

Independent terminal evaluation

REPUBLIC OF THE PHILIPPINES

Global programme to demonstrate the viability and removal of barriers that impede the adoption and successful implementation of available non-combustion technologies for destroying persistent organic pollutants (POPs)

UNIDO Project No.: GF/PHI/07/001 - SAP ID: 104149
GEF ID: 2329



UNITED NATIONS
INDUSTRIAL DEVELOPMENT ORGANIZATION

UNIDO OFFICE FOR INDEPENDENT EVALUATION

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Acronyms and abbreviations

BAT	Best available techniques
BEP	Best environmental practice
CCO	Chemicals control order
CBO	Community based organization
COP	Conference of the parties
CTA	Chief technical adviser
DENR	Department of environment and natural resources
DOE	Department of energy
ECC	Environmental compliance certificate
EIA	Environmental impact assessment
EMB	Environmental management bureau
ESM	Environmental Sund management
FSP	Full size project
GEF	Global environment facility
GOP	Government of the republic of the Philippines
MOA	Memorandum of agreement
MOU	Memorandum of understanding
M&E	Monitoring and evaluation
NGO	Non-governmental organization
NIP	National implementation plan
NPM	National project manager
NRDC	National resources development corporation
PAFC	Philippines alternative fuel corporation
PCB	Polychlorinated biphenyl
PIR	Project implementation report
PMT	Project management team

PNOC	Philippines national oil company
POPs	Persistent organic pollutants
PPG	Project preparation grant
PSC	Project steering committee
PTS	Persistent toxic substances
TAG	Technical advisory group
TOR	Terms of reference
UNIDO	United Nations Industrial Development Organization
WB	World Bank

Glossary of evaluation- related terms

Term	Definition
Baseline	The situation, prior to an intervention, against which progress can be assessed.
Effect	Intended or unintended change due directly or indirectly to an intervention.
Effectiveness	The extent to which the development objectives of an intervention were or are expected to be achieved.
Efficiency	A measure of how economically inputs (finances and other resources) are converted (through activities) into outputs.
Impact	Positive and negative, intended and non-intended, directly and indirectly, long term effects produced by a development intervention.
Indicator	Quantitative or qualitative factors that provide a means to measure the changes caused by an intervention.
Intervention	An external action to assist a national effort to achieve specific development goals.
Lessons learned	Generalizations based on evaluation experiences that abstract from specific to broader circumstances.
Log frame (logical framework approach)	Management tool used to guide the planning, implementation and evaluation of an intervention. System based on MBO (management by objectives) also called RBM (results based management) principles.
Outcomes	The achieved or likely effects of an intervention's outputs.
Outputs	The products in terms of physical and human capacities that result from an intervention.
Relevance	The extent to which the objectives of an intervention are consistent with the requirements of the end-users, government and donor's policies.
Risks	Factors, normally outside the scope of an intervention, which may affect the achievement of an intervention's objectives.
Sustainability	The continuation of benefits from an intervention, after the development assistance has been completed.
Target groups	The specific individuals or organizations for whose benefit an intervention is undertaken.

Executive summary

A. Introduction

1. The Global Environment Facility (GEF) full size project (FSP) “*Global Programme to demonstrate the viability and removal of barriers that impede adoption and successful implementation of available, non-combustion technologies for destroying persistent organic pollutants (POPs)*” – Project for Philippines - was implemented from December 2007 to August 2015 by UNIDO and nationally executed by the Department of Environment and Natural Resources (DENR)/Environmental Management Bureau (EMB) with the following financing sources:- GEF: \$ 4,108,500; co-financing (cash and in kind): \$ 7,662,380; Total: \$ 11,770,880.

2. This project is part of a non-combustion Programme that is being implemented by UNIDO. The overall objective of the Programme is to demonstrate the viability to promote replication, at global level, of available non-combustion technologies for use in the destruction of obsolete POPs, specifically Polychlorinated Biphenyl (PCB) wastes, PCBs-containing equipment and the cleanup of POPs, and specifically PCBs in different matrices including contaminated soils or sediments.

3. For Philippines, the immediate project objective was to deploy a commercially available, proven non-combustion technology to address 1,500 tonnes of PCBs-containing transformers.

B. Evaluation of findings and conclusions

4. The main objective of this terminal evaluation was to assess project performance (in terms of relevance, effectiveness and efficiency), and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability and to propose a set of recommendations with a view to ongoing and future activities.

5. This project is very relevant given that Philippines is party to the Stockholm Convention and it holds a significant stockpile of PCBs and PCB wastes (6,879 tonnes). The project is playing a vital role in supporting Philippines to meet the objectives as set in its National Implementation Plan (NIP) and is helping in complying with the Stockholm Convention by building its capacity to soundly manage its stocks of PCBs and related wastes.

6. The project is consistent with the Strategic Program 1, 2 and 3 of persistent organic pollutants focal area strategy and strategic programming for GEF-4, in particular: for Strengthening Capacities for National Implementation Plan (NIP) Implementation, with the objective to strengthen and/or build the capacity required in eligible countries to implement their Stockholm Convention NIPs in a sustainable, effective and comprehensive manner, while building upon and contributing to strengthening a country’s foundational capacities for sound management of chemicals, addressing PCBs in this project.

7. Effectiveness of the project is considered moderately satisfactory. Despite the successful delivery of outputs, in particular a fully operational treatment facility, the

planned objective of treating 1,500 tons of PCB equipment was not achieved during the project time due to the pulling out of the Philippines Alternative Fuel Corporation (PAFC), the operating entity, from the project. However, the DENR has indicated that they are fully committed to restart the facility and would allocate the necessary resources.

8. The project has been executed by a very able National Project Manager NPM (recruited by UNIDO) in collaboration with DENR/EMB, and adequately supervised and guided by UNIDO. Due to a number of reasons / circumstances including poor project design or unclear definition of roles, the project has suffered a significant delay of four years. However, the project has been somewhat cost-effective owing to a number of factors including: high ownership of project, involvement and commitment of major stakeholders in particular DENR/EMB since the preparatory phase and high level of co-funding (\$7,662,380 cash and in-kind).

9. PAFC, the operating entity of the facility pulled out of the project in 2014 and the facility is closed since then. However, chances for sustainability of the project are high for the following reasons: Philippines is party to the Stockholm Convention and is fully committed for its implementation. Ownership of the project is high, and DENR/EMB is fully committed to restart the facility and has already allocated 3.8 M PhP (USD 82,931.4) for its reassessment (IPM Construction and Development Corporation (IPM) sub-contracted for this exercise). Four major PCB owners (PSALM, NPC, Transco and state-owned Meralco) have signed MOAs with DENR to have their PCBs treated by the facility. Finally, DENR/EMB has confirmed that it would provide the necessary resources and facilitate procedures for the full restart of the facility at the earliest possible time.

C. Recommendations

10. The project has ended and the treatment facility, although fully operational, was closed down due to pulling out of operating entity from the project. The following recommendations look ahead to post project phase for continued relevance and impact of project:

- i. Since the pulling out of the operating entity from the project, the facility was closed down. However, DENR/EMB has signified their full commitment to restart the facility. It is recommended that DENR/EMB ensure rapid procedures to re-assess and restart the facility, and avoid any further delays that might be further detrimental to the treatment technology that has remained idle for more than one year.
- ii. For continued relevance of the project, enforcement of laws related to PCBs (CCO) should be ensured. (Responsible parties: DENR/EMB)
- iii. PCB owners have indicated that if the costs for PCB decontamination are high, they would look for alternatives. Therefore, DENR/EMB should ensure that treatment costs are competitive.
- iv. More PCB-contaminated equipment will likely be identified during the national inventory that will be undertaken in the context of the IPOP project implemented by the World Bank. DENR/EMB should ensure that the owners of these PCB contaminated equipment have them treated by the facility.

- v. The small electrical cooperatives that hold more than 60% of PCB contaminated equipment lack financial resources for their sound disposal. DENR/EMB should ensure that they are included in the follow-up project being developed by UNIDO.

D. Lessons learned

11. Valuable lessons emerged during this evaluation that includes lessons related to technical aspects as well as to overall management of the project.

- i. Self-inventory and reporting of PCBs is possible if proper regulation (Chemical Control Order) is developed, enacted and enforced.
- ii. When developing Environmental Impact Assessment (EIAs), all information should be disclosed initially to avoid delays.
- iii. Engaging NGOs as major partners during implementation helps to bring down barriers / resistance and ensures acceptance of project at all levels including the general population.
- iv. The operating entity reduced the height of the facility building without informing other project partners. As a result, a crane could not be used to transport the washing tank inside. IPM had no other option than to manufacture the tank in situ, which resulted in higher costs. Poor communication leads to higher transaction cost for stakeholders.
- v. It was not clear between operating entity, the facility operator, and the technology provider who had the responsibility to tender out the construction of the building. Clearly defined roles and responsibilities of stakeholders contribute to avoiding delays in project implementation.
- vi. Securing operating permits / construction approval during preparatory phase helps in avoiding delays for project implementation.

I. Evaluation background

I.1 Information on the terminal evaluation

12. This terminal evaluation (TE) is carried out in compliance with GEF and UNIDO¹ evaluation policies in order to promote accountability for the achievement of the project objectives through the assessment of results, effectiveness, processes and performance of stakeholders involved during project implementation.

13. As planned in the terms of reference (annex 1), the terminal evaluation should have been undertaken from July to October 2011 and was to include two field missions to the Philippines. The first mission was undertaken by an evaluation team (ET) consisting of Dr. Nee Sun Choong Kwet Yive (International evaluation consultant) and Dr. Lee Alexander Risby (International evaluation consultant and team leader for the thematic evaluation of UNIDO's POPs activities (2011/12)) in August 2011. The second mission was initially planned to take place in October 2011; however, due to considerable delays in the demonstration phase of the project, the second mission was undertaken by Dr. Nee Sun Choong Kwet Yive in September 2015.

I.2 Scope and objectives of the TE

14. The evaluation followed the GEF review criteria² and assessed the project with emphasis on those components for which GEF funds were required. More specifically, the main objectives of this evaluation, as reported in the Terms of Reference (annex 1), are to enable the Government, counterparts, the GEF, UNIDO and other stakeholders and donors to:

- (a) Verify prospects for development impact and sustainability, providing an analysis of the attainment of global environmental objectives, project objectives, delivery and completion of project outputs/activities, and outcomes/impacts based on indicators. The assessment includes re-examination of the relevance of the objectives and other elements of project design according to the project evaluation parameters defined in chapter IV.
- (b) Enhance project relevance, effectiveness, efficiency and sustainability by proposing a set of recommendations with a view to ongoing and future activities.
- (c) Draw lessons of wider applicability for the replication of the experience gained in this project in other projects/countries.
- (d) Contribute to the findings of the thematic evaluation of UNIDO POPs activities

¹ UNIDO. (2015). Director General's Bulletin: Evaluation Policy (UNIDO/DGB/(M).98/Rev.1); and UNIDO. (2006). Director-General's Administrative Instruction No. 17/Rev.1: Guidelines for the Technical Cooperation Programme and Project Cycle (DGAI.17/Rev.1, 24 August 2006).

² GEF. (2008). Guidelines for GEF Agencies in Conducting Terminal Evaluations (Evaluation Office, Evaluation Document No. 3, 2008); and GEF. (2010). The GEF Monitoring and Evaluation Policy (Evaluation Office, November 2010).

15. The key question of the evaluation is whether the project has made a significant contribution to reducing the effects of POPs on human health and the environment.

I.3 Information sources and availability of information

16. In general, the availability of information for evaluation purposes was satisfactory. The project document was made available by UNIDO. Soft and hard copies of the specific documentation such as progress reports, consultants' reports, reports of contracted activities and minutes of Project Steering Committee (PSC) meetings and reports of other activities like seminars and inception workshop were made available to the evaluation team by the National Project Manager (NPM) during the first field mission in Philippines (August 2011).

17. For the second mission that took place in September 2015, the documents related to the second part, the demonstration phase, including notes of meeting of PSC, reports (progress, final, commission, end-of-contract, etc.), copies of letters exchanged between stakeholders/partners, copies of Memorandum of Agreement (MOA)/Memorandum of Understanding (MOU), letters of award, co-financial reports, were made available to the ET. On request, financial reports were also submitted to the ET through emails. A list of documents consulted is given in annex 2.

I.4 Methodological remarks, limitations encountered and validity of the findings

18. This evaluation exercise was supposed to take place during the period July – October 2011 and was to include two field missions. The first mission took place as scheduled in 21 – 30 August 2011 and was successfully completed.

19. The purpose of the second field mission was to conduct an assessment of the effectiveness of the operations of the non-combustion facility. Originally, it was planned to take place in the period October – December 2011. However, due to delays in installation of the non-combustion technology, the second mission could not take place in the planned period. It was postponed for the following year. When the NPM was contacted for the second mission in 2012, it was again postponed, as the facility was not fully operational. This situation (postponement of the 2nd mission) continued in 2013 and again in 2014, until it was finally agreed to have the 2nd mission take place from 7 – 11 September 2015.

20. Despite these considerable delays in conducting the 2nd mission, the evaluation team completed this evaluation exercise owing to the documentation, relating to the second part of the project, made available by the NPM and to information gathered during the second mission. It has to be highlighted however that the specific purpose of the 2nd mission was to assess the effectiveness of operations of the facility. This was not possible since the facility was closed, as the facility operator, Philippines Alternative Fuel Corporation (PAFC), pulled out of the project in 2014. This part was assessed solely on the commissioning report and on the report of a consultant, expert for PCB non-combustion destruction technology, recruited to assess the commissioning activities.

21. For the first mission, the team analysed the documentation submitted by UNIDO and the NPM. The interview with Dr. Mohamed EISA, the project manager for the period 2008 - 2011, and also the Chief of UNIDO POPs unit at the time of the first evaluation mission, was carried out through the telephone on 15 August 2011.

22. During the first field mission undertaken in Philippines from 21 August to 30 August 2011, the evaluation team met with the UNIDO country representative, the NPC, the GEF Focal point, representatives of DENR/EMB, PAFC, the operating entity, PCB owners (National Power Corporation, Meralco, etc.) and sub-contractors.

23. Site visits were also undertaken at the treatment facility in Bataan and at CRL Environmental Corporation, the laboratory contracted for the monitoring of the treatment site during the first field mission. An agenda of the field mission as well as a list of persons interviewed during this field mission is given in annex 3. A presentation on the preliminary findings of this first mission was made to the former Project manager who was on mission in Philippines, the NPM and two UNIDO officers at the UNIDO office in Manila on 29 September 2011. The preliminary findings were also presented to the UNIDO Project Managers of the POPs unit and UNIDO Office for Independent Evaluation in Vienna on 6 October 2011. The presentations provided opportunities for receiving feedback on the preliminary findings of the assessment that has been considered and is reflected, where appropriate, in this report.

24. For the second mission, the evaluator met with UNIDO, the ex-NPC, DENR/EMB, IPM and other main stakeholders. Regarding meeting with government officials, it was possible to meet both with the representatives directly involved in the project and also high-level officials including directors, undersecretaries and assistant secretary. However, it was not possible to meet with PAFC, the former facility operator that pulled out of the project in 2014. A list of persons interviewed during the second mission is included in Annex 3.

II. Country and project background

II.1 Brief country context regarding PCBs and its management

25. The Stockholm Convention was adopted on 22 May 2001, and the Government of the Philippines ratified it on 27th February 2004. Immediately after this ratification, the Government of Philippines, recognizing the inadequate PCBs management in the country, issued the Chemical Control Order (CCO) for PCBs, which require registration, labeling, safe handling and final ban and phase-out of use or storage of PCBs within 10 years after the effective date of the Order.

26. The DENR has the overall responsibility for environmental management including regulatory, monitoring, permitting and licensing functions on all matters related to protection and conservation of the environment. The DENR also serves as the GEF operational focal point (OFP), as well as the POPs focal point (FP). The Environmental Management Bureau (EMB) of the DENR implements and enforces regulations on Environmental Impact Assessment (EIA), toxic and hazardous wastes (including PCBs) management and air quality management.

27. The Republic of the Philippines, as most other countries that are parties to the Stockholm Convention and eligible for GEF financing, does not have adequate facilities for the destruction of PCB wastes. The recent practice, to the extent PCB product has been addressed at all, has been to export PCB wastes for incineration. Such an arrangement is very expensive on the Philippine market (US\$ 5 to US\$ 10 per kg), so that only large solid companies can do proper identification, collection and export of PCB wastes. It should be noted that the DENR has not issued export permits for PCBs since 2004 as a support to the project.

