CAPACITY BUILDING FOR ENVIRONMENTALLY SOUND PCBs MANAGEMENT IN MONGOLIA

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

GEF full-sized project
P.No: GEF/MON/09/001
Report version: FINAL DRAFT



Mid-term Evaluation Report

Prepared for: UNIDO
Prepared by: ELMEDINA KRILASEVIC, International Evaluation Consultant

GEF Focal Area: Persistent Organic Pollutants
GEF Strategic Program: POPs-SP1, POPs-SP2
GEF full-sized Project

December, 2012

Executive Summary

1.The Capacity Building for Environmentally Sound PCBs Management in Mongolia Project is a GEF Full-sized Project, initiated by UNIDO and Government of Mongolia as part of Mongolia's efforts to fulfill the requirements of Stockholm Convention to phase-out and eliminate the PCBs in Mongolia. The total Project cost is US$ 8.21 million, which includes US$ 2.65 million in GEF financing (excluding Project Preparation Grant of US$ 130,000), and total co-financing (in cash and in-kind) by the Government of Mongolia and other stakeholders of US$ 5.56 million. UNIDO is the GEF Implementing Agency, and the Mongolian Ministry of Nature and Environment is the Executing Agency. The project was approved by GEF in April 2008 and endorsed by GEF CEO in April 2009. Project implementation started in July 2009 and closing is scheduled for August 2013.

2.Mid-term evaluation was foreseen in the Project Document. The mid-term evaluation was initiated by UNIDO during the 4th year[1] of project implementation, a year later than foreseen in the project milestones. This mid-term evaluation reviews the actual performance and progress towards results of the project against the planned project activities and outputs, based on the relevant evaluation criteria: design, relevance, efficiency, effectiveness, and sustainability.

3.The evaluation was carried out in the period September - November 2012 by an independent consultant, and consisted of the inception phase, the mission phase (Visit to Mongolia on 8 -13 October 2012) and final reporting phase. Data and evidence were collected based on a participatory mixed-methods approach which included: (i) desk review of reports and documents collected prior and during the field visit, (ii) interviews with project staff and stakeholders, (iii) observations from the field.

4.This evaluation has been carried out solely by an international evaluator in English language, since the national expert was not identified. The national project team put an intense effort in bridging this gap by filling out the details on the specific country context, providing translations of the documents written in Mongolian and translating during the meetings with non-English speaking stakeholders.

5.As stated in the Project Document, the project's objective is to "create capacity for environmentally sound management (ESM) of PCBs for preventing PCBs releases from the electrical equipment, avoiding cross-contamination of electrical equipment and disposing of 1,000 tons of PCBs wastes. This objective will be achieved through a combination of strategies, including legislative and regulatory development, capacity building, public education, technology transfer, training and technical support."

6.Specifically, the Project elaborated two substantive Outcomes:

7.Outcome 1: to result in capacity building for implementing the PCBs related measures of Stockholm Convention. Capacity building will be carried out in regulatory and institutional development, strengthen-

[1] It was initiated in the 2nd year of the project, but delayed due to the unavailability of a potential evaluation consultant.

ing PCBs monitoring capabilities, enhancing public information, awareness and education, as well as by introducing socio-economic assessment and comprehensive data management.

8.Outcome 2: to result in environmentally sound management (ESM) of PCB-containing electrical equipment. To achieve this outcome, the PCBs inventory will be completed, ESM for PCB-containing equipment in use and PCBs disposal as well as ESM for PCBs will be introduced and applied.

9.In addition, a process Outcome was identified related to provision of ongoing project management, monitoring, and evaluation, through a dedicated Project Team and a Project Steering Committee.

10.**Relevance**. Based on the assessment of project relevance to local and national priorities and policies, priorities related to relevant international conventions, and to the GEF's strategic priorities and objectives, overall project relevance is considered to be SATISFACTORY.

11.**Design**. Project design is rated as MODERATELY SATISFACTORY, with strongest side being strong participation of local stakeholders in project identification, the Logical Framework and indicators are not developed adequately to allow for proper adaptive management and monitoring of project results.

12.**Effectiveness.** The project's overall objective is "to create capacity for environmentally sound management (ESM) of PCBs for preventing PCBs releases from electrical equipment, avoiding cross-contamination of electrical equipment and disposing of 1,000 tones of PCBs wastes". As of the mid-term evaluation, it is not clear that the project will be able to achieve the overall objectives, in spite of clear achievement of a number of the key outputs, mainly due to delays in start up of the PCB cleanup process. Effectiveness for the progress towards achievement of the overall project objective and expected outcomes is rated as MODERATELY SATISFACTORY, but only under condition that the non-cost project extension is approved for the project in order to allow the necessary time to perform actual decontamination of PCB-containing equipment under the project. Effectiveness of Project Outputs is rated MODERATELY SATISFACTORY, in view of tangible results in delivering planned activities/inputs.

13.**Efficiency.** While it is not possible to make a full assessment of the cost-effectiveness of project results and that the terminal evaluation is expected to further review and assess this aspect. Reviewing the project management and financial management procedures, and results produced thus far, the project efficiency is rated satisfactory. There are no significant risks for cost-effectiveness noted at this time.

14.**M&E**. Various review and evaluation processes, specific reporting requirements, and responsibilities are sufficiently identified in the PD for the M&E. However, the shortcomings of the indicators, targets and baseline did not allow for comprehensive adaptive management and make evaluation of the project extremely difficult.

15.The assessment found numerous deficiencies in the implementation of the M&E system, which are partly the result of shortcomings of the framework, occurred during the design stage. The project did not make use of management tools to monitor progress, workplans were very basic, and there is no evidence that they were updated regularly. The semi-annual and annual project progress reports were submitted to MNET, but only in Mongolian language. The annual progress reports submitted in English do provide details of the year-on-year achievements of the project, but do not link the narrative back to the outcomes

elaborated in the logical framework. Annual Project Implementation Reviews (PIRs) were not undertaken, and none of the annual Tripartite Reviews (which are mandated by GEF) were conducted. The Mid-Term Review (MTR) was delayed by over one year, placing it near the end of project implementation, and therefore allowing very limited time to adjust the project based on MTR findings.

16.The budget provided for M&E at the planning stage was sufficient. To-date, adequate funding has been provided for M&E, but only limited monitoring activities have been undertaken.

17.Project management has been mainly carried out by the project management unit, and s considered appropriate, although the range of unit's responsibilities is relatively wide.

Summary of Project Mid-term Evaluation Ratings

Criterion	Evaluator's Rating
1. Attainment of project objectives and results (overall rating)	**MS**
Design	MS
Relevance	S
Effectiveness	MS
Efficiency	S
2. Sustainability of project outcomes (overall rating)	**ML**
Financial sustainability	L
Socio-political sustainability	L
Institutional framework and governance sustainability	ML
Environmental sustainability	L
3. Monitoring and Evaluation	**U**
M&E design	MU
M&E implementation (use for adaptive management)	U
Budgeting and funding for M&E activities	S
Project management	S
4. UNIDO specific ratings	MS
Quality at entry /Preparation and readiness	MS
Implementation approach	S
UNIDO supervision and backstopping	MS

18.Summary of midterm evaluation conclusions are as follows:

19.For the remainder of project implementation within the component 1 of the Project, it is recommended to focus on creating capacities for the enforcement of passed regulations on PCBs in Mongolia, manly

through providing practical tools to the inspection on how to enforce the legislation. In that respect, some practical guidelines on how to carry out the inspections, carry out the sampling of the oil for PCB content and defining the responsibilities of all involved parties in the inspection process would contribute greatly to enforcing the PCB regulation and a functioning ESM system.

20. It is recommended to adjust the implemented trainings to reaching not just the quantity, but also to achieve a well-targeted trainings, and to measure the level of capacity built.

21. It is important to ensure that accreditation of laboratories is completed in the remainder of project implementation so that test results are accepted according to international standards, to allow fulfillment of SC reporting requirements.

22. The project activities on stakeholder capacity development could benefit from targeted assistance for identification and training on health and safety for the workers in the electricity sector who handle directly the equipment, assuming project resources could be allocated for this purpose.

23. Considering that the project is already at its later stage, the usefulness of project component related to socio-economic assessment[2] and mitigation measure seems low. On the other hand, it would be beneficial, and recommended by this project evaluation, to focus the project resources into a different output contributing to the same outcome. Targeted capacity building for health and safety measures for workers handling the electrical equipment would be suitable alternative practically contributing to the same outcome and also contributing to the Output 1.4.

24. The most critical aspect of the whole project that is also directly related to the rating of the overall success of the project is treatment of 1,000 tons of PCB containing equipment. No-cost project extension is fully supported by this evaluation, in order to allow treatment of PCB containing equipment under the project, for which all the enabling activities have already been carried out and operations are about to start. Obtainment of project extension directly affects the rating of project's effectiveness for the mid-term evaluation.

25. In order to implement corrective actions with regards to the most critical observation of mid-term evaluation - M&E design and implementation - and also to improve the conditions for the final evaluation, the revision of all logical framework indicators in order to apply SMART criteria would be recommended.

Elmedina Krilasevic, International Evaluation Consultant
email: elmedina.krilasevic@gmail.com, elmedina.krilasevic@enova.ba
phone: +378 61 324 747

[2] It was discussed to combine the socio-economic impact assessment with the similar task under the NIP update project.

Table of Contents

I. Evaluation Objectives, Methodology and Process

Purpose of the Evaluation

26. According to GEF and UNIDO evaluation policy and practice, mid-term evaluations are a required element of the monitoring and evaluation plan for GEF funded projects. Mid-term evaluation was foreseen in the Project Document of the Capacity Building for Environmentally Sound PCBs Management in Mongolia (Mongolia PCBs Project). The mid-term evaluation was initiated by UNIDO during the 4th year of project implementation, a year later than foreseen in the project milestones (Terms of Reference: Annex 1. Required Project Identification and Financial Data).

27.This mid-term evaluation reviews the actual performance and progress towards results of the project against the planned project activities and outputs, based on the relevant evaluation criteria: design, relevance, efficiency, effectiveness, and sustainability. The evaluation assesses project results based on the project objectives, as well as any unanticipated results. The evaluation identifies relevant lessons for other similar future projects dealing with the issue of PCBs removal and phase-out based on the requirements of Stockholm Convention in Mongolia and elsewhere. The evaluation also provides recommendations for the remaining project implementation period, as necessary and appropriate.

28.In addition to assessing the main GEF evaluation criteria, the evaluation provides required ratings on key elements of project design and implementation. Where possible and relevant, the evaluation assesses the project in the context of key GEF operational principles, e.g., country drivenness, and stakeholder ownership.

Evaluation Approach

29.The evaluation was carried out in the period September - November 2012 by an independent consultant, and consisted of the inception phase, the mission phase (Visit to Mongolia on 8 -13 October 2012) and final reporting phase. Data and evidence were collected based on a participatory mixed-methods approach which included: (i) desk review of reports and documents collected prior and during the field visit, (ii) interviews with project staff and stakeholders, (iii) observations from the field.

30.The evaluation the GEF evaluation parameters have been operationalized into an evaluation matrix (see Annex 5) containing the evaluation questions, sources of verification and relevant indicators that were examined during the evaluation. As required by the GEF and UNIDO, the project is rated based on the overall ratings table comprised of criteria for attainment of project objectives, sustainability of project outcomes, monitoring and evaluation requirements and specific UNIDO requirements.

Information Sources

31.Written documents and reports were mainly delivered by the national project team in electronic format and in English language prior to the evaluation mission. Some documents were collected during the evaluation mission or delivered by the project team after the mission on the evaluator's request (List of available documents is given in Annex 4 - List of Documents Reviewed). Interviews with project stakeholders were held in Ulaanbaatar and Zamiin Uud during the evaluation mission. Some interviews with stakeholders outside Mongolia were held by phone (the list of interviewed stakeholders is provided in Annex 3). The site visit was made to the location of new facility for PCB decontamination outside of Ulaanbaatar. Also, the evaluator observed the trainings organized for the customs inspectors at one of the biggest border crossings in Mongolia in the town Zamiin Uud, bordering with China (see Annex 6).

Encountered Limitations

32.All evaluations face challenges of gathering the most reliable data and building a holistic picture of usually complex projects with limited time and resources. This evaluation has been carried out solely by an international evaluator in English language, since the national expert was not identified. The national project team put an intense effort in bridging this gap by filling out the details on the specific country context, providing translations of the documents written in Mongolian and translating during the meetings with non-English speaking stakeholders. Having in mind the limitations and challenges presented by the lack of the national expert, the credibility and accurateness of the evaluation process was not jeopardized.

Intended Use of the Evaluation Report

33.This evaluation was conducted in accordance with GEF and UNIDO monitoring and evaluation policies and procedures and in line with United Nations Evaluation Group norms and standards.

34.The intended users of this mid-term evaluation are the project team and UNIDO Stockholm Convention Unit. As relevant, the mid-term evaluation report may be disseminated with additional stakeholders to share lessons learned and recommendations.

II. Country and Project Background

Country

35.Situated in Northeast Asia between Russia and China, with a population of 2.8 million people and covering nearly 1.6 million square kilometers, Mongolia is the 19th largest country in the world. It is landlocked, dominated by sparsely populated steppes and semi-deserts, and subject to extreme variations in weather, especially harsh winter droughts. Roughly one-third of the population lives in the capitol, Ulaanbaatar; nearly 40% of the population is engaged in livestock herding in the country's extensive pasturelands.

36.The economy had traditionally been dominated by herding and livestock production. But the country possesses major reserves of over 80 different minerals, including copper, gold, coal, and crude oil. Driven by significant foreign investment in the mineral sector, Mongolia in recent years has become one of the world's fastest growing economies, reporting 17.5% growth in 2011, and the 16.7% in the first quarter of 2012 (growth in 2012 is predicted at 15% (Asian Development Bank and Economist Intelligence Unit)). This growth has translated into some benefits for the people of Mongolia - poverty has been on a downward trend over the past decade, decreasing from 39.2 percent in 2010 to 29.8 percent in 2011. Substantial progress has also been made in regard to several Millennium Development Goals (MDGs) at the national level, though significant regional disparities prevail.

PCBs and Electricity Sector

37.Mongolia ratified the Stockholm Convention (SC) of Persistent Organic Pollutants (POPs) on 20 April 2004 and approved its National Implementation Plan (NIP) on 3 May 2006. Considering the provisions of the relevant international commitments, The NIP reviewed the particular POPs issues of the country and developed detailed strategies and action plans, including timetables and costing of their implementation.

38.The NIP identified Polychlorinated Biphenyls (PCBs) as one of the top priorities in managing POPs in the country. It identified the need for conducting a thorough inventory on PCBs, gradually decontaminating the PCB-containing equipment and their final disposal by the year of 2020.

39.PCBs have never been produced in Mongolia. The period of the large-scale electrification campaign throughout the country from 1960 to 1980 forced the import of a large number of oil-containing electrical equipment. The NIP concluded that 96-98% of all transformers used in Mongolia might have PCB-containing oils. During the POPs preliminary inventory, over 500 pieces of equipment were analyzed with Test Kit CHLOR-N-OIL, which revealed that 7.5 percent of the PCB-contaminated transformers contained above 50ppm of PCBs.

40.The significant quantities of PCB-containing electric equipment require phasing-out, replacement and disposal. The preliminary inventory in 2008 revealed that there are no disposal facilities for environmentally sound destruction of PCB-containing equipment and wastes. The Central Region Electricity Transmission Grid State Owned Stock Company (now called National Power Transmission Company - NPTC) is the largest electrical company in the country and owns approximately 80% of relevant electrical equipment.

