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Report No: PAD71

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROJECT APPRAISAL DOCUMENT

ON A

PROPOSED GRANT FROM THE
GLOBAL ENVIRONMENT FACILITY TRUST FUND

IN THE AMOUNT OF US$8,100,000

TO THE

ARAB REPUBLIC OF EGYPT

FOR A

SUSTAINABLE PERSISTENT ORGANIC POLLUTANTS MANAGEMENT PROJECT

May 23, 2014

Sustainable Development Department
Middle East and North Africa Region

CURRENCY EQUIVALENTS

(Exchange Rate Effective February 28, 2014)

Currency Unit	=	US$
EGP 6.94	=	US$1
US$0.14	=	EGP1

FISCAL YEAR

July 1 – June 30

ABBREVIATIONS AND ACRONYMS

ACZMP	Alexandria Coastal Zone Management Project
CAS	Country Assistance Strategy
CBE	Central Bank of Egypt
CDD	Community-Driven Development
CDEIEC	Central Department for Environmental Inspection and Environmental Compliance
CEO	Chief Executive Officer
COED	Cost of Environmental Degradation
CSO	Civil Society Organization
DA	Designated Account
DDT	Dichlorodiphenyltrichloroethane
D/Fs	Dioxins and Furans
Dioxin	Polychlorinated dibenzo-p-dioxins
ECA	Egyptian Customs Authority
EEAA	Egyptian Environmental Affairs Agency
EEHC	Egyptian Electricity Holding Company
EGPC	Ministry of Petroleum
EIA	Environmental Impact Assessment
EPAP	Egypt Pollution Abatement Project
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
FDI	Foreign Direct Investments
FM	Financial Management
Furan	Polychlorinated dibenzofurans
FY	Fiscal Year
GDEI	General Directorate of Environmental Inspection
GDP	Gross Domestic Product
GEF	Global Environment Facility
GNSC	GEF National Steering Committee
GOE	Government of Egypt
ICB	International Competitive Bidding
ICC	Intermediate Collection Center
ICR	Implementation Completion Report
IDA	International Development Association
IFC	International Finance Corporation

IFR	Interim un-audited Financial Report
IMF	International Monetary Fund
IPM	Integrated Pest Management
ISA	International Standards on Auditing
ISN	Interim Strategy Note
ISP	Implementation Support Plan
M&E	Monitoring and Evaluation
MALR	Ministry of Agriculture and Land Reclamation
MEDPOL	Programme for the Assessment and Control of Pollution of the Mediterranean, an arm of the Mediterranean Action Plan
MOEE	Ministry of Electricity and Renewable Energy
MOHP	Ministry of Health and Population
MOIC	Ministry of International Cooperation
MSEA	Ministry of State for Environmental Affairs
MTR	Mid-Term Review
MWRI	Ministry of Water Resources and Irrigation
NGO	Non-Governmental Organization
NIP	National Implementation Plan
OP/BP	Operational Policy/Bank Procedure
PCBs	Polychlorinated Biphenyls
PCU	Project Coordinating Unit
PDO	Project Development Objective
PFS	Project Financial Statement
PIF	Project Identification Form
PMU	Project Management Unit
POM	Project Operations Manual
POPs	Persistent Organic Pollutant
PPS	Project Preparation Study
PPSC	POPs Project Steering Committee
ppm	Parts per million
RBO	Regional Branch Office of EEAA
SDR	Safeguards Diagnostic Review
SOE	Statement of Expenditure
SPMP	Sustainable POPs Management Project
UCS	Use of Country Systems
UNEP	United Nations Environment Programme
UPOPs	Unintentional POPs
WHO	World Health Organization

Regional Vice President:	Inger Andersen
Country Director:	Hartwig Schafer
Sector Director:	Junaid Kamal Ahmad
Sector Manager:	Charles Cormier
Task Team Leader:	Alaa Ahmed Sarhan

ARAB REPUBLIC OF EGYPT
Sustainable Persistent Organic Pollutants Management Project

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PAD DATA SHEET

Egypt, Arab Republic of

Egypt: Sustainable Persistent Organic Pollutants Management Project (P116230)

PROJECT APPRAISAL DOCUMENT

MIDDLE EAST AND NORTH AFRICA

MNSEE

Report No.: PAD71

Basic Information			
Project ID P116230	EA Category A - Full Assessment		Team Leader Alaa Ahmed Sarhan
Lending Instrument Investment Project Financing	Fragile and/or Capacity Constraints [ ] Financial Intermediaries [ ] Series of Projects [ ]		
Project Implementation Start Date 13 - June - 2014	Project Implementation End Date 30-Aug--2018		
Expected Effectiveness Date 31-Sept-2014	Expected Closing Date 30-Nov-2018		
Joint IFC No			GEF Focal Area Persistent Organic Pollutants
Sector Manager Charles Joseph Cormier	Sector Director Junaid Kamal Ahmad	Country Director Hartwig Schafer	Regional Vice President Inger Andersen

Borrower: Ministry of International Cooperation (MOIC)			
Responsible Agency: Egypt Environmental Affairs Agency (EEAA)			
Contact:	Dr. Amr El-Sammak	Title:	Chief Executive Officer
Telephone No.:	+202-252-56445	Email:	elsammakamr@eeaa.gov.eg

Project Financing Data(in USD Million)					
[ ]	Loan	[X]	Grant	[ ]	Guarantee
[ ]	Credit	[ ]	IDA Grant	[ ]	Other

Total Project Cost:	23.60	Total Bank Financing:	0.00
Financing Gap:	0.00		

Financing Source	Amount
Global Environment Facility (GEF)	8.10
Total	8.10

Expected Disbursements (in USD Million)

Fiscal Year	2015	2016	2017	2018	2019	0000	0000	0000	0000
Annual	2.00	2.50	2.80	0.80	0.00	0.00	0.00	0.00	0.00
Cumulative	2.00	4.50	7.30	8.10	810	0.00	0.00	0.00	0.00

Proposed Global Environmental Objective(s)

The project development objective is to improve the management and disposal of targeted stockpiles of obsolete pesticides, including Persistent Organic Pollutants (POPs) and Polychlorinated Biphenyl (PCBs), in an environmentally sound manner.

Components

Component Name	Cost (USD Millions)
Component 1: Destruction of High Risk Stocks of Obsolete Pesticides	3.83
Component 2: Decontamination of PCB-Containing Transformer Oils	4.27

Institutional Data

Sector Board

Environment

Sectors / Climate Change

Sector (Maximum 5 and total % must equal 100)

Major Sector	Sector	%	Adaptation Co-benefits %	Mitigation Co-benefits %
Public Administration, Law, and Justice	Central government administration	50		

Public Administration, Law, and Justice	Sub-national government administration	50		
Total		100		

X I certify that there is no Adaptation and Mitigation Climate Change Co-benefits information applicable to this project.

Themes

Theme (Maximum 5 and total % must equal 100)

Major theme	Theme	%
Environment and natural resources management	Pollution management and environmental health	67
Environment and natural resources management	Environmental policies and institutions	33
Total		100

Compliance

Policy

Does the project depart from the CAS in content or in other significant respects?	Yes [ ] No [X]
Does the project require any waivers of Bank policies?	Yes [ ] No [X]
Have these been approved by Bank management?	Yes [ ] No [ ]
Is approval for any policy waiver sought from the Board?	Yes [ ] No [X]
Does the project meet the Regional criteria for readiness for implementation?	Yes [X] No [ ]

Safeguard Policies Triggered by the Project	**Yes**	**No**
Environmental Assessment OP/BP 4.01	**X**	
Natural Habitats OP/BP 4.04		**X**
Forests OP/BP 4.36		**X**
Pest Management OP 4.09	**X**	
Physical Cultural Resources OP/BP 4.11		**X**
Indigenous Peoples OP/BP 4.10		**X**
Involuntary Resettlement OP/BP 4.12		**X**
Safety of Dams OP/BP 4.37		**X**
Projects on International Waterways OP/BP 7.50		**X**
Projects in Disputed Areas OP/BP 7.60		**X**

Legal Covenants

Name	**Recurrent**	**Due Date**	**Frequency**

Implementation Arrangements - Schedule 2.Section I. A.1			Continuous
Description of Covenant The Recipient/ EEAA shall ensure to maintain the Project Steering Committee and the PMU during the implementation of the Project.			
Name	**Recurrent**	**Due Date**	**Frequency**
Implementation Arrangements - Schedule 2.Section I. B.1 (a)		30-Oct-2014	
Description of Covenant The Recipient shall, through EEAA, no later than 30 days of the Effective Date, enter into the Inter-ministerial Agreement and adopt the Project Operational Manual.			
Name	**Recurrent**	**Due Date**	**Frequency**
Implementation Arrangements Schedule 2.Section I. B.2 (a)	X		Annual
Description of Covenant The Recipient, through EEAA, shall prepare and furnish to the World Bank for its approval, not later than March 31 of each year during the implementation of the Project, or such later date as the World Bank may agree, an Annual Work Plan and Budget, containing all proposed activities to be carried out in the following Fiscal Year.			
Name	**Recurrent**	**Due Date**	**Frequency**
Implementation Arrangements - Schedule 2.Section I. B.2 (b)	X	March 31	Annual
Description of Covenant The Recipient, through EEAA, shall cause each said Annual Work Plan and Budget to be carried out in a manner acceptable to the World Bank.			
Name	**Recurrent**	**Due Date**	**Frequency**
Safeguards – Schedule 2.Section I. D.1			Continuous
Description of Covenant The Recipient, through EEAA shall implement each physical investment activity under the Project in accordance with environmental and social standards set out in the National EIA system in a manner acceptable to the Bank			
Name	**Recurrent**	**Due Date**	**Frequency**
Safeguards - Schedule 2.Section I. D.2			Continuous
Description of Covenant The Recipient, through EEAA, shall implement each physical investment activity under the Project in accordance with the ESIA prepared for said activity and shall, to that end, if any such activity under the Project would require the adoption of any ESMP.			
Name	**Recurrent**	**Due Date**	**Frequency**
Safeguards - Schedule 2.Section I. D.3			Continuous
Description of Covenant			

The Recipient, through EEAA, shall implement or cause to be implemented each physical investment activity under the Project in accordance with pest and pesticide management standards set out in the National Pest Management system, in a manner acceptable to the World Bank.

Name	Recurrent	Due Date	Frequency
Safeguards - Schedule 2.Section I. D.5			Continuous

Description of Covenant

The Recipient, through EEAA, shall take measures in accordance with an action plan and time table, acceptable to the World Bank for improving the National EIA System and National Pest Management System and for improving the procedures, frameworks, implementation arrangements, and technical capacities for the preparation and implementation of ESIAs, ESMPs, and PMPs.

Team Composition

Bank Staff

Name	Title	Specialization	Unit
Alaa Ahmed Sarhan	Senior Environmental Economist, TTL	Senior Environmental Economist	MNSEE
Ruma Tavorath	Senior Environmental Specialist, co-TTL	Senior Environmental Specialist	SASDI
Badr Kamel	Senior Procurement Specialist	Senior Procurement Specialist	MNAPC
Wael Ahmed Elshabrawy	Financial Management Analyst	Financial Management Analyst	MNAFM
Laurent Granier	Senior Environmental Specialist	Senior Environmental Specialist	CCGIA
Eric Ranjeva	Finance Officer	Finance Officer	CTRLA
Chaogang Wang	Senior Social Development Specialist	Senior Social Development Specialist	MNSSU
Africa Eshogba Olojoba	Senior Environmental Specialist	Senior Environmental Specialist	MNSEE
Zarafshan H. Khawaja	Lead Social Development Specialist	Lead Social Development Specialist	AFTCS
Mariana T. Felicio	Social Development Specialist	Social Development Specialist	MNSSU
Akram Abd El-Aziz Hussein El-Shorbagi	Sr Financial Management Specialist	Sr Financial Management Specialist	SARFM
Catalina Marulanda	Lead Urban Specialist	Lead Urban Specialist	LCSDU
Lyal M. A. Kurdi	Resource Management Analyst	Resource Management Analyst	AFTRM

Non Bank Staff

Name	Title	Office Phone	City

Mohammed Bekhechi	Consultant		
Omar Mohsen Bagnied	Consultant		
Peter W. Whitford	Consultant		
Sherif Kamel F. Arif	Consultant		
Cynthia Bleu-Laine	Consultant		

Locations

Country	First Administrative Division	Location	Planned	Actual	Comments
Egypt:		Al Adabeya Port, Suez El Saff, Giza			

I. STRATEGIC CONTEXT

A. Country Context

1. Egypt is in political transition. The country has undergone dramatic changes since the 2011 revolution that toppled the former political regime. Socially inclusive economic development, job creation, poverty reduction, transparency, citizen participation, and governance have come to the forefront of the political and social debate. In July 2013, an interim government was formed. After a referendum held January 14-15, 2014 in which the Constitution was approved, the country is scheduled to hold presidential and parliamentary elections before July 2014.

2. Since 2011, the macroeconomic picture has deteriorated due to unresolved political tensions. With confidence weakened by the ongoing political uncertainty, social unrest, and delay in agreement on an ambitious economic stabilization and reform program that could be supported by the International Monetary Fund (IMF) and other international financial institutions, output growth has been slowing. The first quarter of FY14 saw a further decline in growth to 1% (even lower than the 2% growth experienced over the past three years), influenced by the events of August 2013 and subsequent prolonged curfew. Unemployment continued to rise to reach 13.4% by end-2013 (compared to less than 9% in 2010), with the unemployed mostly youth, women and educated. The sluggish economic performance since January 2011 has led to a pickup in poverty rates to 26.3% in FY13 from 25.2% in FY11. At the same time, domestic prices have been rising rapidly due to chronic supply bottlenecks, the lagged effect of a weaker currency, and accommodative government policies. Headline inflation averaged 11% during the first half of FY14 and food inflation has been ranging between 15% and 19%, disproportionately hurting the poor.

3. Environmental protection has assumed increasing importance in Egypt over the last 20 years, as a result of improving public education and awareness and a vocal civil society. A study on Cost of Environmental Degradation, undertaken in 2009, showed that this cost amounted to 4.8 percent of GDP, plus a further 0.6 percent of damage to the global environment. About two-thirds of the degradation is related to the impact on human health. Prior to the political transition, the Government of Egypt had begun taking steps to improve environmental sustainability in a number of areas, and had made good progress on pollution management, working with industry for greater accountability, and with the donor community on specific investment programs. Although there has been some progress since these estimates were made, the percentages are unlikely to have dramatically changed. In the current political climate where citizens demand greater accountability, there is however a thriving debate regarding many environmental issues including improved service delivery on solid waste management, and the sustainability of Egypt's energy strategy.

B. Sectoral and Institutional Context

4. There is a widespread use of chemicals in a large spectrum of sectors. In the rural areas, agrochemicals are extensively used. In industrial areas, toxic chemicals are widely used in a multitude of sectors found in every town and in urbanized areas throughout the country, such as textiles, tanning and metal finishing; mining and processing manufacturing. In addition, a growing number of chemicals are used in homes and surrounding domestic environments.

Human populations are exposed to emissions of toxic and carcinogenic chemicals in air-borne pollution that arise from industrial facilities, thermal power stations and from transportation, open burning of garbage and agricultural residues. In addition, human exposure arises from water pollution in three main sectors: agriculture, industry, and domestic. Discharge of untreated, or partially treated, industrial and domestic wastewater, leaching of pesticides and residues of fertilizer and navigation are often factors that affect the quality of water. The main source of ground water pollution is attributed to anthropogenic activities such as discharge of industrial wastes and drainage of agrochemicals while pesticides are considered the main source for soil pollution. The chemical industry is by far the main source of hazardous wastes in the developed regions in Egypt. Recent estimates have indicated that about 50 percent of all industrial activities are concentrated in Greater Cairo and about 40 percent in Alexandria. Due to the lack of sufficient treatment and disposal facilities, hazardous industrial wastes generated by industries are disposed indiscriminately in nearby desert areas or transported to public dump sites and mixed with municipal waste[1].

5. Obsolete pesticides constitute an immediate threat to the health of humans and livestock, particularly since they are often stored in populated areas, which may sooner or later leak into and contaminate groundwater and the environment in general. There are two factors that have contributed to indiscriminate dumping and possible scavenging: the absence of designated storage and disposal sites in Egypt, and the high cost of export to proper disposal facilities.

6. Many of the toxic emissions from anthropogenic sources and obsolete pesticides are comprised of Persistent Organic Pollutants (POPs) which are considered some of the most dangerous pollutants for human health and environment. POPs have four distinct characteristics: (i) they are toxic, causing adverse health effects, such as birth defects, damage to immune and respiratory systems; (ii) they are environmentally persistent and resist breakdown by natural processes, and can remain in the environment for decades; (iii) they bio-accumulate exponentially up the food chain, reaching the greatest magnitudes in mammals and humans; and (iv) they are semi-volatile, which enables them to travel great distances through cycles of evaporation and atmospheric cycling and deposition.