28. The currently known PCB inventories reported in the NIP of the Stockholm Convention (submitted on 19 June 2006 to the Stockholm Convention Secretariat) include 6,879 tonnes of PCB equipment and wastes comprising about 2,400 tonnes of PCBs oil. However, given that the PCB inventory was only partial, it is anticipated that further PCBs will be identified during the implementation of the World Bank GEF funded Project³ entitled “**Integrated Persistent Organic Pollutant (POPs) management**”. This five-year Project (March 2011 to February 2016) has a component on the “*Environmentally Sound Management of PCBs*”. This component will provide: Technical Assistance and Training on Implementation and Monitoring of Environmentally Sound Management of PCBs in Philippines. The overall tasks of this component will include conduct of a national inventory of PCBs in the country; provide training and assistance to PCB-owners in the development and implementation of their specific PCB management plans up to compliance with the technical guidelines on PCBs; and conduct trainings for government regulators on the implementation, validation, and monitoring of PCB management.

II.2 Changes during preparatory phase of the project and project implementation

29. The findings regarding the major changes and important developments that have occurred during the preparatory phase of the project and project implementation period

³GEF Grant No: TF095839; Project ID: P106885, GEF ID: 3622.

can be discussed at three levels namely at government/authority level, stakeholder level including PCB owners and NGOs, and public and community level.

Government / authority level

30. With the development of the project during the preparatory phase, awareness regarding the need to properly manage PCBs in Philippines has been raised at the highest level. And in that context, as early as 2004, the Government of Philippines has taken actions to enforce its regulations for the sound management of PCBs. Indeed, a Chemical Control Order (CCO) for Polychlorinated Biphenyls that requires PCB owners to register, label, safe handle and safeguard, phase-out and finally to dispose of their PCBs within 10 years after the effective date of the Order. An impact of this CCO is that PCB owners have to do their own inventory and self-report to EMB. The PCB inventory for Philippines' National Implementation Plan (NIP) of the Stockholm Convention (NIP submitted to the Stockholm Secretariat in 2006) was almost exclusively based on these self-reporting preliminary inventory results. EMB officers interviewed confirmed that the big PCB owners that own about 40% of PCBs in Philippines self-report on regular basis whenever they update their PCB inventories. An interview undertaken on 26 August 2011 with CRL Environmental Corporation, an accredited laboratory for PCB analyses in Philippines, confirmed that requests from big electrical companies (e.g. Meralco, NPC) for PCB analyses increased significantly during the period 2004 – 2006 during which the NIP was being developed.

31. The Philippines Government through the DENR/EMB is committed to fully implement the project. Indeed, the Director of EMB, who was interviewed on 23 August 2011, indicated that DENR/EMB is fully supporting the project until its successful implementation. To that end, he indicated that since the preparatory phase, the necessary human resources (EMB officers) have been made available for the development and proper implementation of the project.

32. During the implementation of the project, a Code of Practice for the Environmental Safe Management (ESM) of PCBs has been developed by EMB to provide guidance to PCB owners on the handling, storage, transport, disposal of PCB wastes, as well as the permitting requirements of the DENR. This Code of Practice, posted on the website of EMB (<http://www.emb.gov.ph/>), was reviewed and discussed by the major stakeholders of the project (EMB Project Team, Department of Health, NGO Project Team, PNOC-AFC Project, UNIDO Project Team, PCB owners and academia) during a two-day workshop organized by DENR/EMB on 11 – 12 March 2009.

33. Information, gathered during the interviews, revealed that regional EMB officers have had their capacities strengthened through their participation in 8 workshops organized by the national EMB during the period 2008 – 2010. In particular, their capacities have been further built to enforce PCB regulations and to monitor activities at utility level regarding PCB management such as inventory, storage or phasing out of PCBs. According to feedback collected during the field mission, as part of their routine scheme of duty, these regional officers carry out inspection visits at electrical utility sites, phased out electricity production sites and PCB storage sites. However, as pointed out by the EMB during interviews, due to lack of human resources these inspections are not carried out on a regular basis and do not cover the whole country, an archipelago constituted by more than 7,000 islands. These regional officers, with the help of national EMB officers, have also carried out awareness- raising activities targeting local electrical cooperatives and communities. It should be pointed out here that, of the total PCBs identified to date

(about 6,800 tonnes including 2,400 tonnes of PCB oils⁴) about 60% belong to these regional cooperatives.

Stakeholder level

34. According to the evaluation team, awareness regarding the need to properly manage PCBs is high amongst the major stakeholders (PCB owners and NGOs) of the project. From feedback gathered during interviews, it was found that these major stakeholders, in particular the PCB owners, have been involved since the preparatory phase of the project in 2002/2003. They participated in the various activities (workshops, meetings and other fora) that were undertaken during the preparatory phase of the project as confirmed by DENR/EMB. In particular, these stakeholders participated in the activities to develop the CCO for PCBs that was issued in 2004.

35. As mentioned earlier, as a result of the CCO for PCBs issued in 2004, the PCB owners must properly manage their PCBs. In particular, they need to: identify the amount of PCBs they own by carrying out an inventory, phase out the PCBs by 2014 according to the CCO, and dispose off these PCB stocks in an environmentally safe manner. The big electrical companies interviewed (Meralco and NPC) during the first field mission indicated that they are committed to manage their PCBs safely, and this since the NIP development phases in 2002. In particular, they have undertaken a comprehensive PCB inventory in their network and they are self-reporting on a regular basis to EMB whenever they undertake any activity that relates to PCB management. They also indicated that they have committed themselves to have their PCB stockpile treated by the project facility. In that context, other major electrical companies namely: National Transmission Corporation (Transco), and Power Sector Assets and Liabilities Management Corporation (PSALM), have signed a Memorandum of Agreement (MoA) with DENR/EMB in 2008 to have their PCB stockpile treated by the project facility. According to the MoA, they have the following common obligations:

1. *Provide information on the PCB stockpile to be disposed of through the destruction facility of the project, and*
2. *Commit to avail of the non-combustion destruction facility during the demonstration phase of the project, provided the destruction cost is lower than the current export cost for PCB destruction.⁵*

36. On top of the two obligations mentioned above, PSALM, responsible for the part privatization of National Power Corporation (NPC), is also obliged to inform the buyers of NPC assets:

3. *After privatization, the buyer has the option to avail of the project to dispose of any PCB related to privatized generation assets⁶*

37. In most countries, generally NGOs do not have good relation with authorities, especially when it comes to environmental issues. However, in the context of this GEF-funded project, a very good line of communication has been established between DENR/EMB and an NGO Work Group (WG) comprised of six major Philippine NGOs - BAN Toxics, EcoWaste Coalition, Global Alliance for Incinerator Alternatives (GAIA),

⁴ Data taken from the project document

⁵ Text taken from the MoA signed between DENR and the companies

⁶ Text taken from MoA signed between PSALM and DENR

Greenpeace Southeast Asia, Health Care Without Harm (HCWH), and Mother Earth Foundation (MEF) - that advocate zero waste, chemical safety, and health and environmental justice. This NGO WG has been nominated as a member of the PSC and, according to interviews carried during the field mission; it is the first time that an NGO is a member of a PSC for a national GEF-funded project in Philippines. Zero waste being one of its advocacies, this NGO WG is promoting recycling of wastes and the treatment of wastes by non-combustion technologies. In particular, they advocate for non-combustion technologies for the treatment of POPs and other hazardous wastes. The implementation of the project has thus created opportunities for these NGOs to further advocate non-combustion technologies. This NGO WG has been participating very actively in the project activities. They were responsible to develop the Education Information Communication (EIC) plan of the project targeting the general public and more specifically local communities (barangays) living near the treatment facility in Bataan province. This EIC has proved to be particularly successful as the Bataan Governor, Enrique T. Garcia, Jr.'s, who had an initial negative stance on the project, finally gave his approval for the construction of the treatment facility in his province. The construction permit was finally delivered in February 2010⁷ by the Bataan Municipality to PAFC, the operating entity with more than a year delay according the schedule of the project.

Public and community level

38. As part of the involvement of NGOs, in October 2008, EMB designated Eco Waste Coalition in collaboration with GAIA and Greenpeace Southeast Asia to undertake public awareness activities for the non-combustion POPs project, especially on the positive economic and environmental impacts of the project⁸. In that respect, Eco waste coalition developed an Education Information Communication (EIC) plan that was submitted to the PSC in early 2007⁹ targeting the general public and local communities living near the treatment facility in Bataan province.

39. In the context of the EIC awareness campaign, numerous activities, including seminars, press releases and development of leaflets and flyers, have been undertaken between February 2009 and February 2010. For example, a number of seminars targeting local communities have been undertaken:

- Seminar with Barangay Batangas Dos fishermen in Mariveles, Bataan held on September 4, 2009
- Seminar with Barangay Lamao, Limay, Bataan residents held on September 5, 2009
- Meeting with residents of Limay, Bataan held on September 15, 2009

40. According to the minutes recorded for this seminars/meeting and reported to PSC¹⁰, it can be concluded that the local communities living near the treatment facility are aware of the dangers of PCBs and the need to properly manage these chemicals. They are also aware about the activities of the project. For instance, the representatives of the local communities raised issues like:

⁷ Information taken from 1st Progress Report of 2010 submitted by the NPM

⁸ Information taken from 4th Progress report of 2008 submitted by NPM

⁹ Information taken from 1st Progress Report of 2009 submitted by the NPM

¹⁰ Minutes of seminars reported to PSC and found in 3rd Progress report 2009

- *How long will the PCB wastes be stored inside the facility?*
- *How safe is the treatment technology?*
- *During the transport of the PCB wastes, will there be escorts provided to ensure a safe transport?¹¹*

41. Awareness-raising activities targeting the general public have also been carried out through press releases, flyers, leaflets or participation on radio and TV programmes. These activities were generally undertaken in English language, Tagalong and Visayan, two local languages. Some examples of press releases, radio and TV interventions¹² are as follows:

- 1 July 2009: *“NGOs vow to back project to ecologically eliminate PCBs”*
- 13 October 2009: EcoWaste Coalition launches “Alertoxic Day” for Disaster Preparedness and Prevention (Green group warns against chemical pollution from recycling toxic PCBs) “Alertoxic Day” inilunsadng EcoWaste Coalition para sa Pagiwas sa Disaster (Makakalikasanggruponagbabalakontra sa pagrere siklongnakalalasong PCBs)
- 15 October 2009 Radio: “Alertoxic” launch activity based on PR broadcasted over Arangkada 1530, DZME,
- 13 October 2009, TV 7pm: “EcoWaste Coalition launches Alertoxic Day”, 24 Oras, GMA 7
<http://www.gmanews.tv/video/49252/eco-wastecoalition-opposes-useofdangerous-chemicals-byjunk-shops> ,
- 13 October 2009, TV 11:30pm: “EcoWaste Coalition Launches Alertoxic Day”, RPN 9,

42. The awareness campaign targeting the general public has been quite effective in terms of number of activities undertaken by Ecowaste coalition. According to their report¹³, there have been twenty-eight (28) monitored media hits (12 newspapers, 11 web-based media, 4 TV and 1 radio hits). However, it is not possible for the evaluators to assess the extent to which these efforts have been successful in informing the public about PCBs about the need to adopt safe practices and the project activities. In particular, it is not possible to have an indication on the percentage of the population that has read these press releases or watched/heard the TV/radio programmes.

¹¹ Text taken from minutes of seminars found in 3rd Progress report 2009

¹² Information taken from Report submitted by Eco Waste Coalition to PSC and found in 1st Progress Report 2010

¹³ Report submitted by Eco Waste Coalition to PSC and found in 1st Progress Report 2010

II.3 Project summary

Project origin and objectives

a) The Stockholm Convention and the Global Program for non-combustion technologies

43. Following the adoption of the Stockholm Convention on POPs in 2001, the GEF became, “on an interim basis, the principal entity entrusted with the operations of the financial mechanism referred to in Article 13 of the Convention”. Based on the above, the 2nd GEF Assembly held in Beijing, China, in 2002 agreed on the creation of a new focal area on POPs and subsequently the 22nd meeting of the GEF Council started to review and comment on the new GEF POPs Operational Programme on POPs (#OP 14) (GEF/C.22/Inf.4).

44. Article 6 of the Stockholm Convention addresses the identification and management of POPs stockpiles and wastes. It requires such stockpiles and wastes to be “managed in a manner protective of human health and the environment.” Parties must “develop appropriate strategies for identifying” stockpiles, products and articles in use, and wastes covered by the treaty, after which they must manage the stockpiles in a “safe, efficient, and environmentally sound manner.” The Convention requires that disposal of such wastes be done in such a way that the POP content is “destroyed or irreversibly transformed” so it is no longer a POP, or “otherwise disposed of in an environmentally sound manner, when destruction or irreversible transformation does not represent the environmentally preferable option or the persistent organic pollutant content is low.”

45. When POPs stockpiles are incinerated or otherwise combusted, unintentional products listed in Annex C are generated as combustion products, or generated in the stack, following combustion (as the stack gasses cool down). Hence, non-combustion alternative destruction technologies that avoid unintentional production are consistent with the language of the Convention.

46. The Global GEF approved in March 2003 a Global Programme to demonstrate the viability of available non-combustion technologies for use in the destruction of obsolete POPs stockpiles and wastes. The objective of the Global Programme, in line with the strategic priorities of the GEF Business Plan FY04-06, is to demonstrate the viability and removal of barriers that impede adoption and successful implementation of available non-combustion technologies for use in the destruction of obsolete POPs stockpiles and wastes, more specifically PCBs wastes in developing countries and countries with economies in transition. Since then, UNIDO has started the implementation of projects under the global programme in the Slovak Republic, the Philippines and in China.

47. In 2004, the Scientific and Technical Advisory Panel (STAP) of the GEF released a report, including conclusions and recommendations on how the GEF should deal with non-combustion technologies, taking into account risks and benefits¹⁴. Among others, the STAP concluded:

- *Given the high initial investment costs involved in building safe and environmentally sound destruction facilities, and the high operational costs of non-*

¹⁴ GEF/C.23/Inf.19; Non-combustion technologies for the destruction of POPs stockpiles; May 17, 2004

incineration destruction facilities, cost-effective approaches need to be identified. This could mean setting up regional facilities, taking into consideration the potential problems associated with transporting waste. In addition to the usual criteria for project selection, e.g. the need for demonstrated country-drivenness, sustainability and co-financing, the GEF should establish criteria on the risks of disposal technologies, the enabling environment, and availability of partnerships as a basis for assessing its support for non-combustion technologies. It is likely that such criteria would be met in East and Central Europe, Mexico, the Philippines and China, where the market is sufficiently large, and capacity and finance are not major barriers.

- *Where these criteria are not met, as is the case for most countries in Africa, the GEF should support packing and shipping the stockpiles to facilities that meet internationally-agreed standards for destruction.*

b) Objective of the programme and project

Overall objective of the programme

48. The overall objective of the Programme, in line with the strategic priorities of GEF Business Plan FY04-06, is to demonstrate the viability, promote replication, at global level of available non-combustion technologies for use in the destruction of obsolete POPs, specifically PCB wastes, PCBs-containing equipment and the cleanup of POPs, and specifically PCBs in different matrices including contaminated soils or sediments.

Immediate objective of the programme

49. The objective of the programme is to demonstrate, promote and replicate innovative and cost-effective technologies and practices, and identify potential opportunities for technology transfer, including non-combustion technologies, by removal of barriers to the deployment of alternative, innovative non-combustion POPs destruction technologies in several different country settings, in different development regions, recognizing that barriers to deployment will take different forms in differing country, regional and cultural settings.

Immediate objective of the project in Philippines

50. The immediate project objective was to deploy a commercially available, proven non-combustion technology, to address 1,500 tonnes of PCBs-containing transformers. The currently known PCB inventories reported in the NIP of the Stockholm Convention dated January 2006 include 6,879 tonnes of PCB equipment and wastes comprising about 2,400 tonnes of PCBs oil. The Government of the Philippines will continue the inventory activities to confirm reported data, and also to develop and operate database of PCBs-containing equipment and wastes, which would cover, among others, PCBs used in electrical equipment, hydraulic systems, cooling systems and other equipment.

c) The project in the Philippines

51. In May 2004, the GEF Council approved the project Brief for the Republic of the Philippines. This specific project, part of the Global Programme, aimed at introducing

and applying such a technology to destroy significant obsolete PCBs wastes and helps removing barriers to the further adoption and effective implementation of a selected non-combustion technology and meet the Stockholm Convention requirements to ensure the use of best available techniques (BAT) and best environmental practices (BEP). The proposed project would serve as a barriers reduction exercise that could help inform future activities mandated or encouraged under the provisions of the Convention that entered into force on 17 May 2004.