Institutional and Regulatory Framework for PCBs

41.The institutional framework for environmentally sound management (ESM) of PCBs was initiated during the NIP development. However, there were no specific regulations, standards and guidelines addressing PCBs and management of PCB-containing electric equipment to define a progressive phase-out and elimination plan prior to project implementation. Also, there was is a lack of human and technical capacities for PCBs monitoring, especially proper laboratory services for PCBs analysis.

Short Project Overview

42.The project was initiated by UNIDO and Government of Mongolia as part of Mongolia's efforts to fulfill the requirements of Stockholm Convention to phase-out and eliminate the PCBs in Mongolia. It is a 4-year full-sized project. The project was approved by GEF in April 2008 and endorsed by GEF CEO in April 2009. Project implementation started in July 2009.

Table 1 Summary Project Information

GEFSEC PROJECT ID	3542
GEF AGENCY PROJECT ID	1.GF/MON/09/001
1.COUNTRY	Mongolia
PROJECT TITLE	Capacity building for environmentally sound PCBs management
GEF AGENCY	UNIDO
OTHER EXECUTING PARTNER(S)	Ministry of Nature & Environment (MNE)
GEF FOCAL AREA(S)	Persistent Organic Pollution
GEF-4 STRATEGIC PROGRAM(S)	POPs-SP1, POPs-SP2
GEF GRANT	2,650,000 USD
PROJECT COST TOTAL	8,208,318 USD

43.Based on the interviews with the stakeholders, the project was identified during the NIP implementation and it was developed on a highly participatory manner with relevant national institutions involved.

Deadlines and milestones

44.The information is provided by UNIDO in the ToR for the assignment and is as follows:

Table 2. Mongolia PCBs Dates

Milestone	Expected Date	Actual Date
Agency Approval date	**May 2009**	**May 2009**
Implementation start	**July 2009**	**July 2009**
Mid-term evaluation	**July 2011**	**September 2012**
Project completion	**July 2013**	**July 2013**
Terminal evaluation completion	**August 2013**	**August 2013**
Project closing	**August 2013**	**August 2013**

45.The Project encountered several delays during implementation, among which the most severe delay is related to the selection process and set-up of the facility for decontamination of PCB-containing equipment, and therefore the start of decontamination operations. Even though it is considered in general that the project is on the right path to achieve the goals at the time of the mid-term evaluation, the time frame for project completion is unrealistic if the project is to be successful. This issue will be elaborated in details in the assessment of project effectiveness and efficiency.

Project Stakeholders

46.According to multiple sources involved in the project design phase, a wide range of stakeholders were consulted during the design The table below lists the main stakeholders, and details their role in project preparation and implementation.

Table 3 Project Stakeholders

PROJECT STAKEHOLDERS
Government of Mongolia
NATIONAL EXECUTING AGENCY/COUNTERPART **Ministry of Nature, Environment and Green Development (former Ministry of Nature, Environment and Tourism)**
NATIONAL COOPERATING AGENCY **Ministry of Mineral Resources and Energy**
NATIONAL COUNTERPART/CO-FUNDER/NATIONAL HOST COMPANY FOR PCBS DECONTAMINATION OPERATION **National Power Transmission Company (former Central Region Electricity Transmission Grid Stock Company)**
NATIONAL COUNTERPART/CO-FUNDER/NATIONAL HOST COMPANY FOR PCBS DECONTAMINATION OPERATION **Ulaanbaatar Electricity Distribution Company**
COUNTERPART/HOST FOR PCBS LABORATORY **Institute of Chemistry and Chemical Technology**
GEF and Stockholm Convention Focal Points
General Agency: Specialized Inspection of Mongolia
Workers in the electricity sector
Private sector dealing with mining and food production
Relevant NGOS and professional associations

Implementing arrangements

47.UNIDO is responsible for project implementation as the GEF project implementing agency, while the executing agency is the Ministry of Nature and Environment of Mongolia. After the elections in Mongolia in 2012, the executing ministry has been transposed into the Ministry of Nature, Environment and Green Development (MNEGD). For the

purpose of implementing the project, a project implementation unit has been established within the MNEGD, consisting of the National Project Coordinator, national consultants and technical staff, as well as the Project Director from the MNEGD administration (these are also referred to as national project team). Even though the unit was primarily established by the project to support the implementation, this unit performs other functions for the MNEGD that are not directly and indirectly related to the project[3]. Through contract between UNIDO and UNDP, the services of UNDP's country office are used for financial administration and disbursement of project funds at the country level.

48.The Project has a Steering Committee, comprised of 9 members belonging to different Government agencies and ministries (mainly the MNEGD and Ministry of Mineral Resources and Energy (MMRE)). The Steering Committee convened twice since the project has started. Committee members participated in the selection of the technology for PCB management supported by the project.

[3] The functions performed by the unit are mostly directly related to the project, namely the management of the toxic and hazardous chemicals including POPs.

III. Project Assessment

Relevance

49.The assessment of relevance takes into consideration the project's contribution to the achievement of national objectives, implementation of the Stockholm Convention obligations, GEF strategic priorities, and the project's relevance to the UNIDO mandate.

Relevance to national priorities

50.Mongolia is a signatory party to the Stockholm Convention and shows commitment to reduce the use and phase-out POPs on its territory, in order to mitigate environmental degradation and adverse consequences to human health. PCBs were identified as one of the top priorities in managing POPs in the country's NIP. The NIP also identified the need for conducting a thorough inventory on PCBs, gradually withdrawing the PCBs-containing equipment, and their final disposal. The NIP also highlighted the serious weaknesses of the current hazardous waste management practices and the need for institutional and regulatory development, capacity building, and public awareness in the area of POPs.

51.Project objectives are in line with the Concept for National Safety (1994, Parliamentary resolution No. 56), which promotes activities increasing ecological safety. The Sustainable Development Plan for the 21st Century was enacted by the governmental resolution No. 85 in 1998. Planned activities are in line with its objectives to minimize pollution and facilitate environmental protection. The Millennium Development Goals enacted by the Parliament in April 2005 by resolution No. 25, facilitates the sound management of wastes and maintenance of the environmental quality, and promotes environmental education and community participation. The project has a strong linkage with the Environmental Law, especially its provisions on waste management. It was enacted in 1995 and revised several times. The latest revision was undertaken in 2005, when waste management received special attention and environmentally sound disposal initiatives were encouraged.

52.All project stakeholders, including government and electricity sector representatives, as well as other stakeholders who were involved, find the project fully relevant for solving the current issues of PCB contamination and expressed the importance of the project in reaching that goal.

Relevance to GEF priorities and Stockholm Convention

53.During the identification and design phase, the project was found consistent with POPs - SP-1 and POPs-SP2. The projects goals and objectives are fully consistent with the obligations under the Stockholm Convention. The project is directly targeted to implement the measures of Article 6 of the SC, indicating measures to reduce or eliminate releases from stockpiles and wastes of POPs, as well as the Article 10 - Public information, awareness and education, especially point a, b, e, f and g of the Article. Also, the project goals and activities are consistent and are aimed to significantly contribute to fulfilling the requirements of Annex 1, part II of the SC explicitly providing guidance on treatment of PCBs.

Relevance to UNIDO's mandate

54.Since UNIDO's mandate is to support sustainable industrialization, having strong core competences in dealing with the chemical polluting substances, and especially since it supports the implementation of the SC, the project is well in line with the UNIDO's mandate, core competences and can benefit from this organization's comparative advantage as the GEF implementing agency in this sector.

Based on the assessment of project relevance to local and national priorities and policies, priorities related to relevant international conventions, and to the GEF's strategic priorities and objectives, **overall project relevance is considered to be SATISFACTORY**.

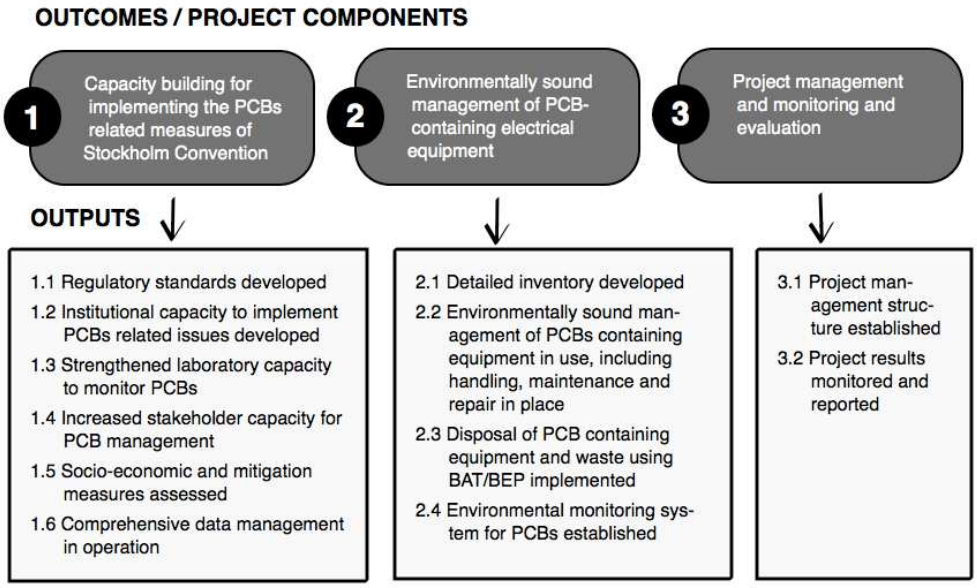
Design

55.Assessment of project design evaluates the project's adequateness to address the problems. GEF-supported projects are required to have and are evaluated against a clear thematically focused development objective, attainment of which can be determined by a set of verifiable indicators. The projects are expected to be prepared on the participatory manner and with contributions of national stakeholder and/or beneficiaries. It is required to formulate the project based on the logical framework approach.

Project objectives, outcomes and outputs

56.The project's overall objective is to create capacity for ESM of PCBs for preventing PCBs releases from the electric equipment, avoiding cross-contamination of electric equipment and disposing of 1,000 tons of PCBs wastes. The Project Document defines the project purpose to consolidate ongoing and planned activities in implementing Mongolia's obligations for reducing and eliminating PCBs in the electric sector through: (a) developing appropriate legislation, (b) providing capacity building for key stakeholders, (c) developing an Environmentally Sound Management (ESM) system for electric equipment and incorporating it into a national policy framework, (d) gradual phase-out of PCB-containing equipment (transformers and capacitors), (e) eliminating PCBs cross-contamination, (f) disposal of all PCB-wastes, (g) strengthening environmental monitoring capacities and (h) identifying the most appropriate mitigation measures to reduce social costs of complying with the Stockholm Convention.

57.The project was approved by GEF in 2009 based on the Project Identification Form (PIF) from 2008, which outlined project objective, outcomes and outputs. This document also served as a basis for formulation of objectives and outputs during the preparation of Project Document, approved by UNIDO and Government of Mongolia in 2009. The evaluation utilizes both documents as reference points for defining the baseline for project evaluation, in an effort to overcome the lack of baseline data in PD, necessary for the mid-term evaluation. Image 1 shows project outputs as defined in the PD.



58.**Image 1** Project outputs defined in Project Document (PD)

59.While the PD lacks an accurately defined project hierarchy, the PIF provides clearer and more accurate definition of project outputs and outcomes. For easier use, the PD outputs are linked with corresponding PIF outcomes and expected outputs, and are shown in Table 2.

Table 4 Projects Outputs and Outcomes in PD and PIF

Outputs in PD	Corresponding Outcomes in PIF	Expected Outputs in PIF
Component 1: Capacity building for implementing the PCBs related measures of SC		
1.1 Regulatory standards developed	PCBs related legislations are in place, enforced by authorities and followed by industries	POPs-related legislation, norms, enforcement measures addressing SC, ESM system
1.2 Institutional capacity to implement PCBs related issues developed	Institutional capacity to implement PCBs related issues	Locally adjusted technical guidelines, 200-400 people trained (environmental inspectorates, specialists, NGOs)
1.3 Strengthened laboratory capacity to monitor PCBs	Authorities can monitor compliance to PCBs-related legislations	One laboratory strengthened, Staff trained
1.4 Increased stakeholder capacity for PCB management	Acceptance and compliance to the ESM system, reduced exposure/contacts of human beings to PCBs	Information materials up to 2,000 informed people in details for farther actions
1.5 Socio-economic and mitigation measures assessed	Health of population is protected and medical costs reduced by preventing contacts with PCBs; additional contamination of soil and water resources is prevented	Socio-economic assessment and mitigation measures
1.6 Comprehensive data management in operation	PCBs reporting obligations of the SC are met	PCBs database with 10,000 -12,000 entries
Component 2: Environmentally sound management of PCB-containing electrical equipment		
2.1 Detailed inventory developed	Complete country inventory, PCB situation is understood.	Inventory of 10,000-12,000 electrical equipment
2.2 Environmentally sound management of PCBs containing equipment in use, including handling, maintenance and repair in place	PCBs are not released into the environment from electrical equipment, transformers are not cross-contaminated	ESM system, operational guidelines, work instructions for all stakeholders are in place, leaking equipment are withdrawn and prepared for disposal
2.3 Disposal of PCB containing equipment and waste using BAT/BEP implemented	PCBs waste problem is solved	1,000 tons of PCB-containing equipment and/or wastes are disposed of
2.4 Environmental monitoring system for PCBs established	Increased compliance to PCB-related obligations	100 inspections
3. Project Management		
3.1 Project management structure established	-	-
3.2 Project results monitored and reported	-	-

Project focus

60.Project activities, in general, are well-focused on the major issues of PCB presence and contamination in the electricity sector in Mongolia, which seem to be the main source of PCB contamination and are potent to bring about significant improvement of PCB removal and treatment for the country, as well as to fulfill the requirements of Stockholm

Convention. Management and disposal of PCB contaminated material is very well explained throughout the PD and adequately transposed into output and activities under Output 2. It is clearly explained that the treatment and disposal of PCB-containing equipment is the central theme of the project. However, from the project design perspective, the lack of the same level of focus in the other main project component (Output 1) might suggest that Output 2 is the more meaningful project goal. The project's overall objective emphasizes "capacity building" and, even though it is the smaller project component in terms of budgeted resources, the activities of Output 1 (regulatory setup, capacity building and awareness raising) are essential for the project success and effectiveness, especially for the of the project's long-term sustainability and ability to replicate, which should be clear in the project design stage.

61.While the project goals and outcomes may be defined within a broader context, the activities should be clear and precise. Some activities of Output 1 are defined too broadly, which makes them difficult to implement and monitor. For example, one of the activities is to "Develop and implement regulations for PCB content in imported equipment and products" (Activity 1.1.4), and another is to "Develop system and capacity to determine PCB content in imported equipment and products (Activity 1.2.1). The scope of such activity is not well-defined and it is hard to quantify it's success.

62.Stakeholder awareness raising is the critical aspect of the project, from the design perspective. The information presented in the PD does not ensure confidence that the proper target groups and adequate tools are identified for the project topic and the desired goals. It is suggested that the target group is the broad general public, while the methods of communication/awareness raising are TV programs, brochures on health and safety, establishment of a hotline. The problem of dealing with PCB-containing materials is very much sector-related and applicable to individual groups in terms of direct contamination and handling PCBs. It would be more effective to dedicate the resources to directly communicate with key stakeholder groups, such as local communities under the threat of exposure to PCB containing waste (e.g., people recovering materials from landfills), or workers, raising their awareness of the implications of PCBs exposure and protection. Although national outreach programs may sound attractive, they have little chance of being effective to spawn public interest, especially for a chemical that the public cannot identify.

