Combined Project Information Documents / Integrated Safeguards Datasheet (PID/ISDS)

Appraisal Stage | Date Prepared/Updated: 09-Dec-2019 | Report No: PIDISDSA28002

BASIC INFORMATION

A. Basic Project Data

Country	Project ID	Project Name	Parent Project ID (if any)
Egypt, Arab Republic of	P172373	Egypt: Sustainable POPs Management Project	P116230
Parent Project Name	**Region**	**Estimated Appraisal Date**	**Estimated Board Date**
Egypt: Sustainable POPs Management Project	MIDDLE EAST AND NORTH AFRICA	22-Nov-2019	10-Jan-2020
Practice Area (Lead)	**Financing Instrument**	**Borrower(s)**	**Implementing Agency**
Environment, Natural Resources & the Blue Economy	Investment Project Financing	Arab Republic of Egypt	Egypt Environmental Affairs Agency (EEAA)

Proposed Development Objective(s) Parent

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 1: Destruction of High Risk Stocks of Obsolete Pesticide
Component 2: Decontamination of PCB-Containing Transformer Oils
Component 3: Air Quality Monitoring & Analysis

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	0.75
Total Financing	0.75
of which IBRD/IDA	0.00
Financing Gap	0.00

DETAILS

Non-World Bank Group Financing

Trust Funds	0.75
Miscellaneous 1	0.75

Environmental Assessment Category

A-Full Assessment

Decision

The review did authorize the team to appraise and negotiate

Other Decision (as needed)

B. Introduction and Context

1. In Egypt, there is 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.

2. 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]

3. 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.

4. 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

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

enables them to travel great distances through cycles of evaporation and atmospheric cycling and deposition.

5. 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.

6. 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 accordance with the requirements of the Convention. The NIP (i) provided an assessment of the older generation of transformers and condensers, manufactured before the 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.

7. The NIP recommended actions relating to (i) amendment of laws and legislations; (ii) completion of an 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 Environment (formerly 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.

8. 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.

9. To support the Government's objectives in managing and disposing of hazardous waste of global significance, in 2014 a project funded by the GEF was launched to address targeted stockpiles of obsolete pesticides, including including Persistent Organic Pollutants (POPs) and Polychlorinated Biphenyl (PCBs) – or the Egypt Sustainable POPs Management Project (P116230) – the parent project to this additional financing.

10. The Ministry of Environment (MoE) and its Executive Agency the Egyptian Environmental Affairs Agency (EEAA), as well as the Ministry of Water Resources and Irrigation have 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

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

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 MoE has instituted an integrated national network to monitor air pollutants, surface water and groundwater. Significant investments have also been made in 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 (http://www.eeaa.gov.eg/ehsims/main/hs_aboutsystem.asp).

11. Currently, the World Bank is also providing technical assistance (TA) to the MoE and EEAA on air quality management through the Pollution Management & Environmental Health (PMEH) Program (P164419). The project's development objective is to strengthen the capacity of EEAA to monitor air quality for the Greater Cairo area, and improve its evidence base for air quality management. The TA has a Recipient-Executed Trust Fund (RETF) component and a Bank-Executed Trust Fund (BETF) component. The RETF component contributes to the objective through the purchase of air quality monitoring and laboratory equipment so that EEAA can perform its own analysis of air quality – which historically had been provided through outside, international assistance. The BETF component contributes to the objective through training and capacity building on the purchased equipment and on analytical methods of air quality assessment. The total funding for the RETF component is $750,000 and is considered a small trust fund grant and rather than processing this as a stand-alone RETF grant it was recommended that it be combined with an existing project with an experienced Project Management Unit (PMU) and fiduciary controls. The Egypt Sustainable POPs Management Project represents such a project under implementation.

12. This proposed additional financing is to add a component to the existing POPs project for the purchase of air quality monitoring and laboratory equipment. To allow for sufficient time for the procurement of equipment, the closing date of the POPs project will be extended from September 30, 2020 to March 26, 2021. The GEF has since provided their clearance of a 6-month, no cost, extension of the project.

C. Proposed Development Objective(s)

Original PDO

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.

Explanation of how the additional financing contributes to the PDO

This additional financing contributes to the PDO by increasing the capacity and management of the MoE/EEAA to monitor air quality, which also includes POPs. Therefore, there is no change to the PDO.

Key Results

13. Progress towards achievement of the PDO is measured by the indicator, "POPs and POPs waste destroyed, disposed of, or contained in an environmentally sound manner." As of September 2019, 712 tons of POPs pesticides have been removed or disposed of in an environmentally sound manner, and this represents 36% of the target of 2,000 tons (which comprises 1000 tons of high-risk obsolete POPs or POPs-like pesticides and 1000 tons of PCBs).