52. The NIP of the Stockholm Convention¹⁵ in the Philippines favours the application of non-combustion technologies to destroy POPs. The project aimed to make available all technical, economic and financial parameters of the selected technology in a comparative, open and transparent way that would facilitate and provide further incentive to the global diffusion of innovative alternative non-combustion technologies.

53. The project was planned to last four years (48 months). The first twenty-four months were committed to parallel activities of tendering process, obtaining necessary operating permits, including conducting necessary environmental impact assessment, designing, constructing and testing of the selected non-combustion technology to be deployed, and generally planning and organizing, among other things, such activities as a comprehensive public participation and involvement programme, and a comprehensive, participatory monitoring and evaluation programme.

54. The second twenty-four months of project time covered the demonstration phase that is the destruction of 1,500 tonnes of PCB-containing equipment and wastes as the first part of the 6,879 tonnes actually identified during the initial inventory process. Also included during this twenty-four months operational phase was the continued implementation of the broadly based public participation and involvement programme, and the monitoring and evaluation programme.

Expected global, national and local benefits

55. The implementation of cost-effective and clean, environmentally sound technologies, to be demonstrated in this Project for the destruction of obsolete wastes of PCBs and materials containing other POPs would, if replicated, support environmentally sustainable economic and industrial development in many regions particularly in countries with developing economies and economies in transition. To achieve this global benefit, the EIA should have a crucial and guiding role throughout the project life.

56. POPs routinely escape from storage sites and from contaminated locations into the wider environment by volatilization, by ground and surface water run-off and by other means. By providing the framework for the destruction and cleanup of obsolete pesticides and hazardous industrial chemicals, the project therefore aimed to contribute in preventing future contamination and threats to the quality of the global hydrological cycle. PCBs have contaminated local rivers both in Slovakia and the Philippines, and by addressing the PCB wastes issue in each of these countries, and the additional two countries that will comprise the Programme, water quality that has suffered from PCB leakage and dumping is aimed to be improved as a result of this Programme and Project intervention.

¹⁵ The NIP of the Philippines was prepared with support of UNEP

Implementation arrangements

57. UNIDO was the Implementing agency for the project. UNIDO has been involved in the GEF POPs programme from the beginning. It directly accessed PDF-B funds consistent with its role as a GEF Executing Agency with expanded opportunities in the POPs focal area.

58. The government of the Republic of the Philippines through the Department of Environment and Natural Resources (DENR) had the overall responsibility for environmental management including regulatory, monitoring, permitting and licensing functions on all matters related to protection and conservation of the environment. The DENR also serves as the GEF operational focal point as well as the POPs focal point. The Environmental Management Bureau (EMB) of the DENR implements regulations on EIA, toxic and hazardous waste management and air quality management. As such, the DENR-EMB had the lead responsibilities in coordinating all other institutions in the Philippines participating in the project. It was planned that DENR-EMB would nominate the National Project Manager (NPM) and secure full support for the project execution.

59. The project made generous provisions for strong, continuing Civil Society participation in project implementation activities and built upon the strong support for the Programme and the project that was created during preparation.

60. DENR had selected the Philippine Alternative Fuel Corporation (PAFC) as operating entity, which is a subsidiary company of the Philippine National Oil Company (PNOC), It should however be noted that no other stakeholder has shown interest to bid and become the operating entity¹⁶. The operating entity was responsible for all of the activities concerning site preparation, installation of the unit and destruction activities in their site, as well as control and compliance with the license or permits issued by the national and local authorities.

61. During the PDF-B phase, a Memorandum of Agreement (MoA) was signed between DENR and the operating entity and revised on 20 December 2005, which defined the respective role and responsibilities as well as the co-financing contribution of the parties.

62. The Environmental Health Fund (EHF) served as a Principal Cooperating Agency for specific elements of the Project and the Programme. In this role, the EHF was to serve as a clearing-house and coordinating mechanism for involvement of the NGO community. The role of EHF would be the subject of an MoU to be concluded between UNIDO and EHF that would provide details of services that the latter will undertake in support of the Programme and Project.

63. The programme was to receive oversight and policy direction from a Programme Advisory Committee (PAC). The PAC was initially to be comprised of ten (10) members¹⁷. The Programme Coordinator (PC) was to serve on the PAC ex-officio, as well as the NPM who was to take the responsibility of a Chief Technical Adviser (CTA).

¹⁶ See details on the selection process in the UNIDO project document

¹⁷Including: Gov. of Philippines, Govt. of Slovakia, UNIDO, EHF, FAO UNEP, UNDP, World Bank, Basel Convention.

64. There was also to be a Project Steering Committee (PSC). The PSC would meet at least once annually, and was to be convened as necessary at the call of the PC in consultation with UNIDO and the NPM. The PSC was to be initially comprised of eight (8) members¹⁸.

65. Finally, there was to be a programme and project Technical Advisory Group (TAG). The TAG was to undertake an advisory role in service of the work of the Programme and project, most specifically as an advisory body to the PAC and the PSC. The TAG was to be comprised of one member of the Implementing Agency (IA), UNIDO, one member from the GEF STAP, one member from the EHF and scientific and technical expertise as deemed necessary and representatives of DENR and the operating entity, drawing from resources such as the GEF STAP, FAO, UNEP, UNDP and the World Bank.

Positioning of UNIDO

66. Under the Multilateral Environmental Agreements, UNIDO has been one of the leading agencies in implementing projects under the Montreal Protocol and is an Executing Agency with Expanded Opportunities in Stockholm Convention on POPs.

67. UNIDO, as a GEF Executing Agency with Expanded Opportunities, has been designated as one of the GEF IAs/ExAs with comparative advantages in industrial aspects of the Stockholm Convention on POPs. UNIDO as the United Nations specialized agency for (environmentally sustainable) industrial development has the plethora of experience gained in four decades in all aspects of industrial development in developing countries and countries with economies in transition including technology dissemination and technology transfer. In this aspect, the most notable is the UNIDO Cleaner Production Centers program that has recently significantly contributed to the Strategic Approach of International Chemical Management (SAICM). UNIDO has also participated in the work of the International Expert Group of Best Available Techniques and Best Environmental Practices (BAT/BEP) including UNEP regional seminars on the BAT/BEP guidelines and guidance in the Asia and the Pacific.

68. UNIDO has been engaged at the very early stage of the Stockholm Convention in dissemination and transfer of non-combustion technologies as alternative technologies of BAT/ BEP nature. The first project of this type was being implemented in Slovakia, which was unfortunately closed just after a few months after its start due to political changes in the country¹⁹. Nevertheless, to be able to evaluate and review non-combustion technologies, UNIDO has accumulated considerable amount of knowledge and expertise. In addition, UNIDO staff and experts have also visited most of the facilities worldwide that are operating non-combustion technologies for final disposal of POPs and in such a way have gathered personal insight to these technologies.

¹⁸ Including: Govt. of Philippines, public sector consortium, operating entity, UNIDO, EHF, Civil Society

¹⁹ Interview data with UNIDO

Budget Information

a) Overall cost and financing (including co-financing):

Summary incremental cost table (in US\$)

Component	Baseline	Alternative	GEF	Co-finance
Selection of technology and purchase through contractual agreements	0	655,800	355,800	300,000
Site preparation and environmental compliance	0	4,805,880	253,500	4,552,380
Purchase and installation of equipment for PCBs disposal	4,000,000	4,733,000	2,423,000	2,310,000
Destruction facility in operation, PCBs destruction, monitoring and evaluation and public involvement	0	671,000	501,000	170,000
Lessons learning, dissemination and adaptive management system in place		905,200	575,200	330,000
Total	4,000,000	11,770,880	4,108,500	7,662,380

Source: UNIDO project document

b) UNIDO budget snapshot (GEF funding excluding agency support cost):

	Total allotment (US\$)	Disbursement (US\$) & unliquidated obligation (US\$)	Uncommitted balance (US\$)
Personnel	600,570	472,082	128,488
Contracts	3,165,510	3,135,508	30,002
Training	248,318	80,691	167,627
Equipment	50,000	14,350	35,650

Miscellaneous	44,102	30,751	13,351
<i>Total</i>	4,108,500	3,733,382	375,118

III. Project assessment

A. Design

69. Although the project document contains relevant and concise information on the demonstration and promotion of an innovative and cost-effective non-combustion technology for the sound treatment of PCB stockpiles in Philippines, the design of the project is considered weak for the reasons discussed in the following paragraphs.

70. The aim of the project was to build capacity in Philippines for the destruction of PCBs using a non-combustion technology during the first twenty-four months of the project. The second twenty-four months of project time covers the demonstration phase during which 1,500 tonnes out of the 6,879 tonnes containing equipment and wastes identified during NIP development (2003 to 2006) would be destroyed by the non-combustion treatment facility of the project. In that respect, MoAs have been signed in August and November 2008²⁰ with major PCB owners (Meralco, NPC, Transco and PSALM) to have their wastes treated by the project facility. It was also planned that the project facility would destroy the rest of the 6,879 tonnes and any new amounts of PCBs that would be identified during further PCB inventories planned in the project document. Although some capacity building activities have been undertaken during NIP development, and a PCB Code of Practice has been developed during project implementation as mentioned previously, the project lacks a component on capacity building for the proper Environmentally Sound Management (ESM) of PCBs. This component would include capacity building and/or strengthening on inventory, identification, handling, transport and storage of PCB containing equipment and wastes. However, this weakness was somewhat mitigated by the implementation of the World Bank GEF funded Project²¹ entitled “***Integrated Persistent Organic Pollutant (POPs) management***” (IPOP), that would be undertaken from March 2011 to February 2016. This project has a component on the “*Environmentally Sound Management of PCBs*” that would provide technical assistance and training on implementation and monitoring of ESM of PCBs in Philippines. The tasks of this component would include conduct of a national inventory of PCBs in the country; provide training and assistance to PCB-owners in the development and implementation of their specific PCB management plans up to compliance with the technical guidelines on PCBs; and conduct trainings for government regulators on the implementation, validation, and monitoring of PCB management.

71. As discussed in **Section III.D. Efficiency** of the report, much of the delays that the implementation of the project suffered happened during the development of Environment Impact Assessment (EIA), because the Governor of Bataan province, where the treatment facility is located, was initially opposed to the project. Moreover, roles and responsibilities of stakeholders had not been clearly defined for the construction of the treatment facility. Had the establishment of contact with authorities of Bataan province been done earlier, for example by involving them since the preparatory phase, as well as responsibilities of stakeholders more clearly defined in the project document, this would have avoided such lengthy delays (about 24 months, see **Section III. C. Efficiency**).

72. Finally, there is confusion in the use of terms output and outcome in the project document. For example, in the logical framework given on page 14 of the project document, all the outcomes numbered from Outcome 1 to Outcome 5 are in fact outputs.

²⁰ Information taken from 4th Progress Report 2008

²¹ GEF Grant No: TF095839; Project ID: P106885

B. Relevance

Relevance to the country

73. This project is highly relevant given that Philippines is party to the Stockholm Convention and it holds a significant stockpile of PCBs and wastes (6,879 tonnes). The project is playing a vital role in supporting Philippines to meet the objectives as set in its NIP and is helping in complying with the Stockholm Convention by building its capacity to soundly manage its stocks of PCBs and related wastes.

74. However, given that PCB destruction facilities already exist in other parts of the world, the running of the project would be justified if the price for destruction of PCBs in the Philippines is lower than that proposed by the existing facilities elsewhere (including transportation costs).

75. According to the Project Document and also the minutes of meeting of the 5th Steering Committee, the price for PCB destruction by the project facility would be between \$US 6 to 7 per kg, which would not be much lower than the currently average cost paid by PCB owners in Philippines: between \$US 5 to \$US 10 per kg according to the project document (averaging to \$US 7.5 per kg). The destruction cost (excluding transportation costs, packing costs, and any other costs) obtained from a hazardous waste destruction facility located in South Africa²² and running a rotary kiln according to international standards for destruction of PCB and other hazardous wastes are given in Table 1.

Type of material		Destruction cost (\$ / kg)
PCB contaminated oils	0 – 50 ppm	1.26
	50 – 500 ppm	1.33
	500 – 10000 ppm	1.63
	Above 10000 ppm	2.13
PCB contaminated materials		1.87

76. It is most unlikely that when including the other costs (shipping, packing and other costs), the total cost would be more than \$6 to \$7 / kg as proposed by the project facility. However, during the second mission carried out from 7 – 11 September 2015, a cost of 5 \$ was mentioned by the NPM and DENR/EMB.

77. Ownership is high. Since the development of the NIP, the Government of Philippines through DENR/EMB is committed to manage its PCBs stockpile. During the first field mission, the director of EMB²³ confirmed the full support of his division to implement this project. In that respect, he indicated that the necessary human resources, called the EMB project team, as reported in the progress reports that were submitted to the evaluators, has been made available by DENR/EMB since the preparatory phase of the project. The director also informed that the same EMB officers are also involved in the implementation of the World Bank GEF funded IPOP project, as mentioned before.

²² <http://www.thermopower.co.za>. Destruction costs as at 2012

²³ Interview carried out on 23 August 2011

Furthermore, since 2004 the CCO for PCBs has been issued for the proper management of PCBs in Philippines. The EMB officers interviewed also confirmed the relevance of this project. It has given them the opportunity to strengthen their capacity and those of regional EMB officers for enforcement of PCB regulations in particular the CCO for PCBs.

78. This support was reiterated by the Assistant Secretary, DENR, and also by the Undersecretary for Environment and International Affairs²⁴, DENR, during the second field mission. They confirmed the full support of DENR/EMB to the re-start of the facility, which was closed due to the pulling out of PAFC as operating entity since December 2014. They mentioned that although not planned in the DENR budget, an initial amount of 3.8 M Philippines pesos (USD 82,931.4) has already been allocated to reassess the facility for its restart²⁵.

Relevance to PCB owners

79. Representatives of Meralco and NPC, two important electrical companies in Philippines, and owners of significant amounts of PCBs²⁶, confirmed the high relevance of this project. Before this project, they used to export their PCB stockpile to be destroyed. For example, Meralco indicated that they exported 88 tonnes of PCBs in 1999 at the rate of \$3 per kg. While NPC exported significant amounts of PCBs to be destroyed in France in 2004/5 at the rate of \$6 per kg. Both companies confirmed their commitment to have their PCBs treated by the project facility and in this respect; they have signed MoAs with DENR in 2008.

80. They highlighted the fact that this project would greatly facilitate their task for the sound disposal of their PCB stockpiles. In particular, they would not need to go through the difficult process of exporting their PCBs to foreign countries that could be quite lengthy and time consuming, especially when it comes to obtaining Basel notification for the trans-boundary movement of PCB wastes. However, they also pointed out that if the prices proposed by the project facility are not competitive after the demonstration period, they will look for other alternatives to have their PCB stockpiles treated.

Relevance to NGOs

81. NGOs have also indicated²⁷ the relevance of this project for Philippines, in particular, the NGO, Global Alliance for Incinerator Alternatives (GAIA), a member of International POPs Elimination Network (IPEN), that advocate for non-combustion technologies for treatment of wastes. They advocate against incineration of medical wastes and other hazardous wastes and indicated that, given the significant amount of PCBs identified so far, about 6,800 tonnes, they fully support this project. In that context, they are a part of the NGO Work Group, member of the PSC, and participated to organize numerous awareness-raising activities as mentioned previously.

82. During the second mission in September 2015, the NGO representative stated that it was a very good project with involvement at every level of society and the project was accepted by all. He also mentioned being very proud of having such a facility that treat PCBs using a state of the art non-combustion technology in their country and that the project was successfully completed despite delays and problems. As the facility was at

²⁴ Interview carried out on 10 September 2015

²⁵ Reassessment of facility contracted to IPM in June 2015.

²⁶ Interview carried out on 25 August 2011

²⁷ Feedback gathered during first mission in August 2011.

that moment closed down as PAFC was no longer the operating entity, he was full of hope that the facility would be operational very soon and would constitute a model not only for the region but also for other regions.

