



PROJECT IDENTIFICATION FORM (PIF)

PROJECT TYPE: Full-sized Project

TYPE OF TRUST FUND: GEF Trust Fund

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PART I: PROJECT INFORMATION

Project Title:	Disposal of PCB oils contained in transformers and disposal of capacitors containing PCB in Southern Africa		
Country(ies):	Regional: Botswana , Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, Swaziland, Tanzania, Zambia, Zimbabwe	GEF Project ID: ¹	5532
GEF Agency(ies):	UNEP	GEF Agency Project ID:	00805
Other Executing Partner(s):	Africa Institute (Basel Convention and Stockholm Convention regional centre) in cooperation with UNEP/DTIE	Submission Date:	30.12.2013
		Resubmission Date:	24.01.2014
GEF Focal Area (s):	Chemicals (Persistent Organic Pollutants)	Project Duration (Months)	60
Name of parent program (if applicable):		Project Agency Fee (\$):	732,450
<ul style="list-style-type: none"> • For SFM/REDD+ <input type="checkbox"/> • For SGP <input type="checkbox"/> • For PPP <input type="checkbox"/> 			

A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK²:

Focal Area Objectives	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
CHEM-1: Phase out POPs and reduce POPs releases	GEFTF	7,710,000	31,440,000
Total Project Cost		7,710,000	31,440,000

B. INDICATIVE PROJECT DESCRIPTION SUMMARY

Project Objective: To reduce environmental and human health risks from PCB releases through the demonstration of a regional approach to the introduction of cost-effective and socially acceptable environmentally sound management (ESM) of PCB oils, equipment and wastes held by electrical utilities and other PCB owners in participating countries.

Project Component	Grant Type	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Co-financing (\$)
1. Enhancement and regional harmonization of national regulatory infrastructure and sustainable mechanisms	STA	National regulation and international requirements identified in 12 participating countries including infrastructure and enforcement capacities	1.1 National regulations in 12 countries on the ESM of PCB and PCB wastes in the context of the Stockholm and Basel Conventions reviewed in a coordinated manner	GEF TF	740,000	7,000,000
			1.2 Administrative capacity for controlling PCB in 12 participating countries			
		Regionally harmonized approach for the environmentally sound	1.3 Regional scheme for ESM and PCB treatment developed and applied in 12 countries			

¹ Project ID number will be assigned by GEFSEC.

² Refer to the reference attached on the [Focal Area Results Framework and LDCF/SCCF Framework](#) when completing Table A.

		management of PCB oils, equipment and wastes				
2. Enhanced regional capacity for ESM of PCB containing equipment in service	STA	<p>Sound basis established in 12 countries to monitor PCB-containing equipment in service and tracking system established to follow until final phase out of PCB in electrical equipments.</p> <p>Result: Reduced risk of PCB releases from equipment remaining in service and demonstration of progressive phase-out of PCB in use</p>	2.1 Templates developed for PCB inventories and tracking system (PCB in use and waste), training for identification and quantification of PCB containing oils and equipment	GEF TF	930,000	6,000,000
			2.2 Detailed inventories of PCB containing oils and equipment held by utility companies in 12 participating countries developed (in use and in waste)			
			2.3 Detailed inventories of PCB containing oils and equipment held by other sectors in 12 countries developed			
			2.4 Regional decision making meeting to discuss quantitative inventories developed for PCB in use and PCB waste (including equipment); containing type, timelines, sector/owner and propose phase-out plan (including preparation of draft documents)			
			2.5 Proposal for phase out plan developed and endorsed by utility companies and other PCB containing equipment owners			
3. Regional mechanism for ESM of decommissioned PCB liquids and equipment	STA	At regional level – 12 countries – PCB and PCB containing equipment collected, transported and disposed off in an environmentally sound manner	3.1 Capacity of utilities for collection, draining and transport of PCB contaminated transformers developed	GEF TF	4,550,000	12,240,000
			3.2 at least 3,000 transformers collected at national storage and 80% of them drained			
			3.3 at least 1,000 capacitors containing PCB oil identified and collected at the central interim storage site before export/treated			
			3.4 PCB from transformers and full capacitors (expected 4,000) exported for			

			destruction at a dedicated facility			
		Regional approach for the phase out and disposal of PCB recognized through independent monitoring	3.5 Project activities monitored by third party			
4. Stakeholder lessons learned and regional capacity developed to finalize phase out of PCB and model developed for replication	STA	Successful phase out and disposal of PCB and PCB-containing equipment according to national and international regulations and standards implemented. Thus, reduction in uncontrolled trade of PCB oils and equipment; and Best practices developed for implementing ESM in subsequent projects	4.1 National and regional reports prepared to summarize activities and quantitative achievements including costing	GEF TF	1,100,000	3,200,000
			4.2 Regional stakeholder results and lessons learned; workshop to revisit national reports and endorse the regional report			
			4.3 Best practices for introduction of ESM identified, documented and disseminated to participants, other stakeholders and Parties of the Stockholm Convention			
Sub-Total					7,320,000	28,440,000
Project Management Cost				GEF TF	390,000	3,000,000
Total Project Costs					7,710,000	31,440,000

C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, (\$)

Sources of Cofinancing	Name of Co-financier	Type of Co-financing	Amount (\$)
Project Government Contribution	12 participating governments, USD 1,000,000 each (= USD 200,000 <i>per year</i>)	In-kind	12,000,000
UNEP	UNEP/DTIE, Chemicals Branch	In-kind	510,000
Multilateral Agency(ies)	Africa Institute	In-kind	2,000,000
	Africa Institute	Associated project grants	2,000,000
Private Sector	National utilities	Cash	8,000,000
		in-kind	4,000,000
	National holders of PCB other than utilities	Cash	1,000,000
		in-kind	930,000
Others	South African Power Pool (SAPP), Harare	in-kind	1,000,000
Total Co-financing			31,440,000

