



Project Implementation Report

(1 July 2022 – 30 June 2023)

Project Title:	Making polychlorinated biphenyls management and elimination sustainable in Morocco
GEF ID:	9916
UNIDO ID:	170117
GEF Replenishment Cycle:	GEF-6
Country(ies):	Morocco
Region:	AFR - Africa
GEF Focal Area:	Chemicals and Waste (CW)
Integrated Approach Pilot (IAP) Programs ¹ :	Not applicable
Stand-alone / Child Project:	Stand-alone Stand-alone
Implementing Department/Division:	ENV / IPM
Co-Implementing Agency:	Department of the Environment
Executing Agency(ies):	UNIDO
Project Type:	Medium-Sized Project (MSP)
Project Duration:	36 months
Extension(s):	3
GEF Project Financing:	1,826,484 USD
Agency Fee:	173,516 USD
Co-financing Amount:	5,700,500 USD
Date of CEO Endorsement/Approval:	10/19/2017
UNIDO Approval Date:	1/11/2018
Actual Implementation Start:	1/19/2018
Cumulative disbursement as of 30 June 2022:	USD 1,717,362.8

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

Mid-term Review (MTR) Date:	Not applicable
Original Project Completion Date:	1/19/2021
Project Completion Date as reported in FY22:	1/19/2024
Current SAP Completion Date:	11/19/2023
Expected Project Completion Date:	5/19/2024
Expected Terminal Evaluation (TE) Date:	9/30/2023
Expected Financial Closure Date:	9/30/2024
UNIDO Project Manager ² :	Mr. Vladimir Anastasov

I. Brief description of project and status overview

Project Objective

The main objective of the proposed project is an integrated approach to the safe elimination of PCB-contaminated equipment, oil and wastes through strengthening of the legislation and tailored interventions targeting the small-scale industries and electricity distribution companies as a contribution to protecting human health and the soil and water ecosystems. Therefore, GEF funding will contribute to attainment of this objective building from the existent baseline.

I	Project Core Indicators		Expected at Endorsement/Approval stage
į.	5 Increase in phase-out, disposal and reduction of releases of POPs, ODS,		2.4 metric tons of pure PCB; 613 tons of PCB-contaminated equipment in-use and waste decontaminated

Baseline

PCBs are widely present in Morocco as dielectric oil component inside transformers manufactured during the 1960s and 1970s of the last century, and as coolant in high quality transformers. As Morocco was not a PCBs producer, the manufacturers used to import *Pyralène*, mainly from France, and from other countries for transformers manufactured locally. A large part of imported transformers contained PCBs such as *Pyralène* or arochlor depending on their origin.

An issue of concern related to management of PCB-contaminated equipment in Morocco is the treatment of the oil in the transformers, due to the poor maintenance practices of technicians having little knowledge of PCBs management requirements, particularly those in the small-scale private sector unable to afford services of a specialized expert.

² Person responsible for report content

In 2009, a random sample of 100 transformers containing mineral oil (old and new), in-use at that time, was analyzed and results showed 31 percent of the transformers were contaminated with PCBs (>50 ppm).

In 2013, 6,000 old transformers (20 years+), some being in-use and others decommissioned, were analyzed in order to evaluate the extent of PCB contamination in Morocco. According to the results, after exclusion of transformers contaminated with pure PCBs, 41 percent of the transformers were contaminated with PCBs (>50 ppm), among which 93 percent did have a relatively low level of contamination (<5000 ppm) and 7 percent shown a high level of contamination (>5000 ppm).

The continuous use of PCB-contaminated transformers, the issue of cross contamination in transformers with mineral oil, the unsafe disposal of the contaminated equipment when decommissioned, and soil pollution are the main causes of human exposure to PCBs in Morocco and are main contributors to global pollution.

The presence of a decontamination platform is an opportunity for the country to meet its targets in terms of PCBs elimination. The platform has the capacity to collect the PCB wastes and to pack them properly before expedition abroad for safe disposal. It has also the capacity to eliminate in-situ small concentration of PCBs in mineral oil through a dechlorination process. Since 2015, the platform is operational with all the necessary licenses and has a capacity to decontaminate about 100 tons of contaminated transformers per month (1,100 per year). The platform staff has been trained on standard security requirements and its functionality is already known of large-scale electricity companies.

The platform can significantly contribute to the PCB elimination targets of Morocco. Given its processing capacity, it is able to reduce or even eliminate the cross contamination and constitute a strategic site for export of heavily PCB-contaminated transformers, oil and other wastes generated by the decontamination process.