Relevance to GEF and UNIDO

83. This project is highly relevant to the GEF Focal area 'Chemicals Strategy' of which the "Phase out POPs and reduce POPs releases" is the objective number 1. This responds to the GEF's mandate as the financial mechanism of the Stockholm Convention. As stated in the minutes of meeting of the third Meeting for the Fifth Replenishment of the GEF Trust Fund : *Building on GEF-4 programs, the GEF will further its efforts to assist eligible countries in implementing POPs reduction projects in accordance with their NIP priorities, and will build upon and strengthen sustainable capacities for chemicals management to do so.*

84. UNIDO is fully committed to assist developing country member states in accordance with Article 12 of the Stockholm Convention. The GEF has approved enabling activities proposals submitted by UNIDO for more than 40 countries that have opted to undertake the NIP development through the GEF full project cycle. In addition, UNIDO is executing or developing a range of demonstration and capacity building projects²⁸ geared to support Convention implementation in a wide range of developing countries and countries with economies in transition. UNIDO has made considerable effort to build this assistance programme. This commitment is based on a clear understanding that these activities are compatible with UNIDO's mandate and corporate strategy and will lead towards the Millennium Development Goals.

C. Effectiveness

85. As planned in the project document (PD), the appropriate infrastructure has been set up and is operational for the implementation of project activities. At DENR/EMB level, officers have been nominated to participate in the execution/oversight of project activities. The major stakeholders, including PCB owners, PAFC, the operating entity and NGOs have been involved since the preparatory phase and were members of the PSC. In that respect, awareness is high at all levels regarding the need to properly manage PCBs in Philippines.

86. The completion of activities planned in the project document is reported in Table 2. As can be seen, all activities have been successfully completed, however the immediate project objective stated in the PD "*to deploy a commercially available, proven non-combustion technology to address 1,500 tonnes of PCBs-containing transformers*" was not achieved during the project period. Indeed, although the facility was operational, only about 60 tons of PCB contaminated equipment was treated and this was done during the commissioning of the treatment technology. PAFC, the operating entity, pulled out of the project in December 2014 and the facility was closed down. As such, the treatment of the planned amount of PCBs (1,500 tonnes) was not possible.

87. The project has been able to leverage a significant amount of co-funding. During the preparatory phase about \$7,662,380 was secured from local project partners. Furthermore, DENR has already allocated a further amount of 3.8 M Philippines pesos (PhP) (USD 82,931.4) to re-assess the equipment of the facility that was closed for more

²⁸ See in this context the Report of the Independent Thematic Evaluation: UNIDO's work in the area of Persistent Organic Pollutants (POPs), June 2012.

than one year. In addition, after this exercise, the Government of Philippines²⁹ is fully committed to re-start the facility and the appropriate level of funding will be made available.

88. Overall, the effectiveness of the implementation process is considered **moderately satisfactory**, as although facility was fully operational, the planned destruction of 1,500 tons of contaminated PCB equipment was not achieved due to pulling out of operating entity from the project.

Table 2: Status of activities of project outputs

Output/Activity	Status	Remarks
Output1: Establishment of the project co-ordination and support unit, technology selection process and contracting		
Activity 1.1: Recruit the programme coordinator (PC) (on a part-time basis) and the national project manager (NPM) and the administrative assistant.	Completed	A former EMB officer was recruited as NPM.
Activity 1.2: Assure cross-GEF and other related project coordination and communication including UNEP, the secretariat of Stockholm Convention, the Secretariat of Basel Convention, FAO, WB-IFC, etc. (PC's responsibility)	Completed	Linkages with IPOP project implemented by World Bank. Follow-up project being developed
Activity 1.3: Selection process, establishment and approval of procedures, TAG meeting, incorporation of the advice and proposals into criteria for selection of non-combustion technology reflecting POPs wastes and stockpiles in the Philippines.	Completed	IPM was awarded the contract to provide the non-combustion technology through a tendering process. IPM proposed the sodium technology of Kinectrics. Technology already installed at facility
Activity 1.4: Tender capital equipment through a transparent, two-step international tendering process in accordance with UNIDO financial rules and regulations and procurement manual with the participation of the TAG with respect to technical issues.	Completed	Same remarks as above.

²⁹ Information obtained from Assistant Secretary and Director of EMB, DENR and confirmed by Undersecretary for Environment and International Affairs, DENR during second field mission in September 2015.

Output/Activity	Status	Remarks
Activity 1.5: Ensure necessary training of project operational and managerial personnel and effective technology transfer to the Philippines.	completed	Kinetrics the technology provider undertook about 10 missions between 2010 to 2014 to train operators and managerial personnel
Output 2: Effective, specific and documented actions taken to ensure technical and environmental standards		
Activity 2.1: Undertake activities necessary to meet environmental impact assessment (EIA) requirements of the Philippines and reviewed by UNIDO as well as other legal and environmental compliance activities.	Completed	EIA report submitted.
Activity 2.2: Prepare the site selected for deployment of the selected technology in the Petrochem Park in Bataan, Province including construction of the storage facility and that of the destruction unit, the provision of facility equipment and of utilities and feedstock chemicals required for the uninterrupted operation of the chemical reactor.	Completed	Construction of facility completed in 2011. Technology installed in Nov 2011.
Output 3: Effective, specific and documented actions taken to ensure purchase and installation of the non-combustion unit		
Activity 3.1: Design, construction and test operation of the destruction unit as well as site supervision in the Philippines	Completed	Tests operations
Activity 3.2: PNOC/PAFC, as the operating entity, provides the managerial structure, labor force and make available and ensure the continuous supply of PCBs-containing equipment and wastes, etc. as well as the necessary processing chemicals as raw materials to enable destruction of the targeted wastes and associated waste matrices in the demonstration area in the Petrochem Park in Bataan province.	Completed	Managerial structure in place. MoA signed with PCB owners. However, PAFC pulled out from project in March 2014
Activity 3.3: Project management supervision (monitoring) during technology transfer to the Philippines including site	Completed	Effective supervision by NPM and TWG. Chemical analytical

Output/Activity	Status	Remarks
preparation (construction) and performance tests (with the required chemical analytical monitoring, sampling and testing)		monitoring satisfactorily done by CRL, accredited ISO 17025. Dioxin analyses done in Canada.
Activity 3.4: Finalize capital equipment transfer arrangements taking into account the final ownership of the hardware and technology will, to the extent possible, benefit continuous PCBs and other POPs disposal and the destruction of non-metallic toxic substances and various possible arrangements between the government and the operating entity involved, such as exploring different incentives for further investment, etc.	Completed	Transfer of the Ownership of the Equipment endorsed by UNIDO to the government (DENR-EMB) in July 2015
Output 4: Monitoring and evaluation (M&E) of PCBs-containing equipment and wastes destruction of 1,500 tonnes in 2 years of operation, monitoring of compliance with technical and environmental standards as well as active public participation		
Activity 4.1: Develop environmental monitoring protocols including chemical analytical monitoring and a project evaluation framework and perform environmental monitoring throughout the project life.	Completed	Monitoring programme developed. Analysis done by CRL
Activity4.2: Ensure requisite project M&E (in line with GEF and UNIDO rules and regulations for M&E and in consultation with stakeholders) during destruction of the targeted wastes and associated waste matrices in the demonstration area.	Completed*	Kinetrics undertook training of workers to work according to international standards. Although facility was fully operational, only about 60 tons of PCBs have been treated during commissioning period.
Activity 4.3: Assure continuing civil society involvement in the Philippines, including ensuring civil society participation in project M&E.	Completed	Local NGO (Ecowaste coalition) lead the information and education awareness campaign of the Project.

Output/Activity	Status	Remarks
Output 5: Recruit additional donors to strengthen co-finance participation both from public and private sectors within the Programme, dissemination of results at national and international level		
Activity 5.1: Further develop public/private partnership for the recruitment of additional donor co-finance for the Programme.	Completed	Follow up project to facilitate cooperative electrical companies to have their PCBs treated by facility
Activity 5.2: Plan and host at least two (2) meetings of the Programme Advisory Committee (PAC), three (3) meetings of the Project Steering Committee; and three (3) meetings of the Programme and Project Technical Advisory Group (TAG). The agenda and the participation of these meetings will be circulated well ahead in time. In addition to the managerial issues related to the programme and project, these meetings will keep taking stock of the available information on innovative and cost-effective technologies and practices. Among others, the STAP activities on non-combustion technologies for the destruction of POPs stockpiles and wastes (GEF/C.23/Inf.19) and the results of the UNEP Chemicals PCB consultation meeting held in June 2004 and November 2005 will be followed up. The BAT/BEP guidelines and guidance documents being prepared by the BAT/BEP Expert Group will also be taken into account and the BAT/BEP process will be followed up.	Completed	PSC as well as TWG meetings held. As planned

* Although facility was fully operational, the target of 1500 tons of PCBs treated has not been achieved as the facility operator pulled out of the project in March 2014.

D. Efficiency

89. The project applied a full agency execution mode. The GEF funds of the project were managed by UNIDO. In that respect, all contracts were signed between UNIDO and the successful bidder, for example a contract was signed between IPM, the provider of the non-combustion technology, and UNIDO. It should be pointed out here that according to feedback gathered during first mission, most contractors indicated that the terms of reference found in the contracts were far too rigid and were very much in favour of

UNIDO. There was also no flexibility as UNIDO would not take into consideration the local conditions to modify the contracts.

90. Table 2 below gives the disbursement of GEF funds for the different components. As can be seen, 99.7% of total GEF funds have been disbursed with the funds for the Contract Component representing the core of GEF funding, (about 77% of GEF funds). It should be highlighted that the contracts include the purchase of the non-combustion technology, the EIA report and the development of monitoring plan of the facility including the baseline and monitoring chemical analyses (done between October 2010 and end 2013). As can be seen in Table 2, there has been under-spending for the Personnel Component and over-spending for the Miscellaneous Component.

Table 2: Status of GEF funds*

	Total allotment (US\$)	Amount disbursed (US\$)	% of funds disbursed
Personnel	600,570	550,140	91.6
Contracts	3,165,510	3,164,046	99.9
Training	248,318	258,354	104
Equipment	50,000	47,692	95.3
Miscellaneous	44,102	77,157	174.9
<i>Total</i>	4,108,500	4,097,389	99.7

*Source: PIR of 2015

91. The project officially started in December 2007 and was supposed to end in December 2011. However, for various reasons described below, the project suffered almost 4 years delay and was officially closed in August 2015.

92. As reported in the progress reports and confirmed during interviews, the governor of the Bataan province initially refused to approve the construction facility within the province. As the project involved the disposal of toxic wastes, the governor expressed apprehension on the project. He indicated that as previously he did not allow the establishment of a landfill facility in Bataan, he would not allow the PCB treatment facility

to be constructed either. However, after several meetings and after presenting him the outcome of a visit that the project team, constituted by EMB, PAFC and NPM, undertook at a similar facility in Japan in July 2009, the Governor of Bataan finally agreed to give his approval for the construction of the facility. This, however, delayed the project by one year. As mentioned earlier, the ET considers that if contacts were established with the Bataan local authorities during the preparatory phase, it would probably have avoided this long delay.

93. A delay of about 6 months also occurred during the development of the Environmental Impact Assessment (EIA). Originally, the EIA was supposed to be submitted within 2 months after signature of contract. However, the report was submitted after eight months. The main reasons were that not all information was disclosed at the beginning. The initial EIA study did not include the storage component of the facility, thus, the EIA study was revised, to also include provisions for the storage of fuel and metallic sodium. The delay was also due to the fact that the same contractor was also responsible to develop the business plan for the project.

94. From information gathered during the first field mission³⁰, it was not clear between PAFC, the operating entity, and IPM, the technology provider, who had the responsibility to tender out the construction of the facility. This caused a further delay of about six months to the project. The construction of the building was finished in 2010, three years after the start of the project. Clear definition of roles and responsibilities of different project partners / stakeholders in the project document would have definitely avoided this delay.

95. Best efforts were initiated by the EMB in cooperation with UNIDO, PAFC as the operator, the contractor, IPM, other stakeholders to operationalize the facility as early as possible. However, poor communication between IPM and PAFC, two major stakeholders of the project, made the implementation process very challenging³¹. For example, during the construction of the facility, a good collaboration between PAFC, the facility constructor, and IPM, the technology provider, was required as the design of the facility was very dependent of the specific requirements needed to install the treatment technology. But this was not the case. For example, without informing IPM, to cut costs, PAFC took the decision to reduce the height of the building from 19 meters (as planned in the original design) to 15 meters. As a result, the building could not accommodate a crane inside for transportation of the washing tank for big transformers, and IPM had no other option than to manufacture the tank in situ, which increased costs and delayed the process. This problem would not have come up, had IPM been informed prior to modification. This poor communication between those two major stakeholders continued throughout the project and the NPM had to act as the facilitator to ensure successful implementation of project activities³². For example, for the commissioning of the treatment technology, IPM did not communicate directly with PAFC but through the NPM; e.g. a list of consumables and other needs (solvents, clean oil, water and power supply, etc.) required for commissioning was requested by IPM from PAFC through the NPM.

96. Delays to the project also occurred due to movement of persons at PAFC (operating entity of the facility) who were directly involved in the project since its preparatory phase. It took some time for the new PAFC representatives to get into the project properly. Changes also occurred at the level of Board of PAFC, decision-making body of PAFC,

³⁰ Interview with NPM, IPM and EMB/DENR

³¹ Interview data from NPM during both field missions.

³² Interview data with NPM

and at the director level. These changes contributed to cause further delays in the implementation of project activities.

97. The commissioning of the treatment plant was undertaken from November 2011 to February 2014 by Kinetrics, the technology vendor located in Canada. A total of 10 separate commissioning missions (153 days total) were completed during this period. During these missions, Kinetrics implemented work plans to demonstrate steady state operation of plant equipment and to train operators and the plant manager for the complete treatment of PCB contaminated equipment³³. The operators were successfully trained to treat both low and high level PCB contaminated transformer oils as well as the hard materials (metallic and porous materials).

98. Despite the fact that the commissioning was successful and more than 60 tones of PCB equipment having been treated during this period, the evaluation considers that the efficiency was low. The commissioning period was over a period of 27 months – roughly 810 days (November 2011 – February 2014), and the commissioning missions lasted 153 days in total. As the operators were not allowed to run the equipment when Kinetrics were not present³⁴, this meant paying the facility personnel for 27 months but working only during 153 days excluding maintenance work. The evaluation considers that the 153 mission days of Kinetrics could have been undertaken within two or at most three missions and also regrouping the missions within 6 consecutive months. This would have definitely reduced running costs (e.g. salary of personnel, and other running costs).

99. Furthermore, the very long commissioning period had a negative impact on the operators. out of the 12 workers/operators, that were originally trained to decontaminate the PCB contaminated equipment, only 5 or 6 remained until the end (February 2014). The reason for those who left was that they were able to get a better or more secure job³⁵.

100. One of the objectives of the project was to treat 1500 tones of PCB contaminated equipment during the demonstration phase. However, after the successful completion of the commissioning of the treatment technology, PAFC informed DENR, through a resolution dated 28 January 2014, that they were exiting the project as operating entity. DENR and UNIDO requested PAFC to review their position and to continue as operator in the project, and they also told PAFC that they could start to decontaminate low level PCBs (@ \$5 per kg) so as to start recovering their investments. PAFC requested some time for reflection. This caused a period of confusion in the project and ultimately PAFC confirmed their exit from the project in December 2014. As a result, the planned 1500 tones of equipment were not treated. Instead, the facility was closed as from April 2014 and no maintenance or regular check has been done on the equipment since then. One inspection was done in August 2015 by DENR and IPM. Signs of water leaking inside the facility after heavy rain were seen during the inspection. However, it was reported that the treatment lines/equipment do not appear to have not suffered any degradation³⁶.

101. The reason for PAFC exit was not mentioned in the resolution and it was not possible to meet with representatives of PAFC during the second mission. In fact, it was reported that PNOC, to which PAFC belonged, was re-organizing its subsidiary companies and took the decision to dissolve PAFC due to significant financial losses³⁷. Following the exit of PAFC, UNIDO requested to initiate procedures to select a new

³³ Information taken from commissioning report by IPM/Kinetrics in September 2014

³⁴ Feedback gathered from NPM and IPM during second mission.

³⁵ Interview data with NPM.

³⁶ Pictures taken during site visit in August 2015

³⁷ Information gathered from NPM and DENR during second field mission.

operating entity through a meeting that was held in September 2014 between UNIDO country representative and high officials of DENR that included the secretary and the undersecretary of DENR. Using government procurement rules and regulations, DENR EMB started the process of designating the new Operating Entity for the facility in February 2015. It was in this context that the Natural Resources Development Corporation (NRDC), a government-owned and controlled corporation attached to DENR, was selected as the new operating entity. This choice appears to be appropriate as NRDC is mandated to promote investments in natural resource-based industries by providing financial, technical and management assistance³⁸.