D. INDICATIVE TRUST FUND RESOURCES (\$) REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY¹

GEF Agency	Type of Trust Fund	Focal Area	Country Name/Global	Grant Amount (\$) (a)	Agency Fee (\$) (b) ²	Total (\$) c=a+b
UNEP	GEF TF	Chemicals/ POPs	Regional: Botswana, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, Swaziland, Tanzania, Zambia, Zimbabwe	7,710,000	732,450	8,442,450
Total Grant Resources				7,710,000	732,450	8,442,450

¹ In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table. PMC amount from Table B should be included proportionately to the focal area amount in this table.

² Indicate fees related to this project.

E. PROJECT PREPARATION GRANT (PPG)³

Please check on the appropriate box for PPG as needed for the project according to the GEF Project Grant:

	<u>Amount Requested (\$)</u>	<u>Agency Fee for PPG (\$)⁴</u>
• No PPG required.	<u>-- 0--</u>	<u>--0--</u>
• (upto) \$50k for projects up to & including \$1 million	<u> </u>	<u> </u>
• (upto) \$100k for projects up to & including \$3 million	<u> </u>	<u> </u>
• (upto) \$150k for projects up to & including \$6 million	<u> </u>	<u> </u>
• (upto) \$200k for projects up to & including \$10 million	<u> 90,000 </u>	<u> 8,550 </u>
• (upto) \$300k for projects above \$10 million	<u> </u>	<u> </u>

PPG AMOUNT REQUESTED BY AGENCY(IES), FOCAL AREA(S) AND COUNTRY(IES) FOR MFA AND/OR MTF PROJECT ONLY

Trust Fund	GEF Agency	Focal Area	Country Name/ Global	(in \$)		
				PPG (a)	Agency Fee (b)	Total c = a + b
(select)	(select)	(select)				0
(select)	(select)	(select)				0
(select)	(select)	(select)				0
Total PPG Amount				0	0	0

MFA: Multi-focal area projects; MTF: Multi-Trust Fund projects.

³ On an exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

⁴ PPG fee percentage follows the percentage of the GEF Project Grant amount requested.

PART II: PROJECT JUSTIFICATION⁵

A. PROJECT OVERVIEW

A.1. Project Description. Briefly describe the project, including ; 1) the global environmental problems, root causes and barriers that need to be addressed; 2) the baseline scenario and any associated baseline projects, 3) the proposed alternative scenario, with a brief description of expected outcomes and components of the project, 4) incremental/additional cost reasoning and expected contributions from the baseline , the GEFTF, LDCF/SCCF and co-financing; 5) global environmental benefits (GEFTF, NPIF) and/or adaptation benefits (LDCF/SCCF); 6) innovativeness, sustainability and potential for scaling up

The objective of this project is to reduce environmental and human health risks from PCB releases through the demonstration of a regional approach to the introduction of cost-effective and socially acceptable environmentally sound management (ESM) practices for oils, equipment and wastes consisting of, containing or contaminated by PCB held by electrical utilities and others in participating countries.

As seen above, the project is in line with the Objective 1 of the Chemicals/POPs Focal Area for GEF V, mainly covering Expected Outcomes 1.4 and 1.5.

The need to address the ESM of PCB by pooling together the limited capacity and resources of individual countries via a sub-regional approach has been given priority in the Environmental Action Plan of the New Partnership for Africa's Development (NEPAD). In his opening speech at the occasion of the Second Partners Conference on the NEPAD Environment Action Plan held in Dakar from 15 to 16 March 2005, the president of Senegal, H.E. Mr. A. Wade, made a specific reference to the GEF funded project in the West African region, which was being developed at that time, that proposed a regional approach for managing PCB and PCB containing equipment. This UNEP/GEF project "Demonstration of a Regional Approach to Environmentally Sound Management of PCB Liquid Wastes and Transformers and Capacitors Containing PCBs (GEF Project ID 2770)" is under implementation since 2010. This present project is in the same line as the GEF funded project on ESM of PCB for the West African Region and will cover twelve countries in the SADC region. Both projects address the obligation by parties to the Stockholm Convention to phase out the use of PCB by 2025 and attempt to dispose off PCB in an environmentally sound manner by 2028.

Baseline scenario and global environmental problems

Nine years after entry into force of the Stockholm Convention and despite that fact that all countries participating in this project have finalized their national implementation plan (NIP) or are close to finalization, the regional picture on the presence and status of PCB is still scattered. An assessment of national PCB inventory data gathered from the NIPs indicates that countries participating in this project hold between 1,000 to 2,500 transformers containing PCB oil with an estimated total weight of between 1,000 and 2,500 tonnes. Of these, an estimated 400 and 700 tonnes is pure PCB oil. In addition, the assessment estimates the presence of more than 10,000 transformers in which the dielectric fluid is contaminated by PCB at a level greater than 0.05% PCB; thus, above the low POP content that is laid down in the Basel Technical Guidelines on POPs as Waste. The estimated total weight of these transformers is 10,000 tonnes, including 2,000 tonnes of contaminated oils. The electrical utilities are estimated to hold approximately 80% of this equipment. The report also notes that:

1. participating countries do not, for the most part, have specific regulations or administrative mechanisms governing PCB oils, equipment and wastes (and there is a lack of a purchasing policy with regards to second hand transformers);
2. the electrical utilities and other owners of PCB equipment currently lack the means to apply ESM practices to PCB equipment in service, in storage or out of service;
3. despite awareness-raising efforts during NIP preparation, owners of PCB oils, equipment and

⁵ Part II should not be longer than 5 pages.

