Terminal Evaluation Review form, GEF Independent Evaluation Office, APR 2017

1. Project Data

Summary project data			
GEF project ID		3883	
GEF Agency project ID		104051	
GEF Replenishment Phase		GEF-4	
Lead GEF Agency (include all for joint projects)		UNIDO	
Project name		Safe PCB Management Programme in Morocco, Pillar II	
Country/Countries		Morocco	
Region		AFR	
Focal area		Chemicals	
Operational Program or Strategic Priorities/Objectives		Persistent Organic Pollutants Strategic Priority 2: "Partnering in investments for National Implementation Plan implementation" Operational Program #14	
Executing agencies involved		Directorate for Environmental Monitoring and Prevention of Environmental Risks (DSPR) of the Ministère de l'Énergie, des Mines, de l'Eau et de l'Environnement (MEMEE)	
NGOs/CBOs involvement		CSO representative on project steering committee	
Private sector involvement		Beneficiaries and implementers (technology providers and service companies); consulted during project preparation	
CEO Endorsement (FSP) /Approval date (MSP)		6/25/2009	
Effectiveness date / project start		9/22/2009	
Expected date of project completion (at start)		8/31/2012	
Actual date of project completion		March 2017	
Project Financing			
		At Endorsement (US $M)	**At Completion (US $M)**
Project Preparation Grant	GEF funding	UA	UA
	Co-financing	UA	UA
GEF Project Grant		2.44	2.40
Co-financing	IA own	0.05	UA
	Government	0.25	UA
	Other multi- /bi-laterals	0.0	UA
	Private sector	4.55	UA
	NGOs/CSOs	0.0	UA
Total GEF funding		2.44	2.40
Total Co-financing		4.81	UA
Total project funding (GEF grant(s) + co-financing)		7.29	UA
Terminal evaluation/review information			
TE completion date		August 2017	
Author of TE		Nadia Bechraoui, Khalid Anouar	
TER completion date		4/6/2018	
TER prepared by		Nina Hamilton	
TER peer review by (if GEF IEO review)		Molly Sohn	

2. Summary of Project Ratings

Criteria	Final PIR	IA Terminal Evaluation	IA Evaluation Office Review	GEF IEO Review
Project Outcomes	BLIND REVIEW	BLIND REVIEW	BLIND REVIEW	MS
Sustainability of Outcomes		BLIND REVIEW	BLIND REVIEW	ML
M&E Design		BLIND REVIEW	BLIND REVIEW	S
M&E Implementation		BLIND REVIEW	BLIND REVIEW	S
Quality of Implementation		BLIND REVIEW	BLIND REVIEW	MS
Quality of Execution		BLIND REVIEW	BLIND REVIEW	S
Quality of the Terminal Evaluation Report		BLIND REVIEW	BLIND REVIEW	S

3. Project Objectives

3.1 Global Environmental Objectives of the project:

The project's global environmental objective is to "ensure that sizeable quantities of PCBs and PCB-contaminated scrap metals are taken out from use and global circulation" by treating and reclaiming at least 3,000 tons of polychlorinated biphenyl (PCB)-contaminated mineral oil and 2,000 tons of PCB-contaminated electrical equipment, and build "capacity to finally dispose of PCB-contaminated mineral oils and PCB-contaminated electrical equipment to ensure compliance with the Stockholm Convention on Persistent Organic Pollutants." (PD, pg. 2)

3.2 Development Objectives of the project:

The project aimed to provide "technical assistance to public and private sector actors to increase the in-country capacity for overcoming identified barriers for safe and sustainable management of polychlorinated biphenyl (PCB)-contaminated transformers at all stages of their life cycle" (PD, pg. 1), with the following outcomes:

- Identification process set up for PCB contamination in in-service and decommissioned transformers.
- Environmentally sound maintenance and treatment of PCB contaminated mineral oil transformers in participating industries set up.
- Environmentally sound disposal of decommissioned PCB contaminated transformers and material recovery set up.