However, many of the PCB-contaminated equipment, even after decommissioning, remain in the country, including the most contaminated one, because the national platform is not operating efficiently and highly PCB-contaminated equipment are not adequately dismantled for export. Main risks related to the dismantling process are the spreading of the cross contamination and the pollution of soil and water ecosystems. As of now, there is no alternative solution to the dismantling process. Incineration is not permitted for oil containing more than 1 percent chlorine (Decree on incineration and co-incineration of hazardous wastes) and there is no landfill dedicated to dumping of hazardous wastes.

The Moroccan government and the majority of large-companies owning PCB-contaminated equipment are strongly committed to addressing the issue of PCB-contamination of transformers both in-use and after decommissioning.

Morocco ratified the Stockholm Convention on POPs in 2004 and accordingly developed a National Implementation Plan (NIP), the priority interventions of which are reflected in some parts of the existent legislation on wastes management. PCBs management have different requirements in the Morocco legislation depending on whether the equipment considered is in-use or considered as waste following decommissioning.

Concerning PCB-contaminated equipment still in-use, the government made the decision to proceed with their regulation rather than prohibition, and to have an approach focused on raising awareness of the owners in order to incentivize them having environmentally sound management practices of this equipment, including during their disposal at the end of their service life.

Conversely, PCB wastes are classified as hazardous waste by the Decree No. 2-07-253 on Classification of waste and establishment of a list of hazardous waste. Their management falls under the scope of the Law 28-00 adopted in 2009. The provisions on management of hazardous waste are in the Decree No. 2-14-85 that specifies requirements on organizational management of hazardous waste, the procedures for granting authorization of collection and transport of hazardous waste, and the authorization of specialized facilities to provide services of treatment, valuation, or disposal of hazardous waste

The absence of coercive measures to complement regulations on environmentally sound management of equipment in-use contaminated with PCBs, and the insufficient enforcement of the Law on waste management and disposal of PCB-contaminated transformers after decontamination have led to the lack of

willingness of equipment owners to initiate the decontamination process in the platform. This has had an impact on the platform's activity and consequently on its profitability.

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	FY23	FY22
Global Environmental Objectives (GEOs) / Development Objectives (DOs) Rating	Moderately Satisfactory (MS)	Satisfactory (S)

The project plans to achieve elimination of 250 tonnes of highly contaminated PCB oil and equipment, and the decontamination of 220 tonnes of low contaminated oil. GEOs IDOs have been rated moderately satisfactory during the final evaluation exercise conducted in 2023. Targets of pure PCBs being decontaminated is achieved, but the targeted quantities of low-contaminated equipment will not be achieved by the Project, due to insufficient funds compared to current price/tonne applicable for PCB decontamination. The quality of outputs produced under the projects is strongly appreciated by stakeholders.

Implementation Progress (IP) Rating	Moderately Satisfactory (MS)	Moderately Satisfactory (MS)
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The project required several extensions to finalize activities. Reasons are delays in the project inception phase, challenges faced during the inventory, COVID-19 and delays in the decontamination of PCBs by the national platform

Overall Risk Rating	Low Risk (L)	Low Risk (L)
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Sustainability risks are low, and the sustainability of the results is ensured.

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.

Please fill in the below table or make a reference to any supporting documents that may be submitted as annexes to this report.

Project Strategy	KPIs/Indicators	Baseline	Target level	Progress in FY23			
Project Strategy	KPIS/Indicators		rarget level	Progress III F 123			
	Component 1 – Strengthening the regulatory framework for chemicals management focusing on PCBs and compliance incentive measures						
Outcome 1: Conducive environmentive mechanisms	onment for safe man	agement of chemicals, v	with focus on PCBs, su	upported by			
Output 1.1: Law on management of chemicals including equipment in-use is finalized	# of laws related to PCBs submitted to approval / approved	There is no general law for the management of chemical. The law on chemical is still in draft stage.	The law on chemicals is finalized and submitted for approval	Provisions related to PCB waste incorporated into national law on industrial waste. Under discussion by with Ministries for publication by December 2022 Target reached			
Output 1.2: Regulations for PCBs secure management and elimination are improved	# of regulation related to PCBs submitted to approval/approved	Regulations need to be limited to the provision of the law on hazardous wastes and to the upcoming law covering management of chemicals in-use.	The regulations on PCBs are developed and submitted to approval	• PCB waste: official publication of the decree on collection, transport, storage, treatment and disposal of polychlorinated biphenyl (PCB) waste in the Official Bulletin (BO) N° 70 58, of the Minister for Energy Transition and Sustainable Development on January 20, 2022 • Prohibition on import of PCBs: publication of the decree of the Minister of Industry and Trade, No. 1685-22 relating to power transformers and fluids for electrotechnical applications, on August 8, 2022. Target reached			
Output 1.3: New incentive mechanisms are developed to facilitate compliance with the legislation	# of new institutional and/or financial mechanisms developed and implemented		New incentive schemes (at least 2) are set up.	National PCB management plan developed by the Project validated during the meeting of the national commission held on November 15, 2021 National PCB inventory developed in 2021 and approved during the meeting of the national commission held on November 15, 2021 Report on financial incentives and partnership for PCB management			