- wastes are frequently unaware of the threats that PCB pose to human health and the environment;
4. environmentally-sound infrastructure for storage and destruction is not available in participating countries;
 5. there are no systematic investment mechanisms to support the ESM of PCB wastes;
 6. the preliminary national inventories available as a result of NIP development are not sufficiently detailed for the purposes of phase-out and disposal planning and detailed inventories of equipment will be needed at enterprise level in the early stages of the full project.

As a result, PCB are being released to the environment both at unprotected maintenance and storage sites; and during waste management operations concentrating on metals recovery. Furthermore, PCB fluids from transformers are being mixed with mineral dielectric oils during maintenance and subsequently reused in previously uncontaminated transformers, thereby cross-contaminating, potentially, the whole transformer population. The Convention requires that all equipment containing concentrations of PCB above 0.05% be phased out of equipment by 2025 and all PCB be subject to environmentally sound management (ESM) for final disposal by 2028. This project is a process in that direction through organizing the countries in Southern Africa towards the Convention's goal of ESM of PCB and destruction of the POP content in the oil.

Owners and holders of PCB equipment are hampered in their efforts to improve management standards because the relatively small market for such work in each country inhibits local investment by competent service providers. Access to international service provision is both difficult and expensive. Current local waste management of PCB equipment results in uncontrolled PCB releases from unprotected metal reclamation or, worse, the selling of PCB oils other (immediate) uses. Such uses pose significant health and environmental threats and are not permitted under both the Stockholm Convention and the Basel Convention.

Proposed alternative scenario

This project seeks to build capacity in and remove the barriers to environmentally sound PCB waste management by supporting the development and supervising the initial operation of a public-private partnership between the electrical utilities and other who may have PCB and waste management companies. The project builds on existing regional structures, including the "Africa Institute", established under two conventions as (1) the Stockholm Convention Regional Centre for Capacity Building and the Transfer of Technology and (2) the Basel Convention Regional Centre for English-speaking Countries in Africa and its partners in the region, including the Southern Africa Power Pool (SAPP), to provide a regional market opportunity for private sector service providers to deliver cost-effective ESM for PCB oils, equipment and wastes. The project will be executed over a period of five years.

The first component will prepare a regionally harmonized regulatory and administrative framework; the characterization and organization of wastes within the electrical utilities; and the raising of awareness amongst decision makers and professionals within government and the electrical industry.

In the second component, a realistic and pragmatic phase-out plan of PCB in use will be developed and endorsed by the governments and stakeholders in the project. The first step will be the establishment of a robust management system to identify and monitor the PCB in use and in storage. The system will have a dynamic component built in to follow the reduction of the PCB in use and the amounts being taken out of service, subject to further treatment and final disposal (to be undertaken in component 3 of the project). In dependence of the amounts and types of PCB identified in the Component 2, a technology will be selected best suited to treat the types and amounts of PCB in the region. The project is open to all options for the efficient disposal of PCB and PCB-containing equipment. It is envisaged to apply a tiered approach with respect to (a) owners of PCB – mainly utilities, which are thought to have the majority of PCB in their possession vs. other sectors, (b) PCB in transformers with an option for local or centralized draining of equipment vs. closed system capacitors which have to be disposed off as "total" equipment, (c) high contaminated PCB oil ("pure" PCB) vs. lower contaminated oils and

equipments, and (d) fixed vs. mobile units for both, draining and disposal.

The utility personnel in each participating country but also personnel in other sectors concerned will receive training for the collection, handling, storage and transport of PCB and wastes and will have their capacity built to operate according to agreed standards. All stages of the waste handling routines will be governed by international guidance and practices and monitored by an independent third party.

Component 3 contains the actual activities that lead to the collection of PCB oils and equipment, their transport and interim storage facility, the manipulation activities such as drainage, packaging, refilling, and finally destruction (or intertisation) of the PCB contained.

Component 4 will summarize and assess the activities and experiences gained in the implementation of the project and have a quantitative assessment. The project will not have only the PCB taken out of service and destroyed but also have developed the regional approach within the legal framework as well as costs (including recovery of potentially valuable materials) and time demands.

Lessons learned during execution will be shared amongst participants during the course of the project and best practices determined during the project will be published for use in similar initiatives in other countries or regions.

The outputs of the project will be:

- 1) Harmonized national regulatory and administrative frameworks for PCB and PCB wastes in the context of the Stockholm and Basel conventions;
- 2) Administrative capacity to manage PCB in each of the participating countries;
- 3) Templates for the PCB inventory and tracking system;
- 4) Detailed inventories of the PCB contaminated equipment in the participating countries;
- 5) Detailed inventories of PCB contaminated equipment in other sectors in the participating countries;
- 6) The destruction or decontamination of a target of 4,000-5,000 tonnes of PCB-containing or PCB-contaminated wastes;
- 7) The environmentally sound waste management and decontamination of target quantities of equipment containing or contaminated with PCB.

The project will deliver positive outcomes at both local and global levels in the form of reduced environmental and human health threats. Threats are reduced by the introduction and mainstreaming of ESM schemes that reduce PCB releases from oils and equipment remaining in use and by the progressive removal and destruction of PCB wastes in the region.