14. In terms of implementation, the project encountered delays mainly because of slow progress on Component 2 for decontamination of PCB contaminated transformer oils at an earlier stage of the project. However, substantial progress on PCB oils identification was made since the Mid-term Review (MTR) in January 2018. To date, the project target of 2,000 tons of PCB oil and POPs/POPs-like obsolete pesticides (OPs) for decontamination and disposal respectively have all been identified. Attributed to implementation of the project, the Ministry of Agriculture and Land Reclamation (MALR) issued a Ministerial Degree of Regulating Agricultural Pesticide in Egypt in Feb. 2018 and established a tracking database for all identified OPs. The Ministry of Electricity and Renewable Energy (MOEE) also issued in 2016 written instructions to all affiliated companies under the Ministry (Production, Transmission, and Distribution Companies) on PCB management and established a PCB tracking system in the power sector. In light of the above issues, the project closing date was extended from November 30, 2018 to September 30, 2020 to allow completion of project activities and indicators and to fully achieve the PDO.

15. The last batch of OPs under Component 1, about 288 tons, is proposed to be disposed of through a cement kiln co-processing technology as it is locally available in Egypt and due to significant disposal/incineration costs in France and Sweden. The PMU and MALR considered this effort will also contribute to the country's capacity and sustainability to manage and dispose of OPs in the future. A feasibility and disposal plan is being prepared before the PMU's final decision and based on an evaluation report prepared by an international consultant in 2017.

16. The identification of all 1000 tons of PCB oils is completed, however, there is a likely risk that not all 1000 tons of PCB oils will be decontaminated as planned by September 2020, due to the feasibility study for decontamination taking longer than expected. The current plan is to purchase three decontamination units: two on-line, in-service units and one batch unit or three on-line, in-service units per the Feasibility Study report. The MOEE will establish a qualified technical team, who will be trained by the equipment supplier and be ready to operate the equipment following the Environmental and Social Management Plan. Given the time required to complete the decontamination and given the procurement time required for the new component to procure the air quality and laboratory equipment, the 6-month extension of the closing date until March 26, 2021 should be sufficient for the project to meet the PDO.

17. To date the GOE has contributed about US$ 15.65 million (among which US$ 12.1 million are in cash contribution) for project activities including: construction of a specialized lab for POPs, purchase of lab equipment/chemicals needed and identification/ classification of obsolete pesticides all over the country and remediation of the El Saf site by MALR, and the PCB inventory and storage by MOEE.

D. Project Description

18. This additional financing will add a new component (Component 3) to the parent project, in the amount of (US$ 0.75 million), and make a one-time procurement of capital goods to enable (a) the collection of manual, filter-based fine particle air pollution from the Greater Cairo Area (GCA) and (b) chemical speciation analysis of the collected samples at Cairo University Center for Environmental Hazards Mitigation (CEHM) or possibly at the central laboratory of residue analysis of pesticides and heavy metals in food (QCAP). This will support the Egyptian Environmental Affairs Agency (EEAA) in the development, adoption and implementation of an Air Quality Management Plan (AQMP) for the GCA. While the EEAA has made significant progress in understanding the baseline levels of air pollution in Egypt, and in the GCA specifically, there remains a critical challenge of understanding the key emission sources and economic sectors that contribute to the observed levels of air pollution. In order for government to develop programs to address the high burden of health impacts associated with air pollution - specialized equipment is needed to enable the chemical speciation described above.

E. Implementation

19. The project will be implemented by the Egyptian Environment Affairs Agency (EEAA), the same as the parent project. The existing PMU will be responsible for the purchasing of the equipment and for all associated fiduciary responsibilities, including any Environmental and Social Safeguards.

F. Project location and Salient physical characteristics relevant to the safeguard analysis (if known)

The specific locations of installed equipment is part of a deliberative process with EEAA - but will be in the same locations as current air quality monitoring equipment (i.e. the Greater Cairo Area (GCA), including Cairo, Giza, and Qualubeiah). The location of purchased laboratory equipment will be at either the Center for Environmental Hazards Mitigation (CEHM) of Cairo University or the Central Laboratory of Residue Analysis of Pesticides & Heavy Metals in Food (QCAP).