				developed validated during the meeting of the national commission held on November 15, 2021 in February 2022 In addition to the above, a study on the sustainable management of PCBs, including a co-incineration test in a cement kiln, was nitiated in Q2 2022. Incineration tests of PCB oils contaminated at 2000 ppm were successfully conducted in two cement plants in June 2023. Report highlighting results of co-processing test in cement kiln and a business model for a sustainable value chain is being finalized. This study will pave the way for national management of PCB waste and the effective organization of the value chain.
Component 2 – Promoting th	e adoption of PCBs s	l safe management practi	ces	Target reached
Outcome 2: Environmentally				oil
Output 2.1: 20,000 PCB-contaminated transformers in participant companies are screened /analyzed;	# of PCB-contaminated equipment screened	Any small-scale industry reports on PCB contaminated equipment.	20,000 screening tests and analysis of PCBs in equipment completed A database of the PCB-contaminated equipment in the small-scale private sector is available	Following the signature of a contract with OKSA Laboratory in April 2020 for the analysis of 1000 transformers. 1137 transformers were analysed, i.e. a rate of 114%, which represents an additional analysis of 130 was for the incineration test, with the same initial budget. Target reached
Output 2.2: Environmentally sound management practices are documented and disseminated among transformers' owners as technical guidance	adopting best PCBs	Inventory of owners of contaminated equipment in the small-scale private sector not finalized. Few companies in small-scale private sector have BAT and BEP on management of PCB contaminated equipment.	At least 39 companies adopt best PCBs management practices	Training documents on the sound management of PCBs were developed and shared with 249 participating companies through 7 regional workshops conducted between January 2020 and November 2021 249 people were trained throughout these 7 regional workshops, with 55% female participation rate. Inventory of equipment contaminated with PCBs was finalized in October 2022
				Since the beginning of the project in 2018, about 49 meetings and workshops organized with the holders, 443 holders met. At the end of 2022 and in 2023, 9 meetings with holders took place and 20 representatives of holders were engaged in the project. In addition, the project organized side events with 52 companies at the Pollutech fair held in November 2022. A total of 72 holders were engaged in project activities during this period. In September 2022, The Project in the 12th edition of the global green event, an international fair of equipment, technologies and services related, inter alia, to PCB decontamination was organized by the Ministry of Energy Transition and Sustainable Development, and the Ministry of Industry and Trade. The Project presented activities conducted, shared awareness raising material and promoted sound practices for PCB management successfully conducted by the project. 58 people participated to side events organized

Output 3.2: 1,740 transformers with 541 tons of dielectric oils are locally decontaminated	#of transformers decontaminated	1740 contaminated transformers still inuse have been localized.	1,740 transformers are decontaminated; 541 tons of dielectric oils are decontaminated;	After an initial unsuccessful call for tenders, in consultation with the Ministry of Energy Transition and Sustainable Development, an agreement was been reached with the MME project partner for the local decontamination of 220 tons of PCBs, using the national PCB decontamination. The service execution contract was signed with MME in February 2023. Official communication is ongoing with PCB-owners to update the inventory and start local decontamination of PCBs. Letters sent by EGP to holders in May 2023 to update the inventory of equipment to be decontaminated. Meetings held with the holders in June 2023, for the launch of the operation. Lists of transformers to be decontaminated being finalized. Start of operations in July 2023 (Q4 2023). Ongoing
Output 3.3: Public outreach Strategy to promote Morocco's experiences of PCB platform	website on the operation of the platform # of PPT presentations on the platform	•	3 posts in the website on the decontamination platform 3 PPT presentations on the experiences of the platform	The experience of the national PCB platform was shared during meetings and exhibition fairs organized in Morocco. Since the start of the project, nearly 120 communication media (leaflets, brochures, etc.) have been distributed containing guides to good practice, two leaflets in Arabic and French on "PCB safety management in Morocco" and a note on the Program the achievements of the first and second phases have been elaborated. Communication on the platform was made during 3 events in 2022: including an international waste fair and a visit of the delegation from the Gulf and Middle East countries Good practice guides and PPT presentations have been developed and distributed at international fairs in Pollutec Morocco 2022 - El Jadida.An African delegation was received by the national project team during this fair thereby promoting regional cooperation and knowledge sharing in pCB management. Good practice guides and PPT presentations were shared on that occasion. Target reached
Component 4 – Monitoring, r			GEF and UNIDO room	lirements
Outcome 4: Effective and eff	cient implementation	i or the project based on	I GEF AND UNIDO requ	unements
Output 4.1: Project results regularly monitored and reported (PIRs)	Project Steering Committee (PSC) established Project Management Unit (PMU) with each		PIRs are submitted annually (3 in total) GEF Tracking tool is submitted after project termination	Since the start of the project, 16 meetings of the project steering committee and 2 meetings of the National PCB Commission and steering committee have been organized