7. Environmental protection has assumed increasing importance in Egypt over the last 20 years, as a result of improving public education and awareness, leading to pressure on the Government to take action, increasing privatization of the industrial sector, and thus greater accountability, and pressure from donors to ensure that their projects are environmentally sustainable and to assist Egypt in modernizing its environmental management systems. The Government of Egypt (GOE) is strongly committed to controlling industrial discharges as well as to stricter and more consistent monitoring of all factors that influence drinking water quality and urban air pollution.

8. Recognizing the importance of the issue, the GOE ratified the Stockholm Convention on Persistent Organic Pollutants (POPs)[2] and completed a National Implementation Plan (NIP) in

[1] National Implementation Plan for Implementation of the Stockholm Convention: July 2005

[2] The Stockholm Convention on Persistent Organic Pollutants (May 2001) was aimed at reducing and eliminating releases of twelve of the most dangerous POPs, including eight pesticides (aldrin, chlordane, DDT, dieldrin, endrin, heptachlor, mirex, and toxaphene); two industrial chemicals (polychlorinated biphenyls or PCBs and

accordance with the requirements of the Convention. The NIP (i) provided an assessment of the older generation of transformers and condensers, manufactured before 1980s which contain Polychlorinated biphenyls (PCBs) that are being phased out and need proper storage and disposal measures; and (ii) provided a preliminary inventory of industrial source wastes which have the potential to generate comparatively high quantities of Dioxins and Furans during disposal.

9. The NIP recommended actions relating to (i) amendment of laws and legislations; (ii) completion of inventory and collection and processing information about sources and emissions of POPs, PCBs and dioxins and furans; (iii) completion of database on hot spots and remediation of the contamination sites; (iv) disposal of obsolete pesticides and PCBs; (v) improvement of coordination between the Ministry of State for Environmental Affairs (MSEA) and other institutions; (vi) strengthening environmental inspection, monitoring, evaluation and reporting; and (vii) establishing a mechanism for information exchange and community participation.

10. To help achieve the goals highlighted in the NIP, the GOE sought funding from the Global Environment Facility (GEF) through the World Bank. The GEF Council approved the project concept in June 2009. A Project Preparation Study, completed in October 2011, found that POPs pesticides (including new POPs) account for 10 to 30 percent of the estimated 2,250 to 4,600 tons of obsolete pesticides in Egypt, mostly stored in inadequate conditions. There are more than 100,000 transformers in the distribution systems, of which about 40 percent contain high-concentration PCBs (i.e. above 50 parts per million). Most of these PCBs are contained but leakage could result from old and damaged equipment or maintenance and repair.

11. The Ministry of State for Environmental Affairs (MSEA) and its Executive Agency Egyptian Environmental Affairs Agency (EEAA), as well as the Ministry of Water Resources and Irrigation has done a great deal in the way of environmental sustainability. There is a strong commitment to control industrial discharges, as well as to stricter and more consistent monitoring of all factors that influence drinking water quality and urban air pollution. In 2007, a solid waste management master plan was prepared to estimate the cost of upgrading the current solid waste management systems, and proposed a detailed governorate-by-governorate assessment. However, the track record for implementing and enforcing environmental laws has been mixed. The MSEA has instituted an integrated national network to monitor air pollutants, surface water and groundwater. Sewerage systems now cover 75 percent of cities and ten percent of villages. Significant investments have been made into industrial pollution control and management of hazardous waste. EEAA has established a National Hazardous Substances Information and Management System to initiate the management system for hazardous substances in Egypt.

C. Higher Level Objectives to which the Project Contributes

12. During Egypt's transition, the World Bank remains actively engaged and the Sustainable POPs Management Project (SPMP) fits clearly within the Interim Strategy Note for Egypt

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hexachlorobenzene); and three unintended by-products (polychlorinated dibenzo-p-dioxins and dibenzofurans, hexachlorobenzene, and PCBs)

(ISN[3]). The ISN matrix is three-pronged, focusing on economic management, jobs and inclusion. The SPMP meets the overarching objective of the World Bank's regional strategy[4] and falls within the provision of *inclusion*[5], and is especially relevant to the sub-objectives of improving air and water quality and improving water and sanitation.

13. The project directly contributes to the overall objectives of the Stockholm Convention to protect human health and the environment from POPs; specifically it responds to Article 3 of the Convention on measures to reduce or eliminate releases from intentional production and use; Article 6 on measures to reduce or eliminate releases from stockpiles and wastes; and Article 10 on public information, awareness and education.

14. The SPMP is fully aligned with the GEF strategy for Chemicals and its objective to phase out POPs and reduce POPs releases while contributing to strengthening the country's foundational capacities for sound chemicals management. It is a first but substantial step towards elimination of POPs in Egypt. Building capacity which will allow GOE to continue the program after completion of this project. The proposed Project design builds capacity for the long-term management of POPs, with a *"learning by doing"* approach through a number of early action demonstration investment activities for disposal of POPs. The focus will be on developing capacity to manage obsolete stockpiles on an urgent basis and to implement a systematic process (blueprint) for sustainable management practices.

15. Linkage to World Bank Group Goals**.** The World Bank Group has established two goals to anchor its overarching mission and to galvanize international and national efforts in this endeavor: (i) end extreme poverty at the global level within a generation and (ii) promote "shared prosperity" which is defined as a sustainable increase in the well-being of the poorer segments of society. This project contributes to the achievement of both goals as it aims to safely manage and dispose of highly hazardous materials and thus, reduce global and local environmental hazards, affecting communities and neighborhoods in proximity to the obsolete stockpiles as well as the users which quite often are poor farmers the majority of whom are women given that about 80 per cent of girls are taken out of school before the age of ten to do farm work[6]. Also, managing and disposing of highly hazardous materials through the project will lead to improved general health conditions of affected communities and thus, enhance their productivity and quality of life.

[3] The World Bank Group's Interim Strategy Note for Egypt (Report # 66443-EG) discussed by the Executive Directors on May 31, 2012
[4] Regional Update 2013 Middle East North Africa: Engaging toward Shared Prosperity
[5] Inclusion includes: improving management of water, sanitation and irrigation systems; improving air and water quality; and expanding access to healthcare
[6] IFAD, Rural Poverty Portal: http://www.ruralpovertyportal.org/country/home/tags/egypt

II. PROJECT DEVELOPMENT OBJECTIVE(S)/GLOBAL ENVIRONMENT OBJECTIVE(S)

A. PDO

16. The project development objective is to improve the management and disposal of targeted stockpiles of obsolete pesticides, including Persistent Organic Pollutants (POPs) and Polychlorinated Biphenyl (PCBs), in an environmentally sound manner.

B. Project Beneficiaries

17. The project aims to safely, store, and dispose/decontaminate obsolete stockpiles of pesticides and PCBs. The safe removal of such direct sources of contamination will have direct benefits to those who could have been potentially exposed, such as site-specific workers, and communities living in and around the contaminated sites. The estimated number of beneficiaries is 30,000. Along with reduced potential for environmental health impacts, disposal will also have direct fiscal and community benefits. In the case of destruction of obsolete pesticides, there is a higher proportion of beneficiaries that are women as these represent a larger share of the workforce in the agricultural sector, who handle pesticides. Given the dispersing and persistent characteristics of POPs, their removal from a local site would also potentially reduce their potential for contamination at the regional and global level.

C. PDO Level Results Indicators

- Core Sector Indicator: Persistent Organic Pollutants (POPs) pesticides and POPs waste destroyed, disposed of, or contained in an environmentally sound manner (tons)
- Core Sector Indicator: Direct Project Beneficiaries (number), of which female (%)

III. PROJECT DESCRIPTION

18. The NIP prepared by the GOE defines the national strategy and details a number of priority activities to be undertaken as per the obligations under the Stockholm Convention. The project supports some of the key activities identified in the NIP, including disposal of obsolete high risk stockpiles and decontamination of PCB transformer oils.

A. Project Components

Component 1: Destruction of High Risk Stocks of Obsolete Pesticide (US$ 3.83 million)

19. Activities under this Component are focused on the environmentally sound disposal of high risk stocks known and inventoried at time of project appraisal, and those that can be identified as high risk stocks through a first level risk assessment.

20. These activities directly support the PDO in the safe packaging, removal, transportation and destruction of high-risk stocks of pesticides, in state-of-the-art facilities overseas, and will

provide hands-on experience and expertise for sustainable management of such wastes. They involve:

i. Carrying out an environmentally sound program for the safe packaging, removal, transportation, export and destruction of approximately 1,000 tons of identified high-risk stocks of pesticides and other high-risk obsolete pesticides, following a risk-based prioritization approach, in state-of-the-art facilities overseas, including: (a) disposal of the stockpiles of about 220 tons of Lindane at the Al-Adabeya port storage facility; disposal of the stockpiles of about 440 tons of pesticides at the El Saff storage facility; and (c) the identification of all high risk stockpiles, and dispose of another approximately 350 tons of high risk stocks currently scattered across a number of sites.

ii. Technical Upgrading of Ministry of Agriculture and Land Reclamation (MALR) Central Agricultural Pesticides Laboratory to identify unlabeled products uncovered, as necessary, and to analyze pesticide samples.

iii. Enhancing the environmental management system of MSEA/EEAA to promote the identification, packaging, removal, transportation and destruction of high risk stocks of obsolete pesticides. This will include training of staff of EEAA and the Cooperating Ministries to track and monitor obsolete stockpiles and ensure the ultimate destruction of high risk stockpiles, Project monitoring and evaluation and enhancing EEAA and MALR system of tracking obsolete pesticides, and dissemination of results, including raising public awareness.

21. Of the total 2,250 to 4,600 tons of obsolete pesticides that are stockpiled, it is estimated that 10 to 30 percent could be POPs pesticides. This component will support the disposal of approximately 1000 tons of identified stocks of POPs and other high-risk obsolete pesticides, following a risk-based prioritization approach.

22. It was determined during project preparation that disposal of the stockpiles at Al-Adabeya port and El-Saff would be financed as priority under this component consistent with a risk management approach. The former is adjacent to international waters; the latter is in the middle of a densely populated neighborhood. The component will finance re-packaging and export to an international disposal facility. Details of these two sites are provided below:

a. The Al-Adabeya port storage facility was built in 1975 and dedicated for the storage of dry bulk. It is estimated that about 220 tons of Lindane, a POPs pesticide, has been stored at the port since 1998. The Lindane is packed in 25 kg plastic bags supported by a heavy paper outer wrapping and stored in ten standard containers. The activity for disposal of the stockpiles at Al-Adabeya Port will commence immediately upon Board approval of the project.

b. The El Saff storage facility has about 444 tons of pesticides, which comprises of 6.5 tons of POPs (including 3.9 tons of DDT (Dichlorodiphenyl trichloroethane and 2.6 tons of Lindane). The site has been in use for many years and shows clear signs of spillage of chemicals and leakage, from corroded or otherwise damaged and/or overturned containers. Over the years, the neighborhood has become more populated and the site is

surrounded by dense residential areas at a distance of less than 100 meter. Additionally, the storage site contains a granary of food stocks next to these obsolete stockpiles.

c. The project will support the identification of all high risk stockpiles, and dispose of another approx. 350 tons of high risk stocks currently scattered across a number of sites.

23. The MALR's Central Agricultural Pesticides Laboratory will have an important role under the project, mainly to identify unlabeled products uncovered, and to analyze pesticide samples. The laboratory is reasonably well equipped as it does routine testing for the registration of agricultural chemicals; however the component will finance minor technical upgrading.

24. The Ministry of State for Environmental Affairs (MSEA) / EEAA has the mandate to ensure the environmentally sound management of wastes. The project will enhance the environmental management system at EEAA to promote the identification, packaging, removal, transportation and destruction of high risk stocks of obsolete pesticides, consistent with Egypt's international obligations under the Stockholm and Basel Conventions. It will do so through a learning-by-doing approach to immediately address the high risk stockpiles of obsolete chemicals which require immediate attention. Staff in EEAA and the cooperating ministries will be trained to track and monitor obsolete stockpiles and ensure the ultimate destruction of high risk stockpiles. This component will also support Project Monitoring and Evaluation and will support EEAA in enhancing the existing system of tracking obsolete pesticides to ensure sustainable project outcomes and monitoring of project performance indicators (including needs for field monitoring and data processing). Dissemination of results, including awareness of the general population will also be supported.

Component 2: Decontamination of PCB-Containing Transformer Oils (US$ 4.27 million)

25. Activities under this Component will focus on the procurement of equipment for dechlorination and purification of PCB contaminated oils, which will produce oil suitable for reuse in equipment. Ministry of Electricity and Renewable Energy (MOEE)/ Egyptian Electricity Holding Company (EEHC) will have the lead in executing this component, which will include:

i. Carrying out of a program for the management of PCBs and PCB containing equipment focusing on PCBs in the public electricity generation, transmission and distribution sectors, including: (a) the acquisition and installation of equipment for dechlorination and purification of low to medium-concentration stocks of approximately 1000 tons of PCB contaminated oils, which will produce an oil suitable for reuse in transformers; (b) providing technical assistance to EEAA and MOEE/EEHC staff to address the decommissioning of PCB containing equipment; and (c) provision of laboratory support and the acquisition and utilization of instruments, electronic equipment and chemicals for sampling to measure the level of PCBs.

ii. Enhancing the environmental management system of MSEA/EEAA to promote the identification and decontamination of PCB-contaminated oils, including training of staff of EEAA and the Cooperating Ministries to track, monitor and decontaminate

PCBs and PCB containing equipment, supporting Project monitoring and evaluation and enhancing EEAA's system of tracking PCBs and PCB containing equipment to ensure sustainable project outcomes, monitoring of project performance indicators, and dissemination of results, including raising public awareness.

26. It is estimated that the total number of transformers in Egypt is over 100,000, of which 10 to 40 percent can be expected, based on the situation in similar countries, to be contaminated by PCBs at a level above 50 parts per million (ppm). This is the threshold above which the Stockholm Convention mandates environmentally sound management, based on the potential for harmful effects on human health and the environment. Egypt has received funds under a parallel United Nations Environment Programme (UNEP) managed GEF project, Programme for the Assessment and Control of Pollution of the Mediterranean, an arm of the Mediterranean Action Plan (MEDPOL), which will target and dispose of high-concentration PCBs which are expected to be present in relatively small amount in the country. The focus of this component is therefore on decontaminating/dechlorination of low to medium-concentration stocks of PCB-contaminated transformer oils, which when decontaminated, can be reused. The project will focus on PCB management in the public electricity generation, transmission and distribution sectors given the size of the sector and the importance of adopting sound PCB management practices in the sector.

27. Dechlorination of PCB contaminated oil for re-use as a fuel or for insulation is often a cost-effective local solution where there is sufficient volume of medium-level PCB contaminated oil, as is the case in Egypt. The project will support the procurement of appropriate technology that is cost-effective for EEHC - which will include a dechlorination unit and a Fuller's Earth facility of suitable size to purify the oil for re-use. During the course of the project, EEHC would operate its decontamination equipment to process as many of the PCB transformers as possible, and to recycle oils and other materials for further reuse. During the course of the project, approximately 1,000 tons of PCB-contaminated oil will be targeted. Remaining decontamination needs after project closing would be continued with GOE funding and the staff trained under the project.

28. Instruments for sampling to measure the level of PCBs, chemicals, and electronic equipment will be financed from this component. A small allowance has been made under the project for any upgrading needs for this project, for instance targeted at laboratories which might be needed to confirm levels of PCB contamination. For most cases, the EEAA's laboratory, which has gas chromatography capacity, could handle contamination analyses, and this capacity could be supplemented by another laboratory with existing capacity for testing trace contaminants if upgraded as appropriate.

29. The MSEA/EEAA will enhance its environmental management system to promote the identification and decontamination consistent with Egypt's international obligations under the Stockholm Convention. This component will also support Project Monitoring and Evaluation and enhancing the existing system of tracking PCBs at EEAA to a comprehensive one based on international best practice examples. Attention will be given to making available the necessary monitoring and data processing equipment, software, staffing and training and also addressing the needs for sustaining the system after project closure. The PMU will develop a system for monitoring project performance indicators (including needs for field monitoring and data processing). Staff in EEAA and the Cooperating Ministries will be trained to produce data

needed for quarterly project reporting. Dissemination of results, including awareness of the general population will also be supported.