The project was the second pillar of an overarching project on the management of polychlorinated biphenyls (PCBs) in Morocco, which was jointly implemented by UNIDO and UNDP. The first pillar was planned to be implemented in parallel to the second pillar, implemented by UNDP, which was to "focus on the strengthening of the legal, regulatory and institutional capacity in Morocco with regard to PCB management and on the disposal of pure PCB-containing equipment" (PD, pg. 1).

3.3 Were there any **changes** in the Global Environmental Objectives, Development Objectives, or other activities during implementation?

There were no changes in the objectives. Regarding activities, initially two separate facilities were expected to be built (one treatment plant and another one for the conditioning and the dismantling of the decommissioned contaminated transformers) under components 2 and 3, but in the end one treatment plant was established for both activities (TE, pg. 8).

4. GEF IEO assessment of Outcomes and Sustainability

Please refer to the GEF Terminal Evaluation Review Guidelines for detail on the criteria for ratings.

Relevance can receive either a Satisfactory or Unsatisfactory rating. For Effectiveness and Cost efficiency, a six point rating scale is used (Highly Satisfactory to Highly Unsatisfactory), or Unable to Assess. Sustainability ratings are assessed on a four-point scale: Likely=no or negligible risk; Moderately Likely=low risk; Moderately Unlikely=substantial risks; Unlikely=high risk. In assessing a Sustainability rating please note if, and to what degree, sustainability of project outcomes is threatened by financial, sociopolitical, institutional/governance, or environmental factors.

Please justify ratings in the space below each box.

4.1 **Relevance**	Rating: Satisfactory

This TER rates relevance as **satisfactory**, since the project's objectives and activities are in line with GEF, UNIDO, and Morocco's priorities.

The Government of Morocco signed and ratified the Stockholm Convention on Persistent Organic Pollutants (POPs) on 15 June 2004, demonstrating their commitment to implement all necessary measures to "ensure the conformity and implementation of the provisions of this Convention, including the disposal of all equipment containing PCBs by 2025 and of their waste by 2028" (TE, pg. 4). One of the priorities of the Moroccan National Implementation Plan for POPs (submitted 2 May 2006) is the "Development of a strategy for eliminating equipment containing PCBs from the national environment and destruction of oils contaminated by PCBs, in an environmentally sound manner", and this project is a direct continuation of the specific NIP for PCB management as prepared by the Ministry of Environment (PD, pg. 5). With Morocco's new constitution of 2011, the government is working to ensure that the relevant provisions of its national legislation align with the provisions of international conventions on which they are signatories, including the Stockholm Convention. (TE, pg. 4). Furthermore, the project is consistent with Morocco's new agenda for sustainable development by 2030 and efforts at the institutional and regulatory levels to strengthen local capacity to adopt environmentally sound management of PCBs (TE, pg. 4).

The project's activities are consistent with GEF's Strategic Program 2, "Partnering in investments for National Implementation Plan Implementation", with the aim to end the use and release of PCBs into the environment, under the Persistent Organic Pollutants (POPs) focal area (operational program #14) which supports the implementation of the Stockholm Convention on POPs by providing funding for capacity building, on-the-ground interventions, and targeted research (PD, pg. 27). The activities are specifically in line with Strategic Program 2 "through partnering in future investment projects that aim at eliminating the use and releases of PCBs to the environment" (PD, pg. 28).

The project is also consistent with UNIDO's mandate and thematic priorities relating to cleaner production, industrial efficiency and the management of hazardous substances, and UNIDO's ability to implement projects in priority areas of the Stockholm convention using GEF resources. Furthermore, the project objectives align with the 2012-2016 United Nations Development Assistance Framework (UNDAF) and Country Programme Action Plan, between the Kingdom of Morocco and the United Nations System, which commit to "protecting the environment and ensuring sustainable Development" and "reinforcing the capacity of national institutions in the elaboration and implementation of policies and action plans, in conformity to rules and regulations and international commitments" (TE, pg. 14).