	member's responsibility clearly described in job descriptions		PIRs are submitted each year and monthly reports are sent to UNIDO HQ for close monitoring.
	Project progress monitored and work plan prepared and updated		
Output 4.2: Independent Terminal Evaluation conducted		terminal evaluation report	Cluster independent terminal evaluation for PCB projects was finalized in Q2 2023

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.

	(i) Risks at CEO stage	(i) Risk level FY 22	(i) Risk level FY 23	(i) Mitigation measures	(ii) Progress to-date	New defined risk ⁵
1	Institutional risk: There might be delays in the finalization and enactment of legislation under development	Medium	Low	The project will take advantage of the momentum created by the COP 22 to have the PCB Commission involve parliamentarians in passing the finalized law and the subsequent regulations (decrees of application). This should be supported by a strong involvement of the key Ministerial department members of the PCBs Commission and through workshops and training activities. The project has achieved the official enactment of several decrees developed during the implementation period. The institutional risk of strengthened legislation not entering into force has consequently dropped.	On track.	
2	Institutional risk: Change on the top management of the governmental bodies could result on delays in the implementation of the project	Low	Low	The Steering Committee (National Commission of PCBs) communication and networking will ensure the necessary support of the institutions concerned, regardless of persons with whom agreements have been included.	On track The national Project Management Unit is operational and execution activities with adequate amount of resources.	
3	Financial risk: Mobilization of the government financial contribution and other cofinanciers takes longer causing delays in the implementation	Low	Low	The commitments of and agreements with some major stakeholders such as ONEE, LYDEC, RADEEF, OCP, AMENDIS, REDAL (ref. Annex H) will be materialized as soon as the project starts. They represent the major part of the PCB contaminated equipment owners. This will incentivize other stakeholders to get engaged.	On track. Partnership agreements are being prepared and are being reviewed with potential holders.	
4	Market risk: Low level of commitment of other private stakeholders	Medium	Low	Commitment of the private sector, which is not a direct participant to the project activities, will be ensured through the dissemination of the investment component achievements, the availability	On track. Strong adhesion of potential holders, and weak for small industrial holders	

⁵ New risk added in reporting period. Check only if applicable.

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				of environmental management plans, and the enforcement of law and regulations.		
5	Technical risk: Local expertise is limited for an effective implementation of practices related to an environmentally sound management of PCBs	Medium	Medium	The project will mobilize the existent national and international expertise to assist the national project team in providing support to PCB-contaminated equipment owners. In addition, the project will rely on the experience gained with the existent national PCBs decontamination platform.	On track. The existing national PCB decontamination platform is operational and exporting highly contaminated PCB waste for final disposal overseas The national PCB decontamination platform will be used for local decontamination of 220 tons	
					of PCBs. The contract for local decontamination of PCBs up to 2000ppm was signed in February 2023. The opportunity of eliminating	
					PCBs by co-incineration in cement kilns is currently being assessed in the context of the project. A study is being conducted and includes two incineration tests that were successfully carried out in	
					June 2023. The results of the test and the final report of the study will be presented to the PCB commission in September 2023	

2. If the project received a <u>sub-optimal risk rating (H, S)</u> in the previous reporting period, please state the <u>actions taken</u> 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.

NA	

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

The end of restrictions in Morocco on health measures on COVID in October 2022 allowed:

- The finalization of the PCB analysis campaign with a local contractor, for the realization of a national inventory
- Participation in international fairs and organization of side events in this context
- Organization of face-to-face meetings with the PCB Commission and the Steering Committee organized as planned.
- The continuity of collection operations for export and disposal of PCBs, which should be completed by the last quarter of 2023.
- The launch of the local decontamination operation in May 2023.