63.*Responsibility for implementation of individual project activities*. Outcomes and project activities are provided in the manner where responsible parties are identified for each activity. For successful implementation and monitoring, it would be useful if, rather than naming "responsible parties", to make a distinction between beneficiaries and implementers. By doing so, the accountability of individual parties would be increased, as well as the ability of project management to identify the risk or problems and act accordingly.

64.The PD mentions a series of training programs carried out for POPs within the enabling activities (under GEF funding for the implementation of Stockholm Convention). However, the PD didn't reflect on the results and experience, as well as the lessons learnt of this EA which might have been relevant for the success of this full-sized project.

Project risk identification

65.Project risks seem to be very well identified in the PD with appropriate mitigation measures.

Participatory identification and preparation of the project

66.The Project was identified and prepared through cooperation with local stakeholders, and through the cooperation previously established within the POPs enabling activities supported by GEF (also implemented with UNIDO involvement). Local stakeholders contributed in particular to the identification of barriers in the PD. The document is adopted by the Mongolian Government and local project team, and the ministry representatives confirmed participation in project design and preparation of PD.

Logical framework

67.The Logical framework approach has been used for the design of activities and measures to implement the project, based on the PIF outline. However, the logical framework developed for this project is rather poor in delivering an operational framework for managers and evaluators to carry out proper monitoring and evaluation. This is mainly due to lack for baseline, target and well defined SMART indicators.

68.Key impact indicators. There are 3 impact indicators identified (page 50 of PD). Two are built on the 1,000 tons treatment and disposal of PCB containing equipment goal, while the third indicator is measurement of the level of PCB concentration in soil and water. It is adequate to adopt the 1,000 tons of PCB-containing equipment, either treated or disposed, as one of key impact indicators, as it's the most important outcome of the project. Since the project is dealing also with the regulatory framework development, workers health and safety, community health, capacity building, awareness raising etc., there are additional equally relevant key impact indicators that could have been set for the Project. Existence of key impact indicators built around capacity building would not only support comprehensive monitoring of project impacts, but would demonstrate project effectiveness and sustainability.

69.*Indicators in the logical framework (objectively verifiable indicators).* Logical framework indicators should be designed to reflect the meaning of SMART abbreviation (specific, measurable, achievable, relevant and time-bound). They are the main tool for measuring project impact through observation of implementation progress and appropriateness of project activities.

70.The PIF identified 3 main components, and then elaborated subcomponents and associated Outcomes and Outputs, with specific and measurable indicators to assess progress. By contrast, the logical framework in the PD states the PIF components to be outcomes in themselves, and then elaborates outputs and activities. While the elaboration of the activities is of crucial importance as a tool for planning implementation, the objectively verifiable indicators (OVIs) associated with the activities are in many cases not sufficiently specific, or measurable, to allow for proper monitoring or evaluation of progress towards meeting project objectives. An important objective of the project is to build capacity, and as noted above, the PD did not identify key impact indicators for this part of the objective. Nevertheless, project design appropriately contains numerous trainings and workshops – on new regulations, new technical guidelines, laboratory techniques for PCB monitoring, etc. The OVIs for these activities do not provide any measurement or target. Without some specific and measurable target, e.g. "x number of people trained…, or x skills obtained through the trainings ", it is not possible to quantitatively determine progress towards achieving the project's capacity building objectives using these indicators. The exceptions are in the nominal ('yes/no') category of indicators, for example "national standards drafted" or "guidelines developed".

71.Most indicators fail to provide additional qualitative or quantitative dimension to the defined project activities, which is essential for practical application of the indicators during monitoring and evaluation. It seems that the only true and successfully designed measurement for the project success is the removal of 1.000 tones of PCB containing materials. Mid-term evaluations can propose the changes to the logical framework and re-formulation of indicators to better reflect the *status quo*. The logical framework reformulation for this project would, however, require a complete redrafting of the project indicators which exceeds the scope of this evaluation.

72.Additionally, in some cases the hierarchy (Activity-Output-Outcome) is not correctly designed, e.g. for 'Output 1.1 – Regulatory Standards Developed', which has as 'Activity 1.1.3: Implement national standards regulating PCB content in equipment and oil' – implementing the standard must be a subsequent step to developing the standard.

Based on the analysis given above, **project design is rated as MODERATELY SATISFACTORY**, with strongest side being strong participation of local stakeholders in project identification, the Logical Framework and indicators are not developed adequately to allow for proper adaptive management and monitoring of project results.

Effectiveness

73.Project effectiveness is evaluated against the evidence that show to what extent the project outcomes are likely to be achieved and do they contribute to the achievement of project objective, based on the current implementation results.

74.The mid-term evaluation of the effectiveness of Mongolia PCB project has been a demanding task, mainly due to the faulty framework of indicators, as mentioned in the Design section of the report. The Project's logical framework has little baseline information or quantitative targets (except for the treatment of 1000 tons of PCB containing equipment), making it very difficult to form statements on the current implementation success, other than to comment if the project activities were implemented or not. In order to partially overcome this problem, the PIF was used as a source of information about the project outputs and outcomes to form a more comprehensive analysis of project effectiveness. This was possible since the PD follows the concept described in PIF. The previous table (Table 5 Projects Outputs and Outcomes in PD and PIF) provides an overview and links PD outputs with the PIF outcomes and outputs.

1.PD Outcome 1/PIF Component 1 - Capacity building for implementing the PCBs related measures of SC: Component includes inputs/activities related to: i) the development of regulatory standards; ii) institutional capacity development; iii) laboratory capacity improvement; iv) stakeholder capacity development; v) socio-economic and mitigation measures assessments; and vi) new data management systems. In all of these areas – with the exception of the socio-economic assessments (which were cancelled) - progress has been made.

2.**PD Outcome 2/PIF Component 2 – Environmentally Sound Management (ESM) of PCB-containing electrical equipment.** Component includes inputs/activities related to: i) development of detailed inventory; ii) ESM of PCBs containing equipment in use; iii) disposal of PCBs containing equipment and waste; and iv) establishment of environmental monitoring system for PCBs.

Progress towards achievement of anticipated outcomes

75.The progress relating to project implementation within Component 1 is considered successful in general, with the exception of socio-economic assessment and mitigation measures, which was planned for the first year of implementation but has not yet taken place. The evaluation revisited the relevance of this proposed output to the actual needs of PCB capacity building in Mongolia, and suggested reformulation of the output since at this stage of the project such assessments are not relevant. Within Component 2, treatment and disposal of 1,000 tons (also considered as the project goal) is the most critical component due to major delays in selecting BAT and contracting. The table below describes in detail the progress under each component for all project outputs.

Table 5 Assessment of project effectiveness per project outputs

Outputs in PD	Corresponding Outcomes in PIF	Corresponding Expected Outputs in PIF	Evaluation Assessment	Rating
Component 1: Capacity building for implementing the PCBs related measures of SC				
1.1 Regulatory standards developed	PCBs related legislations are in place, enforced by authorities and followed by industries	POPs-related legislation, norms, enforcement measures addressing SC, ESM system	1.Development of Regulatory Standards (Moderately Satisfactory). The National Regulation for PCBs has been drafted and adopted and brought into force. This is the first normative document on PCBs in Mongolia. It was drafted in a participatory manner. However, its adoption was delayed for 1 year against the planned deadline, because it was tied up with the requirements of adoption procedures of the Law on Chemicals. The adoption was followed by a series of workshops for government officials, inspectors and public and private companies to disseminate the new regulation. 2.Based on the interviews with stakeholders and observations from provided trainings during the mission, it is evident that the implementation of new regulation is still slow and missing clearly defined system with responsibilities and procedures for PCBs. 3.Progress has also been made on including PCBs on the list of hazardous chemicals for the occupational health and safety. Specifically, the intention for such inclusion is demonstrated in Resolution of the Government 2012 April 21 Action Plan No. 4 for occupational and safety. However, PCBs are to-date not included in the list, as foreseen by the project activities. **It is recommended that for the remainder of implementation the project focuses closely on facilitating implementation in order to reach the desired outcome.** Reference: *Amendment to the Law on Toxic and Hazardous Chemicals, 6 October 2011* *Regulation on PCBs, Ministry of Environment Nature and Tourism and the Ministry of Health, January 11, 2012* *Registration of Regulation on PCBs at the Ministry of Justice, 10 April 2012, No 3313*	MS

Outputs in PD	Corresponding Outcomes in PIF	Corresponding Expected Outputs in PIF	Evaluation Assessment	Rating
1.2 Institutional capacity to implement PCBs related issues developed	Institutional capacity to implement PCBs related issues	Locally adjusted technical guidelines, 200-400 people trained (environmental inspectorates, specialists, NGOs)	1.The project has undertaken a massive effort on awareness raising on the negative effects of PCBs, and promotion of phasing-out the use of PCBs in the electricity sector, with some outreach to the mining sector. To-date, 580 government officials, 290 representatives of the energy sector and 47 representatives from the private sector (917 in total) participated in the trainings and workshops organized by the project. Several publications were produced, including a textbook that is underway and technical standards that are either approved or in the process of approval by local authorities (national office for standardization is in charge for approval of standards for all sectors). These activities sparked keen interest from public companies to receive training on PCBs management, based on which 6 persons from electricity companies were sent to Italy in order to receive training. 2.Regardless of the apparent high level of interest for the subject, there is little evidence collected by the project on the impacts of the trainings performed to safely handle and phase-out the PCBs in the country. There is no baseline or targets for intended capacity to be built by the trainings. There is no evidence of monitoring of actual needs by the participants of the trainings that can be used to adapt the training approach and target the project training activities. Even though not specifically required in the outputs and project activities, this is considered an important aspect of any capacity building activity. **Since the outcome in question is crucial for the sustainability of project results after the project completion, it is highly recommended to adjust the outputs to reaching not just the quantity, but also to achieve a well-targeted trainings, and to measure the level of capacity built. The national project team in this respect would require additional assistance in defining the target audience, and for the use of tools to capture the feedback from the workshop participants in order to measure success of the trainings and capacity building.**	S
1.3 Strengthened laboratory capacity to monitor PCBs	Authorities can monitor compliance to PCBs-related legislations	One laboratory strengthened, Staff trained	1.The laboratory of ICCT[4] has been chosen for the project, and valuable equipment and kits have been purchased. Some key staff (3 lab technicians) have been trained to perform relevant PCB detection and analysis, based on GC approach. The laboratory is fully operational and used for the PCB inventory in the country. Laboratory accreditation is underway and expected to be completed by the end of 2012.	HS

[4] The PCB laboratory was newly established at the ICCT by the project.

Outputs in PD	Corresponding Outcomes in PIF	Corresponding Expected Outputs in PIF	Evaluation Assessment	Rating
1.4 Increased stakeholder capacity for PCB management	Acceptance and compliance to the ESM system, reduced exposure/contacts of human beings to PCBs	Information materials up to 2,000 informed people in details for farther actions	1.The project supported preparation of a textbook that on the topic of POPs and PCBs in Mongolian language that is a first of its kind. It is expected that the textbook will be used in technical schools (e.g., Technical University of Mongolia, Power Engineering Schools). Also, the project prepared and disseminated ca. 1000 copies of informative brochure to stakeholders. The brochures are meant to increase the level of awareness of POPs and PCBs adverse effects on human health and environment. Additional 1000 copies are planned for printing and dissemination. **It is recommended to revise the output to better reflect the expected outcome. It is unlikely to expect that the acceptance and compliance to ESM system will be reached based on the information materials alone. This project component could benefit from targeted assistance for identification and training on health and safety for the workers in the electricity sector (and possibly in the mining companies who possess large-scale electrical equipment) who handle directly the equipment. This is assuming that project resources could be allocated for this purpose.**	S
1.5 Socio-economic and mitigation measures assessed	Health of population is protected and medical costs reduced by preventing contacts with PCBs; additional contamination of soil and water resources is prevented	Socio-economic assessment and mitigation measures	Assessment was not carried out and hence no mitigation measures were developed or implemented. **Considering that the project is already at its later stage, the usefulness of such exercise seems low[5]. Therefore it is recommended to focus the project resources into a different output contributing to the same outcome. Targeted capacity building for health and safety measures for workers handling the electrical equipment would be suitable alternative practically contributing to the same outcome and also contributing to the Output 1.4.**	U

[5] It was discussed with NIP update project team to combine this task with the similar task under the NIP update project in 2013.

Outputs in PD	Corresponding Outcomes in PIF	Corresponding Expected Outputs in PIF	Evaluation Assessment	Rating
1.6 Comprehensive data management in operation	PCBs reporting obligations of the SC are met	PCBs database with 10,000 - 12,000 entries	1.The database has been designed for the PCBs and populated by the information from the inventory. At the moment, the information from the database is only accessible to the project staff, but in the future it will be published online. The ministry will be responsible for keeping the database current, which should enhance the prospects for its longer-term sustainability. Companies are now in possession of sampling technology, and have been trained on how to send results to the ministry for inclusion in the database.	S
Component 2: Environmentally sound management of PCB-containing electrical equipment				
2.1 Detailed inventory developed	Complete country inventory, PCB situation is understood.	Inventory of 10,000-12,000 electrical equipment	1.As of September 2012, 3572 samples from 2879 pieces of electrical equipment were covered by the inventory, and included in a database designed by the project. However, only 560 tons of PCBs containing equipment has been identified to-date, and it is likely that the total amounts are less than the 1,000 tons predicted during project preparation. But the inventory has not yet been completed and will continue for the remainder of project implementation.	S
2.2 Environmentally sound management of PCBs containing equipment in use, including handling, maintenance and repair in place	PCBs are not released into the environment from electrical equipment, transformers are not cross-contaminated	ESM system, operational guidelines, work instructions for all stakeholders are in place, leaking equipment are withdrawn and prepared for disposal	Guidelines for environmentally sound management at the operational level of the two companies are developed within the contract with Sea Marconi. Their adaptation and training for the workers who are dealing with the decontamination of the electrical equipment is planned and scheduled. Equipment that is not in use and with identified high level of PCBs has been stored and awaits treatment under the PCB treatment and disposal activities of the project, thus preventing cross-contamination and contamination of environment due to leakage. NPTC has dedicated facility at Tuul to be refurbished and used for the decontamination storage and processing of PCBs during the winter season, based on the previously conducted assessments and design of facility meant to fulfill the safety requirements. The works on refurbishment were schedule for completion in November 2012.	HS

Outputs in PD	Corresponding Outcomes in PIF	Corresponding Expected Outputs in PIF	Evaluation Assessment	Rating
2.3 Disposal of PCB containing equipment and waste using BAT/BEP implemented	PCBs waste problem is solved	1,000 tons of PCB-containing equipment and/or wastes are disposed of	Even though the project team carried out numerous activities that led to creation of enabling environment to perform the treatment of PCB-containing equipment (e.g., selection of technology, contracting the supplier, trainings, inventory activities, refurbishment of storage/treatment facility), the actual decontamination process has not started yet. Introduction of technology and facilities to commence decontamination operations were meant to happen in first and second year of project implementation based on the PD, while they will actually start during the last six months of the project (January-August 2013), and extend to two more additional years after the project's official closing date (August 2013). The decontamination operations at the moment seem to be solid and very likely to happen (mobile machine for decontamination was built and is expected to be delivered to the Mongolian Government by the end of 2012), but not as nearly as much to satisfy the key project impact indicator and set target for 1,000 tons of PCB by the envisaged project closure.	U or MS