4.2 **Effectiveness**	Rating: Moderately satisfactory

This TER rates effectiveness as **moderately satisfactory**. The majority of output and outcome targets were met and the in-country capacity of Morocco has increased related the PCB issue and availability of local expertise and infrastructures, however the target for the overarching environmental objectives, in order to meet the Stockholm Convention's requirements and deadlines, were not met. Project achievements are detailed below.

Outcome 1: Identification process set up for PCB contamination in in-service and decommissioned transformers

The project successfully achieved its output goals to 1) select laboratories to assess PCB levels in transformers through a call for tenders, 2) establish a standard method of PCBs analysis through a study and review of different methods, and 3) collect and analyze samples of transformers through a campaign that collected a sample of 6,000 transformers (higher than the 1,000 target) (TE, pg. 15). Overall, this outcome was achieved since the project "enabled the elaboration of a standardized methodology, approved by the National Commission on PCBs" (TE, pg. 17). This outcome "made it possible to better identify the park of transformers in Morocco in terms of levels of PCB concentration and to establish which ones are in service and which ones have been decommissioned" (TE, pg. 17).

Outcome 2: Environmentally sound maintenance and treatment of PCB contaminated mineral oil transformers in participating industries set up

The project achieved its output goal to establish a PCB-contaminated mineral oil treatment facility and PCB contaminated metal recovery system (despite an unsuccessful first call for tender) (TE, pg. 15). However, the project did not meet its goal of 3,000 tons of PCB-contaminated mineral oil treated, with only 88.6 tons of mineral oil decontaminated in the treatment facility (TE, pg. 16). Although the outcome target was not reached, the project enhanced Morocco's capacities to treat PCB contaminated mineral oil and electric transformers carcasses, and now "the national company has the required technical capacities to operate in an environmentally sound manner" (TE, pg. 18).

Outcome 3: Environmentally sound disposal of decommissioned PCB contaminated transformers and material recovery set up

The project successfully established a state-of-the-art and technically up-to-date PCB contaminated mineral oil dismantling facility and PCB-contaminated metal reclamation system. However, the project did not reach its target of 2,000 metric tons of decontaminated transformer carcasses, with only 358 tons treated. Furthermore, the project expected to decontaminate 446 metric tons of transformer carcasses from UNDP's Pillar I, however only 7.14 tons were decontaminated through Pillar I since the majority of Pillar I's transformers were sent to an existing treatment plant in France due to delays in Pillar II.

4.3 **Efficiency**	Rating: Moderately unsatisfactory

This TER rates efficiency as **moderately unsatisfactory** due to significant delays and insufficient cost-effectiveness of outcomes 2 and 3, for which most of the budget was dispersed despite significantly underachieving on the target that was budgeted for.

The project ran 3.5 years longer than planned (6.5 compared to 3), largely due to delays for the establishment of the treatment plant since the initial call for tender was launched unsuccessfully in 2012, and the successive call for tender was launched a year later in 2013. The delays were caused by the lengthy environmental impact assessment and slow process of obtaining the treatment plant's operating authorizations from the various authorities (TE, pg. 20).

Due to delays and an insufficient supply of contaminated transformers, and therefore below-target operation of the treatment plant, the treatment cost increased from an estimated USD 1,500/ton (which was consistent or lower than international prices) to USD 3,021/ton (TE, pg. 21). The TE notes that "PCB transformers holders should have been programming at least one year in advance the decontamination of their equipment and should have taken into account the availability of replacement devices, the processing time, and the time needed for carrying out the tests" (TE, pg. 21).

As a result of the higher than expected treatment costs, the majority of the budget was disbursed despite not reaching the targeted number of treated transformers. The remaining amount of the GEF budget (about 1.4%) is budgeted for Maroc Maintenance Environnement (MME) to operate the treatment plant during the bridging period between project completion and the launch of the planned 2nd phase (TE, pg. 20).