B. Project Financing

30. The Ministry of International Cooperation (MOIC) reaffirmed its commitment to mobilizing financial resources of US$15.5 million for activities related to this project over the next four years. See Annex 6 for an outline description of related activities to be supported through this parallel financing by the GOE.

31. It has been determined by the GOE that funding will be allocated as follows:

- MALR: US$5.84 million
- MOEE: US$5.33 million
- MSEA/EEAA: US$4.33 million

Project Components	GEF Financing (US$ M)	% of Total GEF Financing
1. Management of Obsolete Pesticides of which attributed to PMU	3.45 0.38	100
2. Management of PCBs of which attributed to PMU	3.85 0.42	100
Total Project Costs Total Financing Required	8.10	

C. Lessons Learned and Reflected in the Project Design

30. With respect to issues of hazardous waste management, the Bank has extensive experience in many regions. However, the Bank's experience with POPs projects is relatively recent and focused mostly in Eastern Europe and South Asia, with only a few projects having completed implementation, and a majority in preparation or at an early stage of implementation. The design of the project greatly benefited from the operational experience of previous Bank involvement in Egypt and also international experiences in implementing POPs reduction projects. The lessons could be summarized as follows: (i) the seriousness and magnitude of the environmental issues related to POPs needs to be understood by key stakeholders and commitment to take necessary action is secured; (ii) project impacts with strong institutional capacity need to be linked to ability to influence environmental protection; (iii) in a number of countries, the greatest priority is to address high risk stockpiles.

31. The rationale for a multi-pronged approach towards different POPs chemicals is to advance the management and elimination of high risk POPs and to build capacities of key relevant stakeholders during project implementation. This requires cooperation with multiple stakeholder agencies and strong inter-agency agreements are therefore required to ensure effective implementation. This also underscores the importance of a strong Project Management Unit to

ensure effective and efficient project implementation. The presence of a high-level Project Steering Committee will further ensure coordination and harmonized implementation.

32. International experience in environmental clean-up projects confirms the importance of using a risk based assessment approach to determine the level of effort and human and financial resources. There is sufficient international experience with regard to POPs management and disposal and therefore careful risk-based analysis has to be done before choosing cost-effective and sustainable options and technologies.

33. Extensive involvement of local institutions, communities and stakeholders has been a critical factor in the success of other environmental clean-up and management projects supported by the Bank. The project builds in extensive public and community participation and awareness activities within each of the components. Assessment of environmental and social impacts and development of Environment and Social Management Plans requires extensive stakeholder consultations and involvement and feedback of the local communities.

IV. IMPLEMENTATION

A. Institutional and Implementation Arrangements

34. The executing agency for Sustainable POPs Management Project (SPMP) is the **Egyptian Environmental Affairs Agency (EEAA),** which has a responsibility for regulating hazardous substances including POPs in Egypt. It is under the responsibility of the Council of Ministers and a Minister of State for Environmental Affairs is assigned to both oversee the work of EEAA and to chair its Board of Directors. The EEAA will have the principal responsibility for project oversight and implementation and will establish a **Project Management Unit (PMU),** to be headed by a National Project Director, who will be a designated senior EEAA official. The PMU will include a team, led by a Project Manager (consultant) and technical and fiduciary specialists, as well as consultants. An important mechanism for transferring technical knowledge for POPs safeguarding and disposal will be a team of project consultants, with considerable international experience in POPs management, to support each of the technical and capacity building components.

35. EEAA will have the principal responsibility for project oversight and implementation, with technical support from the following Cooperating Ministries:

i. **Ministry of Agriculture and Land Reclamation (MALR)** is responsible for the management of pesticides, through its Pesticides Committee. While the PMU would have the main responsibility for procurement of disposal contracts, the MALR (through the Agricultural Research Center) would be responsible for facilitating transport and disposal and laboratory strengthening for pesticides.

ii. **Ministry of Electricity and Renewable Energy (MOEE)** oversees the Egyptian Electricity Holding Company (EEHC), which operates the power grid and has responsibility for stocks of PCBs and PCB-contaminated equipment in the public sector. The PMU would be responsible for ESIAs at proposed project sites and for procurement of imported equipment, while EEHC would be responsible for inventory, sampling and decontamination activities.

36. The PMU will include one full-time representative each from MALR and MOEE/Egyptian Electricity Holding Company (EEHC). A second Focal Point would be designated at the respective parent Ministries to provide part-time day-to-day liaison.

37. Overall monitoring and oversight of the GEF portfolio in Egypt is the responsibility of the **GEF National Steering Committee (GNSC)**, whose membership includes the participating ministries in addition to other ministries with direct relevance to the GEF in Egypt. The GNSC meets monthly to review overall implementation progress of GEF projects, resolve any inter-ministerial disputes and endorse new GEF project concepts.

38. A **POPs Project Steering Committee (PPSC)** will be formed to guide and coordinate project implementation and maintain inter-ministerial cooperation. It would be chaired by the Chief Executive Officer (CEO) of EEAA and include representatives of EEAA, MALR, MOEE, and Ministry of International Cooperation (MOIC). Specifically the PPSC will resolve inter-ministerial implementation issues, provide policy guidance to the PMU and review the status of implementation of the project. A number of other ministries and agencies will also have limited roles in project implementation, under the coordination of EEAA. EEAA management has confirmed that the present project and the MEDPOL project will cooperate closely, so as to avoid gaps or overlaps, following the general principal that MEDPOL will handle all high-concentration stocks (through export for incineration), while this project will decontaminate low-medium concentration stocks in-country.

39. A draft Project Operational Manual has been developed, which provides details of implementation decision-making procedures and reporting processes and respective responsibilities. It includes fiduciary requirements and safeguards measures. The draft Manual will be finalized no later than 30 days after grant effectiveness.

B. Results Monitoring and Evaluation

40. Project Results Indicators have been developed related to the project design. EEAA will be responsible for the overall monitoring and supervision of the project on behalf of the GOE and will report on a quarterly basis to the Bank on the implementation of all the components of the SPMP and on the achievement towards the targets stipulated in the Results Framework. These indicators will be reviewed on a six-monthly basis.

41. The Bank will undertake supervision missions at least twice a year to monitor implementation, compliance with environmental and safeguard provisions, and will evaluate project performance according to established performance monitoring indicators. Supervision will include field visits and discussion with relevant stakeholders, government agencies and implementing agencies. All project monitoring reports would be made public in accessible forms. A Mid Term Review (MTR) of project performance will be carried out about two years after project effectiveness and an Implementation Completion Report will be prepared within six months of the project closing. Prior to these, EEAA will carry out its own review of the project progress and implementation performance.

C. Sustainability

42. From a development perspective, the SPMP will support environmentally sustainable POPs management while from an operational perspective, the project will equip the Egyptian institutions with a strategy and sustainable system of methodological tools and technical skills for management of POPs and obsolete pesticides. This will be further ensured through stress on improved regulations, widespread public awareness and institutional capacity building and improved enforcement capacity.

43. GOE has already demonstrated its commitment to the elimination of POPs and to the project PDO through its: (i) accession to the Stockholm Convention; (ii) submission of the NIP and a recent start to its updating; (ii) establishment of a high-level GNSC; (iv) expression of commitment in a letter to the Bank dated December 15, 2011; and, (v) agreement to provide US$15.5 million towards the related project activities. For these reasons, the likelihood of project outputs and outcomes continuing beyond the life of the project is high.

V. KEY RISKS AND MITIGATION MEASURES

A. Risk Ratings Summary Table

Risk Category	**Rating**
Stakeholder Risk	High
Implementing Agency Risk	
- Capacity	High
- Governance	High
Project Risk	
- Design	High
- Social and Environmental	High
- Program and Donor	Moderate
- Delivery Monitoring and Sustainability	Substantial
Overall Implementation Risk	**High**

B. Overall Risk Rating Explanation

44. The project design involves the management of POPs pesticides and PCBs for mitigating health and environmental risks using techniques not previously employed in Egypt, and will require the coordination of three key ministries. This is consistent with many environmental management activities involving a multitude of point sources. During project preparation, extensive effort was put on operational, institutional and governance and safeguards risk identification and mitigation. Employment of international consultants and the extensive use of International Competitive Bidding (ICB) contracts will be strategic in mitigating risks associated

with project design, and in drawing on international expertise with proven results. The capacity of the executing agency, EEAA, and the cooperating ministries will be strengthened in order to implement the SPMP in its technical, procurement, safeguards and financial management aspects. The project incorporates a staggered approach to allow effective inventorization and institutional strengthening measures to be established.

45. It is expected that with the mitigation measures, the risks would be manageable during implementation. As such, the overall risk rating is rated as **High.** To ensure the adequate implementation of risk mitigation actions, the Bank will maintain close oversight of project implementation (including implementation support for close and continuous supervision).

VI. APPRAISAL SUMMARY

A. Economic and Financial (if applicable) Analysis

46. The project is contributing to a local and global public good by reducing the risk of contaminating the environment through the release of POPs pesticides and PCBs. Carrying out the typical economic and financial analysis for this kind of activity is challenging for a number of reasons essentially due to the prominence of non-measurable benefits of reducing the risk of contaminating the environment. Application of cost-benefit analysis to the process may be valid from a theoretical basis, however, the lack of reliable baseline data as well as data on related health impacts undermines the usefulness of such an analysis.

47. The present project is catalyzing action from various government and enterprise stakeholders to sustainably address the POPs issue in Egypt. The co-financing provided by GOE shows how various sectors are contributing to POPs management at a level that is much higher than what would have happened in a business as usual scenario, and is a reflection of the recognition by the GOE and other stakeholders of both the local and global environmental benefits that the project will generate.

48. Demonstration of environmentally sound disposal and safeguarding of pesticides will benefit segments of the population, such as workers in the power sector and farmers and women who spend significant time working in open fields. With increased awareness and managed use of pesticides, there will be a net positive impact on the health of women. It is quite difficult to quantify or monetize the benefits accrued to the aforementioned population segments due to estimation issues and data availability. The project is adopting maximum risk reduction as the criterion to prioritize the POPs activities addressed within the scope of the project.

49. The project also pursues maximum cost-effectiveness in all of its interventions, for example, for pesticides, the project preparation study concluded that, for the tonnages involved and given that no suitable disposal facility exists in Egypt, the most cost-effective solution will be to re-package the materials and export them for destruction in an accredited incineration facility. An average cost of US$3,400/ ton (including contingencies) has been estimated, which compares with the average cost experienced under the Africa Stockpiles Program; the program experienced

a cost for disposal of obsolete pesticides of US$ 3,103/ton. [7] For materials which are to be repackaged and securely stored, a cost of US$465/ ton (including contingencies) has been estimated.

50. With regard to low-concentration PCBs, the present assumption is that the most cost-effective method for their elimination will be dechlorination, which would produce an oil which is non-toxic and suitable for reuse as fuel, followed by a second stage of purification (with a Fuller's Earth facility), which would produce an oil which can be reused in transformers. These assumptions will be re-examined under the Technical Study scheduled for the end of Year 1 when more information will be available on the numbers of transformers needing decontamination, the average level of contamination, and the unit costs of various technical options. Over the life of the project, the total quantity of transformer oil processed will likely be about 1,000 tons, resulting in the destruction of some 150 to 300 kg of PCBs. This modest total reflects the fact that, in Egypt, the high-concentration PCBs have already been eliminated and the remaining problem is one of low levels of contamination (but still above the SC threshold of 50 ppm and thus still of international concern) but a very widespread incidence over the entire power system and thus expensive to correct. The overall cost is estimated at US$6,600/ ton of oil treated, which would be partly offset by the continuing value of the project equipment and buildings and the value of the 1,000 tons of purified transformer oil which would be produced.

B. Technical

51. Management of POPs, including storage, disposal is technically complex specifically with regard to actions and costs which are commensurate with the risk reduction targets. Egypt is a large country with a well-developed agricultural sector, widespread availability of electric power and a large industrial sector. All three categories of POPs are therefore widely prevalent and pose considerable dangers to the population due to poor usage practices and insufficient enforcement. A flexible project design has been adopted, to allow for unexpected discoveries of new high risk stocks of POPs or the introduction of new technologies for their management. Action such as the decontamination of PCB contaminated oils may use new techniques and technologies not previously utilized in Egypt. The project design requires the involvement of several Government agencies and other stakeholders, who are committed to work together on this problem. The project design underscores the importance of stakeholder and community consultation and public awareness for effective implementation.

C. Financial Management

52. The EEAA capacity was assessed and found satisfactory to conduct the financial management (FM) aspects of the project including the accounting, reporting and project external audit arrangements. Since the GEF grant will be disbursed as an extra budgetary fund, it will not be part of the Government budget as approved by Parliament. The PMU, located at EEAA, has been mandated to follow up on project activities and coordinate with the various ministries involved in implementation. In an effort to reinforce the capacity of the PMU, a Project Manager has been assigned and an agreement reached with the EEAA to assign a Financial

[7] Africa Stockpiles Program – Project 1. Implementation Completion and Results Report (ICR00002682). November 4, 2013.

Officer and an Accountant as part of the PMU. The selected staff possesses adequate experience to conduct the project activities.

53. The FM manual of procedures will define the controls (Grant is extra budgetary fund) and the flow of information, including the auditing arrangements between the various implementers under the project. The Project, through the PMU, will issue on a semi-annual basis, interim un-audited financial reports (IFRs). These reports will reflect the project sources and uses of funds, contract expenditures, and uses of funds by project component, and will be submitted to the Bank within 45 days following the end of each semester, starting from the semester where the first disbursement from the grant takes place. The Financial Officer at the PMU will be responsible for the preparation of the IFRs and sending them on a timely basis to the World Bank.

54. To ensure that funds are readily available for Project implementation, a US Dollar Designated Account (DA) will be opened and operated by the EEAA. The account will be opened at the Central Bank of Egypt (CBE). An independent external auditor will be hired to audit, on an annual basis, the Project financial statements and payments made on Statement of Expenditures (SOE) basis. To successfully implement the FM arrangements for the project, the FM Manual, which is part of the Project Operational Manual, must be finalized within 30 days of effectiveness. This Manual will define the FM and Disbursement procedures under the project. An external auditor is expected to be contracted within two months of Project effectiveness. The TORs for the auditor, as well as the selected auditor should be acceptable to the Bank.

D. Procurement

55. A Procurement Capacity Assessment was carried out during June 2013 on EEAA. The Agency follows Law 89 and its Executive Regulations which clearly holds the Competent Authority (Head of EEAA in this case) accountable for all procurement activities. EEAA Procurement Department Staff have received training at the General Authority for Government Services Training Center however the Staff has not been exposed to International Financing Organizations procurement procedures. To mitigate the Substantial Procurement Risk, it is recommended to (i) assign an EEAA Procurement Department Staff to be the PMU Procurement Specialist responsible and accountable for all procurement activities under the Project; (ii) the PMU Procurement Specialist will receive training on World Bank Procurement Guidelines and Procedures; (iii) include a Procurement section in the Operations Manual detailing the procurement procedures, filing system and Project Standard Bidding Documents/Request For Proposals (RFPs); (iv) a Project Procurement Plan is to be in place prior to Negotiations; and (v) increase supervision effort during the first year of the Project to provide intensive hands-on training to PMU Staff on Procurement.

56. Procurement would be carried out in accordance with the World Bank's "Guidelines: Procurement of Goods, Works and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers, published by the World Bank in January 2011; and "Guidelines: Selection and Employment of Consultants under IBRD Loans and IDA Credits and Grants by World Bank Borrowers" dated January 2011. " Also, "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants, dated October 15, 2006 and updated January 2011, shall apply to the project"

E. Social (including Safeguards)

57. The Operational Policy 4.12 on Involuntary Resettlement is not triggered, as there is no evidence that existing pesticide sites and PCB storage will result in involuntary displacement or total or even partial loss of livelihoods. The Safeguards Diagnostic Review (SDR) indicates the potential proximity of habitation around some of the proposed storage or collection centers, but these will need to be reviewed once the locations have been confirmed. A binding covenant in the legal document will require the development of an environmental and social impact assessment (ESIA), in accordance with national regulations, prior to any physical investment on the ground (disposal and/or storage of pesticides and PCB containing equipment). Public consultations and disclosure prior to implementation will be undertaken.

F. Environment (including Safeguards)

58. The SPMP is a POPs and PCB management project which will bring substantial environmental health benefits, both locally and globally. The project will safely dispose of obsolete pesticide stocks, establish preventive measures to avoid future accumulation, remove and dispose of PCB-contaminated equipment. The project components include the mitigation, monitoring and institutional measures to reduce/eliminate the adverse project impacts.

59. However, the implementation of the project entails some potentially high environmental risks related to pesticide transportation, and disposal. The potential risks associated with the inadequate management of PCBs with a concentration of more than 50 ppm by weight could result in contamination of soils, groundwater and surface water resulting in long-term local and global impacts. In the short-term, direct risks could be impact on health related to the manipulation of PCB-containing equipment by unqualified workers.