However, economic consequences of restriction related to COVID-19 greatly impacted some local enterprises in Morocco, including the selected supplier of laboratory equipment for capacity-building in the field of PCB analysis. The supplier initially selected in the context of a competitive call for bids could not procure the equipment as per contractual obligations, and UNIDO is currently finalizing a second call for bids to select another supplier.

4. Please clarify if the project is facing delays and is expected to request an extension.
An extension is requested until May 19th 2024 to enable the full completion of the PCB decontamination activities for 220 tons of transformers. This activity is central to the strengthening and expanding of the national capacities for PCB elimination, delayed due to the capacity bottlenecks of the national decontamination platform, now resolved.
5. Please provide the main findings and recommendations of completed MTR , and elaborate on any actions taken towards the recommendations included in the report.
No MTR required for this project. Terminal evaluation was finalized as part of a PCB cluster evaluation conducted by UNIDO. Findings of the cluster evaluation and individual country report will be finalized before September 2021.
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	Delay in the enactment of legislation	Take advantage of the momentum created by COP 22 so that the PCB Commission involves parliamentarians in the adoption of the law and regulations (implementing	Regular meetings and reports made available on enforcement of legal texts developed by the project.
CEO Endorsement		decrees). As part of the update of the waste law 28.00, modifications related to PCBs have	Close monitoring is still ongoing in particular for the enactment of the revised bill on hazardous waste including PCB provisions, and for

Contamination	· ··· · ··· · · · · · · · · · · ·	inclusion of provisions in a law related to chemicals. : The platform has been regularly
air and soil nea the decontamination facility	collection and water networks,	maintained and operates according to measures using technologies to prevent environmental risks Regular inspection reports are available, and the teams monitor that the facility is fully sealed and has a containment barrier to prevent water or soil contamination. When storage operations started, a risk management plan related to air and soil pollution was put in place to avoid any type of pollution. A similar plan is required for starting processing operations.
Threat on healt of the decontamination facility workers	Disposal operations have started and the systematic use of personal protective equipment (PPE), mandatory for all employees, and air treatment to prevent contaminated dust from leaving the site. The decontamination operations planned in this phase will start in July 2023, the protection of personnel by PPE is required for the service providers who will tender for this operation. The verification system is implemented in accordance with the national regulations in force, and by the monitoring committees.	When starting operations, it is necessary to ensure that the risk management plans relating to the health of workers are respected and to ensure that all workers are informed. The use of PPE and compliance with measures are necessary during all operations. Measures to guarantee health and security at the workplace were submitted by the contractor for both collection and export of highly contaminated waste and local decontamination of PCBs
Financial contribution of government an other co-financ are slow to be in place causin delays in the implementation	contaminated with PCBs, showed their commitments from the start of project activities, such as ONEE, LYDEC, RADEEF, OCP, AMENDIS, REDAL.	The meetings with the National PCB Commission, the awareness-raising seminars and the participation of the PCB Project in the international exhibition on waste have demonstrated the commitment of the parties concerned. The great interest also of the countries of Africa, was noted during the international events, particularly on the

			chosen mode of Morocco for the good Moroccan experience.
	Change on the top management of the governmental bodies could result in delays in the implementation of the project	Ensure the continuity of the implementation of the project through continuous communication with the PCB commission and the holders and partners.	Monitoring of activities The coordinator of the Project, recruited by UNIDO and the national project management unit ensures the continuity of the planned actions
	Local expertise too limited for an effective participation to the implementation of environmentally sound management of PCBs	The project management unit is assisted by international experts to provide support to the owners of contaminated equipment	Monitoring of activities A specific training program was carried out on the secure and sustainable management of PCB equipment and the promotion of the existing national equipment processing platform.
	Low level of private stakeholders commitment	Commitment of the private sector to the project activities will be ensured through the dissemination of the investment component achievements, the availability of environmental management plans, and the enforcement of law and regulations.	Monitoring of activities
	Delay in the execution of project activities within the deadlines due to the period of confinement in Morocco (COVID19) since March 2020. To june 2021.	Ensure the continuity of activities such as the finalization, the removal and treatment of transformers and the finalization of the study with the Test for the implementation of a solution for a sustainable management of PCBs.	.Restrictions related to COVID-19 have been lifted in 2022 and have not caused any impact on the project in the last reporting period
(ii) New risks identified during project implementation (if not applicable, please insert 'NA' in each box)	Sanitary risk of the personnel involved in the project due to the current COVID19 pandemic	Ensure that appropriate measures are in place to avoid contamination among personnel during daily work, meetings, workshops, etc.: - Ensure that individual protection (masks) are used during movement in public buildings - Ensure that soap and cleaning product are available at the entrance of building - Ensure that social distancing is respected (at least 1 m) during meetings - Encourage teleworking - Ensure, in the event of face-to-face meetings, that the maximum number of persons authorized and the conditions of the meeting places are respected, in particular, in the case of meetings, seminars or meetings.	Inform participants to meetings of the sanitary protocol through: - Emails, - Poster/bill at entrance of buildings and meeting rooms - Recall the rules at the beginning of meetings Have some personnel designated to check if rules are respected and recall them to personnel and participants if necessary.
	Difficulties is implementing control and monitoring of PCB collection, treatment and elimination	A monitoring and supervision committee was created to monitor operations from selected partner MME.	Frequent site visits and controls by the monitoring and supervision committee. Monthly site visits by the national project coordinator
	Lack of adequate capacities of the National Laboratory for monitoring and	A capacity building program was developed for the National Laboratory of the Department of the Environment	Procurement of equipment for the analysis of PCBs is ongoing. A contract has been signed in 2022 but the supplier could not deliver the equipment. A new bid was launched in

