with only minor shortcomings						
Moderately Satisfactory (MS)	Project is expected to <u>achieve most</u> of its major <u>relevant</u> objectives but with either significant shortcomings or modes overall relevance. Project is expected not to achieve some of its major global environmental objectives or yield some of the expected global environmental benefits.					
Moderately Unsatisfactory (MU)	Project is expected to achieve <u>some</u> of its major global environmental objectives with major shortcomings or is expected to <u>achieve only some</u> of its major global environmental objectives.					
Unsatisfactory (U)	Project is expected <u>not</u> to achieve <u>most</u> of its major global environmental objectives or to yield any satisfactory global environmental benefits.					
Highly Unsatisfactory (HU)	The project has failed to achieve, and is not expected to achieve, <u>any</u> of its major global environmental objectives with no worthwhile benefits.					

	Implementation Progress (IP)
Highly Satisfactory (HS)	Implementation of <u>all</u> components is in substantial compliance with the original/formally revised implementation plan for the project. The project can be presented as "good practice".
Satisfactory (S)	Implementation of <u>most</u> components is in substantial compliance with the original/formally revised plan except for only few that are subject to remedial action.
Moderately Satisfactory (MS)	Implementation of <u>some</u> components is in substantial compliance with the original/formally revised plan with some components requiring remedial action.
Moderately Unsatisfactory (MU)	Implementation of <u>some</u> components is <u>not</u> in substantial compliance with the original/formally revised plan with most components requiring remedial action.
Unsatisfactory (U)	Implementation of <u>most</u> components in <u>not</u> in substantial compliance with the original/formally revised plan.
Highly Unsatisfactory (HU)	Implementation of <u>none</u> of the components is in substantial compliance with the original/formally revised plan.

Risk ratings

Risk ratings will access the overall risk of factors internal or external to the project which may affect implementation or prospects for achieving project objectives. Risk of projects should be rated on the following scale:

High Risk (H)	There is a probability of greater than 75% that assumptions may fail to hold or materialize, and/or the project may face high risks.
Substantial Risk (S)	There is a probability of between 51% and 75% that assumptions may fail to hold or materialize, and/or the project may face substantial risks.
Moderate Risk (M)	There is a probability of between 26% and 50% that assumptions may fail to hold or materialize, and/or the project may face only moderate risk.
Low Risk (L)	There is a probability of up to 25% that assumptions may fail to hold or materialize, and/or the project may face only low risks.