Outputs in PD	Corresponding Outcomes in PIF	Corresponding Expected Outputs in PIF	Evaluation Assessment	Rating
			Also, the Sea Marconi company, in charge for machine building and delivery, design and implementation of trainings, as well as implementation of decontamination is contracted by UNIDO on 24 November 2011 and is expected to perform their services in duration of 39 months starting from the signature date. Given that this is the most important subcontracting component of the project that directly affects achievement of project goal and reaching project key impact indicator, as well as costing almost half of GEF allocated funds for the project (44% of GEF's 2.65 million), failure to achieve this output by the project end would have to result in an unsatisfactory mark of project effectiveness. It is also not clear and no consistent evidence was provided during the evaluation why and how the subcontractor was contracted for 1.5 year of service that extends beyond the envisaged project closure. Project inventory established that the quantities of PCB-containing equipment seem to be less than estimated 1,000 tones, which may result in actual less than 1,000 tones equipment treated. Treatment of less than 1,000 tones should not affect project effectiveness because this figure would in that case be a technicality considering the actual contribution of project towards achieving of almost PCB free electric sector in Mongolia. This information could, however affect project efficiency in terms of project spendings for decontamination. Given the above elaborated evidence collected, reaching this output - which is also considered most critical to reaching the project goal - would be rated unsatisfactory if the project closure date of August 13, 2013 is retained, since almost no PCB-containing equipment will be treated by then, due to major delays in selecting and procuring applicable technology. However given all the accomplishments in creating enabling environments and great likelihood of finalizing decontamination in the next 1.5 to 2 years, this project output could be rated as MS to S if the project was extended. **Urgent petition for non-cost project extension is duly supported by this evaluation. In case that that non-cost extension is approved to complete the works on decontamination, under the contract with subcontractor already operational the rating of the project would change to S.**	

Outputs in PD	Corresponding Outcomes in PIF	Corresponding Expected Outputs in PIF	Evaluation Assessment	Rating
2.4 Environmental monitoring system for PCBs established	Increased compliance to PCB-related obligations	100 inspections	Within this output, the national standards for PCB management were drafted. The project activities were mainly built around trainings for the inspection and customs officers, as well as cooperation with the centralized inspection agency of Mongolia (GASIM). Some trainings were provided locally, such as two trainings in major border crossings in Mongolia, with China and Russia. Based on the field visit and interviews with the representatives of GASIM, it can be said that the trainings were very welcome and are considered useful and necessary. They were built around awareness raising on the new PCB regulation and impacts of PCBs on human health. This output has not yet fully responded to the practical issues of implementing the new regulation by the inspection, and there are a lot of uncertainties about the procedural issues of PCB-related inspections of equipment entering Mongolia. **In order to be successful, the remainder of implementation should be focused on providing practical approach to operationalizing PCB regulations, as well as monitoring of changes in the work of inspection to determine if the capacities are being built.**	MS

Key risks and priorities for the remainder of implementation

76.The project team identified the key risk for the project implementation, as well as a priority, as the decontamination work, or rather as its timing. The timing for this work as designed in the planning stage is regarded as unrealistic considering the input required to become operational. The Project team sees their role in decontamination as providing management and coordination assistance to public electricity companies in order to facilitate the work, which is extremely time sensitive.

77.As stated in the Design chapter, the risks have been very well identified. There's very little evidence however on how the risk identifications supported informed decision making, and how the risk mitigation measures are implemented.

Contribution to achievement of Global Environmental Benefits

78.Project outputs and outcomes directly contribute to the implementation of the Stockholm Convention requirements, namely for the phasing out of PCBs from the electricity sector, ban of import and usage. The project is very likely to contribute to almost total phasing out of PCBs in electricity sector in an environmentally sound way.

Reaching project beneficiaries

79.Project's targeted beneficiaries have been reached. Some additional beneficiaries have also been reached, such as non-electricity sector companies (mining and railway sector, meat and diary as well as other companies who posses electrical equipment) mainly through inventory and some by training.

Assessed long-term impacts

80.The obvious long-term positive impacts are those to environment and human health. Based on the interviews with project beneficiaries, the contribution to legislation has led to establishment of labor safety system for PCB-affected occupations and requirements for workers health and safety, and standardization of requirements for the facilities. It also contributed to increase of awareness on PCBs as a substance adverse to human health, and an occupational hazard for workers dealing with the electric transformers and oil, which has led to increased use and demands for protective equipment by workers. The long-term impacts are also seen through minimizing further contamination or cross-contamination due to introduction of an environmental management system that includes control of import and identification of chemicals already present in the country (e.g., through identification, inventory, labeling and disposal).

81.Laboratory capacities that are established under the project are crucial for having available long-term capacities for PCB identification and monitoring and control. Also, the use of this capacity can be in the long run extended to soil, water, food and human blood analysis for PCB content.

Catalytic and/or replicable role of the project

82.Many countries globally are dealing with the issues of PCBs and POPs management, and are obliged by the Stockholm Convention to phase out the use of these harmful substances. PCBs inventory methodology and approach developed within the project has a potential to be replicated in other countries and already a short information about it was prepared for UNIDO in order to be disseminated further. Also there's an initiative from the project team side to establish one group via online platform for sharing the knowledge and approach to PCB inventory.

83.Some project stakeholders also see the potential in using acquired technology to clean up the PCB contaminated oils in neighboring countries, given that the machine is a mobile unit and can be transported. It is also recognized that, since the decontamination machine is equipped with oil restoration function, that after cleaning of the PCBs it can be used for various purpose in the industry dealing with improvement of the oil quality.

The project's overall objective is "to create capacity for environmentally sound management (ESM) of PCBs for preventing PCBs releases from electrical equipment, avoiding cross-contamination of electrical equipment and disposing of 1,000 tones of PCBs wastes". As of the mid-term evaluation, it is not clear that the project will be able to achieve the overall objectives, in spite of clear achievement of a number of the key outputs, mainly due to delays in start up of the PCB cleanup process. Effectiveness for the progress towards achievement of the overall project objective and expected outcomes is rated as **MODERATELY SATISFACTORY,** but only under condition that the non-cost project extension is approved for the project in order to allow the necessary time to perform actual decontamination of PCB-containing equipment under the project. Effectiveness of Project Outputs is rated **MODERATELY SATISFACTORY**, in view of tangible results in delivering planned activities/inputs.

The mid-term evaluation ratings on effectiveness and all other aspects are based on the evaluative evidence at this point in the project's implementation, and evaluation ratings at the end of the project should also consider the full range of evaluative evidence available at that point. This would be particularly important if the logical framework is revised, and/or if the project implementation period is extended (see also Conclusions and Recommendations).

Efficiency

84.The assessment of efficiency needs to answer whether the project was cost-effective and least-cost option. It needs to consider was the project delayed, and if yes did the delay affect cost-effectiveness. Efficiency also considers adequacy of contributions of government for project implementation, as well as the executing agency.

Project Costs and Financing

85.The cost and financing information is provided by UNIDO through the Annexes of the ToR for this assignment and by the national project team during and after the mission to Ulaanbaatar:

Table 6 Overall Cost and Financing with Co-financing (planned and achieved)*

Project Compo-nents/Outcomes	Co-financing ($)			GEF ($)			Total ($)		
	Planned	Achieved	% achieved	***Planed***	Achieved	% achieved	***Planed***	Achieved	% achieved
		by Oct, 2012			by Oct, 2012			by Oct, 2012	
1. Capacity building for implementing the PCBs related measures of SC	571,200	-	-	300,430	-	-	871,630	-	
2. Environmentally sound manage-ment of PCB-containing electrical equipment	4,842,518	-	-	2,219,570	-	-	7,062,088	-	
3. Project management	144,600	-	-	130,000	-	-	274,600	-	-
Total	**5,558,318**	**4,076,810.52**	**73.34**	**2,650,000**	**2,073,701**	**78.25**	**8,208,318**	**6,150,511.52**	**74.9**

* the table is compiled based on the data on planned financing and co-financing and project components, and the actual annual spending by October 2012 (see Annex 1 of the ToR: Required project identification and financial data), as well as the data on the actual co-financing provided by the national project team.

Cost effectiveness

86.Information and data available for this evaluation indicate that UNIDO and the project team have taken all possible efforts to ensure project cost-effectiveness. The project financial management is carried according to UNIDO rules and procedures, including contracting and procurement. All indications are that the project is implemented along financial norms and standards for international development projects.

Co-financing

87.Based on the data on co-financing provided by the project team during the evaluation visit, it is evident that the project has been very successful at mobilizing allocated funds from the national counterparts. The in-kind contribution from NPTC is provided as facilities and refurbishing works for the treatment of PCB-containing equipment. The amount of contribution that was ensured can be considered satisfactory and it demonstrated high ownership by local stakeholders of the project.

Table 7 Co-financing per Project Partners/Counterparts**

Co-financier (source)		Type of Contribution	Promised Amount ($)	Achieved (%)	% of achieved
MNEGD	National Government	Cash	218,500	8,259	3.8
		in kind	735,381	33,256	4.5
MMRE	National Government	Cash	61,000	-	-
		In kind	203,967	-	-
NPTC	National Counterpart	In kind	3,239,470	4,035,296	95.2
UEDC	National Counterpart	In kind	1,000,000		
UNIDO	Implementing Agency	In Kind	100,000	-	-
Sub-total co-financing			**5,558,318**	**4,076,811**	**73.3**

** the table is compiled based on the input of the national project team on the type and amounts of contributions by local counterparts.

At the point when a mid-term evaluation is conducted it is not possible to make a full assessment of the cost-effectiveness of project results, and the terminal evaluation is expected to further review and assess this aspect. Reviewing the project management and financial management procedures, and results produced thus far, the **project efficiency is rated SATISFACTORY**. There are no significant risks for cost-effectiveness noted at this time, but the project team, UNIDO and project management unit will need to ensure that the project is results-focused rather than just focused on completing activities because they are planned in the project document. The project activities related to social assessments and mitigation measures will need to be assessed for their cost-effectiveness and considered for revision for the remainder of project implementation, as discussed in the Effectiveness section in this report. Also, if the scope of operations decreases due to lower amount of PCB-containing equipment identified than what previously anticipated, costs of such reductions should be examined in the final evaluation.

Sustainability

88.While a sustainability rating is provided here as required, sustainability is a temporal and dynamic state that is influenced by a broad range of shifting factors. It should be kept in mind that the important aspect of sustainability of GEF projects is the sustainability of results, not necessarily the sustainability of activities that produced results. In the context of GEF projects there is no clearly defined timeframe for which results should be sustained, although there is

the implication that they should be sustained indefinitely. The greater the time horizon, the lower the degree of certainty possible when evaluating sustainability.

89.In addition, by definition, it is difficult for mid-term evaluations to provide ratings on sustainability considering that more activities will be undertaken that may positively or negatively affect the likelihood of sustainability. Based on GEF evaluation policies and procedures, the overall rating for sustainability cannot be higher than the lowest rating for any of the individual components. Therefore the overall **sustainability rating for the Mongolia BCP Project for this mid-term evaluation is LIKELY.** A much more valuable assessment of sustainability is likely to be made by the terminal evaluation.

Financial risks to sustainability

90.**Likely:** To-date, the government has contributed significant resources into the Project, and once the equipment cleaning is completed, limited additional financial resources will be required. It will be important to continue the training and capacity building activities, but these are relatively low-cost, being provided by technical staff of the ministries. In addition, the mobile cleaning technology allows companies to re-use oil once it is cleaned of PCBs, which has increased these stakeholders' ownership of the intervention, as it enhances cost-efficiency.

Sociopolitical risks to sustainability

91.**Likely**: Project stakeholders, including government officials, laboratory workers, customs inspectors, electricity companies, and citizens in affected areas, have developed a strong sense of ownership of the project's interventions. The project has provided targeted training and awareness raising to over 1,000 persons, including significant technical capacity enhancements in the national laboratory and the electricity companies. As noted, it will be important for the project to develop a more robust system for evaluating the impact of the trainings in order to continually refine the program.

Institutional framework and governance risks to sustainability

92.**Moderately Likely:** The current government has demonstrated a strong ownership of the project. While there is no way to know the priorities of future governments, Mongolia will remain bound to its obligations to conform to the SC (as any other international agreement). There is no particular reason to expect that future governments will not honor these obligations, and the Project has built capacity within the relevant line ministries to fulfill them. However, additional work is needed in the near-term to ensure that new customs regulations are finalized; stakeholder consultations with customs inspectors indicated that while they fully understand the importance of keeping PCB-containing equipment out of the country, they do not have clear guidelines on how to achieve this. Providing such guidelines and targeted training is a near-term priority.

Environmental risks to sustainability

93.**Likely:** no environmental risks to sustainability were identified. The majority of the equipment cleaning will be done on-site utilizing the mobile technology, and as such, there are no significant risks in transport. Some remaining small pieces of equipment will be transported to a central location for cleaning during the winter (when the mobile technology cannot be moved due to weather) but this does not present any unusual risk or hazard.

Project Coordination and Management

Monitoring and Evaluation (M&E)

94.A project M&E plan was provided in the PD, outlining specific M&E activities, responsible parties, budgets, and timeframes. The activities outlined in the M&E plan meet GEF minimum standards for M&E, and the budget of US$

111,000 is adequate for a project of this size. The PD also sufficiently identifies the various review and evaluation processes, specific reporting requirements, and responsibilities. However, previously described shortcomings of the indicators, targets and baseline did not allow for comprehensive adaptive management, and make evaluation of the project extremely difficult. Therefore th**e M&E design for Mongolia PCB project can only be considered as MODERATELY SATISFACTORY**.

95.The budget provided for M&E at the planning stage was sufficient. To-date, adequate funding has been provided for M&E, but only limited monitoring activities have been undertaken. The **aspect of funding M&E is rated SATISFACTORY.**

96.The assessment found numerous deficiencies in the implementation of the M&E system. This is partly the result of shortcomings of the framework occurred during the design stage. Nevertheless, the PD clearly articulates that the monitoring system could be refined at the Inception Workshop, and throughout the first year of implementation; there is no evidence that this was done. Overall, the project did not make use of modern management tools to monitor progress, workplans were very basic, and there is no evidence that they were updated regularly. The semi-annual and annual project progress reports were submitted to MNET, but only in Mongolian language. The annual progress reports submitted in English do provide details of the year-on-year achievements of the project, but do not link the narrative back to the outcomes elaborated in the logical framework. Annual Project Implementation Reviews (PIRs) were not undertaken, and none of the annual Tripartite Reviews (which are mandated by GEF) were conducted. The Mid-Term Review (MTR) was delayed by over one year, placing it near the end of project implementation, and therefore allowing very limited time to adjust the project based on MTR findings. Overall, it appears that success in achieving project objectives has more to do with the efforts of the project management team in Mongolia than on the use of adaptive management techniques by the implementing agency.

For all these reasons the **implementation of M&E cannot be rated higher than UNSATISFACTORY**. This project is an example of how much the M&E frameworks and their implementation is crucial for project success, because almost all poorly rated aspects of the project can be directly or indirectly tied back to the M&E framework. Especially, delays for ver more than a year for the outputs of regulation adoption and acquiring the equipment for PCB decontamination could have been minimized.