4.4 **Sustainability**	Rating: Moderately likely

This TER rates sustainability as **moderately likely**, since there is overall strong commitment by the government and other stakeholders, however long-term sustainability is dependent on financial mechanisms for the profitability of the treatment plant and the engagement of small and medium-sized enterprises.

Environmental

Environmental sustainability is rated **moderately likely**. Although the PCB-related risks to the environment are reduced as a result of the project's awareness raising efforts and increased government technical capacity, the long-term sustainability of the environmental benefits depend on the engagement of small and medium-sized enterprises, which hold at least 40% of the transformers in the country (TE, pg. 22).

Sociopolitical

Sociopolitical sustainability is rated **moderately likely**. The project's achievements with capacity building have contributed to a greater understanding of the consequences of unsustainable maintenance and disposal practice, and therefore greater commitment from involved stakeholders. The project was successful in raising the stakeholders' awareness (including the decision-makers) on PCB issues and in providing the necessary tools to address the Stockholm Convention's challenge of eliminating all PCBs by

2028, and there is strong commitment of the government to identify financial resources to ensure a follow-up GEF project to continue the momentum from this project (TE, pg. 18).

However, for long-term sustainability, small and medium-sized enterprises and the informal sector (metal scrap dealers) must be engaged, as noted above.

Institutional frameworks and governance

Sustainability regarding institutional frameworks and governance is rated **likely** due to the government's demonstrated commitment to sustainable management of PCBs and the capacity built as a result of this project, and upcoming regulatory action to ensure continued participation of the private sector.

Overall, the Ministry of Environment's capacities have been reinforced as a result of the project's trainings on PCB issues, addressing the risk from the "generally low level of awareness of decision makers and PCB owners on the consequences of releases of PCBs for human health and the environment" (PD, pg. 13). The project has effectively addressed the technical and infrastructural barriers for PCB management outlined in the Project Document, specifically the lack of capacity for routine analysis of equipment suspected to contain PCBs, relative absence of treating/disposing PCB contaminated equipment, and absence of local facilities for the treatment of PCB contaminated mineral oil in Morocco (PD, Pg. 14-15). In 2010, the Moroccan government also created the National Commission for PCBs, which is "responsible for ensuring that the provisions of the Stockholm Convention on POPs and those relating to PCBs are complied with and implemented" (TE, pg. 21). Furthermore, the government is complementing Morocco's existing law on waste management and disposal with one that concerns the management of chemical products, including PCB-contaminated in-service equipment (TE, pg. 21). This will address the need for a "coercive law to ensure the environmentally sound management of in-service equipment contaminated with PCBs" and stronger law enforcement for waste management and disposal of decommissioned PCB-contaminated transformers, to ensure the motivation of PCB holders to bring contaminated equipment to the treatment plant and ensure the plant's profitability (TE, pg. viii). Otherwise, all efforts by the private sector will continue to be based on voluntary action, and "expense accrued are based on each individual company's willingness of committing financial resources to environmental protection" (PD, pg. 13).

Financial

Financial sustainability is rated **moderately likely** since a second-phase GEF is under consideration, however the increased cost of PCB decontamination at the treatment plant poses a great risk to the plant's long-term sustainability. The goal of the second-phase project is to "keep building on the PCB elimination strategy, which consists in exporting the pure PCB transformers and in decontaminating slightly contaminated oils by means of chemical destruction" and will address the constraints encountered during this project, particularly the "financial mechanisms required to ensure the continuity of the phasing-out of the PCBs" (TE, pg. 22).

The profitability of the treatment plant remains a challenge with the increased treatment costs, however the increased demand for treatment in response to the government's upcoming legal measures is expected to improve the profitability and sustainability of the treatment plant (TE, pg. 22). This legislation will address the barrier that "companies are unable to find the necessary financial means of replacing and maintaining PCB-contaminated equipment in an environmentally sound manner" due to a "lack of legal requirements that impedes the phasing out of PCB-contaminated electrical equipment" (PD, pg. 13).