control (sam	ling Q2 2023 and should be concluded by	
and analysis	Q4 2023.	

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).

All stakeholders have respected their commitments, as mentioned in the project documents. Major electricity production companies confirm the integration of guidelines related to PCB management into their environmental policy, and regularly undertake sampling campaigns to check the contamination level of their equipment.

The Ministry adequately supports the control and monitoring of the elimination of PCBs in the country, by enforcing specific regulations for PCBs and the strengthening control and supervision of PCBs with the support of national laboratory.

The Project launched a study on the sustainability of the PCB decontamination sector, including a coprocessing test in cement kilns. These tests required the strong engagement of a broad range of stakeholders, including 2 major cement producers, 1 company specialized in hazardous waste management, 1 laboratory for monitoring of PCDD/F emissions during the tests and the Ministry of Environment, leading the operations.

The agreement of the Ministry for the realization of the incineration test of PCB oils at 2000 PPM represents a first in Africa and the Middle East. The results of this test will make it possible to manage PCB waste at the national level through the platform and the cement works in an environmentally sustainable way.

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.).

A delegation of African countries, met at the 12th Edition of the GLOBAL GREEN EVENT By POLLUTECH from 14 to 17 September 2022 in El Jadida. The delegates expressed their strong wish to strengthen South-South cooperation and to benefit from the Moroccan experience and the transfer of know-how in the field of the sustainable management of PCBs and in particular the PCB platform, PCB regulations in Morocco and the results of the PCB sector study.

In various events, the representatives of the Ministry stressed that the success of this project was mainly due to the efforts undertaken by the national stakeholders in enforcement new regulatory framework for PCB management, and the financial and technical support of the GEF and UNIDO.

The Minister's objective is to comply with the Stockholm Convention and to ensure sustainable management of PCBs in Morocco by strengthening legal obligations for PCB-owners to decontaminate PCBs, enforcing import bans on PCBs, establishing incentive mechanisms to support the costs of decontamination by the private sector and promoting the lasting use of the national decontamination platform established by previous GEF project. The co-processing test in cement kilns represents a major step forward in the sustainable management of PCBs in Morocco, considering that the national platform for PCB is authorized to decontaminate PCBs up to 2000 ppm only. Co-processing could represent a critical solution to solid waste from decontamination operations (cloth, PPE etc) and final elimination of highly contaminated oil and equipment from 2000ppm.

At the last PCB Commission and Steering Committee meetings, stakeholders and PCB owners expressed their satisfaction with the technical assistance provided by the Project.

3. Please provide any relevant stakeholder consultation documents.

Reports of PCB commission, project steering committee and project team:

- 9916_PV_CN-PCB Meeting October 11, 2022
- 9916_PV_COPIL meeting_PCB program_11.10.22
- 9916_List_of_Copil_and CN_participants_October 11, 2022
- 9916_PV of Meeting EGP-IGFA.ZN 04.05.2023 VF
- 9916_PV of Meeting 02.06.23_EGP VF
- 9916 PV of Meeting EGP 29.05.2023 VF
- 9916 PV of Meeting EGP for 7 holder meetings (from May 7 to May 25, 2023)
- 9916_ PV of Meeting EGP_ ONCF_26.01.23 VF
- 9916 PV of Meeting 24.11.22 EGP
- 9916_PV of Meeting EGP-MME_20.12.22_V3 Exportation
- 9916_PV of Meeting EGP-MME 13.03.2023 V6 VF
- 9916_PV of Meeting -ONUDI-LH-MME-110523
- 9916_PV of Meeting EGP -_INRH 15.11.2023
- 9916_Visit_Report_MME_ONDA_AND_ONEE.B.E_OUJDA of 12 JANUARY 2023