102. As a result of these long delays, IPM, the technology provider, indicated that just for the period 2010 – 2011, they suffered losses of more than \$ 500,000 as they had to re-insure the equipment (PCB treatment technology) for two additional years (costing about \$200,000) and also due to the exchange rate between Philippines pesos (PHP) / US dollars that changed during these two years of delay (loss of about 17 M pesos: 1 USD = 42 PHP)³⁹.

103. Although the NPM has been very active and was much appreciated as confirmed by the different stakeholders interviewed, the implementation process has suffered great delays. However the facility was successfully commissioned and fully operational. For these reasons, Efficiency is rated **moderately satisfactory**.

E. Sustainability

104. Although commissioning of the facility was successfully completed by Kinetrics⁴⁰, the vendor of the technology, the planned treatment of 1,500 tonnes of PCBs was not undertaken due to the pulling out of PAFC, the operating entity, from the project. However, DENR has already selected a new operating entity (see paragraph 91) and they have already subcontracted IPM to re-assess the facility in view of its restart. As stated previously, DENR is fully committed to restart the facility, and they would ensure that the necessary level of funding would be made available to enable the restart⁴¹.

105. Regarding the availability of PCB equipment to be treated, DENR has already signed MoAs with four major PCB owners (PSALM, NPC and Transco: state owned companies and Meralco: a private electricity company) in the early phases of the project. Through these agreements, the four companies are committed to have their PCB wastes (amounting to about 1,500 tonnes) to be treated by the facility at an agreed price of \$ 5 / kg.

106. According to the original business plan developed for the project, the facility would be operational for an initial operational period of seven years, treating 750 tonnes of PCB yearly, corresponding to 5,250 tonnes in total. These amounts already exist in Philippines, as during the preliminary PCB inventory undertaken for NIP development, a total of 6,879 tonnes of PCB equipment and wastes has been inventoried. Furthermore, it is anticipated that during the implementation of the World Bank IPOP project, new amounts of PCBs would most likely be identified during the planned inventory within this project. Therefore, the issue is not whether there would be enough PCBs in the country for treatment but rather if the PCB owners would have their stockpiles treated at the facility.

³⁸ <http://nrdc.denr.gov.ph/>

³⁹ Interview data

⁴⁰ Final report submitted in September 2014.

⁴¹ See footnote 35.

107. For sustainability, there is need that PCB owners have their wastes treated at the facility. Some PCB owners, interviewed during the first field mission, indicated that if the cost for PCB destruction at the facility would be too high, they would look for alternative solutions. Furthermore, would the other PCB owners have the financial resources to have their PCBs treated? In particular, the small local electricity cooperative⁴², owners of more than 60% of the 6,879 tonnes of PCBs identified during NIP development, have limited financial resources⁴³. Although a follow-up project is being developed by UNIDO in collaboration with DENR/EMB to assist PCB owners with limited financial resources⁴⁴, it is recommended that authorities (DENR/EMB) ensure commitment of all PCB owners including the small local electricity cooperative and other owners like mining industry to have their wastes treated at the facility. DENR/EBM should also ensure competitive treatment costs.

108. Rating for Sustainability is **moderately satisfactory**.

F. Project coordination and management

109. For the implementation of the project, a full agency mode of execution was applied. The project funds were managed by the Project Manager (PM), based at UNIDO headquarters in Vienna. Decision making regarding the technical aspects of the project as well as hiring of consultants and contractors were also taken care of by the PM. The day-to-day coordination of implementation of project activities was undertaken by a National Project Manager (NPM) recruited by UNIDO in January 2008 as planned in the PD. The NPM who was a former officer of DENR/EMB greatly facilitated communication between the different stakeholders as confirmed by the different stakeholders. In particular, the EMB project team, set up in the context of the project and having the full support of the Director of Environment, indicated that the NPM greatly facilitated communication between UNIDO and DENR/EMB⁴⁵. They also indicated that coordination between EMB and UNIDO for implementation of project activities was made easier. In particular, they were very satisfied with the help provided by both the NPM and the PM in the implementation of project activities like facilitating communication amongst partners or in assisting to take decision in technical issues of the project for example in assisting to choose the treatment technology. The other stakeholders interviewed also considered the supervision and guidance of the PM and the NPM as very valuable.

110. The Project Steering Committees (PSC) were held according to planned schedule that was at least once annually. As reported in the progress reports, during the first part of the project (2008 – 2011), eight PSC meetings have been held as at the first quarter of 2011. Other PSC meetings as well as other committees or working groups (e.g. Technical Working Group –TWG or Technology Advisory Group-TAG) were held during the second part of the project (2011 – 2015). The TAG and the TWG were constituted mainly to assist in technical issues of the project, for example, in choosing the treatment technology (TAG) or to assist in the setting up of the technology at the facility (TWG).

111. During the construction phase of the facility, an informal Project Management Team (PMT) was set up and was constituted by NPM, EMB, IPM, PAFC, PCB owners and the participating NGO Eco Waste coalition. The PMT was formed to supervise the construction of the building and the setting up of the treatment equipment, and also to assess the monitoring plan of the facility. The PMT has been very active; it met weekly

⁴² It should be noted that out of the 7,107 islands of Philippines, about 2,000 are inhabited. Source: https://en.wikipedia.org/wiki/List_of_islands_of_the_Philippines

⁴³ Interview data

⁴⁴ Interview data from UNIDO NPM and EMB

⁴⁵ Interview data

and provided useful comments. For example, it highlighted the fact that the original design of the washing transformer tank would not accommodate big transformers, and modifications had to be made to solve this issue (see paragraph 85). Indeed, as the building could not accommodate a crane inside for transportation of the washing tank because the height of the building had been reduced from 19 metres (as planned in the design) to 15 metres during construction in order to cut cost, IPM had no other option than to manufacture the tank in situ, which however implied higher costs for them. This problem would not have come up if the PCB owners were involved in the design of the facility. During interviews, all the members of the PMT interviewed agreed to say that there was a need for such a PMT to be set up and it did actually help in the construction of the facility and implementation of project activities.

112. The mid-term assessment of the project was not undertaken. It was a missed opportunity to obtain expert judgment and recommendations from an independent expert that would have definitely helped the management team to reduce/minimize delays for project implementation.

113. For the above-mentioned reasons, Project Management and Coordination is rated **moderately satisfactory**.

G. Overall ratings table

114. According to the TOR of this evaluation (annex 1), it is required to assess and rate the different categories of the project, according to the GEF format, from Highly Satisfactory (HS) to Highly Unsatisfactory (HU). Rating for sustainability sub-criteria are as follows: Likely (L), Moderately Likely (ML), Moderately Unlikely (MU) and Unlikely (U). The Table below resumes the assessment of the different categories based on the documents submitted (see Annex 2) and interviews carried out during both the field missions, on 20 – 30 August 2011 and 21 – 25 September 2015.

	Evaluator's summary comments	Evaluator's rating
Attainment of project objectives and results (overall rating) Sub criteria (below)	Although facility successfully commissioned, 1500 tonnes of PCB not treated due to pulling out of operating entity	MS
Effectiveness	1500 tonnes of PCB not treated	MS
Relevance	Highly relevant given the significant amount of PCBs identified in Philippines	S
Efficiency	Four years delay. Facility closed due to pulling out of operator	MU
Sustainability of project outcomes (overall rating) Sub criteria (below)	Facility closed, however DENR committed to restart facility	ML
Financial	DENR already committed funds for restart of facility	ML
Socio political	Awareness of people living near facility raised by NGOs participating in project	L
Institutional framework and governance	Adequate framework in place for sound management and disposal of PCBs in	ML

	Evaluator's summary comments	Evaluator's rating
	place	
Ecological	DENR to ensure that facility is operating according to international norms	L
Monitoring and evaluation (overall rating) Sub criteria (below)		
M&E Design	Adequate	S
M&E plan implementation (use for adaptive management)	Midterm assessment not undertaken	MS
Budgeting and funding for M&E activities	Adequate	S
UNIDO specific ratings		
Quality at entry	State of the art Non-Combustion technology	HS
Implementation approach	Adequate, however due to weak project design and operating entity pulling out project suffered significant delays	MS
UNIDO supervision and backstopping	Adequate supervision	S
Overall rating	Despite facility successfully commissioned, due to pulling out of operating entity from project the objective of treating 1,500 tonnes of PCBs not met	MS

- Highly satisfactory (HS): The project had no shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Satisfactory (S): The project had minor shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Moderately satisfactory (MS): The project had moderate shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Moderately unsatisfactory (MU): The project had significant shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Unsatisfactory (U) The project had major shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Highly unsatisfactory (HU): The project had severe shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Likely (L): There are no risks affecting this dimension of sustainability.
- Moderately likely (ML). There are moderate risks that affect this dimension of sustainability.
- Moderately unlikely (MU): There are significant risks that affect this dimension of sustainability.

- Unlikely (U): There are severe risks that affect this dimension of sustainability.

IV. Conclusions, recommendations and lessons learnt

A. Conclusions

115. This project is part of a programme, with the thematic focus on POPs, being implemented by UNIDO's Stockholm Convention Unit. The overall objective of the POPs programme is to demonstrate the viability to promote replication, at global level, of available non-combustion technologies for use in the destruction of obsolete POPs, specifically PCB wastes, PCB-containing equipment and the cleanup of POPs, and specifically PCBs in different matrices including contaminated soils or sediments.

116. The immediate project objective was to deploy a commercially available, proven non-combustion technology, to address 1,500 tonnes of PCB-containing transformers.

117. The major objective of this terminal evaluation was to assess project performance (in terms of relevance, effectiveness and efficiency), and determine outcomes and impacts (actual and potential) stemming from the project, including their sustainability and to propose a set of recommendations with a view to ongoing and future activities.

118. This project is very relevant given that Philippines is party to the Stockholm Convention and it holds a significant stockpile of PCBs and wastes (6,879 tonnes). The project is playing a vital role in supporting Philippines to meet the objectives as set in its National Implementation Plan (NIP) and is helping in complying with the Stockholm Convention by building its capacity to soundly manage its stocks of PCBs and related wastes.

119. The project is consistent with strategic program 1, 2 and 3 of the POPs focal area strategy and strategic programming for GEF-4, in particular: for strengthening capacities for NIP Implementation, with the objective to strengthen and/or build the capacity required in eligible countries to implement their Stockholm Convention NIPs in a sustainable, effective and comprehensive manner, while building upon and contributing to strengthening a country's foundational capacities for sound management of chemicals, more generally, PCBs in this particular project.

120. Effectiveness of the project is considered moderately satisfactory. Despite the successful delivery of outputs, in particular a fully operational treatment facility, the planned objective of treating 1,500 tonnes of PCB equipment was not achieved during the project time, due to the pulling out of the PAFC, the operating entity, from the project. However, DENR has indicated that they are fully committed to restart the facility and will allocate the necessary resources.

121. The project has been executed by a very able NPM (recruited by UNIDO) in collaboration with DENR/EMB, and adequately supervised and guided by UNIDO. Due to a number of reasons/circumstances, including poor project design or unclear definition of roles, the project has suffered a significant delay of four years. However, the project has been somewhat cost-effective owing to a number of factors including: high ownership of project, involvement and commitment of major stakeholders in particular DENR/EMB since the preparatory phase and high level of co-funding (\$7,662,380).

122. PAFC, the operating entity of the facility, pulled out of the project in 2014 and the facility is closed since then. However, chances for sustainability of the project are high for the following reasons: Philippines is party to the Stockholm Convention and is fully committed to its implementation. Ownership of the project is high, and DENR/EMB is fully committed to restart the facility and has already allocated 3.8 M PhP (USD 82,931.4) for its reassessment (IPM sub-contracted for this exercise). Four major PCB owners (PSALM, NPC, Transco and state owned Meralco) have signed MOAs with DENR to have their PCBs treated by the facility. Finally, DENR/EMB has confirmed that it would provide the necessary resources and facilitate procedures for the full restart of the facility at the earliest possible time.

B. Recommendations

123. The project has ended and the treatment facility, although fully operational, was closed down due to pulling out of operating entity from the project. The following recommendations look ahead to post-project phase for continued relevance and impact of project.

- i. Since the pulling out of the operating entity from the project, the facility has been closed. DENR/EMB has signified its full commitment to restart the facility. It is recommended DENR/EMB ensure rapid procedures to re-assess and restart the facility and avoid any further delays that might be further detrimental to the treatment technology that has remained idle for more than one year.
- ii. For continued relevance of the project, enforcement of laws related to PCBs (CCO) should be ensured. (Responsible parties: DENR/EMB)
- iii. PCB owners have indicated that if the costs for PCB decontamination is high, they would look for alternatives. DENR/EMB should ensure that treatment costs should be competitive.
- iv. More PCB contaminated equipment will likely be identified during the national inventory that will be undertaken in the context of the IPOP project implemented by the World Bank. DENR/EMB should ensure that the owners of these PCB contaminated equipment have them treated by the facility.
- v. The small electrical cooperatives that hold more than 60% of PCB contaminated equipment lack financial resources for their sound disposal. DENR/EMB should ensure that they are included in the follow-up project being developed by UNIDO.

C. Lessons learned

124. Valuable lessons emerged during this evaluation that include lessons related to technical aspects as well as to overall management of the project:

- i. Self-inventory and reporting of PCBs is possible if proper regulation (Chemical Control Order) is developed, enacted and enforced.
- ii. When developing EIAs, it is necessary to disclose all information to avoid delays.
- iii. Engaging NGOs as major partners during implementation helps to bring down barriers / resistance and ensures acceptance of project at all levels including the general population.

- iv. Poor communication leads to higher transaction cost for stakeholders. The operating entity reduced the height of the facility building without informing other project partners. As a result a crane could not be used to transport the washing tank inside. IPM had no other option than to manufacture the tank in situ, which resulted in higher costs.
- v. Clearly defined roles and responsibilities of stakeholders contribute to avoid delays in project implementation. It was not clear between operating entity, the facility operator, and the technology provider, who had the responsibility to tender out the construction of the building.
- vi. Securing operating permits/construction approval during preparatory phase helps in avoiding delays for project implementation.

Annex 1: Terms of reference



UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

DRAFT

Terms of reference

Independent terminal evaluation of the UNIDO project:

Project number: GF/PHI/07/001

Global programme to demonstrate the viability and removal of barriers that impede the adoption and successful implementation of available Non-Combustion Technologies for destroying persistent organic pollutants (POPs)

MAY 2010

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I. Project background and overview

Project number:	GF/PHI/07/XXX
Project title:	Global Programme to demonstrate the viability and removal of barriers that impede adoption and successful implementation of available, non-combustion technologies for destroying persistent organic pollutants (POPs)
GEFSEC Project ID:	2329
Thematic area code:	B16
Starting date:	September 2007
Duration:	4 years
Project site:	The Philippines
Government Co-coordinating agency:	Department of Environment and Natural Resources (DENR)
Counterpart: Executing agency/ Cooperating agency	Department of Environment and Natural Resources - Environmental Management Bureau (DENR-EMB)
Project inputs:	
GEF	US\$ 4,108,500
UNIDO inputs	US\$ 650,000 (in-kind)
Counterpart inputs Government of the Republic of the Philippines	US\$ 500,000 (in-kind)
Other donors: - Operating entity - Private sector - NGOs	US\$ 3,900,000 (in-kind / in cash) US\$ 2,512,380 (in cash) US\$ 100,000 (in kind)
Grand total:	US\$ 11,770,880
Support costs:	US\$ 382,000

Project origin and objectives

a) The Stockholm Convention and the Global Program for non-combustion technologies

On 22 May 2001 the Stockholm Convention on POPs was adopted. The GEF became, “on an interim basis, the principal entity entrusted with the operations of the financial mechanism referred to in Article 13 of the Convention”. Based on the above the 2nd GEF Assembly held in Beijing, China in 2002 agreed on the creation of a new focal area on POPs and subsequently the 22nd meeting of the GEF Council started to review and comment on the new GEF POPs Operational Programme on POPs (#OP 14) (GEF/C.22/Inf.4).