Project management

97.The Project management unit was established and placed under the MNEGD with the intention of becoming a sustainable unit within the ministry that would continue operating after the project end. During the mid-term evaluation, the project unit demonstrated high potential for sustainability, since it's operating as a unit performing different duties for the ministry in relation to POPs; project management for Mongolia PCBs Project is only one segment of their job. Besides managing the project, the unit is also in charge for a large portion of technical work, such as carrying out the PCBs inventory, drafting of legislation, and preparation of information material and publications, as well as implementing trainings and awareness raising activities as key speakers and lecturers. Even though it is somewhat unusual to have such a wide range responsibilities in one project management unit, the project was implemented efficiently and some of the deficiencies due to lack of information for informed management was overcome by the swift adjustments and lobbies of the team. Even though the project management unit was not in charge for financial management of the project (all payments were carried out through UNIDO, or through the UNDP office in Mongolia), this aspect did not hamper with the implementation. All resources required from the UNIDO were provided in a timely manner. In the light of mid-term evaluation evidence on project management, the project can be rated as **SUCESSFUL**.

98.It would be highly recommended however, given an intended sustainability of the project management unit, and future role of the unit in upcoming projects, to build human capacities of this unit, especially in utilization of modern management tools, as well as other specific technical knowledge if required for the success of reaching agreed outcomes.

Ownership

99.It has been established during the mid-term evaluation and already elaborated in several sections of this report, that the level of ownership of Mongolia and local stakeholders is high. The MNEGD is the executing agency for the project and project implementation unit is mostly in charge for project implementation. The Project has the Project Steering Committee which is consisted of representatives of government institutions of key importance for project's success.

100.Interviewed representatives of stakeholders all demonstrate understanding of the project and show full support to the project team.

UNIDO's Involvement

Quality at Entry/Preparation and Readiness

101.A number of aspects of QAE and Readiness were satisfactory. The Project has clear strategic relevance, and the rationale for focusing on PCB disposal in the electricity sector, as well as the rationale for GEF and UNIDO intervention, is very well explained. The PD contains technical options (Annex 3) to help guide the team's decisions early in implementation. Project design phase included highly participatory stakeholder and beneficiary consultation process, with results from the consultations being incorporated into the design. The choice of the Ministry of Nature and Environment (MNE) as the main implementing institution was correct, considering their responsibility for fulfilling Mongolia's obligations to the SC. And further, the PD identifies roles for other key institutions, and how they should relate to the MNE through the Project Steering Committee. The Government of Mongolia was clearly motivated to pursue the Project, providing agreed counterpart funding in a timely manner at Project start and throughout Project implementation. In addition, the Risks are well identified and mitigation measures appear appropriate. The Project had a detailed cost plan, with yearly expenditures by GEF, and aggregate expenditures by the counterpart, and the budget is clearly linked with the activities.

102.However, these positive aspects are overshadowed by the deficiencies in the logical framework, monitoring plan, and indicators, as described in other sections. Of particular importance regarding QAE is the lack of evidence that the logical framework was subject to any revision or clarification during the Inception Workshop, as described in the PD. In addition, while the budget is reasonably elaborated, there is no procurement plan to guide the PMT.

Primarily because of the problems with the logical framework and monitoring plan, the **Quality at Entry and Readiness for Implementation is rated MODERATELY SATISFACTORY**.

Implementation Approach

103.The implementation approach gave the Mongolian counterparts the primary responsibility for carrying out the Project activities, with UNIDO providing a dedicated "focal point" and technical advice and backstopping as needed. The evaluation considers this approach to have been appropriate, as the Mongolian counterparts had strong ownership of the Project and were able to carry out most of the activities successfully, with minimal oversight. However, there were some issues on the 'process' side of the Project, as well as issues with measuring results and providing adaptive management assistance, which would have benefited from more intensive UNIDO involvement (see below).

Implementation Approach is rated as Satisfactory.

UNIDO Supervision and Backstopping

104.This rating is primarily based on the issues with the M&E Implementation, as noted above. In addition, although the Focal Point did provide regular in-country assistance to the PMT, some important 'process' issues were not addressed in a timely manner. Most importantly among these are the delay in the carrying out of the MTR, which leaves very little time for corrective actions prior to Project closing; and the signing of a service contract - to be paid from Project funds and crucial to Project success – which has an end-date after the closing date of the project. The closing date extension should have been expected, and should now receive high priority in order that there is time to achieve the project objectives once the technology is in-country.

UNIDO **supervision and backstopping is rated as Moderately Satisfactory.**

Project Mid-Term Evaluation Ratings

Criterion (See Annex 2 of the TOR)	Evaluator's Summary Comments	Evaluator's Rating
1. Attainment of project objectives and results (overall rating)		**MS**
Design	The overall project design is relevant, with strongest side being strong participation of local stakeholders in project identification, while the indicators of the logical framework matrix is the least adequate.	MS
Relevance	The project is relevant to the local and national environmental priorities and policies. The project supports implementation of the SC, and is relevant to GEF strategic priorities in the POPs focal area.	S
Effectiveness	Project effectiveness is moderately satisfactory in the light of tangible results in delivering planned activities/inputs established during the mid-term evaluation, as well as other evaluating aspects that contribute to the effectiveness, but only under condition that the non-cost project extension is approved for the project in order to allow the necessary time to preform actual decontamination of PCB-containing equipment under the project.	MS
Efficiency	While it is not possible to make a full assessment of the cost-effectiveness of project results and that the terminal evaluation is expected to further review and assess this aspect. Reviewing the project management and financial management procedures, and results produced thus far, the project efficiency is rated satisfactory. There are no significant risks for cost-effectiveness noted at this time.	S
2. Sustainability of project outcomes (overall rating)		**ML**
Financial sustainability	There are few risks to financial sustainability.	L
Socio-political sustainability	There are some limited risks to socio-political sustainability.	L
Institutional framework and governance sustainability	There are some limited risks to institutional and governance sustainability.	ML
Environmental sustainability	There are no serious potential risks to environmental sustainability.	L
3. Monitoring and Evaluation		**U**
M&E design	Various review and evaluation processes, specific reporting requirements, and responsibilities are sufficiently identified in the PD. However, the shortcomings of the indicators, targets and baseline did not allow for comprehensive adaptive management and make evaluation of the project extremely difficult.	MU

Criterion (See Annex 2 of the TOR)	Evaluator's Summary Comments	Evaluator's Rating
M&E implementation (use for adaptive management)	The assessment found numerous deficiencies in the implementation of the M&E system, which are partly the result of shortcomings of the framework, occurred during the design stage. The project did not make use of management tools to monitor progress, workplans were very basic, and there is no evidence that they were updated regularly. The semi-annual and annual project progress reports were submitted to MNET, but only in Mongolian language. The annual progress reports submitted in English do provide details of the year-on-year achievements of the project, but do not link the narrative back to the outcomes elaborated in the logical framework. Annual Project Implementation Reviews (PIRs) were not undertaken, and none of the annual Tripartite Reviews (which are mandated by GEF) were conducted. The Mid-Term Review (MTR) was delayed by over one year, placing it near the end of project implementation, and therefore allowing very limited time to adjust the project based on MTR findings.	U
Budgeting and funding for M&E activities	The budget provided for M&E at the planning stage was sufficient. To-date, adequate funding has been provided for M&E, but only limited monitoring activities have been undertaken.	S
Project management	Project management has been mainly carried out by the project management unit, and s considered appropriate, although the range of unit's responsibilities is relatively wide.	S
4. UNIDO specific ratings		MS
Quality at entry /Preparation and readiness	While a number of quality aspects are satisfactory, these are overshadowed by deficiencies in the logical framework, monitoring plan and indicators.	MS
Implementation approach	Implementation approach, giving Mongolian primary responsibility for carrying out project activities helped to develop a strong ownership of the project.	S
UNIDO supervision and backstopping	M&E implementation and some important 'process' issues that were not addressed in a timely manner (e.g., carrying out of the MTR) had contributed to the MS rating of UNIDO's supervision and backstopping.	MS

RATING FOR ATTAINMENT 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.

RATINGS ON SUSTAINABILITY

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.

RATINGS OF PROJECT M&E

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.

ALL OTHER RATINGS

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)

IV. Conclusions, Recommendations and Lessons Learned

105. Identifying and documenting project lessons is a key component of any project evaluation. This section elaborates the lessons learned to-date, but it is emphasized that the comprehensive set of lessons should come out of the final evaluation.

106.Some lessons for this project can be identified at this stage. Perhaps most notable, the implementation of this project has underscored the absolutely critical value of a properly formulated M&E framework to ensure the possibility for adaptive management and to help mitigate identified risks for project implementation, especially delays. This project is an example of how much the M&E frameworks and their implementation is crucial for project success, because almost all poorly rated aspects of the project can be directly or indirectly tied back to the M&E framework. Especially, delays for over more than a year for the outputs of regulation adoption and acquiring the equipment for PCB decontamination could have been minimized if the M&E framework had been more clear and operational.

107.These are the recommendations for the remainder of project implementation:

108.**Recommendation** 1: For the remainder of project implementation within the component 1 of the Project, it is highly recommended to focus on creating capacities for the enforcement of passed regulations on PCBs in Mongolia, manly through providing practical tools to the inspection on how to enforce the legislation. In that respect, some practical guidelines on how to carry out the inspections, carry out the sampling of the oil for PCB content and defining the responsibilities of all involved parties in the inspection process would contribute greatly to enforcing the PCB regulation and a functioning ESM system.

109.**Recommendation** 2: Since institutional capacity is crucial for the sustainability of project results after project completion, it is highly recommended to adjust the implemented trainings to reaching not just the quantity, but also to achieve a well-targeted trainings, and to measure the level of capacity built. The national project team in this respect would require additional assistance in defining the target audience, and for the use of tools to capture the feedback from the workshop participants in order to measure success of the trainings and capacity building.

110. **Recommendation** 3: In order to complete the laboratory development and capacity building it would be important to ensure that accreditation is completed in the remainder of project implementation so that test results are accepted according to international standards, to allow fulfillment of SC reporting requirements.

111.**Recommendation** 4: The project activities on stakeholder capacity development could benefit from targeted assistance for identification and training on health and safety for the workers in the electricity sector (and possibly in the mining companies who possess large-scale electrical equipment) who handle directly the equipment, assuming project resources could be allocated for this purpose.

112.**Recommendation** 5: Considering that the project is already at its later stage, the usefulness of project component related to socio-economic assessment and mitigation measure seems low. This output would have been beneficial to awareness raising and gaining political support for the PCB phasing out at the beginning of the project as it was planned (first year of project implementation). Since the assessments were not produced and while the project in the meantime has been very successful in awareness raising and increasing concern for health-related issues caused by the PCBs, as well as obtained political and institutional support, there are no compelling arguments on why and how this would contribute to reaching project goals. On the other hand, it would be beneficial, and recommended by this project evaluation, to focus the project resources into a different output contributing to the same outcome. Targeted capacity building for health and safety measures for workers handling the electrical equipment would be suitable alternative practically contributing to the same outcome and also contributing to the Output 1.4. This

would build nicely on the already created positive changes and using the momentum of changing mindsets of workers in the energy sector about the need and usage of protective equipment.

113.**Recommendation** 6: For the remainder of project implementation the project should ensure that the PCBs database is more widely available; at present the access is limited to project staff.

114.**Recommendation** 7: The most critical aspect of the whole project that is also directly related to the rating of the overall success of the project is treatment of 1,000 tons of PCB containing equipment. The problem and delays in start of operations for PCB decontamination is well explained throughout the document. It is however, necessary to emphasize that the no-cost project extension is fully supported by this evaluation, in order to allow treatment of PCB containing equipment under the project, for which all the enabling activities have already been carried out and operations are about to start. Obtainment of project extension directly affects the rating of project's effectiveness for the mid-term evaluation. This is because if the project closes in August 2013 as currently scheduled, it would not be even close to reaching the key indicator and project goal of 1,000 tones and therefore would be rated as unsuccessful in terms of effectiveness.

115.**Recommendation** 8: The project team would benefit from the capacity building on using the modern management tools that would enable them to have a more systematic approach to project monitoring and adaptive management, and evaluation of results quality and actual impact. This is especially relevant since the project unit is meant to be sustainable in the long-term. Some proposals on building capacities of project team were also given in the PD but not implemented.

116. **Recommendation** 9: In order to implement corrective actions with regards to the most critical observation of mid-term evaluation - M&E design and implementation - and also to improve the conditions for the final evaluation, the revision of all logical framework indicators in order to apply SMART criteria would be recommended.

117. Annexes

Annex 1 - List of Abbreviations

UNIDO	United Nations Industrial Development Organization
MNEGD	Ministry of Nature, Environment and Green Development
MMRE	Ministry of Mineral Resources and Energy
UEDC	Ulaanbataar Electricity Distribution Company
NPTC	National Power Transmission Company
ICCT	Institute of Chemistry and Chemical Technology
GASIM	General Agency: Specialized Inspection of Mongolia
SC	Stockholm Convention
POPs	Persistent Organic Pollutants
PCBs	Polychlorinated Biphenyls
NIP	National Implementation Plan
MDG	Millennium Development Goals
PD	Project Document
PIF	Project Identification Form
ESM	Environmentally Sound Management

Annex 2 - The Evaluation ToR

UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

Terms of Reference

Independent Mid Term Evaluation of the UNIDO Project:

Project Number: GF/MON/09/001

Capacity building for environmentally sound PCBs management and disposal in Mongolia

SEPTEMBER 2012

I. Project Background and Overview

1. Project summary

The Stockholm Convention on persistent organic pollutants (POPs) recognizes that POPs including polychlorinated biphenyls (PCBs) "possess toxic properties, resist degradation, accumulate and are transported through air, water and migratory species, across international boundaries and deposited far from their places, where they accumulate in terrestrial and aquatic ecosystems". Exposure to PCBs, due to their biomagnification, contaminates traditional foods, which are of a major public health concern, in particular for women and, through them, upon future generations.

Mongolia ratified the Stockholm Convention (SC) of Persistent Organic Pollutants (POPs) on 20 April 2004 and approved its National Implementation Plan (NIP) on 03 May 2006. Considering the provisions of the relevant international commitments, The NIP reviewed the particular POPs issues of the country and developed detailed strategies and action plans, including timetables and costing of their implementation. The NIP identified Polychlorinated Biphenyls (PCBs) as one of the top priorities in managing POPs in the country. It identified the need for conducting a thorough inventory on PCBs, gradually decontaminating the PCB containing equipment and their final disposal by the year of 2020. In addition, Article 3.3.4 of the Government Action Plan for 2008-2010 targets the activities to build national capacity for monitoring and disposal of PCB containing equipment and waste.

PCBs have never been produced in Mongolia. The period of the large-scale electrification campaign throughout the country from 1960 to 1980 forced to import large number of oil-containing electrical equipment. According to the inventory, conducted in May 2006, there were approximately 4,637 pieces of transformers, 3,847 circuit breakers and 83 capacitors in the country, a large portion of which was imported from the former USSR before 1980. The NIP concluded that 96-98% of all transformers used in Mongolia might have PCB-containing oils. During the POPs preliminary inventory, over 500 pieces of equipment were analysed with Test Kit CHLOR-N-OIL, which revealed that 7.5 percent of the PCB-contaminated transformers contained above 50ppm of PCBs

The institutional framework has been initiated during the NIP development. However, there were no specific regulations,standards and guidelines addressing PCBs and management of PCB-containing electric equipment to define a progressive phase-out and elimination plan. There was an extensive need for targeted capacity building and awareness raising campaign at all levels where there is a lackof human and technical capacities for PCBs monitoring, especially proper laboratory services for PCBs analysis.