Test meeting reports related to PCB oil incineration:

- 9916_PV 1. LH-PV-04.10.22
- 9916 PV 2. CR-PCB-LH-MME-281122
- 9916 PV 3. Cimat-PV-09.12.22
- 9916 PV 4.PV Réunion ONCF 26.01.23
- 9916_PV 5 PV-PCB-Reunion-LH-Geocycle-22.02.23
- 9916 PV 6 PV Global -PCB-Reunion-LH-Geocycle et CIMAT 02 Mars 2023
- 9916 PV 7.PV-MME-150323
- 9916_PV 8. PV-DDD-ONUDI-LH-MME-170523

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),.

In accordance with the Moroccan constitution and international requirements, the PCB program ensures the protection of women against PCB-related risks throughout the process and ensures the participation of women in meetings and events for the transfer of information and know-how.

During capacity-building and awareness-raising activities conducted by the project, approximately 1050 people were sensitized, including 420 women, i.e. 40% of women participation rate. Women are well represented in various target groups involved in the project, including owners of PCB, laboratory staff, private sector representatives and public sector.

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.

The PCB Program aims to build the capacities and knowledge of owners of contaminated equipment and public actors on the management of PCB. Technical training is frequently provided through bilateral meetings, regional seminars and gatherings. The following training materials, outreach content and technical reports have been developed by the project:

- training program in environmentally sound management,
- communication materials on good practices,
- draft agreement with the MoE and PCB holders for sustainable decontamination of contaminated equipment,
- sampling campaign analysis report,
- inventory of PCB equipment relying on sampling campaign, data on transformers and technical expertise to extrapolate results
- national PCB management plan and financial incentive mechanisms.
- Protocol for co-incineration of PCB in cement kilns
- Draft decrees and a bill for sound PCB management

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

- PCB_Good_Practice_Guide_Arabic_version
- 9916 PCB Good Practice Guide French Version
- 9916_Roll_up_PCB_Program_Arabic_Version
- 9916_Roll_up_PCB_Program_French_Version
- 9916 PCB Program Note Arabic and French Version
- 9916_Roll_up_PCB_Program_French_Version
- 9916_PCB_Good_Practice_Guide_Arabic_version
- 9916 PCB Good Practice Guide French Version
- 9916 Roll up PCB Program Arabic Version
- 9916_Roll_up_PCB_Program_French_Version
- 9916 PCB Program Note Arabic and French Version
- 9916_Roll_up_PCB_Program_French_Version
- 9916 Cardboard PCB
- 9916_Flyer FR_PCB
- 9916_Flyer AR_PCB
- 9916 Rollup PCB FR-AR
- 9916_Capcule Video PCB
- 9916_Inventory report
- 9916 Collection report PCBs
- 9916 Export report PCBs
- 9916_12ème_édition_GLOBAL_GREEN_EVENT_By_POLLUTEC
- 9916_Decree_of_the_Ministry_of_Industry_relating_to_restrictions_on_the_import_of_PCB_equi pment BO 7114 Fr
- 9916 Pollutec Report 2022 El jadida 14 to 17.09.22 VF
- 9916_PPT_Pollutec_Morocco_Presentation_ABBOUD_UNIDO_PCB_Program_September 2022
- 9916_Report Study of the PCB sector Phase 1_PCB_VF 13.03.2023 Validated DDD
- 9916_Report_on_Incentive_Mechanisms_for_the_Elimination_of PCBs final VF 14.02.2022
- 9916_Report-Test-PCB-Cimat Final 21.06.2023
- 9916_authorization mme of treatment n°202101 decontamination
- 9916 mme decontamination health and safety plan contrat n°3000108632
- 9916_mme elimination health and safety plan_contrat n°3000082683
- 9916 mme detailed work plan and decontamination operations calendar
- 9916_mme plans and procedures for accident prevention and emergency situation preparedness decontamination

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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.