5. Processes and factors affecting attainment of project outcomes

5.1 Co-financing. To what extent was the reported co-financing essential to the achievement of GEF objectives? If there was a difference in the level of expected co-financing and actual co-financing, then what were the reasons for it? Did the extent of materialization of co-financing affect project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

The TE indicates that the government and UNIDO did contribute in-kind co-financing, however the materialized co-financing is not given (TE, pg. 19).

The private sector contribution was significantly lower than planned, however the exact amounts were difficult to track. Since the treatment plant only treated about 450 tons of transformers by project completion (target of 2,000 tons), and the private sector's contribution pertained to the transport of contaminated equipment to and from the plant, the private sector's contribution only amounted to USD 180,000 (compared to USD 4.554 million expected) (TE, pg. 19). The target in terms of treated transformers was not met due to delays for the establishment of the treatment plant, lengthy environmental impact assessment and slow process of obtaining the treatment plant's operating authorizations (TE, pg. 20).

5.2 Project extensions and/or delays. If there were delays in project implementation and completion, then what were the reasons for it? Did the delay affect the project's outcomes and/or sustainability? If so, in what ways and through what causal linkages?

The project ran 3.5 years longer than planned (6.5 compared to 3), largely due to delays for the establishment of the treatment plant since the initial call for tender was launched unsuccessfully in 2012, and the successive call for tender was launched a year later in 2013. The delays were caused by the lengthy environmental impact assessment and slow process of obtaining the treatment plant's operating authorizations from the various authorities (TE, pg. 20). Partly due to the delays, the treatment cost per ton doubled, and therefore the project's efficiency reduced significantly since the entire budget was dispersed but the target was not met.

5.3 Country ownership. Assess the extent to which country ownership has affected project outcomes and sustainability? Describe the ways in which it affected outcomes and sustainability, highlighting the causal links:

Throughout the project, the Moroccan government and many large PCB holders have demonstrated their strong commitment to addressing the issue of PCB-contaminated in-service and decommissioned transformers. The project was perfectly aligned to the national priorities of Morocco, and the government has demonstrated commitment to continue pursuing this issue by mobilizing additional financial resources for a second phase of the project. Since the private sector still participates on a voluntary basis without legislation in place, this strong ownership by the government and private sector will be essential for long-term outcomes. Ownership by small and medium-sized enterprises, which comprise a large proportion of the market, must be promoted since they were not targeted by this project.

6. Assessment of project's Monitoring and Evaluation system

Ratings are assessed on a six point scale: Highly Satisfactory=no shortcomings in this M&E component; Satisfactory=minor shortcomings in this M&E component; Moderately

Satisfactory=moderate shortcomings in this M&E component; Moderately Unsatisfactory=significant shortcomings in this M&E component; Unsatisfactory=major shortcomings in this M&E component; Highly Unsatisfactory=there were no project M&E systems.

Please justify ratings in the space below each box.

6.1 **M&E Design at entry**	Rating: Satisfactory

This TER rates M&E design as **satisfactory**. The Project Document outlined a detailed M&E plan including realistic and quantifiable targets, which were directly aligned with the project's impact indicators. There was strong coherence between the project's objective and expected outcomes, and the log frame has a clear timeline for results (TE, pg. 8).

The project developed a participatory M&E plan based on the Logical Framework Matrix, whose details would be laid out in the Inception Workshop at the beginning of the project (PD, pg. 53). The independent mid-term evaluation planned to focus on the cost-effectiveness and sustainability of the establishment of the PCB dechlorination and decontamination unit, and would focus on the identification of lessons learned for adaptive management. The Project Document also noted that the project would ensure effective communication of project results by posting regularly on the project website.