60. The SPMP is governed by OP 4.00 on "Piloting the Use of Borrower Systems to Address Environmental and Social Safeguard Issues in Bank-Supported Projects". Furthermore, the project activities trigger two additional Environmental Safeguards Policies: (i) Environmental Assessment, and (ii) Pest Management. Due to the high potential risk associated with project activities, it has been classified as a Category "A" project as per World Bank policies.

61. The Use of the Country Systems was applied in the Second Egypt Pollution Abatement Project (EPAP II)[8] to address hazardous and non-hazardous emissions from public and private sector entities. The SPMP will address primarily the hazardous waste which is one of the sources of pollution as both hazardous emissions and waste are affecting public health. It will therefore be appropriate to subject the SPMP to the same national system as both projects are financed by the World Bank and GEF with the same Ministry.

62. In accordance with OP 4.00, the World Bank conducted a Safeguard Diagnostics Review (SDR) to determine the equivalence and adequacy of the national system for environmental

[8] The Egypt Second Pollution Abatement Project (EPAP II) (Loan # 7372-EGT) was endorsed by the Bank's Board of Executive Directors on March 23, 2006.

impact assessment and pest management and subsequently identify any existing gaps. The results of the equivalence assessment showed that the World Bank's Operational Policies and the Egyptian safeguards systems on Environmental Assessment, as amended in 2009, are nearly fully equivalent. The SPMP sets out to improve pesticide and pest management issues including prevention as well as measures directed towards the strengthening of pesticide management and promotion of Integrated Pest Management (IPM). The SDR concluded that the national pest management system meets all the Pest Management Plan requirements. Disclosure Requirement Dates are below:

Safeguard Diagnostic Review (Equivalence and Acceptability Report):	
Dates of "in-country" consultation and disclosure	June 13, 2012
Date of submission to InfoShop	May 13, 2013
For category A projects, date of distributing the PID to the Executive Directors	March 20, 2014
If in-country disclosure of any of the above documents is not expected, please explain why: N/A	

63. The major gaps are related to weak coordination among EEAA departments involved in POPs, insufficient compliance with the requirements of the Stockholm Convention, lack of procedures guidelines of POP projects, insufficient knowledge on PCBs and POPs contract management, weak enforcement for PCBs and lack of assessment of the quality of the ESIA reports. Remedial measures were identified to address these gaps with a proposed schedule. These include the preparation of an operational manual which delineate functions and responsibilities during the ESIA process, completion of legal and regulatory framework pertaining to the Stockholm Convention, development of ESIA procedural guidelines for POPs, provision of training to EEAA staff and sector ministries and Non Governmental Organization (NGO) development of an environmental register of POPs sites, and assessment of quality of the ESIA reports every two years. Annex 3 summarizes the safeguards gaps and appropriate gap filling measures.

64. In accordance with the national Environmental Impact Assessment (EIA) system, all subprojects will be reviewed and approved by the EEAA/ EIA department including consultation and disclosure at the EEAA website (www.eeaa.gov.eg) before construction starts. Also, grievance redress mechanisms and consultations prior to sub-project specific ESIAs/ESMPs and physical interventions will be undertaken, documented, monitored and included in project activity reports. Up to 15 comprehensive ESIAs/ESMPs, including in-depth risk assessments, will be conducted for all sites which have been identified to be supported under the project for decontamination and disposal. Comprehensive safeguard standards and mitigation measures to be incorporated in all contracts under the project involving hazardous materials or sites, based on best international practice for POPs chemicals. The yearly project implementation schedule to be prepared by the PMU will reflect the time line and number of ESIA/ESMP to be prepared by independent consultants and formally approved by EEAA/ EIA department which is totally independent from the PMU. The Bank will also review during the first 18 months, all the sub-project specific ESIAs and ESMPs.

The matrix below summarizes the safeguard policies triggered for the proposed POPs Project.

Safeguard Policies Triggered *(please explain why)*	**Yes**	**No**	**OP/BP 4.00**
Environmental Assessment (OP/BP 4.01)	X		X
Natural Habitats (OP/BP 4.04)		X	
Forests (OP/BP 4.36)		X	
Pest Management (OP 4.09)	X		X
Physical Cultural Resources (OP/BP 4.11)		X	
Indigenous Peoples (OP/BP 4.10)		X	
Involuntary Resettlement (OP/BP 4.12)		X	
Safety of Dams (OP/BP 4.37)		X	
Projects on International Waterways (OP/BP 7.50)		X	
Projects in Disputed Areas (OP/BP 7.60)		X	

Annex 1: Results Framework and Monitoring

EGYPT: SUSTAINABLE POPS MANAGEMENT

Results Framework

Global Environmental Objectives

PDO Statement

The project development objective is to improve the management and disposal of targeted stockpiles of obsolete pesticides, including Persistent Organic Pollutants (POPs) and Polychlorinated Biphenyl (PCBs), in an environmentally sound manner.

These results are at	Project Level

Global Environmental Objective Indicators

Indicator Name	Core	Unit of Measure	Baseline	Cumulative Target Values					Frequency	Data Source/ Methodology	Responsibility for Data Collection
				2015	2016	2017	2018	End of Project			
POPs and POPs waste destroyed, disposed of, or contained in an environmentally sound manner	☒	Metric ton	0.00	220	860	1600	2000	2000	Semi-annual progress reports	PMU monitoring	EEAA/MALR/ MOEE
Direct project beneficiaries	☒	Number	0.00	0.00	30,000	30,000	30,000	30,000	Semi-annual progress reports	PMU monitoring	EEAA

Female beneficiaries	☒	Percentage Sub-Type Supplemental	0.00		50	50	50	50			

Intermediate Results Indicators

Indicator Name	Core	Unit of Measure	Baseline	Cumulative Target Values					Frequency	Data Source/ Methodology	Responsibility for Data Collection
				2051	2016	2017	2018	End of Project			
PCB contaminated oils decontaminated	☐	Metric ton	0.00	0.00	200	600	1,000	1,000	Semi-annual progress reports	PMU monitoring	PMU/EEHC
Tracking system for management of PCBs operational	☐	Yes/No	No	No	Yes	Yes	Yes	Yes	Semi-annual progress reports	Annual reports	EEAA/PMU
Tracking system for management of obsolete pesticides operational	☐	Yes/No	No	No	Yes	Yes	Yes	Yes	Semi-annual progress reports	Annual reports	EEAA/PMU
Obsolete pesticides including POPs pesticides disposed of in an environmentally sound manner	☐	Metric ton	0.00	220	660	1,000	1,000	1,000	Semi-annual progress reports	PMU monitoring	PMU/MALR
Obsolete pesticides at Al-Adabeya	☐	Yes/No	Yes	Yes	Yes	Yes	Yes	Yes		PMU monitoring	EEAA/PMU

removed and disposed of											
Obsolete pesticides at El-Saff removed and disposed of	☐	Yes/No	No	Yes	Yes	Yes	Yes	Yes			PMU/MALR

Global Environmental Objective Indicators	
Indicator Name	Description (indicator definition etc.)
POPs and POPs waste destroyed, disposed of, or contained in an environmentally sound manner	This indicator measures the amount of persistent organic pollutants (pops) and pops waste destroyed, disposed of or contained in environmentally sound manner (tons) under the project. The baseline for this indicator is zero. This is adding obsolete pesticides total – not just POPs + tons of decontaminated oil – not pure PCBs.
Direct project beneficiaries	Direct beneficiaries are people or groups who directly derive benefits from an intervention (i.e., children who benefit from an immunization program; families that have a new piped water connection). Please note that this indicator requires supplemental information. Supplemental Value: Female beneficiaries (percentage). Based on the assessment and definition of direct project beneficiaries, specify what proportion of the direct project beneficiaries are female. This indicator is calculated as a percentage. Various workers exposed to PCBs during maintenance etc, plus managing pesticides stores, plus (majority) population living around El Saff and other stores: 0.5km radius at 40,000 inhabitants/km^2.
Female beneficiaries	Based on the assessment and definition of direct project beneficiaries, specify what percentage of the beneficiaries are female. Rough estimate. Assumes women exposed as men due to proximity to stockpiles. Number is actually less than 50% because beneficiaries that work in maintenance centres for PCBs are likely 100% men – but this overall is negligible compared to # of reduced exposure from El Saff.

Intermediate Results Indicators	
Indicator Name	Description (indicator definition etc.)
PCB contaminated oils decontaminated	No description provided.

Tracking system for management of PCBs operational	No description provided.
Tracking system for management of obsolete pesticides operational	No description provided.
Obsolete pesticides including POPs pesticides disposed of in an environmentally sound manner	No description provided.
Obsolete pesticides at Al-Adabeya removed and disposed of	No description provided.
Obsolete pesticides at El-Saff removed and disposed of	No description provided.

Annex 2: Detailed Project Description

EGYPT: SUSTAINABLE POPS MANAGEMENT PROJECT

A synopsis of the Project is provided below followed by a detailed description:

Component 1: Destruction of High Risk Stocks of Obsolete Pesticide (US$ 3.83 million)

1. Carrying out an environmentally sound program for the safe packaging, removal, transportation, export and destruction of approximately 1,000 tons of identified high-risk stocks of pesticides and other high-risk obsolete pesticides, following a risk-based prioritization approach, in state-of-the-art facilities overseas, including: (a) disposal of the stockpiles of about 220 tons of Lindane at the Al-Adabeya port storage facility; disposal of the stockpiles of about 440 tons of pesticides at the El Saff storage facility; and (c) the identification of all high risk stockpiles, and dispose of another approximately 350 tons of high risk stocks currently scattered across a number of sites.

2. Technical Upgrading of Ministry of Agriculture and Land Reclamation (MALR) Central Agricultural Pesticides Laboratory to identify unlabeled products uncovered, as necessary, and to analyze pesticide samples.

3. Enhancing the environmental management system of MSEA/EEAA to promote the identification, packaging, removal, transportation and destruction of high risk stocks of obsolete pesticides. This will include training of staff of EEAA and the Cooperating Ministries to track and monitor obsolete stockpiles and ensure the ultimate destruction of high risk stockpiles, Project monitoring and evaluation and enhancing EEAA and MALR system of tracking obsolete pesticides, and dissemination of results, including raising public awareness.

Component 2: Decontamination of PCB-Containing Transformer Oils (US$ 4.27 million)

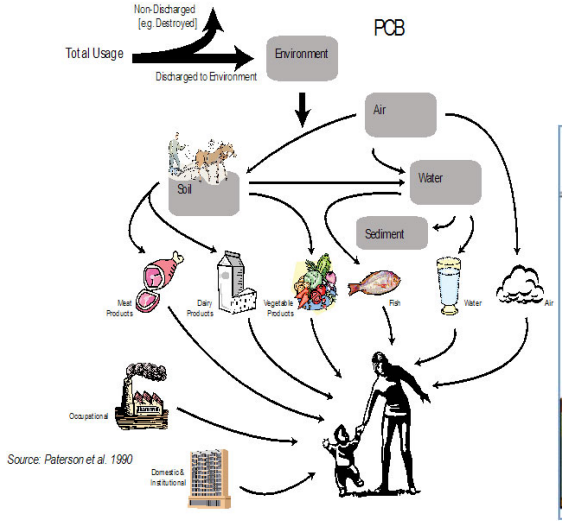
4. Carrying out of a program for the management of PCBs and PCB containing equipment focusing on PCBs in the public electricity generation, transmission and distribution sectors, including: (a) the acquisition and installation of equipment for dechlorination and purification of low to medium-concentration stocks of approximately 1000 tons of PCB contaminated oils, which will produce an oil suitable for reuse in transformers; (b) providing technical assistance to EEAA and MOEE/EEHC staff to address the decommissioning of PCB containing equipment; and (c) provision of laboratory support and the acquisition and utilization of instruments, electronic equipment and chemicals for sampling to measure the level of PCBs.

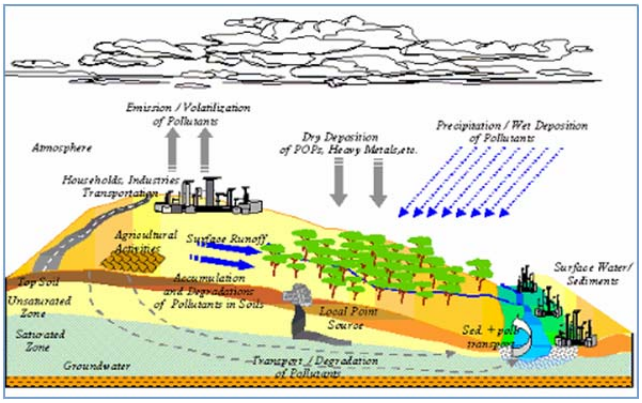
5. Enhancing the environmental management system of MSEA/EEAA to promote the identification and decontamination of PCB-contaminated oils, including training of staff of EEAA and the Cooperating Ministries to track, monitor and decontaminate PCBs and PCB containing equipment, supporting Project monitoring and evaluation and enhancing EEAA's system of tracking PCBs and PCB containing equipment to ensure sustainable project outcomes, monitoring of project performance indicators, and dissemination of results, including raising public awareness.

BACKGROUND:

6. Persistent Organic Pollutants (POPs)[9] Persistent organic pollutants include some of the most dangerous pollutants released into the environment. POPs have four key characteristics:

- They are toxic, causing adverse health effects, such as birth defects, damage to immune and respiratory systems, and critical organs. Hormone system dysfunction associated with POPs includes damage to the reproductive system; endocrine disruption can have developmental and carcinogenic effects. Women, infants, and children appear to be especially vulnerable to certain effects of POPs.
- POPs are environmentally persistent. They resist breakdown by natural processes, and, in some cases, remain in the environment for decades.
- POPs resist breakdown in water but are soluble in fatty tissue; they therefore bioaccumulate exponentially up the food chain; animals can absorb concentrations of POPs at levels many times higher than those found in the environment.
- POPs are semi-volatile. Through cycles of evaporation and atmospheric cycling and deposition (referred to as the "grasshopper effect") they are capable of traveling 1000s of miles. Because POPs condense at cooler temperatures, they reach their highest concentrations in the cooler regions of the world (northern latitudes and high altitudes). POPs have been found on every continent on the planet, and in every major climatic zone.





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7. POPs pesticides can have high risk, especially if they are inappropriately used, stored or disposed. Many of the various types of POPs pesticides can bioconcentrate, rather than bioaccumulate, which could result in damage to the human immune system. PCBs are used as heat exchange fluids and dielectrics in electrical capacitors, transformers, hydraulic and heart transfer systems. While many of the countries ceased production of PCB containing equipment in the 1970s, leakage or poor disposal has resulted in PCBs being widely prevalent in the environment, where they are available for uptake and subsequent bioaccumulation in organisms.

8. Environmental protection has assumed increasing importance in Egypt over the last 20 years, as a result of improving public education and awareness, leading to pressure on the government

[9] The twelve original POPs under the Stockholm Convention - known as the “Dirty Dozen” - include nine pesticides (DDT being the best known), polychlorinated biphenyls (PCBs) as well as dioxins and furans.

to take action, increasing privatization of the industrial sector, and thus greater accountability, and pressure from donors to ensure that their projects are environmentally sustainable and to assist Egypt in modernizing its environmental management systems. The Government of Egypt (GOE) is strongly committed to controlling industrial discharges as well as to stricter and more consistent monitoring of all factors that influence drinking water quality and urban air pollution. It ratified the Stockholm Convention for the management of POPs in May 2002 and drafted a National Implementation Plan which includes: (1) the management and environmentally sound disposal of PCBs and obsolete pesticides; (2) action plans to address unintentional releases of dioxins and furans; (3) institutional and regulatory strengthening measures; as well as (4) awareness building and stakeholder involvement activities.

9. **Obsolete Pesticides including POPs**: There is a need for cost effective, sustainable solutions for POPs site assessment and management since POPs contaminated sites can have severe environmental impact. Egypt has sites with buried POPs and hot spots of contaminated soil and or groundwater. A survey was conducted in 2006 to identify all known stocks of obsolete pesticides. A public awareness campaign was conducted and users were compensated for taking their pesticide stocks to government facilities. About 450 tons of pesticides was collected and stored in the El Saff district of the Giza Governorate, falling under the purview of the Ministry of Agriculture. Some of the stocks that were held by Government agencies (e.g. Ministry of Petroleum, Ministry of Water and Irrigation), which were either not safe to move, or which were stored in an environmentally sound manner were identified, classified and stored in their location.