Article 6 of the Stockholm Convention addresses the identification and management of POPs stockpiles and wastes. It requires such stockpiles and wastes to be “managed in a manner protective of human health and the environment.” Parties must “develop appropriate strategies for identifying” stockpiles, products and articles in use, and wastes covered by the treaty, after which they must manage the stockpiles in a “safe, efficient, and environmentally sound manner.” The Convention requires that disposal of such wastes be done in such a way that the POP content is “destroyed or irreversibly transformed” so it is no longer a POP, or “otherwise disposed of in an environmentally sound manner when destruction or irreversible transformation does not represent the environmentally preferable option or the persistent organic pollutant content is low.”

When POPs stockpiles are incinerated or otherwise combusted, unintentional products listed in Annex C are generated as combustion products, or generated in the stack, following combustion (as the stack gasses cool down). Hence non-combustion alternative destruction technologies that avoid unintentional production are consistent with the language of the Convention.

The Global GEF approved in March 2003 a Global Programme to demonstrate the viability of available non-combustion technologies for use in the destruction of obsolete POPs stockpiles and wastes⁴⁶. The objective of the Global Programme, in line with the strategic priorities of the GEF Business Plan FY04-06, is to demonstrate the viability and removal of barriers that impede adoption and successful implementation of available non-combustion technologies for use in the destruction of obsolete Persistent Organic Pollutants (POPs) stockpiles and wastes, more specifically PCBs wastes in developing countries and countries with economies in transition. Since then UNIDO has started the implementation of projects under the global programme in the Slovak Republic, the Philippines and in China.

In 2004 the Scientific and Technical Advisory Panel (STAP) of the GEF released a report, including conclusions and recommendations on how the GEF should deal with non-combustion technologies, taking into account risks and benefits⁴⁷. Among others, the STAP concluded:

⁴⁶

⁴⁷ GEF/C.23/Inf.19; Non-combustion technologies for the destruction of POPs stockpiles; May 17, 2004

- *Given the high initial investment costs involved in building safe and environmentally sound destruction facilities, and the high operational costs of non-incineration destruction facilities, cost-effective approaches need to be identified. This could mean setting up regional facilities, taking into consideration the potential problems associated with transporting waste. In addition to the usual criteria for project selection, e.g. the need for demonstrated country-drivenness, sustainability and co-financing, the GEF should establish criteria on the risks of disposal technologies, the enabling environment, and availability of partnerships as a basis for assessing its support for noncombustion technologies. It is likely that such criteria would be met in East and Central Europe, Mexico, the Philippines and China, where the market is sufficiently large, and capacity and finance are not major barriers.*
- *Where these criteria are not met, as is the case for most countries in Africa, the GEF should support packing and shipping the stockpiles to facilities that meet internationally-agreed standards for destruction.*

b) The project in the Philippines

In May 2004, the GEF Council approved the project brief for the Republic of the Philippines. This specific project, part of the Global Programme, aims at introducing and applying such a technology to destroy significant obsolete PCBs wastes and helps removing barriers to the further adoption and effective implementation of a selected non-combustion technology and meet the Stockholm Convention requirements to ensure the use of best available techniques (BAT) and best environmental practices (BEP). The proposed project would serve as a barriers reduction exercise that could help inform future activities mandated or encouraged under the provisions of the Convention that entered into force on 17 May 2004.

The National Implementation Plan (NIP) of the Stockholm Convention⁴⁸ in the Philippines favours the application of non-combustion technologies to destroy POPs. The Project will make available all technical, economic and financial parameters of the selected technology in a comparative, open and transparent way that would facilitate and provide further incentive to the global diffusion of innovative alternative non-combustion technologies.

The project is planned to last four years (48 months). The first twenty-four months are committed to parallel activities of tendering process, obtaining necessary operating permits, including conducting necessary environmental impact assessment, designing, constructing and testing of the selected non-combustion technology to be deployed, and generally planning and organizing, among other things, such activities as a comprehensive public participation and involvement programme, and a comprehensive, participatory monitoring and evaluation programme.

The second twenty-four months of project time cover the demonstration phase that is the destruction of 1,500 tonnes of PCB containing equipment and wastes as the first part of the 6,879 tonnes actually identified during the initial inventory process. Also included during this twenty-four months operational phase is the continued implementation of the broadly based public participation and involvement programme, and the monitoring and evaluation programme

⁴⁸ The NIP of the Philippines was prepared with support of UNEP

Expected global, national and local benefits

The implementation of cost-effective and clean, environmentally sound technologies, to be demonstrated in this project for the destruction of obsolete wastes of PCBs and materials containing other POPs would, if replicated, support environmentally sustainable economic and industrial development in many regions particularly in countries with developing economies and economies in transition. To achieve this global benefit the EIA should have a crucial and guiding role throughout the project life.

POPs routinely escape from storage sites and from contaminated locations into the wider environment by volatilization, by ground and surface water run-off and by other means. By providing the framework for the destruction and cleanup of obsolete pesticides and hazardous industrial chemicals, the project will therefore contribute in preventing future contamination and threats to the quality of the global hydrological cycle. PCBs have contaminated local rivers both in Slovakia and the Philippines, and by addressing the PCB wastes issue in each of these countries, and the additional two countries that will comprise the Programme, water quality that has suffered from PCB leakage and dumping will improve as a result of this Programme and Project intervention.

Implementation arrangements

UNIDO is the Implementing Agency for the project. UNIDO has been involved in the GEF POPs programme from the beginning. It directly accessed PDF-B funds consistent with its role as a GEF Executing Agency with expanded opportunities in the POPs focal area.

The Government of the Republic of the Philippines through the Department of Environment and Natural Resources (DENR) has the overall responsibility for environmental management including regulatory, monitoring, permitting and licensing functions on all matters related to protection and conservation of the environment. The DENR also serves as the GEF operational focal point as well as the POPs focal point. The Environmental Management Bureau (EMB) of the DENR implements regulations on EIA, toxic and hazardous waste management and air quality management. As such, the DENR-EMB will have the lead responsibilities in coordinating all other institutions in the Philippines participating in the project. It is expected that DENR-EMB will nominate the National Project Manager (NPM) and will secure full support to the project execution.

The project makes generous provisions for strong, continuing Civil Society participation in project implementation activities and builds upon the strong support for the Programme and the project that was created during preparation.

DENR has selected the Philippine National Oil Company-Philippine Alternative Fuel Corporation (PNOC-PAFC) as operating entity. It should however be noted that no other stakeholder has shown interest to bid and become the operating entity⁴⁹. The operating entity, will be responsible for all of the activities concerning site preparation, installation of the unit and destruction activities in their site, as well as control and compliance with the license or permits issued by the national and local authorities.

⁴⁹ See details on the selection process in the UNIDO project document

During the PDF-B phase, a Memorandum of Agreement (MoA) was signed between DENR and the operating entity and revised on 20 December 2005, which defined the respective role and responsibilities as well as the co-financing contribution of the parties.

The Environmental Health Fund (EHF) will serve as a Principal Cooperating Agency for specific elements of the Project and the Programme. In this role the EHF will continue to serve as a clearing-house and coordinating mechanism for involvement of the NGO community. The role of EHF will be the subject of an MoU to be concluded between UNIDO and EHF that will provide details of services that the latter will undertake in support of the Programme and Project.

The Programme will receive oversight and policy direction from a Programme Advisory Committee (PAC). The PAC will initially be comprised of ten (10) members⁵⁰. The Programme Coordinator (PC) will serve on the PAC ex-officio, as well as the National Project Manager (NPM) who takes the responsibility of a Chief Technical Adviser (CTA).

There will also be a Project Steering Committee (PSC). The PSC shall meet at least once annually, and may be convened as necessary at the call of the Programme Coordinator in consultation with UNIDO and the NPM. The PSC shall be initially comprised of eight (8) members⁵¹.

Finally, there will be a Programme and Project Technical Advisory Group (TAG). The TAG will undertake an advisory role in service of the work of the Programme and Project, most specifically as an advisory body to the PAC and the PSC. The TAG will be comprised of one member of the Implementing Agency, one member from the GEF STAP, one member from the EHF and scientific and technical expertise as deem necessary and representatives of DENR and the operating entity, drawing from resources such as the GEF STAP, FAO, UNEP, UNDP and the World Bank. One representative of each participating country of the Programme will also be member of the TAG.

Budget information

a) Overall cost and financing (including co-financing):

Summary incremental cost table (in US\$)

Component	Baseline	Alternative	GEF	Co-finance
Selection of technology and purchase through contractual agreements	0	655,800	355,800	300,000
Site preparation and environmental compliance	0	4,805,880	253,500	4,552,380

⁵⁰ Including: Gov. of Philippines, Govt. of Slovakia, UNIDO, EHF, FAO UNEP, UNDP, World Bank, Basel Convention.

⁵¹ Including: Govt. of Philippines, public sector consortium, operating entity, UNIDO, EHF, Civil Society

Purchase and installation of equipment for PCBs disposal	4,000,000	4,733,000	2,423,000	2,310,000
Destruction facility in operation, PCBs destruction, monitoring and evaluation and public involvement	0	671,000	501,000	170,000
Lessons learning, dissemination and adaptive management system in place		905,200	575,200	330,000
Total	4,000,000	11,770,880	4,108,500	7,662,380

Source: UNIDO project document

b) UNIDO budget snapshot (GEF funding excluding agency support cost):

	Total allotment (US\$)	Disbursement (US\$) & Unliquidated obligation (US\$)	Uncommitted balance (US\$)
Personnel	600,570	472,082	128,488
Contracts	3,165,510	3,135,508	30,002
Training	248,318	80,691	167,627
Equipment	50,000	14,350	35,650
Miscellaneous	44,102	30,751	13,351
<i>Total</i>	4,108,500	3,733,382	375,118

Source and date of information: UNIDO Infobase, 24 May 2011

II. Objectives and scope of the evaluation

The purpose of the mid-term evaluation is to enable the Government, counterparts, the GEF, UNIDO and other stakeholders and donors to:

- (e) Verify prospects for development impact and sustainability, providing an analysis of the attainment of global environmental objectives, project objectives, delivery and completion of project outputs/activities, and outcomes/impacts based on indicators. The assessment includes re-examination of the relevance of the objectives and other elements of project design according to the project evaluation parameters defined in chapter IV.
- (f) Enhance project relevance, effectiveness, efficiency and sustainability by proposing a set of recommendations with a view to ongoing and future activities.
- (g) Draw lessons of wider applicability for the replication of the experience gained in this project in other projects/countries.
- (h) Contribute to the findings of the thematic evaluation of UNIDO POPs activities

The key question of the evaluation is whether the projects have made a significant contribution to reducing the effects of POPs on human health and the environment.

III. Methodology

The evaluation will follow UNIDO and GEF evaluation guidelines and policies. It will be carried out as an independent in-depth evaluation using a participatory approach whereby the UNIDO staff associated with the projects is kept informed and regularly consulted throughout the evaluation. The evaluation team leader will liaise with the UNIDO Evaluation Group (EVA) on any logistic and/or methodological issues to properly conduct the review.

The methodology will be based on the following:

1. A desk review of project documents including, but not limited to:
 - (a) The original project document, monitoring reports (such as progress and financial reports to UNIDO and GEF annual Project Implementation Review reports), output reports (case studies, action plans, sub-regional strategies, etc.) and relevant correspondence.
 - (b) Notes from the PAC, PSC and TAG meetings.
 - (c) Other project-related material produced by the project.
2. The evaluation team will use available models of (or reconstruct if necessary) theory of change for the different types of intervention (enabling, capacity, investment, demonstration). The validity of the theory of change will be examined through specific questions in interviews and possibly through a survey of stakeholders.
3. Counterfactual information: In those cases where baseline information for relevant indicators is not available the evaluation team will aim at establishing a proxy-baseline through recall and secondary information.
4. Interviews with project management and technical support including Mr. Mohamed Eisa, Chief UNIDO POPs Unit, project staff in the Philippines and staff associated with the project's financial administration and procurement if necessary.
5. Interviews with project partners, in particular those that have been selected for co-financing as shown in the corresponding sections of the project documents.
6. On-site observation of results achieved in demonstration projects, including interviews of actual and potential beneficiaries of improved technologies.
7. Interviews and telephone interviews with intended users for the project outputs and other stakeholders involved with this project. The evaluator shall determine whether to seek additional information and opinions from representatives of any donor agencies or other organizations.

8. Interviews with the UNIDO Country Office in the Philippines and the project's management and PSC members and the various national and sub-regional authorities dealing with project activities as necessary. If deemed necessary, the evaluator shall also gain broader perspectives from discussions with relevant GEF Secretariat staff.
9. Other interviews, surveys or document reviews as deemed necessary by the evaluator and/or UNIDO EVA.

IV. Project evaluation parameters

The **ratings for the parameters described in the following sub-chapters A to E will be presented in the form of a table** with each of the categories rated separately and with **brief justifications for the rating** based on the findings of the main analysis. An overall rating for the project should also be given. The rating system to be applied is specified in [Annex 5](#).

A. Project relevance and design

Relevance to national development and environmental agendas, recipient country commitment, and regional and international agreements. See possible evaluation questions under “country ownership/drivenness” below.

Relevance to target groups: relevance of the project's objectives, outcomes and outputs to the different target groups of the interventions (e.g. companies, civil society, beneficiaries of capacity building and training, etc.).

Relevance to the GEF and UNIDO: In retrospect, were the project's outcomes consistent with the focal areas/operational program strategies of GEF? Were they in line with the UNIDO mandate, objectives and outcomes defined in the Programme & Budget and core competencies? Ascertain the likely nature and significance of the contribution of the project outcomes to the wider portfolio of the GEF Operational Programme (OP) #14.

Is the project's design adequate to address the problems at hand? Was a participatory project identification process applied and was it instrumental in selecting problem areas and national counterparts? Does the project have a clear thematically focused development objective, the attainment of which can be determined by a set of verifiable indicators? Was the project formulated based on the logical framework approach? Was the project formulated with the participation of national counterpart and/or target beneficiaries?

B. Effectiveness: attainment of objectives and planned results (progress to date):

Assessment of project outcomes should be a priority:

- What outputs and outcomes has the project achieved so far (both qualitative and quantitative results)? Has the project generated any results that could lead to changes of the assisted institutions? Have there been any unplanned effects?.
- are the actual project outcomes commensurate with the original or modified project objectives? If the original or modified expected results are merely outputs/inputs, the evaluators should assess if there were any real outcomes of the project and, if there

were, determine whether these are commensurate with realistic expectations from such projects.

- To what extent have the expected outputs and outcomes been achieved or are likely to be achieved? How do the stakeholders perceive their quality? Were the targeted beneficiary groups actually reached?
- Identify the potential longer-term impacts or at least indicate the steps taken to assess these (see also below “monitoring of long term changes”). Wherever possible, evaluators should indicate how findings on impacts will be reported to the GEF in future.
- Catalytic or replication effects: the evaluation will describe any catalytic or replication effect of the project. If no effects are identified, the evaluation will describe the catalytic or replication actions that the project carried out. No ratings are requested for the project’s catalytic role.

C. Efficiency

Was the project cost effective? Was the project the least cost option? Was project implementation delayed, and, if it was, did that affect cost effectiveness? Wherever possible, the evaluator should also compare the costs incurred and the time taken to achieve outcomes with that for similar projects.

Have the donor, UNIDO and Government/counterpart inputs been provided as planned and were adequate to meet requirements? Was the quality of UNIDO inputs and services as planned and timely?

D. Assessment of sustainability of project outcomes:

Sustainability is understood as the likelihood of continued benefits after the GEF project ends. Given the uncertainties involved, it may be difficult to have a realistic a priori assessment of sustainability of outcomes. Therefore, assessment of sustainability of outcomes will give special attention to analysis of the risks that are likely to affect the persistence of project outcomes. This assessment should explain how the risks to project outcomes will affect continuation of benefits after the GEF project ends. It will include both exogenous and endogenous risks. The following four dimensions or aspects of risks to sustainability will be addressed:

- a. **Financial risks.** Are there any financial risks that may jeopardize sustainability of project outcomes? What is the likelihood of financial and economic resources not being available once GEF assistance ends? (Such resources can be from multiple sources, such as the public and private sectors or income-generating activities; these can also include trends that indicate the likelihood that, in future, there will be adequate financial resources for sustaining project outcomes.)
- b. **Sociopolitical risks.** Are there any social or political risks that may jeopardize sustainability of project outcomes? What is the risk that the level of stakeholder ownership (including ownership by governments and other key stakeholders) will be insufficient to allow for the project outcomes/benefits to be sustained? Do the various key stakeholders see that it is in their interest that project benefits continue to flow?