The proposed GEFFull-Sized Project will consolidate ongoing and planned activities in implementing Mongolia's obligations for reducing and eliminating PCBs to meet the country's obligations under the Stockholm Convention. The project will focus PCBs in the electric sector through (a) developing appropriate legislation, (b) providing capacity building for key stakeholders, (c) developing an Environmentally Sound Management (ESM) system for electric equipment and incorporating it into a national policy framework, (d) gradual phase-out of PCB-containing equipment (transformers and capacitors), (e) eliminating PCBs cross-contamination, (f) disposal of all PCB-wastes, (g) strengthening environmental monitoring capacities and (h) identifying the most appropriate mitigation measures to reduce social costs of complying with the Stockholm Convention.

2. Project objective

Overall Objective of the Project

The overall objective is to create capacity for environmentally sound management (ESM) of PCBs for preventing PCBs releases from the electric equipment, avoiding cross-contamination of electric equipment and disposing of 1,000 tons of PCBs wastes. This objective will be achieved through a combination of strategies, including legislative and regulatory development, capacity building, public education, technology transfer, training and technical support.

Immediate Objective of the Project

The immediate objectives of the project are to:

- Strengthen the legal and regulatory framework for environmentally sound management (ESM) and disposal of PCB-containing equipment and oil;
- Improve institutional capacity at all levels of PCBs waste management and disposal;
- Remove PCBs wastes from targeted contaminated sites and transport them to the disposal unit;
- Decontaminate PCB oils in in-service transformers and
- Dispose of wastes in an environmentally sound manner.

3. Budget Information

a) Overall Cost and Financing (including co-financing):

Project Components/Outcomes	*Co-financing ($)*	***GEF ($)***	**Total ($)**
1. Capacity building for implementing the PCBs related measures of SC	571,200	300,430	871,630
2. Environmentally sound management of PCB-containing electrical equipment	4,842,518	2,219,570	7,062,088
3. Project management	144,600	130,000	274,600
	5,558,318	2,650,000	8,208,318

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

2012

Project No.	Bud Line	Bud Line(T)	Allotments $ (a)	Requisition $ (b)	Unapp Obligs $ (c)	Unliquid Obligs $ (d)	Disbursements $ (e)	Total Exp $ (f=d+e)	Funds Avail $ (g = a-b-c-d-e)	Residuals $ (h)
GFMON09001	1100	International Experts	25,086.79	0.00	0.00	0.00	0.00	0.00	25,086.79	0.00
GFMON09001	1101	International Expert 1	0.00	0.00	0.00	6,363.00	6,363.00	12,726.00	-12,726.00	0.00
GFMON09001	1157	Short-term international consultant 7	0.00	0.00	0.00	0.05	6,026.76	6,026.81	-6,026.81	0.00
	1100	International Experts/Consultants	25,086.79	0.00	0.00	6,363.05	12,389.76	18,752.81	6,333.98	0.00
GFMON09001	1500	Travel of project staff	34,843.91	0.00	0.00	0.00	0.00	0.00	34,843.91	0.00
GFMON09001	1501	Project Travel 1	0.00	0.00	0.00	6,770.59	8,948.36	15,718.95	-15,718.95	0.00
GFMON09001	1503	Project Travel 3	0.00	0.00	0.00	0.00	50.40	50.40	-50.40	0.00
GFMON09001	1505	Project Travel 5	0.00	0.00	0.00	6,222.68	6,123.52	12,346.20	-12,346.20	0.00
	1500	Travel of project staff	34,843.91	0.00	0.00	12,993.27	15,122.28	28,115.55	6,728.36	0.00
GFMON09001	1301	Administrative Support Personnel 1	0.00	0.00	0.00	2,171.80	5,786.76	7,958.56	-7,958.56	0.00
GFMON09001	1302	Administrative Support Personnel 2	0.00	0.00	0.00	0.00	628.18	628.18	-628.18	0.00
GFMON09001	1700	National Experts	113,623.11	0.00	0.00	0.00	0.00	0.00	113,623.11	0.00
GFMON09001	1701	National Expert 1	0.00	0.00	0.00	11,400.00	0.00	11,400.00	-11,400.00	0.00
GFMON09001	1751	Short-term National Consultant 1	0.00	6,057.60	0.00	6,084.51	14,375.27	20,459.78	-26,517.38	0.00
GFMON09001	1752	Short-term National Consultant 2	0.00	0.00	0.00	6,084.51	14,375.27	20,459.78	-20,459.78	0.00
GFMON09001	1753	Short-term National Consultant 3	0.00	0.00	0.00	3,071.05	7,388.73	10,459.78	-10,459.78	0.00
GFMON09001	1754	Short-term National Consultant 4	0.00	0.00	0.00	3,071.05	7,388.73	10,459.78	-10,459.78	0.00
GFMON09001	1755	Short-term National Consultant 5	0.00	0.00	0.00	0.00	9.30	9.30	-9.30	0.00
GFMON09001	1756	Short-term National Consultant 6	0.00	0.00	0.00	0.00	9.30	9.30	-9.30	0.00
GFMON09001	1758	Short-term National Consultant 8	0.00	0.00	0.00	3,277.59	4,147.12	7,424.72	-7,424.72	0.00
	1700	National Experts/Consultants	113,623.11	6,057.60	0.00	35,160.51	54,108.66	89,269.18	18,296.33	0.00
GFMON09001	2102	Subcontracts 2	0.00	0.00	0.00	0.00	507.97	507.97	-507.97	0.00
GFMON09001	2104	Subcontracts 4	0.00	0.00	0.00	0.00	19.20	19.20	-19.20	0.00
GFMON09001	2105	Subcontracts 5	0.00	0.00	0.00	0.95	741.22	742.18	-742.18	0.00
	2100	Subcontracts	0.00	0.00	0.00	0.95	1,268.39	1,269.35	-1,269.35	0.00
GFMON09001	3000	Trainings/Fellowships/Study Tours	27,950.51	0.00	0.00	0.00	0.00	0.00	27,950.51	0.00
GFMON09001	3301	In-service training 1	0.00	0.00	0.00	0.00	-66.47	-66.47	66.47	0.00
GFMON09001	3303	In-service training 3	0.00	0.00	0.00	1.77	347.43	349.20	-349.20	0.00
GFMON09001	3304	In-service training 4	0.00	0.00	0.00	3,824.05	17,513.74	21,337.79	-21,337.79	0.00
GFMON09001	3401	Non-UNDP group training 1	0.00	0.00	0.00	0.00	10.08	10.08	-10.08	0.00
	3000	Trainings/Fellowships/Study Tours	27,950.51	0.00	0.00	3,825.82	17,804.78	21,630.60	6,319.91	0.00
GFMON09001	3500	Non-UNDP meeting	15,000.00	0.00	0.00	0.00	0.00	0.00	15,000.00	0.00
GFMON09001	3501	Non-UNDP meeting 1	0.00	0.00	0.00	0.00	23.27	23.27	-23.27	0.00
	3500	Non-UNDP meeting	15,000.00	0.00	0.00	0.00	23.27	23.27	14,976.73	0.00
GFMON09001	4500	Equipment	18,586.04	0.00	0.00	0.00	0.00	0.00	18,586.04	0.00
GFMON09001	4501	Equipment 1	0.00	0.00	0.00	0.00	-104.40	-104.40	104.40	0.00
GFMON09001	4502	Equipment 2	0.00	0.00	0.00	86.34	555.32	641.66	-641.66	0.00
GFMON09001	4503	Equipment 3	0.00	0.00	0.00	15,367.21	0.00	15,367.21	-15,367.21	0.00
GFMON09001	4504	Equipment 4	0.00	0.00	0.00	0.00	10.08	10.08	-10.08	0.00
	4500	Equipment	18,586.04	0.00	0.00	15,453.55	461.00	15,914.55	2,671.49	0.00
GFMON09001	5100	Sundries	8,706.96	0.00	0.00	0.00	0.00	0.00	8,706.96	0.00
GFMON09001	5120	Documents	0.00	0.00	0.00	2,130.00	-92.37	2,037.63	-2,037.63	0.00
GFMON09001	5140	Sundries	0.00	0.00	0.00	1,501.61	274.78	1,776.39	-1,776.39	0.00
	5100	Sundries	8,706.96	0.00	0.00	3,631.61	182.41	3,814.02	4,892.94	0.00
	2012	**2012**	**243,797.32**	**6,057.60**	**0.00**	**77,428.76**	**101,360.55**	**178,789.31**	**58,950.40**	**0.00**

2011

GFMON09001	1151	Short-term international consultant 1	18,162.00	0.00	0.00	0.00	18,162.00	18,162.00	0.00	0.00
GFMON09001	1154	Short-term international consultant 4	194.63	0.00	0.00	0.00	194.63	194.63	0.00	0.00
GFMON09001	1157	Short-term international consultant 7	-307.40	0.00	0.00	0.00	-307.40	-307.40	0.00	0.00
	1100	International Experts/Consultants	18,049.23	0.00	0.00	0.00	18,049.23	18,049.23	0.00	0.00
GFMON09001	1501	Project Travel 1	6,869.01	0.00	0.00	231.52	6,631.68	6,863.20	5.81	0.00
GFMON09001	1502	Project Travel 2	8,715.57	0.00	0.00	0.00	8,715.57	8,715.57	0.00	0.00
GFMON09001	1503	Project Travel 3	13.64	0.00	0.00	0.00	13.64	13.64	0.00	0.00
GFMON09001	1504	Project Travel 4	1,161.29	0.00	0.00	0.00	1,161.29	1,161.29	0.00	0.00
	1500	Travel of project staff	16,759.51	0.00	0.00	231.52	16,522.18	16,753.70	5.81	0.00
GFMON09001	1301	Administrative Support Personnel 1	8,608.13	0.00	0.00	52.20	8,555.93	8,608.13	0.00	0.00
GFMON09001	1302	Administrative Support Personnel 2	-283.48	0.00	0.00	0.00	-283.48	-283.48	0.00	0.00
GFMON09001	1751	Short-term National Consultant 1	24,589.16	0.00	0.00	0.00	24,589.16	24,589.16	0.00	0.00
GFMON09001	1752	Short-term National Consultant 2	24,589.16	0.00	0.00	0.00	24,589.16	24,589.16	0.00	0.00
GFMON09001	1753	Short-term National Consultant 3	12,608.42	0.00	0.00	0.00	12,608.42	12,608.42	0.00	0.00
GFMON09001	1754	Short-term National Consultant 4	12,434.08	0.00	0.00	0.00	12,434.08	12,434.08	0.00	0.00
GFMON09001	1756	Short-term National Consultant 6	-28.67	0.00	0.00	0.00	-28.67	-28.67	0.00	0.00
GFMON09001	1757	Short-term National Consultant 7	-18.60	0.00	0.00	0.00	-18.60	-18.60	0.00	0.00
GFMON09001	1758	Short-term National Consultant 8	8,567.35	0.00	0.00	-403.88	8,971.23	8,567.35	0.00	0.00
GFMON09001	1759	Short-term National Consultant 9	2,600.77	0.00	0.00	0.00	2,600.77	2,600.77	0.00	0.00
GFMON09001	1760	Short-term National Consultant 10	3,120.06	0.00	0.00	1,460.08	1,659.98	3,120.06	0.00	0.00
	1700	National Experts/Consultants	96,786.38	0.00	0.00	1,108.41	95,677.98	96,786.39	-0.01	0.00
GFMON09001	2102	Subcontracts 2	8.15	0.00	0.00	0.00	8.15	8.15	0.00	0.00
GFMON09001	2103	Subcontracts 3	1,170,000.00	0.00	0.00	336,000.00	834,000.00	1,170,000.00	0.00	0.00
GFMON09001	2104	Subcontracts 4	10,020.16	0.00	0.00	460.08	9,560.08	10,020.16	0.00	0.00
	2100	Subcontracts	1,180,028.31	0.00	0.00	336,460.08	843,568.23	1,180,028.31	0.00	0.00
GFMON09001	3301	In-service training 1	3,776.16	0.00	0.00	85.63	3,690.53	3,776.16	0.00	0.00
GFMON09001	3302	In-service training 2	1,580.16	0.00	0.00	58.87	1,521.29	1,580.16	0.00	0.00
GFMON09001	3401	Non-UNDP group training 1	-2,248.00	0.00	0.00	0.00	-2,248.00	-2,248.00	0.00	0.00
GFMON09001	3402	Non-UNDP group training 2	18,605.70	0.00	0.00	47.96	18,557.74	18,605.70	0.00	0.00
	3000	Trainings/Fellowships/Study Tours	21,714.02	0.00	0.00	192.46	21,521.56	21,714.02	0.00	0.00
GFMON09001	3501	Non-UNDP meeting 1	28,486.28	0.00	0.00	165.59	28,320.69	28,486.28	0.00	0.00
	3500	Non-UNDP meeting	28,486.28	0.00	0.00	165.59	28,320.69	28,486.28	0.00	0.00
GFMON09001	4501	Equipment 1	-1,063.63	0.00	0.00	0.00	-1,063.63	-1,063.63	0.00	0.00
GFMON09001	4502	Equipment 2	1,179.44	0.00	0.00	1.53	1,177.91	1,179.44	0.00	0.00
GFMON09001	4504	Equipment 4	14,947.21	0.00	0.00	415.56	14,531.65	14,947.21	0.00	0.00
	4500	Equipment	15,063.02	0.00	0.00	417.08	14,645.93	15,063.01	0.01	0.00
GFMON09001	5140	Sundries	5,314.92	0.00	0.00	13.23	5,301.69	5,314.92	0.00	0.00
	5100	Sundries	5,314.92	0.00	0.00	13.23	5,301.69	5,314.92	0.00	0.00
	2011	**2011**	**1,382,201.67**	**0.00**	**0.00**	**338,588.36**	**1,043,607.49**	**1,382,195.85**	**5.82**	**0.00**