10. Egypt has banned production, import and use of chemicals of annex (A) and annex (B) of the Stockholm Convention included in a list of other chemicals in accordance with the following laws and regulations:

- Law on Agriculture No 53- 1966 as amended to date
- Decree no. 60- 1986 (Ministry of Agriculture) that bans use of pesticides including chemical substances under annexes (A) and (B);
- Decree no. 258- 1990 (Ministry of Agriculture) that bans importation of chemical substances under annexes (A) and (B);
- Decree no. 55 - 1996 (Ministry of Commerce) defining a list of chemicals not to be imported, produced or used. This list includes pesticides under annexes (A) and (B) of the Convention.
- Guidelines for the safe handling of hazardous substances in general and of POPs in particular in order to inform on the safe handling of hazardous substances from different technical aspects issued by EEAA. These guidelines were issued in Arabic and include best international practices on information related to the substance, its classification, degree of hazard, packing group, CAS number, safety phrases, risk phrases, synonyms, molecular weight, melting point, boiling point, potential hazards, emergency response, transport, handling, treatment, disposal, first-aid compatibility, consistency and storage. These guidelines also provide clear and brief notes on about 300 chemical substances in addition to the substances listed under the Stockholm Convention on POPs (9 pesticides).

- There is no record of specified exemptions because of the absolute ban concerning all the chemicals under annexes (A) and (B) of the Convention, according to the above-listed applicable laws and regulations.

11. Egypt does not import chemicals of annexes (A) and (B) not even for the purpose of sound environmental elimination or any other purpose allowed such as fighting disease carriers, as in annex (B) related to DDT. EEAA has developed a series of guidelines in English and Arabic with the assistance of USAID-financed Egypt Environmental Policy Program (EEPP). They include guidelines on hazardous waste systems, licensing requirements, permitting and regulations, classification and coding, on site storage and handling, transportation treatment and disposal, and recycling. These guidelines were developed to comply with the Law 4 of 1994. Law 4 was amended with Law 9 of 2009 and the executive regulations of 2009 are in force. Therefore it could be expected that there would not be any additional amounts to the known stockpile. However as detailed in the table below, inventory of pesticides and stockpiles is inadequate and needs to be updated.

Table 2.1: Estimated quantities of obsolete and POPs pesticides and preliminary risk assessment of identified sites

	Location	Quantity in ton (Estimated CSD) (2010)	Estimate Tauw Consortium (2011)	Risks			Priority for site assessment	Priority of site cleanup
				Human health	Dispersion	Environment		
1.	**ICC El-Saff, Giza**	**350-450 t 6 t POPs+ 250 t Ametryn**	**220 t Lindane and 258 t DDT are mentioned At least 500 t of obsolete and POPs pesticides at El Saff, detailed inventory is needed**	**Site staff is exposed. In case of an accident exposure of people who live around the site is possible**	**In case of an accident dispersion into the soil and groundwater is very well possible**	**Pesticides will enter into the environment because store is not closed properly**	**High**	**High**
2.	Petroleum institute Nasr city, Cairo	149 t Magnacide*	Other (POPs) pesticides could be present Detailed inventory is needed				Low	Low
3.	MIWR 6-7 sites	60-70 t Magnacide*						
4.	El Behira – Damanhour	0.5 t Magnacide*						
5.	Dammeitta – Dammeitta	3.5 t Magnacide*						
6.	**MoA Bathim, Giza**	**10-12 drums, bad condition, DDT (0.5 t) And possibly Toxaphen and Dieldrin**	**30 – 40 drums containing remains of DDT. POPs waste (e.g. containers, building material). Soil needs to be taken into account as well. Based on site visits total estimated amount is 3 – 5 tonnes, excluding soil and waste. Detailed inventory is needed**	**12 drums are in bad condition therefore site staff is exposed**	**DDT is dispersing into the environment**	**DDT will accumulate in the food chain**	**High**	**High**
7.	Agricultural bank of Credit and Development, Cairo	1,032 t (of which 1,000 t sulphur)	Other POPs pesticides could be present Detailed inventory is needed				Low	Low
8.	**Adabaya Port**	**5 containers from Soudan, 110 t of Lindane**	**Based on site visits total estimated amount of Lindane is 220 tonnes, excluding soil and waste. Detailed inventory is needed**		**If the containers are in bad condition the site staff is exposed. The**	**POPs dispersing into the environment**	**High**	**High**

	Location	Quantity in ton (Estimated CSD) (2010)	Estimate Tauw Consortium (2011)	Risks			Priority for site assessment	Priority of site cleanup
				Human health	Dispersion	Environment		
9.	**Noueba Port, South Sinai, near Sharm-El-Sheik**	**7 containers from Jordan, 12 t**	**100 t? 20 ft container has a capacity of 20 tonnes Detailed inventory is needed**					
10.	**Alexandria Port**	**20 storages with chemicals and pesticides including 12 containers sulphur and new POPs**	**20 storages could contain a considerable quantity of POPs pesticides Detailed inventory is needed**					
11	7 Pesticide factories	Experience from other countries teaches that (former) production sites almost always include hotspots of highly contaminated soil or contaminated material Detailed inventory is needed for all individual (former) POPs production sites					Medium	Medium
12.	Multiple locations	12,000 traders may retain obsolete pesticides estimated 300 t; Private persons may retain obsolete pesticides and empty contaminated containers. No estimates available. Awareness raising and detailed inventory is needed					Low	Low

* Magnacide is not a POPs pesticide, but an extreme flammable, poisonous, irritant and potentially explosive herbicide

12. At the sites that have high risk qualification, pesticides are kept under substandard conditions. The Project technical study conducted by TAUW Consortium, recommended that the project investments be phased, starting with those that entail the highest risk – Al-Adabeya, El Saff, Giza, Noueba and Alexandria.

13. **PCBs:** A substantial amount of PCB-contaminated equipment exists around the country. The study conducted by TAUW during project preparation estimates that they are approximately 100,000 transformers in the country. Based on the situation in comparable countries, the consultants estimates that 10-40 percent of these could be contaminated by PCBs. The TAUW study also confirmed that there was relatively few pure PCB-containing equipment which will be dealt with by the MEDPOL project. A study conducted as part of the National Implementation Plan (NIP) also revealed poor practices for local oil recycling, which included sale of recycled oils (lubricating oils and untested transformer oils) contaminated with PCBs and re-used for a variety of purposes. The practice has been banned since 2007.

14. Based on the information gathered during the project preparation study, the Sustainable POPs Management Project (SPMP) was designed, with two key components focusing on disposal of obsolete POPs stockpiles, decontamination of PCBs and PCB containing equipment, as defined under the NIP of Egypt. The project design and components are detailed below:

Component 1: Destruction of High Risk Stocks of Obsolete Pesticide (US$ 3.83 million)

15. Activities under this Component are focused on the environmentally sound disposal of high risk stocks known and inventoried at time of project appraisal, and those that can be identified as high risk stocks through a first level risk assessment.

16. These activities directly support the PDO in the safe packaging, removal, transportation and destruction of high-risk stocks of pesticides, in state-of-the-art facilities overseas, and will

provide hands-on experience and expertise for sustainable management of such wastes. They involve:

a. Carrying out an environmentally sound program for the safe packaging, removal, transportation, export and destruction of approximately 1,000 tons of identified high-risk stocks of pesticides and other high-risk obsolete pesticides, following a risk-based prioritization approach, in state-of-the-art facilities overseas, including: (a) disposal of the stockpiles of about 220 tons of Lindane at the Al-Adabeya port storage facility; disposal of the stockpiles of about 440 tons of pesticides at the El Saff storage facility; and (c) the identification of all high risk stockpiles, and dispose of another approximately 350 tons of high risk stocks currently scattered across a number of sites.
b. Technical Upgrading of Ministry of Agriculture and Land Reclamation (MALR) Central Agricultural Pesticides Laboratory to identify unlabeled products uncovered, as necessary, and to analyze pesticide samples.
c. Enhancing the environmental management system of MSEA/EEAA to promote the identification, packaging, removal, transportation and destruction of high risk stocks of obsolete pesticides. This will include training of staff of EEAA and the Cooperating Ministries to track and monitor obsolete stockpiles and ensure the ultimate destruction of high risk stockpiles, Project monitoring and evaluation and enhancing EEAA and MALR system of tracking obsolete pesticides, and dissemination of results, including raising public awareness.

17. Of the total 2,250 to 4,600 tons of obsolete pesticides that are stockpiled, it is estimated that 10 to 30 percent could be POPs pesticides. This component will support the disposal of approximately 1000 tons of identified stocks of POPs and other high-risk obsolete pesticides, following a risk-based prioritization approach.

18. It was determined during project preparation that disposal of the stockpiles at Al-Adabeya port and El-Saff would be financed as priority under this component consistent with a risk management approach. The former is adjacent to international waters; the latter is in the middle of a densely populated neighborhood. The component will finance re-packaging and export to an international disposal facility. Details of these two sites are provided below:

a. The Al-Adabeya port storage facility was built in 1975 and dedicated for the storage of dry bulk. It is estimated that about 220 tons of Lindane, a POPs pesticide, has been stored at the port since 1998. The Lindane is packed in 25 kg plastic bags supported by a heavy paper outer wrapping and stored in ten standard containers. The activity for disposal of the stockpiles at Al-Adabeya Port will commence immediately upon Board approval of the project.

b. The El Saff storage facility has about 444 tons of pesticides, which comprises of 6.5 tons of POPs (including 3.9 tons of DDT (Dichlorodiphenyl trichloroethane and 2.6 tons of Lindane). The site has been in use for many years and shows clear signs of spillage of chemicals and leakage, from corroded or otherwise damaged and/or overturned containers. Over the years, the neighborhood has become more populated and the site is surrounded by dense residential areas at a distance of less

than 100 meters. Additionally, the storage site contains a granary of food stocks next to these obsolete stockpiles.

c. The project will support the identification of all high risk stockpiles, and dispose of another approximately 350 tons of high risk stocks currently scattered across a number of sites.

19. The MALR's Central Agricultural Pesticides Laboratory will have an important role under the project, mainly to identify unlabeled products uncovered, and to analyze pesticide samples. The laboratory is reasonably well equipped as it does routine testing for the registration of agricultural chemicals; however the component will finance minor technical upgrading.

20. The Ministry of State for Environmental Affairs (MSEA) / EEAA has the mandate to ensure the environmentally sound management of wastes. The project will enhance the environmental management system at EEAA to promote the identification, packaging, removal, transportation and destruction of high risk stocks of obsolete pesticides, consistent with Egypt's international obligations under the Stockholm and Basel Conventions. It will do so through a learning-by-doing approach to immediately address the high risk stockpiles of obsolete chemicals which require immediate attention. Staff in EEAA and the cooperating ministries will be trained to track and monitor obsolete stockpiles and ensure the ultimate destruction of high risk stockpiles. This component will also support Project Monitoring and Evaluation and will support EEAA in enhancing the existing system of tracking obsolete pesticides to ensure sustainable project outcomes and monitoring of project performance indicators (including needs for field monitoring and data processing). Dissemination of results, including awareness of the general population will also be supported.

Component 2: Decontamination of PCB-Containing Transformer Oils (US$ 4.27 million)

21. Activities under this Component will focus on the procurement of equipment for dechlorination and purification of PCB contaminated oils, which will produce oil suitable for reuse in equipment. Ministry of Electricity and Renewable Energy (MOEE)/ Egyptian Electricity Holding Company (EEHC) will have the lead in executing this component, which will include:

a. Carrying out of a program for the management of PCBs and PCB containing equipment focusing on PCBs in the public electricity generation, transmission and distribution sectors, including: (a) the acquisition and installation of equipment for dechlorination and purification of low to medium-concentration stocks of approximately 1000 tons of PCB contaminated oils, which will produce an oil suitable for reuse in transformers; (b) providing technical assistance to EEAA and MOEE/EEHC staff to address the decommissioning of PCB containing equipment; and (c) provision of laboratory support and the acquisition and utilization of instruments, electronic equipment and chemicals for sampling to measure the level of PCBs.
b. Enhancing the environmental management system of MSEA/EEAA to promote the identification and decontamination of PCB-contaminated oils, including training of staff of EEAA and the Cooperating Ministries to track, monitor and

decontaminate PCBs and PCB containing equipment, supporting Project monitoring and evaluation and enhancing EEAA's system of tracking PCBs and PCB containing equipment to ensure sustainable project outcomes, monitoring of project performance indicators, and dissemination of results, including raising public awareness.

22. It is estimated that the total number of transformers in Egypt is over 100,000, of which 10 to 40 percent can be expected, based on the situation in similar countries, to be contaminated by PCBs at a level above 50 parts per million (ppm). This is the threshold above which the Stockholm Convention mandates environmentally sound management, based on the potential for harmful effects on human health and the environment. Egypt has received funds under a parallel UNEP managed GEF project, MEDPOL, which will target and dispose of high-concentration PCBs which are expected to be present in relatively small amount in the country. The focus of this component is therefore on decontaminating/dechlorination of low to medium-concentration stocks of PCB-contaminated transformer oils, which when decontaminated, can be reused. . The project will focus on PCB management in the public electricity generation, transmission and distribution sectors given the size of the sector and the importance of adopting sound PCB management practices in the sector.

24. Dechlorination of PCB contaminated oil for re-use as a fuel or for insulation is often a cost-effective local solution where there is sufficient volume of medium-level PCB contaminated oil, as is the case in Egypt. The project will support the procurement of appropriate technology that is cost-effective for EEHC - which will include a dechlorination unit and a Fuller's Earth facility of suitable size to purify the oil for re-use. During the course of the project, EEHC would operate its decontamination equipment to process as many of the PCB transformers as possible, and to recycle oils and other materials for further reuse. During the course of the project, approximately 1,000 tons of PCB-contaminated oil will be targeted. Remaining decontamination needs after project closing would be continued with GOE funding and the staff trained under the project.

25. Instruments for sampling to measure the level of PCBs, chemicals, and electronic equipment will be financed from this component. A small allowance has been made under the project for any upgrading needs for this project, for instance targeted at laboratories which might be needed to confirm levels of PCB contamination. For most cases, the EEAA's laboratory, which has gas chromatography capacity, could handle contamination analyses, and this capacity could be supplemented by another laboratory with existing capacity for testing trace contaminants if upgraded as appropriate.

26. This component will also support Project Monitoring and Evaluation and enhance the existing system of tracking PCBs at EEAA to a comprehensive one based on international best practice examples. Attention will be given to making available the necessary monitoring and data processing equipment, software, staffing and training and also addressing the needs for sustaining the system after project closure. The PMU will develop a system for monitoring project performance indicators (including needs for field monitoring and data processing). Staff in EEAA and the Cooperating Ministries will be trained to produce data needed for quarterly project reporting. Dissemination of results, including awareness of the general population will also be supported.

Annex 3: Implementation Arrangements

EGYPT: SUSTAINABLE POPS MANAGEMENT

Project Institutional and Implementation Arrangements

1. The Government of Egypt has designated the **Egyptian Environmental Affairs Agency (EEAA)** as Executing Agency of the project and the World Bank as the Implementing Agency under Global Environment Facility (GEF)**.** The Minister of State for Environmental Affairs both oversees the work of EEAA and chairs its Board of Directors. The EEAA maintains nationwide responsibility for (1) environmental policy; (2) regulations setting; (3) environmental quality monitoring of air, water, soil, and wastes; (4) environmental compliance and law enforcement; (5) biodiversity conservation; (6) environmental impact assessments; and (7) environmental awareness-raising. It is responsible for regulating hazardous substances that include POPs.

2. EEAA will have the principal responsibility for project oversight and implementation, with technical support from the following Cooperating Ministries:

i. **Ministry of Agriculture and Land Reclamation (MALR)** is responsible for the management of pesticides, through its Pesticides Committee. Through its Agricultural Research Center, the MALR would be responsible for the activities related to obsolete pesticides.

ii. **Ministry of Electricity and Renewable Energy (MOEE)** oversees the Egyptian Electricity Holding Company (EEHC), which operates the power grid and has responsibility for stocks of PCBs and PCB-contaminated equipment in the public sector; it would be responsible for inventory, sampling and decontamination activities.