6.2 **M&E Implementation**	Rating: Satisfactory

This TER rates M&E implementation as **satisfactory**, since the TE notes that all M&E activities were implemented in line with the activities laid out in the Project Document, including the Inception workshop, mid-term evaluation, annual work plans, PIRs, and regular meetings between UNDP, UNIDO, and the Ministry of Environment (TE, pg. 23). The project document also noted that the results would be disseminated widely, however the website developed specifically on PCBs was not accessible at the time of the final evaluation, and is still inaccessible. The project was appropriately kept track of and impact indicators were reported on annually. The Project Coordination Unit also demonstrated adaptive management throughout project implementation, "such as deciding that there would be only one single plant, instead of two as had originally been planned, in charge of treating and dismantling the transformers" and "given the delays encountered in operating the treatment plant, the Pillar I decommissioned PCB-contaminated transformers that were supposed to be conditioned through the treatment plant would be sent to France directly for disposal" (TE, pg. 24).

Furthermore, the Project Management Team (PMT), seated within the Ministry of Environment, is expected to oversee follow-up and monitoring of the quality of the services provided to the project both during implementation and after completion, however the frequent rotation of PMT members has impacted its effectiveness (TE, pg. 23).

7. Assessment of project implementation and execution

Quality of Implementation includes the quality of project design, as well as the quality of supervision and assistance provided by implementing agency(s) to execution agencies throughout project implementation. Quality of Execution covers the effectiveness of the executing agency(s) in performing its roles and responsibilities. In both instances, the focus is upon factors that are largely within the control of the respective implementing and executing agency(s). A six point rating scale is used (Highly Satisfactory to Highly Unsatisfactory), or Unable to Assess.

Please justify ratings in the space below each box.

7.1 **Quality of Project Implementation**	Rating: Moderately satisfactory

This TER rates the quality of project implementation as **moderately satisfactory** since the implementing agency was largely effective at providing oversight and responsive to challenges, however the project experienced administrative delays and inadequate technical support from UNIDO.

Although the project was well-designed for the project's expected outcomes, the design had not accounted for the time required for the project's administrative needs (TE, pg. 27). The project's finances were well-managed by UNIDO's Headquarters in Vienna, however the centralization of the administrative and financial management at the headquarters resulted in delays for administrative processes, such as for the launch of the calls for tenders, the establishment of contracts, and payment of goods and services (TE, pg. 28). However, the TE also notes that "given the nature of the PCB project Pillar II which was a technical challenge requiring a slightly different management approach, the technical support provided by UNIDO could have been more intense and closer to the PCU, due to some significant risks encountered during the project's implementation and that were not previously identified" (TE, pg. 29).

UNIDO played an active role as a member of the Project Steering Committee, particularly with regards to monitoring project progress and participating in validation meetings for project deliverables. UNIDO was also very responsive to the treatment plant's operational issues to help identify viable and sustainable solutions to the plant's profitability. The resource personnel in the UNIDO Office in Morocco were particularly responsive and played an important role in adaptive management.

7.2 **Quality of Project Execution**	Rating: Satisfactory

The quality of project execution is rated as **satisfactory**, as the executing agency and Project Management Team successfully oversaw its responsibilities and overcame challenges related to frequent staff turnover. The executing agency effectively oversaw establishment of the Project Coordination Unit, Project Steering Committee, and Project Management Team (TE, pg. 16). Financially, the project was well organized and adequately managed.

The Project Steering Committee was responsive and regularly informed on the progress of the project. However, the TE notes that it "does not appear to have fully played its role in terms of the strategic guidance they had been supposed to offer the project," with "no indications that they had pondered on strategic matters" and rather mostly discussed issues facing large PCB holders who made up much of the committee (TE, pg. 24). Furthermore, the rotation of committee participants wasted time giving briefs on past meetings.

The Project Management Team, which carried out the project activities, experienced frequent turnover of key staff and authorities, with changes to the National Contact Point, UNIDO focal point, and two changes to the Deputy Director of the PMT (TE, pg. 30). These changes had significant affects on the human resources department, and caused delays and affected efficiency with the training and briefing of new PMT members. However, the executing agency ensured the continuity of the project and continued managing the project activities with efficiency despite these changes. The PMT also

successfully responded to the MTE by expanding its reach to other government departments to ensure follow-up of the treatment plant's activities.