After delays caused by restrictions related to COVID-19, the Project and the Ministry of environment have made considerable efforts to accelerate execution of activities and completed several key activities:

- Legal texts on the management of PCBs have been finalized and some officially enforced at national level.
- The analysis campaign of 1000 samples of PCB oils was completed on 1137 samples, exceeding the project objective.
- The project participated in an international fair and organized side events on PCB management
- Despite a set back in procurement of equipment for laboratory due to default by supplier, the project is finalizing a second call for bids and will procure equipment for PCB analysis by Q4 2023.
- 121 tonnes of contaminated PCBs were collected with the support of the national PCB decontamination platform, and 108 tonnes were exported for final elimination. The operation is continued to achieve the objectives.
- A study on the sustainability of PCB management operations in Morocco, including the potential for co-incineration in cement kilns is underway.
- Realization of the PCB oil incineration test at 2000 PPM in two cement plants, a first in Africa and the Middle East.
- Signature of the contract for the local decontamination of 220 tons of PCBs, and start of operations planned for July 2023.
- **2.** Please briefly elaborate on any **minor amendments**⁶ 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	N/A
Components and Cost	N/A
Institutional and Implementation Arrangements	N/A
Financial Management	N/A
Implementation Schedule	2 extensions granted to the project
Executing Entity	N/A
Executing Entity Category	N/A
Minor Project Objective Change	N/A
Safeguards	N/A
Risk Analysis	N/A
Increase of GEF Project Financing Up to 5%	N/A
Co-Financing	N/A
Location of Project Activities	N/A

⁶ 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%.

Others	N/A

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

Outcome 1: All activities related to strengthening the legal and institutional framework for the sound management of PCBs were conducted under previous reporting period

Outcome 2: PCB analysis equipment could not be delivered by supplier initially contracted by UNIDO as a result of a call for bids. After contract cancellation, the funds were returned to the project and will be obligated after successful completion of the second call for bids, currently being finalized by UNIDO (budget line 45). A contract was awarded to a local technical firm for the development of a study on the sustainable management of PCBs (budget 21). The study will ensure the sustainability of PCB management and the national platform beyond the completion of the project. The incineration test was carried out successfully and without incident, the results of the test will be used to set up a sustainable management in Morocco

Outcome 3:

- a subcontract of 450,000 USD for the local decontamination of 220 tons of low contaminated PCBs was awarded to MME in 2023 and operations are ongoing (budget line 21)
- Monitoring and evaluation: the terminal evaluation of the project was concluded with the success as part of a cluster evaluation on PCBs (international expertise recruited under budget line 11) and funds were allocated to national team (national experts budget line 17) for the constant monitoring of project activities.
- Project management costs: funds were allocated under budget line 17 for coordination and execution of activities.

1. Please provide **an updated project work plan and budget** for <u>the remaining duration of the project</u>, as per last 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		Workplan 2023					GEF Grant Budget Available (US\$)	
Component	Q3		Q4					
	Component 1 – Strengthening the regulatory framework for chemicals management focusing on PCBs and compliance incentive measures							
Outcome 1: Conducive environment for safe management of chemicals, with focus on PCBs, supported by incentive mechanisms							24,545.49	
Component 2 – Promotin	g the adoption	of PCBs s	afe mana	gement p	ractices			
Outcome 2: Environmentally sound management of PCBs- contaminated equipment, waste and oil							3,651.21	
Component 3 – Compone	ent 3 – PCBs el	imination a	and prom	otion of A	Africa's firs	t PCB ded	contamination platform	
Outcome 3: PCB in either equipment in-use of decommissioned, are safely eliminated through the decontamination platform							60,047.61	
Monitoring and Evaluation							8,850.61	
Project Management							12,026.28	

X. Synergies

1. Synergies achieved:

The Project is integrated to the UNIDO Programme Country Partnership approach for Morocco	

Stories to be shared ((Optional)
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N/A			

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 <u>OpenStreetMap</u> or <u>GeoNames</u> use this format. Consider using a conversion tool as needed, such as: <u>https://coordinates-converter.com</u>

Please see the Geocoding User Guide by clicking here

Location Name	Latitude	Longitude	Geo Name ID	Location and Activity Description
Plateforme of the Treatment of the PCB Bouskoura Casablanca	33°26'36.8"N	7°38'46.8"W	6546277	Platform for PCB decontamination in Bouskoura

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

MME Plateforme De Traitement des PCB Bouskoura

https://goo.gl/maps/EDc3iVqkxiWtruBy8

Coordinates:

33°26'36.8"N 7°38'46.8"W C9V3+CCF, Bouskoura



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 Environmental Objectives (GEOs) / Development Objectives (DOs) ratings	
Highly Satisfactory (HS)	Project is expected to achieve or exceed <u>all</u> its major global environmental objectives, and yield substantial global environmental benefits, without major 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 most 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 most components in not 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.	