3. ***Project Management Unit (PMU):*** The EEAA will be principally responsible for project implementation and will establish a PMU to be headed by a National Project Director, who will be supported by a Project Manager and technical and fiduciary specialists. The PMU will supervise major procurement contracts, amongst other responsibilities. An important mechanism for transferring technical knowledge for POPs safeguarding and disposal will be a team of project consultants, with considerable international experience in POPs management, to support each of the technical and capacity building components. The MOEE and EEHC will be responsible for inventory, sampling and decontamination activities. The PMU will include one full-time representative each from MALR and MOEE/Egyptian Electricity Holding Company (EEHC) at EEAA for effective coordination. A second Focal Point would be designated at the respective parent Ministries to provide part-time day-to-day liaison. The PMU's organizational structure and staff will be as follows:

4. A partnership between EEAA and the Cooperating Ministries will capitalize on the relative strengths which maximizes synergies between EEAA and Cooperating Ministries. Specifically, the responsibilities of the various ministries will be as follows:

i. EEAA, responsible for drafting and submitting quarterly or semi-annual reports on project implementation, developing annual work plans jointly with other partners; and monitoring overall progress of the project and highlighting any constraints that could hinder proper implementation of the project.

ii. MALR, through its Agricultural Research Center, will be responsible for facilitating the activities related to safeguarding and disposal of obsolete pesticides, and laboratory strengthening for pesticides.

iii. MOEE and EEHC will be responsible for inventory, sampling and decontamination activities

iv. MOEE and MALR will be responsible for providing information and data related to the fulfillment of the project outputs and feedback on the annual work plans and progress reports. Close coordination with the MEDPOL Project will be required on the PCB component.

5. Full cooperation of Cooperating Ministries will be essential to the efficient and timely execution of project activities. Therefore, **Inter-Ministerial Agreements** with MALR and MOEE will need to be in place prior to Board presentation. Such agreements will cover the following items related to coordination: (1) responsibilities; (2) provision of staff; (3) flow of funds; (4) handover provisions; (5) project monitoring and reporting; and (6) resolution of disputes.

6. The **Ministry of International Cooperation (MOIC)** will be responsible for following-up on the progress of the project, in addition to securing the release and availability of the local cofinancing under the portion of each implementing Ministry.

7. **GEF National Steering Committee*:*** The GNSC which was established in 2006 to oversee all GEF projects in Egypt will be responsible for overall project coordination among the EEAA and all Cooperating Ministries to ensure enhanced project effectiveness. It will meet quarterly to

review project progress, approve annual work programs and budgets, and resolve any inter-ministerial disputes.

8. **POPs Project Steering Committee (PPSC):** The PPSC will be formed to guide project implementation and maintain inter-ministerial cooperation. It would be chaired by the CEO of EEAA and include representatives of EEAA, MALR, MOEE, and Ministry of International Cooperation (MOIC). The PPSC will meet quarterly and as needed to oversee day-to-day project implementation matters. Specifically the role of the PPSC will be to:

- Provide policy guidance to the PMU
- Approve work programs and budgets
- Receive project reports
- Resolve inter-ministerial implementation issues
- Review the status of sub-project selection and implementation
- Recommend changes to the Operations Manual

9. While EEAA, MALR and MOEE have considerable experience in implementing externally funded projects (including the Egypt Pollution Abatement Project II[10] and the Alexandria Coastal Zone Management Project[11]), none of the project agencies have extensive experience in POPs management or in executing service contracts of the type required under the project. These capacity constraints will be addressed by establishing a strong PMU in EEAA (with smaller units in the cooperating ministries), to be staffed by experienced personnel. Recruitment of PMU staff is unlikely to be difficult as many staff within the Egyptian government maintain extensive experience in environmental regulation and project management generally. The project will also provide extensive on-the-job training of all PMU staff, particularly in key areas such as financial management, procurement and contract supervision.

10. The ***National Project Director:*** A senior manager in the waste management division of EEAA will be selected as the National Project Director and will dedicate approximately 50 percent of her/his time to the POPs PMU. The National Project Director will report directly to the Chief Executive Officer of EEAA on project matters. The National Project Director will have the following responsibilities:

a. Appointment and performance evaluation of all PMU staff
b. Oversight of all project activities
c. Approval and signature of quarterly and annual project reports
d. Approval of procurement decisions

11. ***Project Manager:*** The Project Manager (consultant) will work under the direct supervision of the National Project Director. The Project Manager will work full time with the following responsibilities:

a. Day-to-day management of PMU staff
b. Assurance of quality and timeliness of all project activities

[10] The Second Egypt Pollution Abatement Project (EPAP II) has been effective as of 12 October 2006 with an expected closing date of TBD. The project's main development objective is to demonstrate, in the Egyptian context, the applicability of market-based financial and technical approaches of achieving significant pollution abatement in selected hot spots areas in and around the Alexandria and Greater Cairo areas.

[11] The Alexandria Coastal Zone Management Project (ACZMP) has been effective as of 10 June 2010 with an expected closing date of 30 June 2015. The project's main development objective is to improve the institutional mechanisms for sustainable coastal zone management in Alexandria – particularly to reduce land-based pollution of the Mediterranean Sea.

c. Preparation of quarterly and annual reports and disbursement applications
d. Chairing of bid award committees

12. ***Other PMU staff:*** A Procurement Specialist, a Monitoring and Evaluation Specialist, a Financial Management Specialist, and other Technical Specialists will be drawn from EEAA and retain qualifications acceptable to the Bank as well as demonstrated performance in the role for which they are selected. EEAA plans to second staff from its technical departments to the PMU on a rotating basis (one year) to ensure technology transfer under the project is diffused within their whole organization. Individual financial management and procurement consultants will begin training designated PMU staff and other specialized consultants (i.e. legal development, training) will be hired on a need basis

13. To ensure clear delineation of responsibilities and procedures for project management, a **Project Operational Manual** will detail topics which include: (1) job descriptions; (2) decision-making procedures; (3) procurement; (4) financial management; (5) implementation of safeguards measures; (6) monitoring and evaluation; and (7) reporting. The Project Manual must be finalized no later than 30 days after effectiveness.

Financial Management, Disbursements and Procurement

Financial Management

14. An assessment of the Financial Management arrangements (FM) for the envisaged project was undertaken in October 2011 to assess the capacity of the proposed implementing entity and to assist in determining the required FM arrangements for the implementation of the project. The EEAA will be responsible for the project Financial Management (FM), including the accounting, reporting and project external audit arrangements. The GEF grant will be disbursed as an extra budgetary fund, thus it will not be part of the Government budget as approved by Parliament.

15. The PMU, established via administrative decree number 294 for the year 2013 (issued on April 28, 2013) is located at EEAA and has the mandate to follow up on project activities and coordinate with the various ministries involved in implementation. In an effort to reinforce the capacity of the PMU, a Project Manager has already been assigned and an agreement reached with the EEAA to assign a Financial Officer and an Accountant as part of the PMU establishment for the project. The PMU Financial Officer, who has been appointed from the EEAA, has previous experience in donor-financed activities, and will be responsible for the recording of and reporting on the financial transactions under the umbrella of the Grant.

16. *Financial Management Risk:* The risks identified and the mitigating measures addressing these risks are detailed in the table below: (The FM manual will be annexed to the interagency agreement which will define the reporting of the counterpart contribution by the participating ministries. For the in-kind contribution, the project does not aspire to measure/quantify this in monetary value.)

Risk	Risk Rating	Incorporated Risk Mitigating Measures (MM)	Risk rating after MM

Inherent Risk (IR)			
Entity and Project Level	Substantial	1. Possible limited coordination between the EEAA, MALR, and MOEE 2. This might affect the implementation of the Project and cause delays in issuing payments, IFRs and the yearly audit report. <u>Mitigating measures:</u> ▪ EEAA will sign an interagency agreement with each of the three ministries, defining the responsibility of each as well as the disbursement procedures. ▪ The project Finance Officer and accountant will be responsible to follow-up on the project accounts and generate the project IFRs and annual FSs. ▪ Financial management and disbursement workshops will be conducted during Project launch to enhance the PMU capacity at EEAA.	Moderate
Overall IR	***Substantial***		***Moderate***
Control Risk (CR)			
Budgeting	Moderate	EEAA will prepare, on an annual basis, the project budget which will include counterpart funds, in-kind contributions and grant funds <u>Additional measures:</u> The Financial Officer at the PMU will be responsible for preparing a detailed Project budget.	Low
Accounting	Moderate	Lack of an adequate and reliable accounting system at the EEAA and the PMU. <u>Mitigating measures:</u> ▪ The PMU will be using Excel spreadsheet applications to report on the project activities and generate the semi-annual IFRs. The project reports will reflect the financial status of the grant as at the issuance date.	Low
Funds Flow	High	Grant proceeds, Counterpart funds and in-kind contribution may not be timely available. <u>Mitigating measures:</u> ▪ The Project will open a separate DA, which will be operated by the EEAA through the PMU. The account will be reconciled on a timely basis and will be replenished periodically. ▪ The PMU will prepare cash forecast taking into consideration the budget year through which the project counterpart funds will be allocated ▪ The flow of funds process will be included in the	Substantial

		procedure manual to be developed by the Project. ▪ The counterpart funding will be an integral component of the semi-annual IFRs and annual FSs.	
Financial Reporting	Substantial	EEAA system may not adequately report on the Project's activities and automatically generate quarterly financial reports. Mitigating measures: Excel spread sheet will be used to report on the project activities. The format and details of the report will be agreed upon with the PMU Financial Officer prior to effectiveness.	Moderate
Auditing	Moderate	EEAA and the ministries accounts are post audited by the Government's Audit Bureau. Additional measure: ▪ The Project will appoint a qualified independent external auditor in accordance with TOR acceptable to the Bank to audit the Project on an annual basis. ▪ The auditor will issue an opinion on such statements.	Low
Overall CR	***Substantial***		***Moderate***

Project Arrangements

17. *Implementation Entities and staffing:* The Project will be implemented by three ministries and will be coordinated by the EEAA through the PMU which will be appropriately staffed. The EEAA already has experience relating to Bank financed projects as, i.e., EPAP II and ACZM projects.

18. *Internal Controls:* The grant funds and the Government contribution will follow the government applied controls, where applicable, and will have in place enhanced supplementary controls to deal with the flow of information and funds. The Project's financial controls will be documented in the Project Operational Manual of procedures (POM). This FM manual will define the relation between the EEAA and the three ministries involved in implementation, depict the cycles pertaining to reporting, recording, reviewing and approving the project's transactions and the level of involvement of the participating ministries, flow of information between the field and the EEAA, request for payments and requesting authority, cash forecasts under the contracts signed by each of the two ministries, Designated Account management, accounting and reporting plus auditing arrangements under the project. The FM Manual will be finalized no later than 30 days of project effectiveness.

19. Controls over disbursements from the Grant will be represented in approvals by the Project Manager (after gaining "No Objection" from the Bank), in addition to the authorization of

payments represented in the Head of the Financial Sector in the EEAA, as well as the Ministry of Finance representative authorization.

20. The EEAA will adopt a manual accounting bookkeeping system, in addition to Excel spreadsheets for reporting purposes. Given the size of the Grant and the fact that activities under the Grant will be executed by third parties through contractual agreements, the manual system will be used and the Excel reporting system will be customized to produce the Interim and Annual reports.

21. The FM manual of procedures will be developed, defining the controls and the flow of information, including the auditing arrangements between the various implementers under the project. The Project, through the PMU, will be required to issue semi-annually, **interim un-audited financial reports (IFRs).** These reports will reflect the project sources and uses of funds, contract expenditures, as well as uses of funds by project component, and will be submitted to the Bank 45 days following the end of each semester, starting from the semester where the first disbursement from the grant takes place. The Financial Officer at the PMU will be responsible for the preparation of the IFRs and sending them on a timely basis to the World Bank.

22. *Flow of Funds:* To ensure that funds are readily available for Project implementation, a US Dollar Designated Account (DA) will be opened at a bank acceptable to the World Bank and will be managed by the EEAA through the PMU. Deposits into and payments from the DA will be made in accordance with the disbursement letter. The EEAA, through the PMU, will prepare withdrawal applications with the related supporting documents, signed by the designated signatories.

23. All Project related invoices will be subject to the applicable controls and procedures which stipulate the following process: (i) invoices and supporting documents to be received by the EEAA under cover letter from the respective ministry and verified by the Financial Officer at the PMU; (ii) invoices to be checked for accuracy and eligibility, based on the signed contract, before the Financial Officer prepares payment; (iii) PMU Director to perform an ex–ante compliance check regarding the expenditure's compliance; (iv) EEAA controller to check the accuracy of the payment; and (v) once approved, the expenditure to be recorded in the project accounting books of the PMU; also the safeguard of the assets under the project to be defined.

24. *Budgeting:* The Project's Finance Officers at the PMU will prepare, on an annual basis, budgets and disbursement plans forecasting the quarterly cash requirements of the project. The first plan will be developed based on the initial procurement plan, implementation schedules and estimated payments cycles, and revised thereafter. The budget will be used as a monitoring tool to analyze variances and manage cash. Updating the annual budget will be the responsibility of the PMU in coordination with EEAA as well as the participating ministries.

25. *Accounting:* The Project will follow the cash basis of accounting, where resources and uses of funds are recorded when cash is received or when payments are made. Presently, donors are providing financing to develop for the EEAA a system that will be able to report on its activities. Based on the TORs, this system will not have features to generate financial reports as it is

designed as a data base for the EEAA activities. Given the level of transactions under the project, manual records and excel sheets will be used to generate the project IFRs. The format and content will be agreed upon during appraisal.

26. *Financial Reporting:* In line with the Bank guidelines, the following reports will be required under this Project:

- Semi Annually: The Project will be required to generate semi-annually Interim un-audited financial reports (IFRs) and submit them to the Bank as part of the Project's progress report, or separately. These reports will consist of the following:
  a. Statement of sources and uses of funds, and uses of funds by project component, indicating funds received from various sources, cash forecast, an expenditure report comparing actual and planned expenditures by activity, and DAs reconciliation statements.
  b. Contracts listing: to include a listing of all contracts showing amounts committed and disbursed under each as at the report date.

26. These reports will be prepared using excel sheet applications and will be submitted to the Bank within 45 days from the end of the semester as per the Project's Grant Agreement. The Financial Officer in the PMU will be responsible for compiling the interim reports for both implementing entities in one package and sending it on a timely basis to the Bank.

- Annually: The Financial Officer at the PMU will prepare, on an annual basis, the Project Financial Statements (PFS). The PFS will follow the cash basis of accounting and will be audited and submitted to the Bank within six months from year end. The consolidated PFS will include:

  a. Statement of sources and uses of funds, indicating sources of funds received and Project expenditures;
  b. Appropriate schedules classifying Project expenditures by component, showing yearly and cumulative balances;
  c. DAs reconciliation statements reconciling opening and year-end balances;
  d. Statement of payments made using Statements of Expenditure (SOEs) procedures as defined in the legal agreement; and
  e. Statement of Project commitments, i.e., the unpaid balances under the Project's signed contracts.

27. *Auditing:* The Project's financial statements will be audited by an independent private sector auditor. An independent external auditor will be hired to audit, on an annual basis, Project financial statements and payments made on SOE basis. The auditor should be acceptable to the Bank and his TOR prepared and submitted for Bank's no objection, at least nine months prior to the end of the Project fiscal year. The external auditor's report shall encompass all Project components and activities under the Grant Agreement and shall be in accordance with internationally accepted auditing standards e.g., International Standards on Auditing (ISA). In addition, the auditor is required to prepare a "management letter" identifying any observations, comments and deficiencies in the system, and controls that the auditor considers pertinent, and shall provide recommendations for their improvements.

28. The Project's auditor will need to prepare the following audit reports and to meet the due date specified below:

Audit Report	Due Date
1) Project Specific Financial Statements	Annually by June 30
2) Special Opinions	
• SOE, if applicable	Annually by June 30
• Designated Account	Annually by June 30
• Other specific audit reports	Upon request

Disbursements

Category	Amount of the Grant Allocated (expressed in USD)	Percentage of Expenditures to be Financed
(1) Goods, non-consulting services, consultants' services and Training	7,650,000	100%
(2) Operating Cost	450,000	100%
TOTAL AMOUNT	**8,100,000**	

29. To ensure that funds are readily available for Project implementation, a **US Dollar Designated Account (DA)** will be opened and operated by the EEAA. The DA will be opened at the Central Bank of Egypt.

Procurement

30. The following measures will be required in order to reduce the risk rating as indicated in the Procurement Capacity Assessment of the Implementing Agency from Significant to Moderate (reference Annex 5): 1) assign an EEAA Procurement Department Staff to be the PMU Procurement Specialist responsible and accountable for all procurement activities under the Project, 2) the PMU Procurement Specialist will receive training on World Bank Procurement Guidelines and Procedures, 3) include a Procurement section in the Operations Manual detailing the procurement process under the Project, 4) a Project Procurement Plan is to be in place prior to Negotiations and 5) increase supervision effort during the first year of the Project to provide intensive hands-on training to PMU Staff on Procurement.

31. Guidelines: Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrower, published by World Bank in January 2011 and Guidelines: Selection and Employment of Consultants under IBRD Loans & IDA Credits & Grants by World Bank Borrowers dated January 2011 will apply on all procurement and selection of Consultant Services packages under the Grant. Guidelines on Preventing and

Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants, dated October 15, 2006 and updated January 2011, shall also apply to the project".