Is there sufficient public/stakeholder awareness in support of the project's long-term objectives?

- c. **Institutional framework and governance risks.** Do the legal frameworks, policies, and governance structures and processes within which the project operates pose risks that may jeopardize sustainability of project benefits? Are requisite systems for accountability and transparency, and required technical know-how, in place?
- d. **Environmental risks.** Are there any environmental risks that may jeopardize sustainability of project outcomes? The evaluation should assess whether certain activities will pose a threat to the sustainability of the project outcomes. For example, construction of a dam in a protected area could inundate a sizable area and thereby neutralize the biodiversity-related gains made by the project.

E. Assessment of monitoring and evaluation systems and project management:

- **M&E design.** Does the project have a sound M&E plan to monitor results and track progress towards achieving project objectives? The Evaluation will assess whether the project met the minimum requirements for the application of the Project M&E plan (see Annex 4).
- **M&E implementation.** The evaluation should verify that an M&E system was in place and facilitated timely tracking of progress toward project objectives by collecting information on chosen indicators continually throughout the project implementation period; annual project reports were complete and accurate, with well-justified ratings; the information provided by the M&E system was used during the project to improve performance and to adapt to changing needs; and projects had an M&E system in place with proper training for parties responsible for M&E activities to ensure that data will continue to be collected and used after project closure.
- **Budgeting and funding for M&E activities.** In addition to incorporating information on funding for M&E while assessing M&E design, the evaluators will determine whether M&E was sufficiently budgeted for at the project planning stage and whether M&E was funded adequately and in a timely manner during implementation.
- **Monitoring of long-term changes.** The monitoring and evaluation of long-term changes is often incorporated in GEF-supported projects as a separate component and may include determination of environmental baselines; specification of indicators; and provisioning of equipment and capacity building for data gathering, analysis, and use. This section of the evaluation report will describe project actions and accomplishments toward establishing a long-term monitoring system. The review will address the following questions:
 - a. Did this project contribute to the establishment of a long-term monitoring system? If it did not, should the project have included such a component?
 - b. What were the accomplishments and shortcomings in establishment of this system?
 - c. Is the system sustainable—that is, is it embedded in a proper institutional structure and does it have financing?
 - d. Is the information generated by this system being used as originally intended?
- **Project management.** Were the national management and overall coordination mechanisms efficient and effective? Did each partner have specific roles and responsibilities from the beginning? Did each partner fulfill its role and responsibilities (e.g. providing strategic support, monitoring and reviewing performance, allocating funds, providing technical support, following up agreed/corrective actions...)? Were the UNIDO HQ based management, coordination, quality control and technical inputs efficient, timely and effective (problems identified timely and accurately; quality support

provided timely and effectively; right staffing levels, continuity, skill mix and frequency of field visits...)

- **Implementation approach**⁵². Is the implementation approach chosen different from other implementation approaches applied by UNIDO and other agencies? Does the approach comply with the principles of the Paris Declaration? Does the approach promote local ownership and capacity building? Does the approach involve significant risks?

F. Assessment of processes affecting attainment of project results

The evaluation will consider, but need not be limited to, the following issues that may have affected project implementation and attainment of project results:

- Preparation and readiness.** Were the project's objectives and components clear, practicable, and feasible within its time frame? Were the capacities of the executing institution(s) and its counterparts properly considered when the project was designed? Were lessons from other relevant projects properly incorporated in the project design? Were the partnership arrangements properly identified and roles and responsibilities negotiated prior to project approval? Were counterpart resources (funding, staff, and facilities), enabling legislation, and adequate project management arrangements in place at project entry?
- Country ownership/driverness.** Was the project concept in line with the sectoral and development priorities and plans of the country—or of participating countries, in the case of multi country projects? Are project outcomes contributing to national development priorities and plans? Were the relevant country representatives from government and civil society involved in the project? Did the recipient government maintain its financial commitment to the project? Has the government—or governments in the case of multi country projects—approved policies or regulatory frameworks in line with the project's objectives?
- Stakeholder involvement.** Did the project involve the relevant stakeholders through information sharing and consultation and by seeking their participation in project design, implementation, and M&E? For example, did the project implement appropriate outreach and public awareness campaigns? Did the project consult with and make use of the skills, experience, and knowledge of the appropriate government entities, nongovernmental organizations, community groups, private sector entities, local governments, and academic institutions in the design, implementation, and evaluation of project activities? Were perspectives of those who would be affected by project decisions, those who could affect the outcomes, and those who could contribute information or other resources to the process taken into account while taking decisions? Were the relevant vulnerable groups and powerful supporters and opponents of the processes properly involved?
- Financial planning.** Did the project have the appropriate financial controls, including reporting and planning, that allowed management to make informed decisions regarding the budget and allowed for timely flow of funds? Was there due diligence in the management of funds and financial audits? Did promised cofinancing materialize?
- UNIDO supervision and backstopping.** Did UNIDO staff identify problems in a timely fashion and accurately estimate their seriousness? Did UNIDO staff provide quality support and advice to the project, approve modifications in time, and

⁵² Implementation approach refers to the concrete manifestation of cooperation between UNIDO, Government counterparts and local implementing partners. Usually POPs projects apply a combination of agency execution (direct provision of services by UNIDO) with elements of national execution through sub-contracts.

restructure the project when needed? Did UNIDO provide the right staffing levels, continuity, skill mix, and frequency of field visits for the project?

- f. **Co-financing and project outcomes and sustainability.** If there was a difference in the level of expected co-financing and the co-financing actually realized, what were the reasons for the variance? Did the extent of materialization of co-financing affect project outcomes and/or sustainability, and, if so, in what ways and through what causal linkages?
- g. **Delays and project outcomes and sustainability.** If there were delays in project implementation and completion, what were the reasons? Did the delays affect project outcomes and/or sustainability, and, if so, in what ways and through what causal linkages?

G. Specific issues with regard to the thematic evaluation of UNIDO POPs activities.

The evaluation will give special attention to issues outlined in the terms of reference of the POPs thematic evaluation.

V. Evaluation team and timing

The evaluation team will be composed of one international evaluation consultant acting as team leader, the team leader of the evaluation team of the POPs thematic evaluation (acting as team member for the purpose of this project evaluation) and one national evaluation consultant.

UNIDO evaluation group will be responsible for the quality control of the evaluation process and report. It will provide inputs regarding findings, lessons learned and recommendations from other UNIDO evaluations, ensuring that the evaluation report is useful for UNIDO in terms of organizational learning (recommendations and lessons learned) and its compliance with UNIDO evaluation policy and these terms of reference.

The evaluation team will be able to provide information relevant for follow-up studies, including evaluation verification on request to the GEF partnership up to three years after completion of the evaluation.

All consultants will be contracted by UNIDO. The tasks of each team member are specified in the job descriptions attached to these terms of reference.

Members of the evaluation team must not have been directly involved in the design and/or implementation of the programme/projects.

The UNIDO Field Office in the Philippines will support the evaluation team. The GEF focal points in the countries and the main Government counterparts of UNIDO will be briefed on the evaluation.

Timing

The evaluation is scheduled to take place in the period June to September 2011. The field mission for the evaluation is scheduled for July/August 2011.

After the field mission, the evaluation team leader will come to UNIDO HQ for debriefing. The draft evaluation report will be submitted 6-8 weeks after the debriefing at the latest.

VI. REPORTING

Inception report

This Terms of Reference provides some information on the evaluation methodology but this should not be regarded as exhaustive. After reviewing the project documentation and initial interviews with project manager(s) the International Evaluation Consultant will prepare a short inception report that will operationalize the TOR relating the evaluation questions to information on what type of and how the evidence will be collected (methodology). It will be discussed with and approved by the responsible UNIDO Evaluation Officer. The Inception Report will focus on the following elements: preliminary project theory model(s); elaboration of evaluation methodology including quantitative and qualitative approaches through an evaluation framework (“evaluation matrix”); division of work between the International Evaluation Consultant and National Consultant; and a reporting timetable⁵³.

Evaluation report format and review procedures

The evaluation report should be brief, to the point and easy to understand. It must explain; the purpose of the evaluation, exactly what was evaluated and the methods used. The report must highlight any methodological limitations, identify key concerns and present evidence-based findings, consequent conclusions, recommendations and lessons. The report should provide information on when the evaluation took place, the places visited, who was involved and be presented in a way that makes the information accessible and comprehensible. The report should include an executive summary that encapsulates the essence of the information contained in the report to facilitate dissemination and distillation of lessons.

Evidence, findings, conclusions and recommendations should be presented in a complete and balanced manner. The evaluation report shall be written in English and follow the outline given in annex 1.

The evaluation report shall follow the structure given in annex 1. The reporting language will be English.

⁵³ The evaluator will be provided with a Guide on how to prepare an evaluation inception report prepared by the UNIDO Evaluation Group.

Review of the draft report: Draft reports submitted to UNIDO Evaluation Group are shared with the corresponding Programme or Project Officer for initial review and consultation. They may provide feedback on any errors of fact and may highlight the significance of such errors in any conclusions. The consultation also seeks agreement on the findings and recommendations. The evaluators will take the comments into consideration in preparing the final version of the report.

Quality assessment of the evaluation report: All UNIDO evaluations are subject to quality assessments by UNIDO Evaluation Group. These apply evaluation quality assessment criteria and are used as a tool for providing structured feedback. The quality of the evaluation report will be assessed and rated against the criteria set forth in the Checklist on evaluation report quality (annex 2).

The draft report will be delivered to UNIDO EVA and circulated to UNIDO staff associated with the project, including the UNIDO office in the Philippines. Any comments or responses to the draft report will be sent to UNIDO EVA for collation and onward transmission to the evaluation team leader; he/she will be advised of any necessary revisions.

Annex 1 - Outline of an in-depth project evaluation report

Executive summary

- Must provide a synopsis of the storyline which includes the main evaluation findings and recommendations
- Must present strengths and weaknesses of the project
- Must be self-explanatory and should be 3-4 pages in length

I. Evaluation objectives, methodology and process

- Information on the evaluation: why, when, by whom, etc.
- Scope and objectives of the evaluation, main questions to be addressed
- Information sources and availability of information
- Methodological remarks, limitations encountered and validity of the findings

II. Country and project background

- Brief country context: an overview of the economy, the environment, institutional development, demographic and other data of relevance to the project
- Sector-specific issues of concern to the project⁵⁴ and important developments during the project implementation period
- Project summary:
 - Fact sheet of the project: including project objectives and structure, donors and counterparts, project timing and duration, project costs and co-financing
 - Brief description including history and previous cooperation
 - Project implementation arrangements and implementation modalities, institutions involved, major changes to project implementation
 - Positioning of the UNIDO project (other initiatives of government, other donors, private sector, etc.)
 - Counterpart organization(s)

III. Project assessment

This is the key chapter of the report and should address all evaluation criteria and questions outlined in the TOR (see section III Evaluation Criteria and Questions). Assessment must be based on factual evidence collected and analyzed from different sources. The evaluators' assessment can be broken into the following sections:

H. Design

I. Relevance

J. Effectiveness

K. Efficiency

L. Sustainability

M. Project coordination and management

⁵⁴ Explicit and implicit assumptions in the logical framework of the project can provide insights into key-issues of concern (e.g. relevant legislation, enforcement capacities, government initiatives, etc.)

At the end of this chapter, an overall project achievement rating should be developed as required in Annex 2. The overall rating table required by the GEF should be presented here.

IV. Conclusions, recommendations and lessons learnt

This chapter can be divided into three sections:

A. Conclusions

This section should include a storyline of the main evaluation conclusions related to the project's achievements and shortfalls. It is important to avoid providing a summary based on each and every evaluation criterion. The main conclusions should be cross-referenced to relevant sections of the evaluation report.

B. Recommendations

This section should be succinct and contain few key recommendations. They should:

- be based on evaluation findings
- realistic and feasible within a project context
- indicate institution(s) responsible for implementation (addressed to a specific officer, group or entity who can act on it) and have a proposed timeline for implementation if possible
- be commensurate with the available capacities of project team and partners
- take resource requirements into account.

Recommendations should be structured by addressees:

- UNIDO
- Government and/or Counterpart Organizations
- Donor

C. Lessons learnt

- Lessons learned must be of wider applicability beyond the evaluated project but must be based on findings and conclusions of the evaluation
- For each lessons the context from which they are derived should be briefly stated

Annexes should include the evaluation TOR, list of interviewees, documents reviewed, a summary of project identification and financial data, and other detailed quantitative information. Dissident views or management responses to the evaluation findings may later be appended in an annex.

Report quality criteria	UNIDO Evaluation Group assessment notes	Rating
A. Did the report present an assessment of relevant outcomes and achievement of project objectives?		
B. Were the report consistent and the evidence complete and convincing?		
C. Did the report present a sound assessment of sustainability of outcomes or did it explain why this is not (yet) possible?		
D. Did the evidence presented support the lessons and recommendations?		
E. Did the report include the actual project costs (total and per activity)?		
F. Quality of the lessons: Were lessons readily applicable in other contexts? Did they suggest prescriptive action?		
G. Quality of the recommendations: Did recommendations specify the actions necessary to correct existing conditions or improve operations ('who?' 'what?' 'where?' 'when?'). Can they be implemented?		

H. Was the report well written? (Clear language and correct grammar)		
I. Were all evaluation aspects specified in the TOR adequately addressed?		
J. Was the report delivered in a timely manner?		

Annex 2 - Checklist on evaluation report quality

Rating system for quality of evaluation reports

A number rating 1-6 is used for each criterion: Highly Satisfactory = 6, Satisfactory = 5, Moderately Satisfactory = 4, Moderately Unsatisfactory = 3, Unsatisfactory = 2, Highly Unsatisfactory = 1, and unable to assess = 0.

Annex 3 - GEF minimum requirements for M&E⁵⁵

Minimum requirement 1: Project design of M&E

All projects will include a concrete and fully budgeted monitoring and evaluation plan by the time of work program entry for full-sized projects and CEO approval for medium-sized projects. This monitoring and evaluation plan will contain as a minimum:

- SMART indicators for project implementation, or, if no indicators are identified, an alternative plan for monitoring that will deliver reliable and valid information to management;
- SMART indicators for results (outcomes and, if applicable, impacts), and, where appropriate, indicators identified at the corporate level;
- baseline for the project, with a description of the problem to be addressed, with indicator data, or, if major baseline indicators are not identified, an alternative plan for addressing this within one year of implementation;
- identification of reviews and evaluations that will be undertaken, such as mid-term reviews or evaluations of activities; and
- organizational set-up and budgets for monitoring and evaluation.

Minimum requirement 2: Application of project M&E

Project monitoring and supervision will include implementation of the M&E plan, comprising:

- SMART indicators for implementation are actively used, or if not, a reasonable explanation is provided;
- SMART indicators for results are actively used, or if not, a reasonable explanation is provided;
- the baseline for the project is fully established and data compiled to review progress reviews, and evaluations are undertaken as planned; and
- the organizational set-up for M&E is operational and budgets are spent as planned.

⁵⁵ http://gefeo.org/uploadedFiles/Policies_and_Guidelines-me_policy-english.pdf

Annex 4. Overall ratings table

Criterion	Evaluator's summary comments	Evaluator's rating
Attainment of project objectives and results (overall rating)		
Sub criteria (below)		
Effectiveness		
Relevance		
Efficiency		
Sustainability of project outcomes (overall rating)		
Sub criteria (below)		
Financial		
Socio Political		
Institutional framework and governance		
Ecological		
Monitoring and evaluation (overall rating)		
Sub criteria (below)		
M&E Design		
M&E Plan Implementation (use for adaptive management)		
Budgeting and Funding for M&E activities		
UNIDO specific ratings		
Quality at entry		
implementation approach		
UNIDO Supervision and backstopping		
Overall rating		

RATING OF PROJECT OBJECTIVES AND RESULTS

- Highly Satisfactory (HS): The project had no shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Satisfactory (S): The project had minor shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Moderately Satisfactory (MS): The project had moderate shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Moderately Unsatisfactory (MU): The project had significant shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Unsatisfactory (U) The project had major shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Highly Unsatisfactory (HU): The project had severe shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

Please note: Relevance and effectiveness will be considered as critical criteria. The overall rating of the project for achievement of objectives and results **may not be higher** than the lowest rating on either of these two criteria. Thus, to have an overall satisfactory rating for outcomes a project must have at least satisfactory ratings on both relevance and effectiveness.