Incremental costs

Without this GEF-assisted project, PCB equipment will continue to be managed within the same operational scheme as non-PCB equipment giving rise to widespread cross contamination and the continuing threats posed by equipment at locations recognized in Annex A part II of the Stockholm Convention as presenting particular risks. Obsolete equipment will continue to be stored on unprotected sites and to be disposed of to local waste handlers, principally for metal reclamation. PCB releases will continue particularly from the sale, by local waste management enterprises, of oils for open use in contravention of the Stockholm and Basel Conventions.

Innovation

The alternative approach presented by this project will build capacity and harmonize national efforts at a regional level in order to:

- 1) Implement ESM of PCB oils and equipment in service to reduce releases, prevent cross-contamination and remove equipment from high-risk locations; and
- 2) Provide viable and sustainable opportunities for the ESM and treatment of PCB wastes.

The project provides for local benefits in terms of reduced risks to human and ecosystem health from reduced or eliminated PCB releases and for global reductions in the PCB burden via (i) the target quantities of PCB removed and treated; and (ii) the continuing and sustainable treatment of PCB.

Many current GEF-supported projects addressing PCB oils, equipment and wastes are essentially ‘turn-

key' in nature. The cost of such projects is a combination of market-based charges for collection, dismantling and packing, international shipment, destruction and environmental oversight of the whole process. While this may be cost-effective for large waste streams, the charges related to the management of small quantities are disproportionate. High unit costs for the treatment of small waste streams deter market take up of ESM, deter investment in services, and contribute to continuing releases of PCB.

This project seeks to address these problems through a harmonized and concerted effort by participating countries. Building a regional dismantling/ draining facility might be considered as viable and sustainable. Valorizing reclaimable materials generated during treatment serves to offset treatment costs.

Exchange of experiences through staff exchange, using the same consultants, *etc.*, will allow for the application of experiences from and lessons learned with the Regional PCB project in West Africa.

The dismantling and segregation of components of PCB contaminated transformers based on surface contamination and mass contamination before shipment for disposal will reduce the costs,

Many projects are reliant on services provided in high-cost developed countries. This proposal seeks to retain as much work as possible in the region where costs are lower and where the service can provide the co-benefits of capacity development and employment returns. Collaboration with local businesses will be two fold. Firstly, through the promotion of local services for the environmentally sound collection and transport of PCB containing equipment and secondly, by promoting the recovery of decontaminated, and so higher value, metal scrap by local businesses.

Cost-effectiveness and gender dimensions

The key attributes in implementing the project will be to choose cost-effective and practical measures that will ensure that the greatest possible benefits are derived for the region and the participating countries. The project will not only test the efficacy and effectiveness of new tools and intervention strategies, but also what it costs. The cost question is closely related to the feasibility and sustainability of the programme. Cost analysis will also be extended to programme costs when applying M&E tools, replacing PCB by alternative products and will include cost of routine on-the-job-training programs and communication activities. The final goal is to obtain a PCB-free environment which is affordable for the countries and utilities. The replacement of PCB-containing transformers is a factor which will as well increase the energy efficiency of the distribution network thereby contributing to the reduction of CO₂ emissions as well.

The study countries with their individual government and utilities systems, which are close to each other and experience similar problems, can easily be grouped together in a regional project. This is seen as the most cost-effective approach to execute the proposed initiative and to apply the results.

Efforts to ensure sound management of chemicals, including persistent organic pollutants (POPs), might have important gender dimensions. In daily life, men, women, and children are exposed to different kinds of chemicals in varying concentrations. Biological factors — notably size and physiological differences between women and men and between adults and children — influence susceptibility to health damage from exposure to toxic chemicals. Social factors, primarily gender-determined occupational roles, also have an impact on the level and frequency of exposure to toxic chemicals, the kinds of chemicals encountered, and the resulting impacts on human health. These gender dimensions need to be reflected at both site- and policy-level interventions for sound chemical management (for reference see UNDP (2007): Gender Mainstreaming – Key driver of development in environment and energy – Chemicals Management).

For example, recent scientific data from South Africa disclosed that especially women (as they are mainly working in and around the house) are vulnerable to pesticides applied through malaria control interventions. Furthermore, first-borne baby boys of these women tend to have a significant greater risk

of being born with disabilities compared to 'control groups'. This example shows the different susceptibility to health damage from exposure to toxic chemicals due to gender-determined occupational roles and different social roles and positions. No such examples exist yet related to PCB issues especially in the participating countries.

This project will pay attention to the gender dimensions as well through the promotion of alternatives to PCB and to avoid negative impacts due to the proposed alternatives for the different social and gender groups in society. These social dimensions will be fully considered in each of the project components and especially in the stages of the development of the workplan and the lessons learned.

Sustainability

The development of national, regionally harmonized, regulatory and administrative regimes as will be developed under this project, forms the basis for sustainability and security of legislative framework beyond the time of the project. The project design seeks to develop advances made in participating countries and replicate good practice between them but also with a potential for replication elsewhere. The electrical utilities of all participating countries are already members of the Southern African Power Pool that seeks to harmonize regulatory and administrative arrangements to facilitate the regional 'free trade' of power at the regional level. This project will further strengthen this initiative.

Business modelling in the longer term is made difficult by uncertainty and volatility in a number of.

Project design seeks to provide a viable business model of the markets including those of waste management, secondary metals and oil recycling over the life of the project and will continue to refine this model and provide sustainable technical, administrative and financial mechanisms. The model will include the collection, treatment services to all owners of PCB equipment, including the private sector. All together, it will render the business model more sustainable; this support will be leveraged during project implementation.