32. It is to be noted that most of the procurement packages are of highly specialized nature that may not be available in the local market hence most of the packages will be issued under ICB procedures. First three packages for each procurement process will be subject to Prior Review and a 20 percent sample will be taken for Post Reviews thereafter. Procurement processing related documents (or copies of such) will be filled separately for each Contract package. The Project Procurement Plan will be updated for review prior to every Implementation Support Mission or every three months (whichever is closer).

33. The extract of the Procurement Plan is attached below:

SL No.	Description of Goods/ Works	Estimated Cost USD	Review by Bank (Prior/ Post)	Method of Selection	Prepare Bid Document (to Bank)	Contract Completion
1	Repackaging, Shipment and Disposal of Lindane and Associated Wastes Stored at Al Adabaya Port	650,000.00	Prior	ICB: Non-Consulting Services	1/Jun/14	15/Oct/14
2	Repackaging, Shipment and Disposal of Pesticides and Associated Wastes Stored at El Saff	1,200,000.00	Prior	ICB: Non-Consulting Services	1/Jul/14	15/Mar/15
3	Procurement of One Decontamination Unit for PCB-Contaminated Transformer Oils	800,000	Prior	ICB- Goods	1/Oct/ 15	7/Feb/ 16
4	Procurement of One Fuller's Earth Unit for Purification of Decontaminated Transformer Oils	500,000	Prior	ICB- Goods	1/Oct/15	31/Dec/15
5	Purchasing Laboratory Chemicals to Analysis and Testing PCBs (several packages)	1,000,000	Prior	ICB	1/Oct/14	15/Mar/15
6	Site Preparation and Utilities	100,000	Post	NCB	1/Jan/15	1/Apr/15
7	Supply PPE for Staff	50,000.00	Prior	S	5/Feb/15	1/Jun/15
8	Procure Miscellaneous and Transport Equipment for PCB Sites	500,000	Prior	NCB	20/Apr/15	1/Jun/15
9	Laboratory Equipment (Strengthen Central Agricultural Pesticides Lab and Residues Lab)	40,000	Post	S	1/Mar/15	1/Jul/15
10	Repackaging, Shipment and Disposal of Pesticides and Associated Wastes Stored at Various Locations	600,000	Prior	ICB: Non-Consulting	1.Janl15	7/Jul/15
11	Purchasing and Implementing FAO PSMS and RACI models for OPs (soft Ware)	40,000	Post	S	1/Mar/16	1/Jul/16
12	Site Preparation and Buildings (OPs Site)	500,000	Prior	NCB: Non-Consulting	20/Sep/16	1/Jan/17
13	Safeguarding of stocks not to be disposed of under the project	760,000	Prior	ICB	1/May/ 15	1/Sep/17
14	Office Furniture and Equipment	50,000	Post	S	15/Apr/14	1/Jun/15
15	Carry out ESIAs for El Saff and Nasreyah Sites	30,000	Prior	QCBS	1/Oct/14	15/May/15
16	External Auditor	15,000	Prior	LC	15/Jul/14	15/Nov/16
17	Develop and Maintain a System for Informing Stakeholders of the Nature and Dangers of POPs (and other hazardous substances)	200,000	Post	QCBS	1/Apr/15	1/Mar/16

18	Preparation of Site Remediation Plans for PCBs	50,000	Post	QCBS	15/Aug/15	1/Mar/16
19	External Auditor	15,000	Post	LC	1/Sep/16	31/Oct/18
20	Develop Emergency Plan for each site of Ops	10,000	Prior	IC	6/Jan/15	30/Jun/15
21	Develop Plan for Tonnage of OPs to be Safeguarded and Disposed	10,000	Prior	IC	1/Jul/15	31/Dec/ 15
22	Feasibility Study for Reviewing Technical Options for Decontamination from a Cost-Effectiveness View-Point	50,000	Prior	IC	28/Aug/15	1/Nov/15
23	Develop Manual for Medium-Term Management of ICCs of OPs	10,000	Post	IC	20/Dec/15	1/Apr/16
24	Drafting Long-Term Pesticides Management Strategy	100,000	Post	IC	1/Apr/15	1/Dec/16
25	Hiring Consultant to Manage the PMU "Full Time"	175,000	Prior	Competitive	1/Apr/14	31/No/18
26	Hiring Financial Advisor	60,000	Post	Competitive	1/Jul/14	31/Nov/18
27	Hiring Operations Advisor	70,000	Post	Competitive	1/Jul/14	31/Nov/18
28	PCBs Technical Consultant	70,000	Post	Competitive	1/Jul/14	31/Nov/18
29	Obsolete Pesticides Consultant	100,000	Post	Competitive	1/Jul/14	31/Nov/18
30	IT Specialist	60,000	Post	Competitive	1/Jul/14	31/Nov/18
31	Stakeholder Consultations for drafting Long-Term Pesticides Management Strategy	10,000	Post	Competitive	1/Sep/15	1/Nov/15
	Total	**7,810,000.00**				

Environmental and Social (including safeguards)

34. The SPMP is governed by OP 4.00 on "Piloting the Use of Borrower Systems to Address Environmental and Social Safeguard Issues in Bank-Supported Projects". Furthermore, the project activities trigger two additional Environmental Safeguards Policies: (i) Environmental Assessment, and (ii) Pest Management. Due to the high potential risk associated with project activities, it has been classified as a Category "A" project as per World Bank policies.

35. In accordance with OP 4.00, the World Bank conducted a Safeguard Diagnostic Review (SDR) to determine the equivalence and adequacy of the national system for environmental impact assessment and pest management and subsequently identify any existing gaps. The results of the equivalence assessment showed that the World Bank's EA policy and the Egyptian safeguards systems on EA and Pest Management, as amended through 2009, are nearly fully equivalent. The major gaps are to issue a regulation clarifying that all POPs sub-projects will be subjected to an EIA and prepare TORs or specific guidelines for such EIA. Also, the legal and regulatory framework should be brought into full consistency with the Stockholm Convention and other conventions applicable to POPs and to which Egypt is a party. These gaps can be implemented as part of overall Project implementation.

36. About twelve ministries and agencies will be associated with the POPs projects and all of them have expertise and staff in the fields related to hazardous waste. The new EIA guidelines of 2009 which now require public hearings and consultation for the projects classified as "C" (equivalent to category "A" of the World Bank) have provided a more prominent and participatory role for civil society. As a result, civil society has been increasingly involved in project implementation, in public debate and also in ensuring compliance with the environmental laws and increasingly vocal whenever public hearings/consultations on EIA has taken place. Similarly the media have contributed largely to this increased awareness and publish regularly the summary description of projects for which an EIA was approved by EEAA. There are also six NGOs which are working on raising awareness on health impacts and proper handling of pesticides and PCBs.

37. A review of a sample of EIA reports for projects financed by the Government and/or by International Financial Institutions showed a significant improvement in quality and comprehensiveness. The quality of projects in the category "B" (equivalent to Category "B" of the World Bank) for which a Form B should be submitted is however variable and does not include in many cases the preparation of a comprehensive environment management plan as required by the environmental guidelines of 2009. Disclosure of the executive summary of the EIA reports and of Forms B (with the exception of the EPAP II subprojects) is still lagging because of lack of resources, staff and inherent reluctance to disclose reports which may raise controversial discussions.

38. An additional monitoring instrument that was institutionalized by EEAA is the preparation of a compliance action plan whenever a polluting enterprise is not in compliance with the national standards but agreed to self-finance its pollution control investments instead of being prosecuted. This led to the establishment by EEAA of a general directorate for voluntary compliance which is assisted by the general directorate for industrial environment.

40. Despite such progress, there are still some weaknesses in the EIA system and in EEAA's monitoring and enforcement. These are: (a) lack of knowledge related to POPs and PCBs and technologies for their management and disposal, (b) limited staff resources in the department of hazardous waste management, (c) limited inter-ministerial cooperation on hazardous waste management, (d) insufficient public communication and awareness raising on hazardous waste and in particular with POPs, and (e) lack of monitoring and enforcement for obsolete pesticides and PCBs .These weaknesses will be addressed in the components of the POPs project.

41. A comprehensive ESIA, including an in-depth risk assessment, will be conducted for all sites which have been identified to be supported under the project for decontamination or disposal. During project preparation, a preliminary hazardous waste and risk assessment was conducted for two potential ICCs - Nassriya Hazardous Waste Center and El Saff Storage Site. A feasibility study, preliminary site and risk assessment was also undertaken for the Al-Adabeya port.

42. The actions summarized in the following table will be implemented by EEAA to fill in the equivalence and acceptability gaps and sustain acceptability during the implementation of the POPs Project. The proposed timing of implementation for each of the following measures has been made in accordance with the project implementation schedule.

	Safeguards Gap-Filling Measures			
Gaps	**Actions to be taken**	**Implementation Steps**	**By Whom**	**By When**
Weak coordination among EEAA departments involved in POPs	Include in the Project Operational Manual a description of roles, responsibilities, coordinating mechanism, monitoring and follow up for establishing an inter-sectoral system within EEAA for coordinating the EIA process with the compliance/inspection process.	Description in the Operational Manual of the roles and responsibilities of the PMU, the two PCUs, Environmental Management Department, CDEIEC and others related to the EIA process and the compliance / inspection of Obsolete Pesticides and PCBs	PMU	June 2014
		Official decree issued by EEAA on the roles, responsibilities and coordination mechanisms	PMU	June 2014
Insufficient Compliance with the requirements of the Stockholm Convention	Complete the legal and regulatory frame work for POPs management in compliance with the Stockholm Convention	Prepare TORs for a comprehensive study to harmonize existing POPs-related legislation with requirements of the Stockholm Convention	PMU	July 2014
		Contract a legal consultant Draft legal regulations for submissions to the Legal Council of the Government		December 2015
Lack of procedural guidelines for	Develop general EIA procedural guidelines to include: (a) specific	Review good international Practices including FAO and WHO	PMU	June 2014

POPs projects	criteria, processes and standards to be followed in the preparation and review of EIA for POPs sub-projects;(b) detailed TOR for a comprehensive EIA report for POPs including hazardous risk assessment and (c) guidelines for environmental reviewers	Adapt sector guidelines to Egyptian conditions on pesticides, obsolete pesticides and PCB-contaminated equipment	PMU	July 2014
		Prepare TORs for POPs and checklist for reviewing EIA reports in general	EIA Department in EEAA	October 2014
		Approve and publish the guidelines, TORs and checklist on the website of EEAA	EEAA Board of Directors	September 2014
Insufficient knowledge on PCB and POPs and contract management	Develop and provide training to EEAA staff, RBOs, sector ministries and NGOs on use and applications of (a) specific guidelines and EIA TORs for POPs including PCBs; (b) self- monitoring and inspection of POPs sites Organize awareness campaigns with local NGOs targeting the public and particularly the youth Develop and provide training to PMU on monitoring and supervision of contracts of PCBs operators	Design training program and develop training materials	PMU	October 2014
		Organize and conduct training on TOR and monitoring and enforcement for EEAA staff and RBO and in particular the staff that will be assigned to monitor the EMSP and Forms B	PMU	Bi annually as of March 2015
		Organize and conduct public awareness campaigns in collaboration with local NGOs involved in the POPs	EEAA Department of Hazardous Waste Management	Annually as of June 2015
		Organize and conduct training on contract management and award as well as monitoring and supervision of contracts	PMU	January 2015
Weak enforcement for PCBs	Ensure that existing obsolete pesticides and PCB storage sites maintain an environment register to be inspected annually by CDEIEC using the format in Annex 3 of the Executive Regulations of Law 9 of 2009	Update the content of the environmental register by including questions on OPs and PCBs	PMU	April 2015
		Conduct semiannual inspections based on the EIA and the environmental register for the major collection center sites for which EIAs and Form B were prepared	RBO and GDEI	July 2015 and semi-annually thereafter
Lack of assessment of the quality of the ESIA reports	Carry out every two years, a review of the quality of EIA reports and Forms B and introduce corrective measures for sustaining the improved EIA process	TORs for the review of the EIA reports prepared and consultant selected	PMU	May 2015
		Report on the quality of the EIA reports and Form B	PMU	July 2015 and January 2017

Responsibility for Safeguards

43. EEAA will be responsible for the following actions:

i. Satisfactory implementation of gap filling actions set out above to achieve and sustain equivalency and acceptability;
ii. Review and approval of the EIA reports related to the intermediate collection centers and Form B for site specific areas for treatment and disposal of obsolete pesticides and PCBs;
iii. Disclosure of the EIA reports related to hazardous waste projects particularly those related to obsolete pesticides and PCBs in accordance with the EIA guidelines of 2009;
iv. Performance of annual spot checks and audits of a sample of sub-project sites financed the POPs project for their compliance with the relevant Egyptian Laws and Regulations, and imposition of corrective actions to achieve compliance.

44. The World Bank will be responsible for the following actions:

i. Monitor the implementation of the gap filling measures that are applicable to the types of subprojects financed under the POPs project;
ii. Review during the course of semi-annual supervisions the EIA reports and form B related to obsolete pesticides and PCBs;
iii. Review reports on inspection or compliance for all subprojects to be financed by the Project; and
iv. Bi-annual supervision of project implementation, including field visits to subprojects under implementation or commissioning or those completed.

Monitoring & Evaluation

45. The PMU M&E specialist will propose a system for monitoring project performance indicators as well as needs for field monitoring and data processing. The system will be proposed within the first six months of the project. After agreement with the Bank, staff in EEAA and the Cooperating Ministries will be trained to produce the data needed for quarterly project reporting. The end-of-year report will evaluate project performance and propose any changes needed for the following year and, in the case of the Mid-Term Review, assess the likelihood of achieving the PDO and project sustainability. A Project Implementation Completion Report will be prepared no later than six months after project closure.

Role of Partners (if applicable)

46. While no donors are envisaged as co-financiers at the outset, it will be important that the project maintain close coordination with the MEDPOL Project, possibly making use of joint facilities for interim collection and storage of PCBs.

Annex 4: Operational Risk Assessment Framework (ORAF)

EGYPT: SUSTAINABLE POPS MANAGEMENT

<table>
<tr><th colspan="7">Project Stakeholder Risks</th></tr>
<tr><td>Stakeholder Risk</td><td>Rating</td><td colspan="5">High</td></tr>
<tr><td rowspan="2">Risk Description:

The project has numerous stakeholders: several government ministries and agencies; environmental NGOs; and, civil society. All have expressed strong support for the project concept and design. However, risk remains that this support/commitment may wane over the course of project execution. Lack of coordination could also affect project implementation. Government ownership and commitment may be compromised due to competing priorities during the challenging transition.

Participation of civil society organizations (CSOs) in the design, implementation and monitoring of physical site investments could be limited. While the general public will likely support cleanup of hazardous wastes, resistance may result when sites for interim storage and / or disposal are located within proximity of housing development.</td><td colspan="6">Risk Management:

Strong commitment shown by GOE to take forward this project. GOE’s obligations to the Stockholm Convention provide an overarching commitment to POPs management. The Ministry of International Cooperation has submitted a Letter of Intent indicating its commitment to implement the project and has allocated co-financing funds. The PMU has already been formed. An Inter-Ministerial Agreement between EEAA, with MALR and MOEE is to be in place prior to Board for clarity on roles and responsibilities. A POPs Project Steering Committee will be formed with senior level representatives of the Cooperating Ministries for regular coordination no later than 30 days of the Effective Date.