8. Assessment of Project Impacts

Note - In instances where information on any impact related topic is not provided in the terminal evaluations, the reviewer should indicate in the relevant sections below that this is indeed the case and identify the information gaps. When providing information on topics related to impact, please cite the page number of the terminal evaluation from where the information is sourced.

8.1 Environmental Change. Describe the changes in environmental stress and environmental status that occurred by the end of the project. Include both quantitative and qualitative changes documented, sources of information for these changes, and how project activities contributed to or hindered these changes. Also include how contextual factors have contributed to or hindered these changes.

The project successfully treated 88.6 tons of PCB-contaminated mineral oil and 358 tons of contaminated transformer carcasses, in addition to 7.14 tons of transformer carcasses from the GEF project's Pillar I.

8.2 Socioeconomic change. Describe any changes in human well-being (income, education, health, community relationships, etc.) that occurred by the end of the project. Include both quantitative and qualitative changes documented, sources of information for these changes, and how project activities contributed to or hindered these changes. Also include how contextual factors have contributed to or hindered these changes.

The TE does not describe any socioeconomic impacts.

8.3 Capacity and governance changes. Describe notable changes in capacities and governance that can lead to large-scale action (both mass and legislative) bringing about positive environmental change. "Capacities" include awareness, knowledge, skills, infrastructure, and environmental monitoring systems, among others. "Governance" refers to decision-making processes, structures and systems, including access to and use of information, and thus would include laws, administrative bodies, trust-building and conflict resolution processes, information-sharing systems, etc. Indicate how project activities contributed to/ hindered these changes, as well as how contextual factors have influenced these changes.

a) Capacities

The project's activities effectively increased in-country capacity in terms of knowledge and awareness related to the PCB issue and in terms of the availability of local technical expertise and infrastructure for the treatment of PCB-contaminated transformers. However, the TE does not provide a clear assessment of project impacts.

b) Governance

The Moroccan government has drafted a law concerning the management of chemical products, including PCB-contaminated in-service equipment, addressing the need for a law to ensure the environmentally sound management of in-service equipment contaminated with PCBs and stronger law enforcement for waste management and disposal of decommissioned PCB-contaminated transformers. Although the legislation is not directly attributable to the project's activities, the project's capacity building and awareness raising efforts are likely to have contributed.

8.4 Unintended impacts. Describe any impacts not targeted by the project, whether positive or negative, affecting either ecological or social aspects. Indicate the factors that contributed to these unintended impacts occurring.

The TE does not describe any unintended impacts.

8.5 Adoption of GEF initiatives at scale. Identify any initiatives (e.g. technologies, approaches, financing instruments, implementing bodies, legal frameworks, information systems) that have been mainstreamed, replicated and/or scaled up by government and other stakeholders by project end. Include the extent to which this broader adoption has taken place, e.g. if plans and resources have been established but no actual adoption has taken place, or if market change and large-scale environmental benefits have begun to occur. Indicate how project activities and other contextual factors contributed to these taking place. If broader adoption has not taken place as expected, indicate which factors (both project-related and contextual) have hindered this from happening.

There is no evidence of adoption at scale of the project's activities.

9. Lessons and recommendations

9.1 Briefly describe the key lessons, good practices, or approaches mentioned in the terminal evaluation report that could have application for other GEF projects.

- Designating the project's implementing agency from within the Ministry in charge of the environment and, in particular, from within the Directorate responsible for the implementation of the Ministry's management and disposal policy of hazardous waste, allowed a strong institutional anchoring of the project and facilitated its ownership.
- The involvement of all potential target groups in both the preparation and the implementation of the project, and carrying out an assessment of the needs of these target groups, are two aspects of the process which are critically important if a successful mainstreaming of the environmentally sound management of PCB equipment into their activities/policy is to be achieved.
- Mutual support and synergy with other development partners working on identical themes in the field of capacity building and hazardous waste management would help catalyze the actions of the project.
- The availability of evidence-based data provides the arguments necessary to press on with developing the legal and regulatory framework and the management of hazardous waste.
- The evolution of the national context in which the project is taking place must be taken into account throughout the different phases of the project. This should lead to integrating pointers

into the logical framework of the project, with positive effects and a significant impact on the project results.