A.2. Stakeholders. Identify key stakeholders (including civil society organizations, indigenous people, gender groups, and others as relevant) and describe how they will be engaged in project preparation:

The project will include key stakeholders at the national level. NGOs, government agencies (other than the Ministry of Environment, e.g. Ministry of Health, Ministry of Transport ; Ministry of Energy), private sector (waste management companies) and civil society representatives will participate in this project. This project will use the multi-stakeholder National Coordination Mechanisms established during the preparation of the National Implementation Plans (NIPs) on POPs in participating countries. The table below gives the name of electric utility company and of the ministry that would be involved in the project for each participating country:

Country	Ministry	Utility
Botswana	Ministry of Environment, Wildlife and Tourism	Botswana Power Corporation
Lesotho	Ministry of Tourism, Environment and Culture, Department of Environment	Lesotho Electricity Corporation
Madagascar	Ministry of Environment, Water, Forests & Tourism	JIRAMA: National water and electricity company
Malawi	Ministry of Natural Resources, Energy and Environment	Electricity Supply Commission of Malawi
Mauritius	Ministry of Environment	Central Electricity Board (CEB)
Mozambique	Ministry of Coordination of Environmental Affairs (MICA)	Electricidade de Mozambique (EDM)
Namibia	Ministry of Environment and Tourism	Nam Power

Swaziland	Ministry of Environment and Tourism	Swaziland Electricity Board
Seychelles	Ministry of Environment and Energy	Public Utilities Corporation
Tanzania	Ministry of Tourism, Natural Resources and Environment	Tanzania Electricity Supply Company Limited
Zambia	Ministry of Tourism, Environment and Natural Resources	Zambia Electricity Supply Corporation Limited (ZESCO)
Zimbabwe	Ministry of Environment and Natural Resources	Zimbabwe Electricity Supply Authority (ZESA)

Efforts to ensure sound management of chemicals, including persistent organic pollutants (POPs), might have important gender dimensions. In daily life, men, women, and children are exposed to different kinds of chemicals in varying concentrations. Biological factors — notably size and physiological differences between women and men and between adults and children — influence susceptibility to health damage from exposure to toxic chemicals. Social factors, primarily gender-determined occupational roles, also have an impact on the level and frequency of exposure to toxic chemicals, the kinds of chemicals encountered, and the resulting impacts on human health. These gender dimensions need to be reflected at both site- and policy-level interventions for sound chemical management (for reference see UNDP (2007): Gender Mainstreaming – Key driver of development in environment and energy – Chemicals Management).

For example, recent scientific data from South Africa disclosed that especially women (as they are mainly working in and around the house) are vulnerable to pesticides applied through malaria control interventions. Furthermore, first-borne baby boys of these women tend to have a significant greater risk of being born with disabilities compared to ‘control groups’. This example shows the different susceptibility to health damage from exposure to toxic chemicals due to gender-determined occupational roles and different social roles and positions. No such examples exist yet related to PCB issues especially in the participating countries.

This project will pay attention to the gender dimensions as well through the promotion of alternatives to PCB and to avoid negative impacts due to the proposed alternatives for the different social and gender groups in society. These social dimensions will be fully considered in each of the project components and especially in the stages of the development of the workplan and the lessons learned.

A.3 Risk. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (table format acceptable):

RISK	MITIGATION MEASURES
Lack of engagement by national governments	National Stockholm focal points have confirmed their strong interest in the project, which is in line with the priorities regarding PCB as set in the NIP. National Stockholm and Basel focal points will be members of national steering committees and will play key roles for coordinated actions at the national level between governments and electrical utilities. The National Coordination Mechanisms established during the NIP development will be used as a basis for national coordination. This will ensure sustainable actions by all sectors. In some countries, national coordinators and electrical facilities have already instigated project-prompted actions to improve PCB management, restricting sales of wastes: Risk level: L-M
Electrical utilities, the major owners of PCB equipment, do not engage in project as replacement costs of transformers might be significant	The electricity supply industry is the principal owners and holder of PCB oils and equipment and its decisions regarding the disposal of PCB wastes strongly influences environment and human health outcomes. The preparatory phase of this project has raised the awareness of industry obligations under the Stockholm and Basel Conventions and engaged public electrical utilities in project design. A regional meeting with these utilities confirmed their strong interest and agreement in principle to participate in the project. A meeting with the SAPP has confirmed its keen interest to play a leading role for the industry: Risk level: L
Regional business model does not attract a private sector service provider	<p>This project is predicated on (i) encouraging common efforts to build a market of sufficient size to attract investment by a service provider; (ii) valorising the reclaimable materials in PCB wastes to offset, in part, the costs of ESM; and (iii) removing equipment from service only at end of life to remove consideration of residual operating value.</p> <p>Both electrical utilities owning PCB wastes and the service industries have been engaged during project design. A call for expressions of interest and more detailed discussions with private sector service providers has resulted in several business propositions for consideration. A private company in Zambia has already shown its willingness to eradicate PCB by shipping PCB waste to Europe for destruction. Risk Level: L-M</p>
Handling, storage, transport and treatment of PCB wastes increases risks of environmental releases	The project includes provision for environmental safeguards in several ways: (i) Component 3.5 provides for independent monitoring of project activities by an independent third party. This is included to avoid any conflict of interest between monitoring and any of the participants; (ii) Collection, temporary storage and transportation operations in component 3 will be governed by implementation plans using international guidance and be directed by internationally agreed standards with primary orientation to the Basel POPs as Waste Guidelines. Personnel handling PCB will have received training to operate according to international standards. Again, activities will be monitored. Risk Level: L-M

A.4. Coordination. Outline the coordination with other relevant GEF financed and other initiatives:

In addition to addressing national priorities as set out above, this project responds to a number of regional initiatives:

The Rabat Declaration on the Environmentally Sound Management of Hazardous Wastes (2001) identifies obsolete pesticides, PCB and used oils as the three priority hazardous waste streams requiring urgent action in Africa. It includes specific elements that aim to enhance capacity for the environmentally sound management of PCB and PCB wastes.