The Bank is encouraging the Government to ensure citizens’ participation. Some consultations were undertaken during the preparation of the SDR and the project design requires broad consultations prior to and during interventions at the pilot sites. The Environmental and social safeguards due diligence measures will also be discussed and consulted with all stakeholders and project affected persons.</td></tr>
<tr><td>Resp:
Client</td><td>Status:
In Progress</td><td>Stage:
Implementation</td><td>Recurrent:
☑</td><td>Due Date:
30-Aug-2018</td><td>Frequency:
CONTINUOUS</td></tr>
</table>

Implementing Agency (IA) Risks (including Fiduciary Risks)						
Capacity	**Rating**	**High**				
Risk Description: EEAA may lack the capacity to effectively implement a technically complex project as such activities have not been undertaken in Egypt before, including procurement of international consultants and making choices of appropriate technologies for disposal and decontamination. The fiduciary assessment identified potential coordination challenges between the participating ministries in terms of funds flow and consolidated accounts.	**Risk Management:** Transfer of expertise and guidance on methodologies and technology choices are an explicit objective of the international consultants who will be hired under the project to support implementation. EEAA will sign an interagency agreement with each of the three ministries, defining the responsibility of each as well as the disbursement procedures.					
	Resp:	**Status:**	**Stage:**	**Recurrent:**	**Due Date:**	**Frequency:**
	Client	Not Yet Due	Implementation	☐	30-Oct-2014	
EEAA current procurement staff have not been exposed to international organizations/donors procurement procedures and have not been involved in selecting Consultants for at least a decade. EEAA's current operating standards for staffing, record keeping, planning and monitoring of procurement activities need enhancement to meet Bank procurement principals of Transparency, Competiveness, Efficiency and Economy	A Procurement Manager will be brought on board who will be responsible and accountable for procurement activities under the Project. The Project Operations Manual will include details of procurement procedures, filing system and Project Standard Bidding Documents/RFPs. Bank will undertake prior review of the first three contracts in each procurement category and post review annually a sample of 20% contracts					
	Resp:	**Status:**	**Stage:**	**Recurrent:**	**Due Date:**	**Frequency:**
Governance	**Rating**	**High**				
Risk Description: Risk of accountability and oversight weaknesses: due to the technical complexity, issues could arise around responsibilities of implementing agencies and functions affecting oversight and accountability. The	**Risk Management:** All Bank-financed packages will be procured through ICB and be prior-reviewed by the Bank. The FM assessment made during project preparation (and follow up during appraisal) indicated that project implementing agencies developed internal control systems in place. Project accounts will be audited by independent auditors,					

<table>
<tr><td rowspan="2">ICB Procurement contracts will require sound management.</td><td colspan="6">agreeable to the Bank. The experience with the existing Bank-financed projects implemented by EEAA has been encouraging in this regard. Assessment of fiduciary risks (procurement, financial management) has been made during project preparation and an action plan for mitigation developed. Adequate procurement and financial management systems have been put in place to ensure proper management and transparent use of project funds. The Bank will monitor the risk closely based on the detailed FM and procurement mitigation measures already agreed with the implementing agencies.</td></tr>
<tr><td>Resp:
Client</td><td>Status:
In Progress</td><td>Stage:
Implementation</td><td>Recurrent:
☑</td><td>Due Date:
30-Aug-2018</td><td>Frequency:
CONTINUOUS</td></tr>
<tr><td>Design</td><td>Rating</td><td colspan="5">High</td></tr>
<tr><td rowspan="2">Risk Description:

Project design is technically complex, involving separate programs for the management and disposal of two categories of POPs. Technology choices and methodologies for toxic waste management will have to be confirmed appropriately in an environmentally sound manner. There are multiple ministries and agencies involved which could result in poor coordination and subsequent delays in clearances, procurement and implementation.</td><td colspan="6">Risk Management:

An experienced engineering firm was hired to help with project preparation design. International consultant will be hired during implementation to undertake risk assessment and provide recommendations for technology transfer and disposal and storage options. A comprehensive training program will be implemented for staff at all levels. A public awareness program will educate the public about the dangers of POPs and the role of the project in mitigating such risks. The overall implementation plan and specific procurement plans have been sequenced to ensure that all components are completed at the optimal time. Given the importance of this risk for project implementation, it will be closely monitored in coordination during implementation and further mitigation measures will be developed, if necessary.</td></tr>
<tr><td>Resp:
Client</td><td>Status:
Not Yet Due</td><td>Stage:
Implementation</td><td>Recurrent:
☐</td><td>Due Date:
30-March 2018</td><td>Frequency:</td></tr>
<tr><td>Social and Environmental</td><td>Rating</td><td colspan="5">High</td></tr>
<tr><td>Risk Description:</td><td colspan="6">Risk Management:</td></tr>
</table>

<table>
<tr><td rowspan="2">There is some risk that activities at the project sites could adversely affect nearby populations or raise concerns. The handling of POPs chemicals could pose significant risks to workers, the general population and the environment. There is a risk of non-compliance with the Action Plan defined in the SDR to address equivalence and acceptability gaps.</td><td colspan="6">Site specific Environmental and Social Impact Assessments (ESIAs) will be carried out in accordance with Egyptian legislation for all sites rated C or B under that system (equivalent to A or B under the Bank's OP 4.01).Social impacts will be fully considered in the full ESIAs for all project sites. A Grievance Redress Mechanism will be developed along with their associated consultations, launched, and disclosed prior to project activities. However, the on-going instability in the country could pose risks during the implementation of these mitigation measures. Monitoring mechanisms will need to be established to ensure the implementation of the agreed mitigation measures.</td></tr>
<tr><td>Resp:
Client</td><td>Status:
In process</td><td>Stage:
Implementation</td><td>Recurrent:
☐</td><td>Due Date:
30-May 2017</td><td>Frequency:
CONTINUOUS</td></tr>
<tr><td>Program and Donor</td><td>Rating</td><td colspan="5">Moderate</td></tr>
<tr><td rowspan="2">Risk Description:
Some related project activities are dependent on the timely provision of funds from the government budget.</td><td colspan="6">Risk Management:
MOIC has re-confirmed its financial commitment to the Bank and engaged and committed funds with the various ministries. However project activities are designed in a way that GEF funds can continue to be disbursed even in case counterpart funding is delayed.</td></tr>
<tr><td>Resp:
Client</td><td>Status:
In process</td><td>Stage:
Implementation</td><td>Recurrent:
☑</td><td>Due Date:
30-Aug-2018</td><td>Frequency:
ONGOING</td></tr>
<tr><td>Delivery Monitoring and Sustainability</td><td>Rating</td><td colspan="5">Substantial</td></tr>
<tr><td>Risk Description:
If project implementation is not closely monitored, there is a risk that the process would not be efficient and would not achieve expected results. Adequate systems to monitor implementation evaluate its</td><td colspan="6">Risk Management:
The government has also demonstrated readiness to assist through budget support and other means to ensure orderly implementation. The interagency agreement and the role of the Project Steering Committee will ensure coordination and oversight monitoring formats and requirements will be built into the Operations Manual.</td></tr>
</table>

impact may not be put in place, affecting sustained implementation of the Long-term POPs and PCB strategies.	**Resp:** Client	**Status:** In Progress	**Stage:** Implementation	**Recurrent:** ☑	**Due Date:** 30-Aug-2018	**Frequency:** CONTINUOUS

Overall Risk		
Overall Implementation Risk:	**Rating**	**High**

Risk Description:

The Egyptian Environmental Affairs Agency (EEAA), will have the principal responsibility for project oversight and implementation, and will establish a Project Management Unit (PMU), to be headed by a National Project Director, who will be supported by a Project Manager and technical and fiduciary specialists. EEAA has a small nucleus of staff with training and experience in hazardous wastes. An extensive training program under the project will target not only EEAA, but also the Cooperating Ministries. Technology transfer will be achieved through the employment of experienced international consultants. While FM risks are assessed to be substantial due to involvement of multiple ministries and agencies and possible delays in counterpart contribution, mitigation measures have been built into the project to manage the risk.

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Annex 5: Implementation Support Plan

EGYPT: SUSTAINABLE POPS MANAGEMENT

Strategy and Approach for Implementation Support

1. **The Egyptian Environmental Affairs Agency (EEAA)**, will have the principal responsibility for project oversight and implementation, and will establish a Project Management Unit (PMU), to be headed by a National Project Director, who will be supported by a Project Manager and technical and fiduciary specialists. As detailed in Annex 4, project risks in most categories are rated Medium, Substantial or High and overall implementation risks are **Substantial**. Mechanisms to mitigate such risks can be broadly categorized under the following heads:

2. Stakeholder Risks: To mitigate the risk of the project being dropped at an advanced stage of preparation, the Ministry of International Cooperation (MOIC) submitted a Letter of Intent, affirming its commitment to carry out the project in its entirety. Given that GEF plans to fund roughly two-thirds of the project costs, confirming this co-financing is of critical importance. To that end, MOIC has submitted a Letter of Co-Financing, dated December 15, 2011, in respect to its contribution of US$15.5 million.

3. **Operating Environment Risks:** Given the current political uncertainty, country risks are difficult to evaluate, and there is not much that can be done at the project level to mitigate such risks. However, agencies involved in project implementation are relatively strong in overall management. While some agencies may lack experience with certain technologies required for robust POPs management, the project design pays particular attention to training and capacity building. Project coordination mechanisms, a strong PMU, and formal inter-ministerial agreements will also help mitigate operating environment risks. Essential elements will be secured through covenants.

4. **Implementing Agency Risks:** EEAA has a small nucleus of staff with training and experience in hazardous wastes. An extensive training program under the project will target not only EEAA, but also the Cooperating Ministries. Technology transfer will be achieved through the employment of experienced international consultants. While FM risks are assessed to be substantial due to involvement of multiple ministries and agencies and possible delays in counterpart contribution, mitigation measures have been built into the project to reduce that risk to Moderate. Procurement Capacity Assessment reflected a substantial risk however the mitigation measures have been built into the project to reduce that risk to Moderate.

5. **Project Risks:** Despite considerable streamlining, project design remains somewhat complex, with full-scale components for two of the three categories of POPs and enabling activities for the third. In comparison with the project approved by GEF at the Project Identification Form (PIF) stage, the component for PCBs has been simplified by assigning responsibility for collection and disposal of high-concentration PCBs to a parallel GEF project executed by MEDPOL (see Annex 2).

6. **Potential Environmental Risks** have been addressed through a Safeguards Diagnostic Review (SDR) of Egypt's Environmental Impact Assessment systems which, after some modifications, are now at par with those of the Bank. Full ESIAs will be executed for each project site, as and when identified. Only modest social risks have been identified.

7. **Sustainability:** As the project is the first step in a process that will extend at least to 2025, building institutional, personnel and financial capacity for continuing the program is vital. The project will place considerable emphasis on capacity building and training through demonstration investments. Continued funding support will be encouraged through the adoption of long-term Strategy and Action Plans for obsolete pesticides and PCBs and the inclusion of handover procedures from EEAA to the Cooperating Ministries in inter-agency agreements.

8. Since POPs management is a rapidly changing technological field, the project design has been kept flexible and will, if necessary, be modified in the course of execution as new information and technology choices become available. Therefore, the role of the international consultants will be particularly important and close supervision by the Bank will be required, especially in the first year, when decisions on detailed design, structuring of bidding packages and the carrying out of full ESIAs on project sites are undertaken. Possibilities for joint supervision include EPAP II and the Alexandria Coastal Zone Management Project, also executed by EEAA.

Implementation Support Plan

The main elements are shown in the following table:

Time Horizon	Supervision Focus	Frequency	Staff
Year 1 FY15	• Start-up challenges • Conditions of effectiveness • Establishing PMU • Engaging international consultants • Bidding packages for Al Adabaya • Establishing project M&E systems • ESIAs for identified sites	Three	• TTL • Environmental Specialist • Social Specialist • M&E Specialist • Procurement Specialist • Financial Management Specialist
Years 2 to 4		Two per year	• Same team as above with additional technical experts as required (such as POPs/PCB Specialist)

Areas of Implementation Support

The areas of implementation support are presented in the following table;

Time	Focus	Skills Needed
First twelve months	Monitor and assist in procurement of the main contracts, as appropriate Sector policies	Procurement Technical Power Sector Policy
12-48 months	Monitor project implementation (including construction progress) Monitor financial management and disbursement Monitor performance of environmental and social impact management plan Sector policies Sector Policies	Technical Procurement Financial Environmental/Social Energy sector strategy specialists Financial analyst Energy sector strategy specialists Financial analyst Power Sector Policy

Skills Mix Required

The following table shows the mix of the skills required for the project's implementation support:

Skills Needed	Number of Staff Weeks per Year	Number of Trips per Year
Procurement	8	
Financial management	3	
Technical	6	2
Environment	2	1
Social	3	2
Financial Specialist	3	1
Sector Specialists	2	2
Others	5	2

Annex 6: Outline of Related Activities Supported by GOE Parallel Financing

EGYPT: SUSTAINABLE POPS MANAGEMENT

1. The MOIC reaffirmed its commitment to mobilizing financial resources of US$15.5 million for activities related to the GEF POPs project over the next four years. While the EEAA will have the overall responsibility for project implementation, the break-up of responsibilities is as follows:

a. For obsolete pesticides, PMU would have the main responsibility for procurement of disposal contracts, while MALR (through the Agricultural Research Center) would be responsible for facilitating transport and disposal and laboratory strengthening for pesticides.

b. For PCBs, the PMU would be responsible for ESIAs at proposed project sites and for procurement of imported equipment, while EEHC would be responsible for inventory, sampling and decontamination activities.

2. It has been determined by the GOE that counterpart funding will be allocated as follows:

- MALR: US$5.84 million
- MOEE: US$5.33 million
- MSEA/EEAA: US$4.33 million

3. It has been determined that GOE funds will be allocated in the following manner:

Related Activities	GOE Parallel Financing	% of total GOE	GEF Financing	Total financing (US$ Mil)
Management of Obsolete Pesticides	6.46	42	3.45	9.91
Management of PCBs	5.94	38	3.85	9.79
Project Management Support and Institutional Strengthening	3.10	20	0.80	3.90
Total Financing Required	15.5	100	8.10	23.60

Management of Obsolete Stocks (GOE parallel financing: US$ 6.46 million)

4. MALR will take the lead with this component, with the support of EEAA. The focus will be on safeguarding of approximately 2,000 tons of obsolete pesticides, undertaken by the GOE with the parallel funds, for safe storage for later disposal, as and when funds become available and some disposal might take place in parallel to the GEF project.

5. Also, related to this component and supported by parallel financing, the GOE will finance and conduct a comprehensive inventory of obsolete pesticides stocks, including preliminary site assessments of stockpiles. This will include site assessments of Egypt's seven pesticide factories and a random sample of the approximately 12,000 pesticide traders for any stored products. All data collected will be included in the POPs Inventory and Tracking System and a detailed list of priority POPs pesticides stockpiles would be maintained.

6. Sites rated as high or medium risk will be subjected to more detailed site assessments and the development of action plans. The GOE will finance through parallel financing the construction of a storage facility and the re-packaged pesticides will be moved there and safeguarded in accordance with best international practice. While each existing stockpile storage site will be examined as a potential secure storage facility, it is probable that none may be found suitable, for environmental and/or social reasons. In such a case, a new suitable site or sites, located far away from habitation will be identified by MALR. If found suitable from environmental and social aspects,

7. Finally, a long-term Pesticide Stocks Management Strategy will be developed by the GOE with parallel financing, based on regional and international best practices and will include proposed legal and regulatory changes, institutional needs and staff development. Although the Safeguards Diagnostic Report (detailed in Annex 3) found that the existing strategies, policy statements, laws and regulations for pesticides management are generally satisfactory, the GOE will review the effectiveness of existing laws and regional and international best practice[12] with respect to obsolete pesticides to prevent future accumulation of such stocks, including empty container management. The FAO Environmental Management Toolkit for Obsolete Pesticides and related guidelines will be reviewed and adapted for use in Egypt and used as a manual for training staff. An inventory of existing known stockpiles will be maintained, with the information compiled.

Management of PCBs (GOE parallel financing: US$ 5.94 million)

8. MOEE will take the lead with this component, with the support of EEAA. The focus of these activities supported by GOE parallel financing will be on operating the dechlorination unit and on inventorying and sampling equipment.

9. EEHC will be responsible for the inventorying and sampling activity, starting with off-line equipment, then the on-line sub-station equipment and finally the distribution transformers. Transformers above the 50ppm cutoff will be taken out of service and sent/stored for decontamination. It is expected that 90,000 transformers could be tested over the project period.

10. A technical study on the costs and benefits of technical options for PCB elimination and recycling of oils and other materials will also be developed to further inform decision-making and guide the detailed project planning. EEHC will also identify five sites (at existing EEHC sub-stations/repair shops) as potential Collection Centers for PCBs. If these are found to be suitable with regard to environmental and social requirements, the GOE with the parallel funds will finance the construction of specially equipped buildings for temporary storage and to host the decontamination of contaminated transformers. Moreover, the GOE will conduct risk assessments for all transformer repair shops and any suspected sites of PCB spills or leakage. Training and action plans to prevent further cross-contamination will be developed.

11. A long-term PCB management strategy will be developed by the GOE, addressing the long-term objective and obligation under the Stockholm Convention that all PCBs be under sound

[12] FAO "International Code of Conduct on the Distribution and Use of Pesticides" is a principal requirement

environmental management by year 2025, and taking into account contaminated sites and PCBs in other sectors, including the industrial and private sectors.

Project Management Support (GOE parallel financing US$ 3.10 million)

12. Related activities supported by parallel funding will come in support of management of the GEF project at EEAA, and institutional strengthening more broadly. These will include support to the PMU through provision of various services, support to the development of a POPs management system and extensive efforts towards dissemination, awareness raising and stakeholder involvement.