2010

Project No.	Bud Line	Bud Line(T)	Allotments $ (a)	Requisition $ (b)	Unapp Obligs $ (c)	Unliquid Obligs $ (d)	Disbursements $ (e)	Total Exp $ (f=d+e)	Funds Avail $ (g = a-b-c-d-e)	Residuals $ (h)
GFMON09001	1155	Short-term international consultant 5	17,800.82	0.00	0.00	0.00	17,800.82	17,800.82	0.00	0.00
GFMON09001	1156	Short-term international consultant 6	-0.16	0.00	0.00	0.00	-0.16	-0.16	0.00	0.00
GFMON09001	1157	Short-term international consultant 7	12,031.22	0.00	0.00	5,428.82	6,602.40	12,031.22	0.00	0.00
	1100	International Experts/Consultants	29,831.88	0.00	0.00	5,428.82	24,403.06	29,831.88	0.00	0.00
GFMON09001	1501	Project Travel 1	10,202.06	0.00	0.00	0.00	10,202.06	10,202.06	0.00	0.00
GFMON09001	1503	Project Travel 3	4,795.31	0.00	0.00	0.00	4,795.31	4,795.31	0.00	0.00
GFMON09001	1504	Project Travel 4	4,487.98	0.00	0.00	0.00	4,487.98	4,487.98	0.00	0.00
	1500	Travel of project staff	19,485.35	0.00	0.00	0.00	19,485.35	19,485.35	0.00	0.00
GFMON09001	1301	Administrative Support Personnel 1	13,994.97	0.00	0.00	0.00	13,994.97	13,994.97	0.00	0.00
GFMON09001	1302	Administrative Support Personnel 2	6,050.67	0.00	0.00	0.00	6,050.67	6,050.67	0.00	0.00
GFMON09001	1303	Administrative Support Personnel 3	7,901.80	0.00	0.00	0.00	7,901.80	7,901.80	0.00	0.00
GFMON09001	1751	Short-term National Consultant 1	24,556.06	0.00	0.00	0.00	24,556.06	24,556.06	0.00	0.00
GFMON09001	1752	Short-term National Consultant 2	24,556.06	0.00	0.00	0.00	24,556.06	24,556.06	0.00	0.00
GFMON09001	1753	Short-term National Consultant 3	12,543.55	0.00	0.00	0.00	12,543.55	12,543.55	0.00	0.00
GFMON09001	1754	Short-term National Consultant 4	12,517.99	0.00	0.00	0.00	12,517.99	12,517.99	0.00	0.00
GFMON09001	1755	Short-term National Consultant 5	1,729.92	0.00	0.00	0.00	1,729.92	1,729.92	0.00	0.00
GFMON09001	1756	Short-term National Consultant 6	6,808.99	0.00	0.00	0.00	6,808.99	6,808.99	0.00	0.00
GFMON09001	1757	Short-term National Consultant 7	1,218.60	0.00	0.00	1,200.00	18.60	1,218.60	0.00	0.00
GFMON09001	1758	Short-term National Consultant 8	6,314.59	0.00	0.00	0.00	6,314.59	6,314.59	0.00	0.00
GFMON09001	1759	Short-term National Consultant 9	2,510.20	0.00	0.00	0.00	2,510.20	2,510.20	0.00	0.00
GFMON09001	1760	Short-term National Consultant 10	2,960.14	0.00	0.00	0.00	2,960.14	2,960.14	0.00	0.00
	1700	National Experts/Consultants	123,663.54	0.00	0.00	1,200.00	122,463.54	123,663.54	0.00	0.00
GFMON09001	2101	Subcontracts 1	4,000.00	0.00	0.00	0.00	4,000.00	4,000.00	0.00	0.00
GFMON09001	2102	Subcontracts 2	19,904.36	0.00	0.00	0.00	18,538.12	18,538.12	1,366.24	0.00
	2100	Subcontracts	23,904.36	0.00	0.00	0.00	22,538.12	22,538.12	1,366.24	0.00
GFMON09001	3301	In-service training 1	9,367.06	0.00	0.00	0.00	9,367.06	9,367.06	0.00	0.00
GFMON09001	3401	Non-UNDP group training 1	5,270.44	0.00	0.00	0.00	5,270.44	5,270.44	0.00	0.00
	3000	Trainings/Fellowships/Study Tours	14,637.50	0.00	0.00	0.00	14,637.50	14,637.50	0.00	0.00
GFMON09001	3501	Non-UNDP meeting 1	2,202.46	0.00	0.00	0.00	2,202.46	2,202.46	0.00	0.00
	3500	Non-UNDP meeting	2,202.46	0.00	0.00	0.00	2,202.46	2,202.46	0.00	0.00
GFMON09001	4501	Equipment 1	26,600.80	0.00	0.00	3,127.15	23,473.65	26,600.80	0.00	0.00
GFMON09001	4502	Equipment 2	414.90	0.00	0.00	0.00	414.90	414.90	0.00	0.00
GFMON09001	4504	Equipment 4	2,900.00	0.00	0.00	0.00	2,900.00	2,900.00	0.00	0.00
GFMON09001	4505	Equipment 5	86,964.21	0.00	0.00	9,553.65	77,410.55	86,964.20	0.01	0.00
	4500	Equipment	116,879.91	0.00	0.00	12,680.80	104,199.10	116,879.90	0.01	0.00
GFMON09001	5120	Documents	3,017.39	0.00	0.00	79.96	2,937.43	3,017.39	0.00	0.00
GFMON09001	5140	Sundries	2,960.74	0.00	0.00	62.43	2,898.31	2,960.74	0.00	0.00
	5100	Sundries	5,978.13	0.00	0.00	142.39	5,835.74	5,978.13	0.00	0.00
	2010	**2010**	**336,583.13**	**0.00**	**0.00**	**19,452.01**	**315,764.87**	**335,216.88**	**1,366.25**	**0.00**

2009

Project No.	Bud Line	Bud Line(T)	Allotments $ (a)	Requisition $ (b)	Unapp Obligs $ (c)	Unliquid Obligs $ (d)	Disbursements $ (e)	Total Exp $ (f=d+e)	Funds Avail $ (g = a-b-c-d-e)	Residuals $ (h)
GFMON09001	1153	Short-term international consultant 3	26,951.68	0.00	0.00	0.00	26,951.67	26,951.67	0.01	0.00
GFMON09001	1154	Short-term international consultant 4	19,269.00	0.00	0.00	0.00	19,269.00	19,269.00	0.00	0.00
GFMON09001	1155	Short-term international consultant 5	7,992.81	0.00	0.00	0.00	7,992.81	7,992.81	0.00	0.00
GFMON09001	1156	Short-term international consultant 6	2,065.79	0.00	0.00	0.00	2,065.79	2,065.79	0.00	0.00
	1100	International Experts/Consultants	56,279.28	0.00	0.00	0.00	56,279.27	56,279.27	0.01	0.00
GFMON09001	1501	Project Travel 1	38,165.25	0.00	0.00	0.00	38,165.26	38,165.26	-0.01	0.00
	1500	Travel of project staff	38,165.25	0.00	0.00	0.00	38,165.26	38,165.26	-0.01	0.00
GFMON09001	1301	Administrative Support Personnel 1	2,269.47	0.00	0.00	0.00	2,269.47	2,269.47	0.00	0.00
GFMON09001	1302	Administrative Support Personnel 2	1,603.79	0.00	0.00	0.00	1,603.78	1,603.78	0.01	0.00
GFMON09001	1751	Short-term National Consultant 1	11,751.38	0.00	0.00	0.00	11,751.38	11,751.38	0.00	0.00
GFMON09001	1752	Short-term National Consultant 2	11,751.38	0.00	0.00	0.00	11,751.38	11,751.38	0.00	0.00
GFMON09001	1753	Short-term National Consultant 3	5,998.38	0.00	0.00	0.00	5,998.37	5,998.37	0.01	0.00
GFMON09001	1754	Short-term National Consultant 4	5,998.38	0.00	0.00	0.00	5,998.37	5,998.37	0.01	0.00
GFMON09001	1755	Short-term National Consultant 5	2,997.12	0.00	0.00	0.00	2,997.12	2,997.12	0.00	0.00
GFMON09001	1756	Short-term National Consultant 6	3,397.12	0.00	0.00	0.00	3,397.12	3,397.12	0.00	0.00
GFMON09001	1758	Short-term National Consultant 8	159.92	0.00	0.00	0.00	159.92	159.92	0.00	0.00
	1700	National Experts/Consultants	45,926.94	0.00	0.00	0.01	45,926.91	45,926.92	0.02	0.00
GFMON09001	3301	In-service training 1	3,628.90	0.00	0.00	0.00	3,628.91	3,628.91	-0.01	0.00
	3000	Trainings/Fellowships/Study Tours	3,628.90	0.00	0.00	0.00	3,628.91	3,628.91	-0.01	0.00
GFMON09001	3501	Non-UNDP meeting 1	5,527.45	0.00	0.00	0.00	5,527.44	5,527.44	0.01	0.00
	3500	Non-UNDP meeting	5,527.45	0.00	0.00	0.00	5,527.44	5,527.44	0.01	0.00
GFMON09001	4501	Equipment 1	27,973.89	0.00	0.00	0.00	27,973.91	27,973.91	-0.02	0.00
	4500	Equipment	27,973.89	0.00	0.00	0.00	27,973.91	27,973.91	-0.02	0.00
	2009	**2009**	**177,501.71**	**0.00**	**0.00**	**0.01**	**177,501.70**	**177,501.71**	**0.00**	**0.00**

Source and date of information: UNIDO Infobase, october 2011

Budget summary

2009	177,501
2010	335,216
2011	1,382,195
(Oct)2012	178,789
Total	**2,073,701**

II. Objectives and scope of the evaluation

The purpose of the mid-term evaluation is that the GEF, UNIDO and partners of the country:
a) review
- Project advances to the achievement of the regulatory development and PCBs inventory.
- The activities and project results and achievements through their indicators.
- The relevance of objectives and other design elements of the project.

(b) Propose recommendations that would increase efficiency and effectiveness of project activities.
(c) Draw lessons learned in the process to introduce the ESM of PCB-containing equipment.

III. Methodology

The evaluation will be conducted by UNIDO accordingly to the guidelines and policies of the GEF in an independent manner. This evaluation will take a participatory approach in which project staff will be kept informed and regularly consulted during the evaluation, the evaluation team leader will contact the GEF team for any logistical and methodological basis for properly carry out the review.

The methodology is based on:

1. A review of project documents, including but not limited to: The original project document,**monitoring reports**, **GEF tracking tool**, progress and financial conciliatory monthly reports of UNIDO and GEF PIR and annual progress reports,reports of PCBs inventory, training workshops and capacity building activities, legal documents (PCBs regulations, standards and guidelines) and relevant correspondence. Other related materials prepared by the project.

2. The evaluation team could use the models available from (or reconstruct, if necessary) the theory of change for different types of intervention (capacity, investment, demonstration). The validity of the theory of change is examined through specific questions in the interviews and, possibly, through a survey of stakeholders.

3. Counterfactual information: In cases where the background information for the benchmarks is not available the evaluation team will aim at establishing a baseline approach through recall and secondary information.

4. Interviews with the Project Coordination Unit (PCU), personnel associated with project management, partner country focal points, project beneficiaries, and other surveys, reviews of documents deemed necessary by the evaluation team and/or UNIDO.

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 project activities, including interviews of actual and potential beneficiaries of improved methods, practices and/or technologies.

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 1.

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/driveness" 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?

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:

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.)
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?
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?

E.

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

- **M&E design.** Does the project have a 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 2) .

- **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:

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?
What were the accomplishments and shortcomings in establishment of this system?
Is the system sustainable—that is, is it embedded in a proper institutional structure and does it have financing?

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…)

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:

a. **Preparation and readiness.** Were the project's objectives and components clear, practicable, and feasible within its time frame? Were counterpart resources (funding, staff, and facilities), and adequate project management arrangements in place at project entry?

b. **Country ownership/drivenness.** 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 multicountry 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 multicountry projects—approved policies or regulatory frameworks in line with the project's objectives?

c. **Stakeholder involvement.** Did the project involve the relevant stakeholders through information sharing and consultation. Did the project implement appropriate outreach and public awareness

campaigns? Were the relevant vulnerable groups and powerful supporters and opponents of the processes properly involved?

d. **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 co-financing materialize?

e. **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 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?

V. Evaluation Team and Timing

The evaluation team will be composed of one international evaluation.

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 two years after completion of the evaluation.

The consultant will be contracted by UNIDO. The tasks of the consultant are specified in the job description attached to these terms of reference.

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

The project staff and the UNIDO Field Office in Ulaanbaatar City 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 September 2012 to November 2012. The field mission for the evaluation is scheduled for end of October 2012.

After the field mission, the evaluation team leader will present preliminary findings to project- and UNIDO staff. The draft evaluation report will be submitted 6-8 weeks after the presentation of preliminary findings 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 timetable[6].

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 3.

The evaluation report shall follow the structure given in annex 3. The reporting language will be English.

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 4).

The draft report will be delivered to UNIDO and circulated to UNIDO staff associated with the project, including the UNIDO office in Beijing, China.

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

Annex 1. 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 general information:

Project Name:	**Capacity building for environmentally sound PCBs management and disposal in Mongolia**
Project's GEF ID Number:	**3542**
GEF Agency Project ID	
Countries:	**Mongolia**
GEF Focal Area and Operational Program:	**Persistent Organic Pollutants – OP 14**
Agency:	**UNIDO**
Other Cooperating Agencies:	**Ministry of Nature, Environment and Tourism (Mongolia)**
Project Approval Date:	**May, 2009**
Date of Project Effectiveness:	**July 2009**
Project duration:	**Four years**
Total Project Cost:	**US $ 8,208,318.00**
GEF Grant Amount:	**USD 2,650,000**
GEF Project Preparation Grant Amount (if any):	**US$ 130,000.00**

II. Dates

Milestone	Expected Date	Actual Date
Agency Approval date	**May, 2009**	**May, 2009**
Implementation start	**July 2009**	**July 2009**
Midterm evaluation	**July 2011**	**March 2012**
Project completion	**July 2013**	**July 2013**
Terminal evaluation completion	**August 2013**	**August 2013**
Project closing	**August 2013**	**August 2013**

III. Project Framework

Project Component	Activity Type	GEF Financing (in $)		Cofinancing (in $)	
		Approved	Actual	Promised	Actual
1.Capacity building	a, b	300,430		571,200	
2.ESM of PCBs	a, b	2,219,570		4,842,518	
3.Project management	a, b	130,000		144,600	
Total		**2,650,000**		**5,558,318**	

Activity types are:

experts researches hired
technical assistance, Workshop, Meetings or experts consultation scientific and technical analysis, experts researches hired
Promised co-financing refers to the amount indicated on endorsement/approval.

IV. Co-financing

Co-financingSources				
Name of co-financier (source)	Classification	Type	Amount ($)	Status
Ministry of Nature, Environment and Tourism	National Government	Cash	218,500	Confirmed
		In Kind	735,381	Confirmed
Ministry of Mineral Resources and Energy	National Government	Cash	61,000	Confirmed
		In kind	203,967	Confirmed
Central Regional Electricity Transmission Grid State Owned Company	National Counterpart	In kind	3,239,470	Confirmed
Ulaanbaatar Electricity Distribution Network State Owned Company	National Counterpart	In Kind	1,000,000	Confirmed
UNIDO	Implementing Agency	In Kind	100,000	Confirmed
Sub-total co-financing			5,558,318	

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 2 - GEF Minimum requirements for M&E[7]

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.

[7] http://gefeo.org/uploadedFiles/Policies_and_Guidelines-me_policy-english.pdf

Annex 3 - 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. Countries and project background

- Brief countries 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 project[8] 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:

A. Design

B. Relevance (Report on the relevance of project towards countries and beneficiaries)

C. Effectiveness (Report the achievement of Transboundary Diagnostic Analysis (TDA), field pilot projects, program outreach, and overall impacts commensurate with project objectives and catalytic effects)

D. Efficiency (Report on the overall cost-benefit of the project and partner Countries contribution to the achievement of project objectives)

[8] 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.)

E. Sustainability (Report on the risks and vulnerability of the project, considering the likely effects of sociopolitical and institutional changes in partner countries, and its impact on continuation of benefits after the GEF project ends)

F. Project coordination and management (Report the current conditions of project M&E implementation, project management conditions and achievements, relevance of partner countries participation)

G. (Report on project management conditions, country ownership, stakeholder involvement, partner countries commitment, implementation agency support, and project outcomes benefits and impacts)

At the end of this chapter, an overall project achievement rating should be developed as required in Annex 5. 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?		
A. Were the report consistent and the evidence complete and convincing?		
A. Did the report present assessment the sustainability of outcomes or did it explain why this is not (yet) possible?		
A. Did the evidence presented support the lessons and recommendations?		
A. Did the report include the actual project costs (total and per activity)?		
A. Quality of the lessons: Were lessons readily applicable in other contexts? Did they suggest prescriptive action?		
A. 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?		
A. Was the report well written? (Clear language and correct grammar)		
A. Were all evaluation aspects specified in the TOR adequately addressed?		
A. Was the report delivered in a timely manner?		