The Programme of Action for Africa for Environmentally Sound Management of Unwanted Stocks of Pesticides, PCB and Used Oils (2001), developed to implement the Rabat Declaration, states that “regional and sub-regional cooperation is key to ensuring a coherent and effective implementation” of the Declaration. The Programme emphasizes sharing among countries of experiences in the area of PCB inventories and observes, “To benefit from possible economies of scale, inventory activities can be organized on a regional basis. [Basel] regional centres are invited to play an active role in this regard.”

The Bamako Convention sets out obligations for all Parties (as drawn from the African Union

membership) to prohibit the import of hazardous wastes into Africa from non-parties, prohibit the dumping at sea of hazardous wastes and control transboundary movements of hazardous wastes generated in a State party

The Sirte Declaration (2004), adopted by the African Ministers of the Environment, calls for effective action to deal with all impacts of chemicals, and accords priority to ratification and implementation of the Basel, Rotterdam and Stockholm Conventions.

All the electrical utilities of countries participating in the project, except those of Mauritius and Madagascar, are members of the Southern African Power Pool (SAPP), a regional organization established to harmonize network operations in order to facilitate the transfer of electrical power between members in order to balance supply and demand at the regional level. The project seeks to build on this existing structure, reinforcing management standards related to network equipment providing both environmental and operational gains.

The SAPP has estimated the total installed electrical capacity as follows:

Country Utility	Installed Electricity Capacity (MW)
Angola	1,187
Botswana	202
Lesotho	72
Madagascar	233
Malawi	287
Mauritius	660
Mozambique	2,308
Namibia	393
Seychelles	56.4
Swaziland	70
Tanzania	1,008
Zambia	1,812
Zimbabwe	2,045
Total	10,277

Project design has involved consultation and design integration with a number of other GEF-supported project initiatives:

GEF-supported PCB work in Southern Africa (past and present):

The Project on Hazardous Wastes and Toxic Chemicals is aimed at preparation of national inventories on PCB and PCB containing equipment. It was part of the implementation of the Stockholm Convention on Persistent Organic Pollutants (2001) and the Rotterdam Convention on the “Prior Informed Consent” Procedure (1998). The project enhanced national capacities for environmentally sound management of PCB through the development of regionally harmonized national inventories. Due to limited resources and funds, these inventories are only preliminary and partial, covering only part of the whole electricity network. This project was implemented in Botswana, DR Congo, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia, and Zimbabwe.

B. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

B.1 National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAs, NAPs, NBSAPs, national communications, TNAs, NCSAs, NIPs, PRSPs, NPFE, Biennial Update Reports, etc.:

All participating countries are Parties to the Stockholm Convention and most have completed their National Implementation Plans (NIPs). Those that have not submitted are in an advanced stage of NIP

development. In all PCB inventories carried out for NIP development, electrical utilities are recognised as owning or holding the bulk of PCB oils, equipment and wastes and so represent the principal stakeholders in action plans to address the PCB-related obligations of the Stockholm Convention.

PCB action plans within the NIPs, which have already been submitted by participating countries, recognise that the implementation of ESM for PCB oils, equipment and wastes needs to be supported by an effective regulatory and administrative framework and by suitable financial mechanisms to ensure that ESM of PCB oils, equipment and wastes is sustainable. Furthermore, they recognise that the detailed planning of phase-out and destruction programmes focused on the priority sector requires more detailed inventory work of the kind set out in guidance prepared by the Secretariat of the Basel Convention.

Project design and activity planning has taken these national PCB action plans as a starting point and will aim to support and strengthen them. The proposed regional approach and the PCB action plans should consequently be considered as mutually supportive. It has been undertaken through a participatory process including a regional workshop held in Johannesburg in May 2011 for national focal points for the Stockholm Convention and utility representatives from all countries; and a regional meeting of representatives of the electrical utilities of ten participating countries (SAPP meeting at Victoria Falls, February 2011). This workshop has served to steer the project preparation, to ensure that the project meets national priorities, and to endorse its interim products.

Finally, the project is a response to the NEPAD Environment Action Plan and is in accordance with the technical and environmental objectives of the South Africa Power Pool (SAPP) (An independent regional organization of electrical utilities of member states of the Southern African States (SADC) established under an Inter-Governmental Memorandum of Understanding signed in 1995) to which most of the participating countries belong.

The Table below provides an overview (status: August 2013) on the dates when the country became party to the Stockholm Convention and the date of the NIP submission.

Name of Country	Date of Becoming a Party	Date of NIP Submission
Botswana	28/10/2002	7/6/2011
Lesotho	23/1/2002	26/2/2009
Madagascar	18/11/2005	25/9/2008
Malawi	27/2/2009	15/2/2010
Mauritius	13/7/2004	11/10/2006
Mozambique	13/10/2005	12/8/2008
Namibia	24/6/2005	On-going
Seychelles	3/6/2008	26/4/2011
Swaziland	13/1/2006	1/6/2011
Tanzania	30/4/2004	12/6/2006
Zambia	7/7/2006	11/5/2009
Zimbabwe	1/3/2012	On-going (less than two years after e.i.f.)