RATINGS ON SUSTAINABILITY

Sustainability will be understood as the probability of continued long-term outcomes and impacts after the GEF project funding ends. The evaluation will identify and assess the key conditions or factors that are likely to contribute or undermine the persistence of benefits beyond project completion. Some of these factors might be outcomes of the project, i.e. stronger institutional capacities, legal frameworks, socio-economic incentives /or public awareness. Other factors will include contextual circumstances or developments that are not outcomes of the project but that are relevant to the sustainability of outcomes.

Rating system for sustainability sub-criteria

On each of the dimensions of sustainability of the project outcomes will be rated as follows.

- Likely (L): There are no risks affecting this dimension of sustainability.
- Moderately Likely (ML). There are moderate risks that affect this dimension of sustainability.
- Moderately Unlikely (MU): There are significant risks that affect this dimension of sustainability
- Unlikely (U): There are severe risks that affect this dimension of sustainability.

All the risk dimensions of sustainability are critical. Therefore, overall rating for sustainability will not be higher than the rating of the dimension with lowest ratings. For example, if a project has an Unlikely rating in either of the dimensions then its overall rating cannot be higher than Unlikely, regardless of whether higher ratings in other dimensions of sustainability produce a higher average.

RATINGS OF PROJECT M&E

Monitoring is a continuing function that uses systematic collection of data on specified indicators to provide management and the main stakeholders of an ongoing project with indications of the extent of progress and achievement of objectives and progress in the use of allocated funds. Evaluation is the systematic and objective assessment of an on-going or completed project, its design, implementation and results. Project evaluation may involve the definition of appropriate standards, the examination of performance against those standards, and an assessment of actual and expected results.

The Project monitoring and evaluation system will be rated on 'M&E Design', 'M&E Plan Implementation' and 'Budgeting and Funding for M&E activities' as follows:

- Highly Satisfactory (HS): There were no shortcomings in the project M&E system.
- Satisfactory(S): There were minor shortcomings in the project M&E system.
- Moderately Satisfactory (MS): There were moderate shortcomings in the project M&E system.
- Moderately Unsatisfactory (MU): There were significant shortcomings in the project M&E system.
- Unsatisfactory (U): There were major shortcomings in the project M&E system.
- Highly Unsatisfactory (HU): The Project had no M&E system.

"M&E plan implementation" will be considered a critical parameter for the overall assessment of the M&E system. The overall rating for the M&E systems will not be higher than the rating on "M&E plan implementation."

All other ratings will be on the GEF six point scale.

HS	= Highly Satisfactory	Excellent
S	= Satisfactory	Well above average
MS	= Moderately Satisfactory	Average
MU	= Moderately Unsatisfactory	Below Average
U	= Unsatisfactory	Poor
HU	= Highly Unsatisfactory	Very poor (Appalling)

Annex 5. Required project identification and financial data

The evaluation report should provide information on project identification, time frame, actual expenditures, and co-financing in the following format, which is modeled after the project identification form (PIF).

I. Project identification

GEF Project ID: *[Assigned by the GEF Secretariat at pipeline entry.]*

GEF Agency Project ID:

Countries:

Project Title: *[As per the project appraisal document submitted to the GEF.]*

GEF Agency (or Agencies):

II. Dates

Milestone	Expected date	Actual date
CEO endorsement/approval		
Agency approval date		
Implementation start		
Midterm evaluation		
Project completion		
Terminal evaluation completion		
Project closing		

Expected dates are as per the expectations at the point of CEO endorsement/approval.

III. Project framework

Project component	Activity Type	GEF financing (in \$)		Co-financing (in \$)	
		Approved	Actual	Promised	Actual
1.					
2.					
3.					
4.					
5.					
6. Project management					
Total					

Activity types are investment, technical assistance, or scientific and technical analysis.

Promised co-financing refers to the amount indicated at the point of CEO endorsement/approval.

IV. Co-financing

Source of co-financing	Type	Project preparation		Project implementation		Total	
		Expected	Actual	Expected	Actual	Expected	Actual
Host gov't contribution							
GEF agency (ies)							
Bilateral aid agency (ies)							

Annex 5: Required project identification and financial data

Multilateral agency (ies)							
Private sector							
NGO							
Other							
Total co-financing							

Expected amounts are those submitted by the GEF Agencies in the original project appraisal document. Co-financing types are grant, soft loan, hard loan, guarantee, in kind, or cash.

Annex 6. Job descriptions

Job description

Post title	International Evaluation Consultant
Duration	35 work days spread over 3 months
Started date	1 July 2011
Duty station	Home based and travel to Vienna and the Philippines

Duties

The consultant will evaluate the projects according to the Terms of reference. S/he will act as leader of the evaluation team and will be responsible for preparing the draft and final evaluation report, according to the standards of the UNIDO Evaluation Group. S/he will perform the following tasks:

Main duties	Duration/ location	Deliverables
Review project documentation and relevant country background information (national policies and strategies, UN strategies and general economic data...); determine key data to collect in the field and prepare key instruments (questionnaires, logic models...) to collect these data through interviews and/or surveys during and prior to the field missions Assess the adequacy of legislative and regulatory framework to phase out POPs	3 days Home base	List of detailed evaluation questions to be clarified; questionnaires/ interview guide; logic models; list of key data to collect, draft list of stakeholders to interview during the field missions Brief assessment of the adequacy of the country's legislative and regulatory framework to phase out POPs: to be verified further during the field visit
Briefing with the UNIDO Evaluation Group, project managers and other key stakeholders at HQ	1 days Home base (telephone interviews)	Interview notes, detailed evaluation schedule and list of stakeholders to interview during the field missions Division of evaluation tasks with the National Consultant
Prepare inception report and discuss with UNIDO EVA	1 day	inception report
Conduct field mission to the Philippines in July/August 2011	10 days (including travel)	Presentations of the evaluation's initial findings, draft conclusions and recommendations to

Main duties	Duration/ location	Deliverables
	days)	stakeholders in the Philippines at the end of the missions. Agreement with the National Consultant on the structure and content of the evaluation report and the distribution of writing tasks
Present overall findings and recommendations to the stakeholders at UNIDO HQ (incl. travel)	3 days Vienna	Presentation slides
Prepare the evaluation report according to TOR and template provided by UNIDO EVA Coordinate the inputs from the National Consultant and combine with her/his own inputs into the draft evaluation report	10 days Home base	2 Draft evaluation report Brief input report to country evaluation
Provide inputs to the POPs thematic evaluation as agreed with team leader and UNIDO EVA	5 days, home base	
Revise the draft project evaluation reports based on comments from UNIDO Evaluation Group and stakeholders and edit the language and form of the final version according to UNIDO standards	2 days Home base	Final evaluation report
TOTAL	35 days	

Qualifications and skills:

- ✓ Advanced degree in environmental science, chemistry, development studies or related areas
- ✓ **Extensive knowledge and experience in POPs, the Stockholm Convention and environmental projects**
- ✓ **Knowledge and experience in the field of evaluation (of development projects)**
- ✓ Experience in GEF projects and knowledge of UNIDO activities an asset
- ✓ Working experience in the Philippines or South East Asia an asset.

Language: English

Absence of conflict of interest:

According to UNIDO rules, the consultant must not have been involved in the design and/or implementation, supervision and coordination of and/or have benefited from the programme/project (or theme) under evaluation. The consultant will be requested to sign a declaration that none of the above situations exists and that the consultants will not seek assignments with the manager/s in charge of the project before the completion of her/his contract with the Evaluation Group.

Job description

Post title	National Evaluation Consultant
Duration	25 work days
Started date	15 July 2011
Duty station	Home based, travel within the Philippines

Duties

The consultant will participate and contribute to the project evaluation according to the evaluation Terms of Reference. S/he will be a member of the evaluation team, work under the supervision of the International Evaluation Consultant and carry out the task assigned to him/her by the International Evaluation Consultant, including the following tasks:

Main duties	Duration/ location	Deliverables
<p>Review project documentation and relevant country background information (national policies and strategies, UN strategies and general economic data...)</p> <p>Support the project management and the Philippines UNIDO Office in planning the evaluation field mission and contacting concerned organizations to prepare the evaluation programme</p>	<p>5 days Home base</p>	<p>List of detailed evaluation questions to be clarified</p> <p>Evaluation mission programme</p>
<p>Carry out meetings, visits and interviews of stakeholders according to the evaluation programme and facilitate the work of the evaluation team in the Philippines (including acting as interpreter if necessary)</p> <p>Participate in drafting the main conclusions and recommendations, and present them to stakeholders in accordance with the instructions of the International Evaluation Consultant</p>	<p>10days Philippines</p>	<p>Notes, tables; information gathered on issues specified in TOR</p> <p>Draft conclusions and recommendations to stakeholders</p>
<p>Contribute to the draft report as assigned by the International Evaluation Consultant</p>	<p>8 days Home base</p>	<p>First draft of chapters on the country background and other inputs into the draft evaluation report as agreed with the</p>

Main duties	Duration/ location	Deliverables
		International Evaluation Consultant
Revise the draft chapters based on comments from UNIDO Evaluation Group and stakeholders	2 days Home base	Final evaluation report
TOTAL	25 days	

Qualifications:

- ✓ Advanced degree in environmental science, chemistry, development studies or related areas
- ✓ **Knowledge of and experience in POPs or related areas (e.g. ODS, Chemicals management)**
- ✓ Familiarity with the institutional context of the project (environmental authorities, NGOs, etc.)
- ✓ Experience in evaluation of environmental projects
- ✓ Knowledge of GEF and UNIDO technical cooperation activities an asset.

Language: English and Filipino

Absence of conflict of interest:

According to UNIDO rules, the consultant must not have been involved in the design and/or implementation, supervision and coordination of and/or have benefited from the programme/project (or theme) under evaluation. The consultant will be requested to sign a declaration that none of the above situations exists and that the consultants will not seek assignments with the manager/s in charge of the project before the completion of her/his contract with the Evaluation Group.

Annex 2: Documents consulted

1. Project document
2. Progress reports
3. Project implementation reports
4. Reports of consultants
5. Reports of workshops
6. Financial reports
7. Co-financial report of PAFC
8. Minutes of PSC meetings and technical working group meetings
9. Commissioning report of IPM / Kinetrics
10. MoUs / MoAs between DENR and PCB owners
11. MoU between NRDC and DENR
12. PAFC board resolution exiting from project
13. Letters of awards
14. Exchange letters between stakeholders of project (UNIDO, DENR, IPM, PAFC)

Annex 3: Schedule of interviews and list of persons interviewed**Schedule of first Evaluation Mission: 22-29 August 2011**

Date	Activity and contact persons	Venue
22 August 2011 10:00 a.m.- 2.00PM	Entry Meeting with UNIDO Representative (Dr. Suresh Chandra Raj)	UNFPA Conference Room 30 th Floor, RCBC Plaza, Makati City
23 August 2011 8:15 a.m. – 8:45 a.m.	Meeting with GEF Focal Person (Atty. Analiza Teh)	EMB Conference Room, AQMTC Building, DENR Compound, Quezon City
8:45 a.m. – 9:30 a.m.	Meeting with EMB Officials (Dir. Juan Miguel Cuna, Asst. Dir. Gilbert Gonzales)	EMB Conference Room, AQMTC Building, DENR Compound, Quezon City
10:00 a.m. – 1:00 p.m.	Meeting/Presentation with Project Team (EMB – Mr. Edwin Navaluna, PAFC – Mr. Clovis Tupas, NGO – Mr. Manny Calonzo)	EMB Conference Room, AQMTC Building, DENR Compound, Quezon City
2:00 p.m. – 3:00 p.m.	Interview/Meeting with EMB Project Coordinator and EMB Regional Office (Mr. Edwin Navaluna)	EMB Conference Room, AQMTC Building, DENR Compound, Quezon City
3:30 p.m. – 4:30 p.m.	Interview/Meeting with NGOs (Mr. Manny Calonzo and Mr. Rey Palacio)	EcoWaste Coalition Office Unit 329 Eagle Court Condominium, Matalino St., Quezon City
24 August 2011 10:00 a.m. – 11:30 a.m.	Interview/Meeting with PAFC (Mr. Clovis Tupas)	PAFC Office 2 nd Floor, Lapanday Center, Pasong Tamo Ext., Makati City
1:00 p.m. – 3:00 p.m.	Interview/Meeting with IPM Construction and Development Corporation (Mr. Arturo Gungon, Mr. Ogie Quintos and Ms. Tere Vinluan)	IPM-CDC Office Unit 804, Ortigas Bldg., Ortigas Ave., Pasig City
25 August 2011 08:00 a.m. – 09:00 a.m.	Meeting with National Power Corporation (Ms. Resy Petel)	BIR Road cor. Quezon Ave., Diliman, Quezon City
9:15 a.m. – 10:30 a.m.	Meeting with Ms. Cherry Rivera, Consultant on Business Plan and EIA	EMB Conference Room, AQMTC Building, DENR Compound, Quezon City

Annex 3: Schedule of interviews and list of people interviewed

11:00 a.m. – 12:00 p.m.	Meeting/Interview with Meralco (Mr. Jesus Malana)	Meralco Office Meralco Building, Meralco Ave., Pasig City
2:00 p.m. – 3:00 p.m.	Meeting with World Bank iPOPs Project (Mr. Gerry Parco)	Palawan Room, World Bank Philippines Office, 20 th Floor, Taipan Place, F. Ortigas Jr. Road, Pasig City
4:30 p.m. – 5:30 p.m.	Meeting with Ms. Louernie de Sales, Consultant on Environmental Monitoring	EMB Conference Room, AQMTC Building, DENR Compound, Quezon City
26 August 2011		
7:00 a.m.	Departure from Manila	
7:00 a.m. – 8:30 a.m.	Travel to Clarkfield, Pampanga	
8:30 a.m. – 9:30 a.m.	Meeting with CRL Laboratory (Ms. Carmela Capule)	Bldg. 2, Berthaphil Compound 1, Berthaphil Philippines Industrial Park, Jose Abad Santos Ave., Clark Freeport Zone, Clarkfield, Pampanga
09:30 a.m. – 11:00 a.m.	Travel to Mariveles, Bataan	
11:00 – 1:00 p.m.	Site visit in Non-Com POPs Facility	PAFC Industrial Park Roman Highway, Mariveles, Bataan
1:00 p.m. – 3:00 p.m.	Travel to Marilao, Bulacan	
3:00 p.m. – 4:00 p.m.	Site visit to Globecare Storage Facility (Mr. Joseph Gregory How)	Ledesma Compound, Brgy. Patubig, Marilao, Bulacan
29 August 2011		
3:00 p.m.	Exit meeting with UNIDO	UNICEF Conference Room 31 st Floor, RCBC Plaza, Makati City

Schedule of second Evaluation Mission: 7 - 11 September 2015

Date	Activity and contact persons	Venue
7 September 2015 9:30 a.m.-12.00PM	Entry Meeting with UNIDO Representative (Dr. Fakhruddin Azizi) Ms Leah Texon, NPM	UNIDO Country office, Makati City
8 September 2015 9.30 a.m. – 10:00 a.m.	Director EMB, Asst. Secretary Juan Miguel Cuna Assistant Director EMB, Eva Ocfemia	DENR / EMB offices
10.30 am – 12.00 pm	Manny Calonzo (Eco-waste coalition) Rey Palacio (Eco-waste coalition) Mr Solon Rativo (DENR/EMB) Edwin E Punongtayan Ecoedge Yeu S Vinlran project / IPM E Navaluna EMB Ma Rosalina V Ablang PMD – FASCO	DENR / EMB Offices
9 September 2015	Site visit to facility, Bataan, cancelled Facility was closed	
10 September 2015 10.30 am – 11.45 am	Meeting with Renato Cruz, Chief Environmental Quality Division, Environmental Management Bureau	DENR/EMB offices
1:30 p.m. – 2.30 pm	Dir. Domingo Director for Foreign Assisted Projects,	DENR / EMB offices
2.30 pm – 3.00 pm	Undersecretary Jonas Leones - Undersecretary for Environment and International Affairs, DENR	DENR / EMB offices
11 September 2015 10.00 am – 12.00 pm	Exit meeting with UNIDO country representative Exit Meeting with UNIDO (Dr. Fakhruddin Azizi) Ms Leah Texon, NPM	UNIDO office, Makati City
12.45 pm – 1.30 pm	Eng. Ogie V. Quintos, Senior Vice President, IPM	IPM Offices
2.00 pm – 3.30 pm	Exit meeting with DENR/EMB Mr Solon Rativo (DENR/EMB) Edwin Domingo (DENR) + 5 DENR officers	DENR / EMB offices