- The commissioning of the treatment plant made it possible to put to the test and industrial management model for the treatment of PCB-contaminated equipment and for the disposal of pure PCB transformers. This model could be replicated in countries with a similar economic set up.
- The exploitation of the treatment plant made it possible for Morocco to set up a pricing code
- per ton of contaminated oil and / or per ton of contaminated equipment. This price code could serve as a reference for the development of similar projects in the region.
- The PCB project Pillar II could be taken as an ideal case-study to demonstrate how a holistic approach to PCB management could be taken, combining both the will to keep the preliminary PCB inventories updated, and the will to keep PCB releases at the lowest possible levels while pressing on with disposal.

9.2 Briefly describe the recommendations given in the terminal evaluation.

For governments:

- Complete and enforce the legal framework relating to in-service and decommissioned PCB-contaminated transformers and PCB waste (finalizing and adopting the new law on chemical products which will relate to in-service PCB-contaminated transformers)
- Provide the required resources and means to the Environment Inspectors to enable them to enforce the law
- Mobilize short-term additional financing to ensure the functioning of the treatment plant
- Build on lessons learnt from the PCB project Pillar II so that the feasibility studies might be updated, financial incentives and/or technical support to small and medium PCB holders might be put in place and the issue of the involvement of the informal sector might be addressed
- Keep up the information and awareness-raising campaign targeting main stakeholders but also include the private sector and the public
- Reinforce and institutionalize the monitoring system put in place during the implementation of the PCB project Pillar II
- Launch a financial audit in order to determine the cost structure of the treatment process

For UNIDO:

- Streamline bureaucratic processes in order to avoid delays (the signature of the convention with the country concerned, the preparation of TORs, the reviewing of the financial aspects of tender results, etc.)
- Introduce more delegation procedures in the area of the financial management of the project, and support this with appropriate monitoring tools.
- Build on the lessons learnt from this project to develop other similar initiatives
- Encourage south-south cooperation between countries in the same geographical region and finding themselves in a similar situation (knowledge and technology transfers).

For GEF:

- Given the two-year delay between the preparatory phase effective start date, the updating of feasibility studies for such types of projects should take place before the launch of a tender (in this project 4 years later) so that the evolution of the context might be taken into account.
- Speedily process the second phase of this project to build on this project's positive dynamics and to eschew the risk of the treatment plant closing down due to a lack of activity.

10. Quality of the Terminal Evaluation Report

A six point rating scale is used for each sub-criteria and overall rating of the terminal evaluation report (Highly Satisfactory to Highly Unsatisfactory)

Criteria	GEF IEO comments	Rating
To what extent does the report contain an assessment of relevant outcomes and impacts of the project and the achievement of the objectives?	The report contains a comprehensive assessment of the project's outputs, outcomes and objectives.	**S**
To what extent is the report internally consistent, the evidence presented complete and convincing, and ratings well substantiated?	The report is internally consistent and presents convincing evidence.	**S**
To what extent does the report properly assess project sustainability and/or project exit strategy?	The TE provides a comprehensive assessment of the project's sustainability, including financial, environmental, institutional, and sociopolitical risks.	**S**
To what extent are the lessons learned supported by the evidence presented and are they comprehensive?	Clear and comprehensive lessons learned and recommended for government, UNIDO, and GEF.	**HS**
Does the report include the actual project costs (total and per activity) and actual co-financing used?	The report provides detailed actual project costs from GEF funds, however does not provide information on materialized co-financing.	**MU**
Assess the quality of the report's evaluation of project M&E systems:	The report provides a comprehensive assessment of the project's M&E system.	**S**
Overall TE Rating		**S**

11. Note any additional sources of information used in the preparation of the terminal evaluation report (excluding PIRs, TEs, and PADs).

No additional sources of information were used.