B.2. GEF focal area and/or fund(s) strategies, eligibility criteria and priorities:

The project and its activities are consistent with the GEF-5 Chemicals Results Framework's main goal "to promote the sound management of chemicals throughout their life-cycle in ways that lead to the minimizations of significant adverse effects on human health and the global environment."

In particular, the present project will contribute to Objective 1 “Phase Out POPs and Reduce POPs Releases” through the following interventions:

GEFV Strategy Indicator: Outcome 1.4: POPs waste prevented, managed and disposed of; Indicator 1.4.1 Amount of PCBs and PCB-related wastes disposed of, or decontaminated; measured in tons as recorded in the POPs tracking tool.

GEFV Strategy Indicator: Outcome 1.5: Country capacity built to effectively phase out and reduce releases of POPs; Indicator 1.5.2 Progress in developing and implementing a legislative and regulatory framework for environmentally sound management of POPs, and for the sound management of chemicals in general, as recorded through the POPs tracking tool.

Participating countries are all eligible to receive GEF funding as per the criteria set by the COP:

- a) being a Party to the Stockholm Convention;
- b) Having submitted the NIP to the SC Secretariat. In the case of Zimbabwe, the NIP is expected to reach the SC Secretariat soon.

B.3 The GEF Agency’s comparative advantage for implementing this project:

UNEP is working within its comparative advantage in implementing this project. The project seeks to demonstrate an innovative partnership approach to deal with PCB wastes where current market practices are failing to provide environmentally sound disposal options for GEF recipient countries that have only relatively small quantities of wastes.

UNEP will use its convening power and project management skills as a GEF IA to support the development, supervise and monitor the initial operation of a partnership between the public electrical utilities, that hold the bulk of regional PCB wastes, and private sector waste management companies that will provide the services needed to insure the environmentally sound destruction of the wastes. The project seeks to stimulate private sector investment through (i) the identification and organization of waste streams that need environmentally sound treatment and disposal; (ii) the provision of funding to the utilities to meet the incremental costs of diverting their wastes to environmentally sound facilities.

It is believed that such an arrangement is innovative and sustainable when coupled with the regulatory, capacity building, scientific and technical assessment work that we also propose in the project. This project is envisaged as a potential model that could be replicated in other regions with similar problems and the project will develop lessons and best practice recommendations.

UNEP is already implementing the project “Demonstration of a regional approach to environmentally sound management of PCB liquid wastes and transformers and capacitors containing PCBs” in the West African region. It includes fourteen participating countries as follows: Benin, Burkina Faso, Chad, Democratic Republic of Congo (DRC), Cote d’Ivoire, Djibouti, Guinea, Guinea Bissau, Mali, Mauritania, Morocco, Niger, Senegal and Togo. Both projects will establish and maintain close contacts during the execution phase in order to streamline interventions and make use of ‘lessons learned’ and experience gained.

“UNEP’s comparative advantage for the GEF is related to its being the only United Nations organization with a mandate derived from the General Assembly to co-ordinate the work of the United Nations in the area of environment and whose core business is the environment. UNEP’s comparative strength is in providing the GEF with a range of relevant experiences, proof of concept, testing of ideas, and the best available science and knowledge upon which it can base its investments. It also serves as the Secretariat to three of the MEAs, for which GEF is the/a financial mechanism. UNEP’s comparative advantage also includes its ability to serve as a broker in multi-stakeholder consultations.”

UNEP is the voice for the environment in the United Nations system. UNEP is an advocate, educator, catalyst UNEP is the primary driving force in the UN system for international activities related to the sound management of chemicals. The aim is to promote chemical safety and provide countries with access to information on toxic chemicals. UNEP promotes chemical safety by providing policy advice,

technical guidance and capacity building to developing countries and those with economies in transition, including activities on chemicals related to the implementation of the Strategic Approach to International Chemicals Management (SAICM).

The “Harmful Substances and Hazardous Wastes” sub-programme of the Division of Technology, Industry and Economics (DTIE/Chemicals Branch) assists countries and regions in managing, within a life-cycle approach, chemical substances and waste that have potential to cause adverse impact on environment and human health.

The PCB Elimination Network (PEN)

The Polychlorinated Biphenyls Elimination Network (PEN for short) was established by the fourth meeting of the Conference of the Parties through decision SC-4/5 as a cooperative framework to support Parties in their efforts to eliminate polychlorinated biphenyls through environmentally sound management and disposal. It is designed as an equal partnership for stakeholders from different sectors with an interest in the environmentally sound management of PCB. The same decision urges Parties to become members of the partnership. At the fifth meeting of the Conference of the Parties to the Stockholm Convention on Persistent Organic Pollutants, in its decision SC-5/7, the COP requested the Secretariat [of the Stockholm Convention] to facilitate a transition of the leadership of the PEN, in a sustainable manner, from the Secretariat to one or more United Nations agencies whose mandate is better suited to implement the network. In the same decision, the Conference of the Parties also invited UNEP, together with the relevant member organizations of the Inter-Organization Programme for the Sound Management of Chemicals and the Basel and Stockholm Convention regional centres, to consider taking over the administration and implementation of the PEN. In implementation of decision SC-5/7, the Executive Secretary of the Stockholm Convention invited the Chemicals Branch of the UNEP’s Division of Technology, Industry and Economics to consider taking over the administration and implementation of the PEN. At Stockholm COP-6, the Executive Secretary of the Stockholm Convention in document UNEP/POPS/COP.6/9 and the “Report by the United Nations Environment Programme on activities undertaken in relation to the Polychlorinated Biphenyls Elimination Network” (document UNEP/POPS/COP.6/INF/5) informed the Parties that the PCB Elimination Network has been transferred from the Secretariat of the Stockholm Convention to the United Nations Environment Programme (UNEP), Chemicals Branch. The transfer of the leadership of the Pen has also been recognized by the decision on chemicals and waste at the 27th UNEP Governing Council in 2013.