Annex 4 - 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 5. 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 6. Job Descriptions

Job Description

Project GFMON09001 (SAP ID 104049, 104049-1-04-02)

Post title International Evaluation Consultant

Duration 30 work days including travel to Ulaanbaatar for 7 days (inclusive of travel days) over a period until 30 November 2012

Started date 10 September – 30 November 2012

Duty station Home based in Sarajevo, Bosnia and Herzegovina, and travel to Ulaanbaatar, Mongolia

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	Continuously	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

Main duties	Duration/ location	Deliverables
Briefing with the UNIDO Evaluation Group, project managers and other key stakeholders.	Continuously including travel to Ulaan Baatar, Mongolia	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	Continuously	Inception report
Conduct field mission to Ulaanbaatar in March 2012	Continuously	Presentations of the evaluation's initial findings, draft conclusions and recommendations to stakeholders in Ulaanbaatar 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)	Continuously	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	Continuously	2 Draft evaluation report Brief input report to country evaluation
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	Continuously	Final evaluation report
TOTAL	**30 days**	

Qualifications and skills:

Degree in environmental science, development studies or related areas
Knowledge of and experience in environmental projects management and/or evaluation
Experience in GEF projects and knowledge of UNIDO activities an asset
Working experience in developing countries.

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.

Annex 3 - List of Interviewees

Institution	Person	Position
MNEGD/Project Coordination Unit	Dr. L. Jargalsaikhan	National Project Director
MNEGD/Project Coordination Unit	R. Ariunbileg	National Project Coordinator
NMEGD/Project Coordination Unit	T. Myagmarsuren	National Consultant
MNEGD/Project Coordination Unit	B. Purevdorj	National Consultant
MMRE	Jamba GEREL	Senior Specialist of the Energy Policy Coordination Department
UEDC	B.Nyambayar	Head of Transformer Maintenance Facility
UEDC	Eyrmek	Employee
NPTC	B.Galbadrakh	Plant Manager
NPTC	E.Bat-Orshikh	PCB Project Manager
NPTC	Jamsrandorj KHAND-ISH, PhD	Head of Power Engineering Center
ICCT	M.Bayarjargal	Head of Laboratory
ICCT	Otgonsuren	Research worker
MNEGD	Altangerel ENKHBAT	GEF Operational Focal Point
GASIM	Natsagdorj ENKHTAIVAN	State Inspector of Border Control
UNIDO, Stockholm Convention Unit	Fukuya IlNO	Project Manger
Sea Marconi	Simone MAINA	Quality Manager

Annex 4 - List of Documents Reviewed

Document title	Author	Type	Date
PROJECT DOCUMENT: Capacity Building for Environmentally Sound PCBs management and disposal	GEF, UNIDO	Project Document	June 1, 2009
Progress Report Year 1	-	Project Report	August 5, 2010
Report on Laboratory Training on the Method of Determination of PCBs in Transformer Oil by Gas Cromatography	Sea Marconi Technologies: (Ph.D) P Odonmajig, (Ph.D) J. Narangerel, (Ph.D) M. Bayar-jargal, B. Purevdorj	Training Report	January 14, 2011
Meeting Report: Technology Vendor Consultation Meeting	-	Workshop Report	April 18, 2011
Tender Specifications for a Non-Combustion Decontamination Technology for PCBs Containing Equipment and Oil	-	Terms of Reference	July 18, 2011
Progress Report Year 2	-	Project Report	August 5, 2011
Contract No. 16002403 between UNIDO and Sea Marconi Technologies S.A.S.	-	Contract	December 1, 2011
Open Day Report	-	Workshop Report	January 16, 2012
Minutes of Kick Off Meeting, Project “Introduction of non-combustion decontamination technology for PCB containing equipment and oil in Mongolia	-	Minutes	February 16, 2012
Training on New Regulation on PCBs and Inventory Methods for the Companies Who Own Oil Containing Electrical Equipment in the Central and Eastern Regions of Mongolia	-	Training Report	April 6, 2012
National Consultant’s Report	Ms. Jargalsaikhan Lkhasuren	Work Report	April 27, 2012
National Consultant’s Report	Mrs. Ariunbileg Radnaa	Work Report	April 27, 2012
National Consultant’s Report	Ms. Myagmarsuren Tudevbazar	Work Report	April 28, 2012
Regional Training on PCBs and BAT/BEP for the Customs Officers and the State Specialized Inspectors	-	Training Report	June 18, 2012

Document title	Author	Type	Date
Regional Training on PCBs and BAT/BEP for the Customs Officers and the State Specialized Inspectors	-	Training Report	June 22, 2012
Mongolia PCB Project Briefing Note	-	Project Report	September 1, 2012
Progress Report Year 3	-	Project Report	September 1, 2012
Workplan	-	Planing document	September 1, 2012
Policy Workshop for the Staff of the Cabinet Secretariat of the Government of Mongolia	-	Workshop Report	12 February, 2011
National Training on PCBs Reporting Requirements and Inventory Methods for Operational Safety Engineers of Electricity Companies and Power Plants	-	Training Report	20 September, 2010
Inception Workshop Report	-	Workshop Report	25 September, 2009
Workshop for Management of the Central Regional Electricity Transmission Grid Company	-	Workshop Report	27 January, 2012
Report on treatment facility at Tuul SS	Sea Marconi Technologies, Michael Mueller	Assessment	April, 2012
Work Report of Inventory Team	B. Purevdorj, Project; N. Munkhbayar; Ch. Munkhtuya	Work Report	April, 2012
Acceptance Test of PCBs Decontamination Plant by Sea Marconi Technologies under the UNIDO Contract No 16002403	-	Mission Report	August, 2012
Technical Note Rel_LAB05/2010	Ricardo Maina	Monitoring Report	
Establishment of the PCB laboratory at the Institute od Chemistry and Chemical Technology		Costs Estimates/	
PCBs Health and Socio-Economic Impact Assessment Study		Terms of Reference	

Document title	Author	Type	Date
Handbook on PCBs effect to health and safety measures		Publication	2010

Annex 5 - Evaluation Matrix

Evaluation Questions	Indicators	Sources	Data Collection Method
EVALUATION CRITERIA: Project relevance			
1. Did the project's objective fit within the priorities of the government and project stakeholders?	Level of coherence between project objective and stated priorities of government and project stakeholders	Government representatives and stakeholders	Interviews with government representatives and project stakeholders
2. Did the project's objective fit within national priorities?	Level of coherence between project objective and national policy priorities and strategies, as stated in official documents	National policy documents, such as National Implementation Plan of the Stockholm Convention	Desk review National level interviews
3. Did the project's objective fit GEF strategic priorities (focal areas/operational program strategies)?	Level of coherence between project objective and GEF strategic priorities	GEF strategic priority documents for period when project was approved Current GEF strategic priority documents	Desk review
4. Did the project's objective support implementation of the Stockholm Convention?	Linkages between project objective and elements of the Stockholm Convention, such as key articles and programs of work	Convention website National Implementation Plan of the Stockholm Convention	Desk review
5. Are the project objectives in line with the UNIDO mandate?	Linkages between project objective and UNIDO mission	UNIDO mission and thematic priorities	Desk review
EVALUATION CRITERIA: Project design			
6. Is the project adequate to address the problems at hand?	Adequacy of proposed and implemented project measures, level of impact to the problem as a whole and/or to individual problem segments	Project documents, National policy documents, Government representatives, Project staff, stakeholders	Desk review Interviews Field visits
7. Was a participatory project identification process applied and was it instrumental in selecting problem areas and national counterparts?	Level of involvement of local and national stakeholders in project origination and development	Project staff Local and national stakeholders Project documents	Field visit Interviews Desk review

Evaluation Questions	Indicators	Sources	Data Collection Method
8. Does the project have a clear thematically focused development objective, the attainment of which can be determined by a set of verifiable indicators?	Existence of clearly defined project outputs that are attainable and well linked with the project goals	Project documents Project staff	Desk review Interviews with project staff
9. Was the project formulated based on the logical framework approach?	Existence of clearly defined project logical framework with SMART indicators attached to all expected outputs	Project documents Project staff	Desk review Interviews with project staff
10. Was the project formulated with the participation of national counterpart and/or target beneficiaries?	Level of involvement of national counterparts in project origination and development	Project staff National counterparts Project documents	Desk review Interviews with national counterparts
EVALUATION CRITERIA: Effectiveness			
11. Are the project objectives likely to be met? To what extent are they likely to be met?	Level of progress toward project indicator targets relative to expected level at current point of implementation	Project documents Project staff Project stakeholders	Field visit Interviews Desk review
12. Have the planned outputs been produced? Have they contributed to the project outcomes and objectives?	Level of project implementation progress relative to expected level at current stage of implementation Existence of logical linkages between project outputs and outcomes/impacts	Project documents Project staff Project stakeholders	Field visit interviews Desk review
13. Are the anticipated outcomes likely to be achieved? Are the outcomes likely to contribute to the achievement of the project objective?	Existence of logical linkages between project outcomes and impacts	Project documents Project staff Project stakeholders	Field visit interviews Desk review
14. What were the key factors contributing to project success or underachievement?	Level of documentation of and preparation for project risks, assumptions and impact drivers	Project documents Project staff Project stakeholders	Field visit Interviews Desk review
15. What are the key risks and priorities for the remainder of the implementation period?	Presence, assessment of, and preparation for expected risks, assumptions and impact drivers	Project documents Project staff Project stakeholders	Field visit Interviews Desk review

Evaluation Questions	Indicators	Sources	Data Collection Method
16. Are the key assumptions and impact drivers relevant to the achievement of Global Environmental Benefits likely to be met?	Actions undertaken to address key assumptions and target impact drivers	Project documents Project staff Project stakeholders	Field visit interviews Desk review
17. Are impact level results likely to be achieved? Are the likely to be at the scale sufficient to be considered Global Environmental Benefits?	Environmental indicators	Project documents Project staff Project stakeholders	Field visit interviews Desk review
18. How do stakeholders perceive the quality of the outputs and impacts, and overall project success?	Level of satisfaction of project stakeholders with project targets and outputs, and with the project implementation	Project stakeholders	Interviews
19. Were the target beneficiaries reached?	Amount of beneficiaries reached within the project implementation in comparison to planned	Project documents Project staff	Field visit Interviews Desk review
20. Were the project's long-term impacts assessed or any steps taken to consider long-term impacts and report on them?	Assessment of long term impacts included in project documents or considered by the project stakeholders	Project documents Project staff Project stakeholders	Interviews Desk review
21. Does the project have any catalytic or replicable effect or the potential have it?	Existence of perceived or expected positive changes occurred in the sector at hand and related sectors, as a result of project but not not directly supported by project outputs; identified new technical solutions or innovative approaches derived from the project that can be further utilized nationally or internationally	Project staff Project documents Project stakeholders	Field visit interviews Desk review
EVALUATION CRITERIA: Efficiency			
22. Was the project cost-effective?	Quality and adequacy of financial management procedures	Project documents Project staff	Desk review Interviews with project staff
23. Were expenditures in line with international standards and norms?	Cost of project inputs and outputs relative to norms and standards for donor projects in the country or region	Project documents Project staff	Desk review Interviews with project staff
24. Was the project implementation delayed? If so, did that affect cost-effectiveness?	Project milestones in time Required project adaptive management measures related to delays	Project documents Project staff	Desk review Interviews with project staff

Evaluation Questions	Indicators	Sources	Data Collection Method
25. What was the contribution of cash and in-kind co-financing to project implementation timely and adequate to meet the requirements?	Level of cash and in-kind co-financing relative to expected level, timeline of contributions	Project documents Project staff	Desk review Interviews with project staff
26. To what extent did the project leverage additional resources?	Amount of resources leveraged relative to project budget	Project documents Project staff	Desk review Interviews with project staff
27. To what extent did the UNIDO support the project implementation?	Resources and time dedicated to project implementation	Project documents Project staff	Desk review Interviews with project staff
EVALUATION CRITERIA: Sustainability of project outcomes			
FINANCIAL RISKS 28. To what extent are project results likely to be dependent on continued financial support? What is the likelihood that any required financial resources will be available to sustain the project results once the GEF assistance ends?	Financial requirements for maintenance of project benefits Level of expected financial resources available to support maintenance of project benefits Potential for additional financial resources to support maintenance of project benefits	Project documents Project staff Project stakeholders	Field visit Interviews Desk review
SOCIOPOLITICAL RISKS 29. Do relevant stakeholders have or are likely to achieve an adequate level of “ownership” of results, to have the interest in ensuring that project benefits are maintained?	Level of initiative and engagement of relevant stakeholders in project activities and results	Project documents Project staff Project stakeholders	Field visit Interviews Desk review
30. Do relevant stakeholders have the necessary technical capacity to ensure that project benefits are maintained?	Level of technical capacity of relevant stakeholders relative to level required to sustain project benefits	Project documents Project staff Project stakeholders	Field visit Interviews Desk review
31. To what extent are the project results dependent on socio-political factors?	Existence of socio-political risks to project benefits	Project documents Project staff Project stakeholders	Field visit Interviews Desk review

Evaluation Questions	Indicators	Sources	Data Collection Method
INSTITUTIONAL FRAMEWORK AND GOVERNANCE RISKS 32. To what extent are the project results dependent on issues relating to institutional frameworks and governance?	Existence of institutional and governance risks to project benefits	Project documents Project staff Project stakeholders	Field visit Interviews Desk review
ENVIRONMENTAL RISKS 33. Are there any environmental risks that can undermine the future flow of project impacts and Global Environmental Benefits?	Existence of environmental risks to project benefits	Project documents Project staff Project stakeholders	Field visit Interviews Desk review
EVALUATION CRITERIA: Monitoring and evaluation and project management			
M&E DESIGN 34. Does the project have a M&E plan to monitor results and track progress towards achieving project objectives?	Existence of concrete and fully budgeted monitoring and evaluation plan	Project documents Project staff	Desk review Interviews
35. Does the project meet minimum requirements for the application of M&E plan?	Existence of SMART indicators for project implementation Identification of reviews and evaluations that will be undertaken	Project documents Project staff	Desk review Interviews
M&E IMPLEMENTATION 36. Is the M&E system in place and operational?	Existence of annual project reports that were complete and accurate with well-justified ratings Use of of the information provided by the M&E, incl. SMART indicators, to improve performance or adapt to changing needs The budget for M&E is spent as planned	Project documents Project staff	Desk review Interviews
37. Are the prospects ensured for continued use of the M&E system after the project closure?	Provided trainings to parties responsible for M&E	Project documents Project staff	Desk review Interviews

Evaluation Questions	Indicators	Sources	Data Collection Method
BUDGETING AND FUNDING FOR M&E 38. Is the amount and timing of funding for M&E appropriate to the scale of project and its needs?	Existence of properly budgeted and executed activities for monitoring and evaluation	Project documents Project staff	Desk review Interviews
MONITORING OF LONG-TERM CHANGES 39. Did this project contribute to the establishment of a long-term monitoring system embodied in proper institutional structure and ensured financing?	Existence of realistic plans of incorporating long-term monitoring system into regular operation of government bodies and agencies	Project documents Project staff Government representatives	Desk review Interviews
PROJECT MANAGEMENT NOTE: Treated by set of several questions throughout the evaluation matrix.			
EVALUATION CRITERIA: Process affecting attainment of project results. NOTE: Treated by set of several questions throughout the evaluation matrix.			

Annex 6 - Evaluation Documentation

New laboratory equipment for PCB identification and analysis at ICCT in Ulaanbaatar (9 October 2012)

Location of the new PCB treatment facility at Tuul substation in Ulaanbaatar (9 October 2012)

Workshop for customs inspection in Zamiin Uud (10 October 2012)