UNEP and partners’ capacity

It should be mentioned however, that this base-line co-funding funding has developed and will further continue to develop the base-line for the proposed activities (Stockholm Convention in place, NIPs in place, basic national legislation in place, basic awareness amongst stakeholders created, etc.).

UNEP’s global GEF-related specialists and support staff (based in Nairobi HQ), as well as UNEP’s Regional Office staff will be available to support and facilitate the correct and cost-effective implementation of this important project.

The Africa Institute for the Environmentally Sound Management of Hazardous and other Wastes (AIMHW) (Stockholm Convention regional center for capacity building and the transfer of technology and Basel Convention Regional Centre for English-speaking countries in Africa) will be the executing agency for this project and be managing the day-to-day implementation of the project including the coordination of the activities at national level, with the private sector and report to the implementing agency UNEP/GEF Coordination at Chemicals Branch in Nairobi.

The AIMHW will be supported by the Science Team at Chemicals Branch in Geneva, which will assist in the execution of technical-scientific components of the project. Chemicals Branch also provides the secretariat services and the leadership of the PCB Elimination Network and therefore, has access to an abundance of expertise within the network’s partners.

Furthermore, technical staff available in private entities in project countries will support the execution of the project.

It is expected that technical staff based in project countries, as well as a number of relevant staff from the SAPP office and AIMHW will be part-time made available for coordination, support, and technical assistance services to be provided to the executing national entities in each country, as well as to provide feed-back, reporting etc. to the Implementing Agency.

PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the [Operational Focal Point endorsement letter\(s\)](#) with this template. For SGP, use this [OFP endorsement letter](#)).

NAME (DATA ACCORDING TO GEF WEBSITE)	POSITION	MINISTRY	E-MAIL	DATE (MM/dd/yyyy)
Mrs. Ingrid M. OTUKILE Operational Focal Point Botswana	Chief Natural Resource Officer and Head of Policies and Programmes Division	Ministry of Environment, Wildlife and Tourism Department of Environmental Affairs Private Bag 0068 Gaborone Botswana	iotukile@gov.bw, mpundu.chite@gmail.com, tlphuthego@gov.bw, tlphuthego@yahoo.com	29 March 2012
Mr. Stanley M. DAMANE Operational Focal Point Lesotho		Ministry of Tourism, Environment and Culture, PO Box 10093 Maseru 100 Lesotho	stanleydamane@hotmail.com	15 December 2011
Mrs. Christine Edmee RALALAHARISOA Operational Focal Point Madagascar	Director General	Environment Ministry of the Environment and Forests, Antananarivo – 101, Madagascar	ralalaharisoaec@yahoo.fr, dge@mef.gov.mg, randriasandrana@yahoo.fr	13 February 2012
Mr. Aloysius Mphatso KAMPEREWERA Operational Focal Point Malawi		Environmental Affairs Department Private Bag 394 Lilongwe - 3 Malawi	aloysius@sdpn.org.mw	2 November 2011
Mr. Ali MANSOOR Operational Focal Point Mauritius	Financial Secretary	Ministry of Finance and Economic Development Government Center Port Louis Port Louis Mauritius	amansoor@mail.gov.mu, nrajabalee@mail.gov.mu, mmungroo@mail.gov.mu	21 February 2012

Ms. Marilia Telma Antonio MANJATE Operational Focal Point Mozambique	Head of Department of International Cooperation	Ministry for the Co-ordination of Environmental Affairs (MICOA), Maputo - C.P. 2020, Mozambique	telmanjate@yahoo.com.br, telmanjate@googlemail.com	30 November 2011
Mr. Teofilus NGHITILA Operational Focal Point Namibia	Director	Ministry of Environment and Tourism Directorate of Environmental Affairs Capital Center Building, Windhoek, Namibia	nghitila@dea.met.gov.na, tnghitila@yahoo.com	16 November 2011
Mr Didier Dogley Operational Focal Point Seychelles	Special Advisor to the Minister	Ministry of Environment and Energy Botanical gardens, Mont Fleuri, P.O. Box 445, Victoria, Mahe, Seychelles	d.dogley@env.gov.sc	14 May 2013
Mr. Jameson D. VILAKATI Operational Focal Point Swaziland	Executive Director	Ministry for Tourism, Environment and Communications Environment and Communications Swaziland Authority, PO Box 2652, Mbabane - H100, Swaziland	sea@realnet.co.sz	13 October 2011
Dr. Julius NINGU Operational Focal Point Tanzania	Director of Environment	Vice President's Office P.O.Box 5380 Dar Es Salaam Tanzania	jkningu@yahoo.com	8 December 2011
Dr. Kenneth NKOWANI Operational Focal Point Zambia	Director	Environment and Natural Resources Management Department Fifth Floor Kwacha House, Cairo Road PO Box 34011 Lusaka - 10101 Zambia	kapalakonje2@yahoo.com	17 April 2012
Mr. Irvin D. KUNENE Operational Focal Point Zimbabwe	Director Environment	Ministry of Environment and Natural Resources 12th Floor, Kaguvi Building Corner 4th Street and Central Avenue Private Bag 7753 - Causeway Harare	climate@ecoweb.co.zw	14 December 2011

		Zimbabwe	
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B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for project identification and preparation.

Agency Coordinator, Agency name	Signature	DATE (MM/dd/yyyy)	Project Contact Person	Telephone	Email Address
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