G. Environmental and Social Safeguards Specialists on the Team

Chaogang Wang, Social Specialist
Amal Nabil Faltas Bastorous, Social Specialist
Amer Abdulwahab Ali Al-Ghorbany, Environmental Specialist

SAFEGUARD POLICIES THAT MIGHT APPLY

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	
Performance Standards for Private Sector Activities OP/BP 4.03	No	
Natural Habitats OP/BP 4.04	No	
Forests OP/BP 4.36	No	
Pest Management OP 4.09	Yes	
Physical Cultural Resources OP/BP 4.11	No	
Indigenous Peoples OP/BP 4.10	No	
Involuntary Resettlement OP/BP 4.12	No	
Safety of Dams OP/BP 4.37	No	
Projects on International Waterways OP/BP 7.50	No	
Projects in Disputed Areas OP/BP 7.60	No	

KEY SAFEGUARD POLICY ISSUES AND THEIR MANAGEMENT

A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:
The Additional Financing do not trigger any additional safeguards' policies other than the OP 4.01 on Environmental Assessment and OP 4.09 on Pest Management which are already triggered for the parent project. The environmental category of this Additional Financing will remain 'A' like the parent project although it is anticipated that no negative or irreversible impacts will be induced by the interventions to be supported. The interventions which will be supported include: a) one-time procurement of capital goods to enable the collection of manual, filter-based fine particle air pollution from the Greater Cairo Area; and b) chemical speciation analysis of the collected samples at Cairo University Center. The proposed intervention will not have any large scale, significant and/or irreversible impacts on human populations or environment. There are no negative social impacts also anticipated under the activities of the AF.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:
No potential negative indirect and/or long term impacts are anticipated by the activities to be supported by the Additional Financing.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.

This Additional Financing will be used to provide equipment for supporting the Egyptian Environmental Affairs Agency (EEAA) in the development, adoption and implementation of an Air Quality Management Plan (AQMP) for the Greater Cairo Area. The 'no project' alternative means that the current system remains as is without enhancement of the country's air quality monitoring system.

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower capacity to plan and implement the measures described.

In accordance with OP 4.01, and at the preparation stage, 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 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 Environmental Assessment system in Egypt stipulates also for covering social aspects and for carrying out consultations. However, in general the capacity to cover the social impacts and the consultation requirements as well as the common practices in this regard are very limited.

As required by the national EIA system, all intereventions under the project are reviewed and approved by the EEAA/ EIA department (which is independent from the PMU) including consultation and disclosure at the EEAA website (www.eeaa.gov.eg) before any intervention starts. Also grievance redressal mechanisms and consultations prior to sub-project specific ESIAs/ESMPs and physical interventions are undertaken, documented, monitored and included in project activity reports.

So far, ESIAs including in-depth risk assessments and management plans were prepared and cleared for the repackaging and disposal of POPs-containing obsolete pesticides in Al-Adabiya and El-Saff areas. An international specialized company has safely repackaged and shipped 220 tons of Lindane from Al-Adabiya and 400 tons of obsolete and POP-containing pesticides from El-Saff. These materials were shipped out of Egypt for final safe disposal (incineration) in Europe in line with the Basel Convention, strictest EU requirements and Egypt legislation. Comprehensive safeguard standards and mitigation measures were also incorporated in the contracts of above mentioned two main interventions and all activities were implemented following best international practice.

The existing institutional arrangements for managing environmental and social safeguards will continue under the Additional Financing. The PMU has a dedicated senior environmental specialist to ensure compliance with the safeguards policies and monitor the implementation of the environmental and social management plans.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

The purchase of air quality monitoring and laboratory equipment will not trigger any additional safeguards policies to the parent project, and as such will not require any additional public consultations.

B. Disclosure Requirements (N.B. The sections below appear only if corresponding safeguard policy is triggered)

Environmental Assessment/Audit/Management Plan/Other

Date of receipt by the Bank	Date of submission for disclosure	For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors

"In country" Disclosure

Pest Management Plan

Was the document disclosed prior to appraisal?	Date of receipt by the Bank	Date of submission for disclosure
Yes		

"In country" Disclosure

C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting) (N.B. The sections below appear only if corresponding safeguard policy is triggered)

CONTACT POINT

World Bank

Craig M. Meisner
Senior Environmental Economist

Qing Wang
Senior Environmental Specialist

Borrower/Client/Recipient

Arab Republic of Egypt
Ms. Seham Abdel Raki
General Director for International Financing Organizations

Implementing Agencies

Egypt Environmental Affairs Agency (EEAA)
Elham Refaat Abdel-Aziz
Hazardous Substances Department Manager

FOR MORE INFORMATION CONTACT

The World Bank
1818 H Street, NW
Washington, D.C. 20433
Telephone: (202) 473-1000
Web: http://www.worldbank.org/projects

APPROVAL

Task Team Leader(s):	Craig M. Meisner Qing Wang

Approved By

Safeguards Advisor:	Surhid P. Gautam	12-Dec-2019
Practice Manager/Manager:	Lia Sieghart	12-Dec-2019
Country Director:	Robert Bou Jaoude	14-Dec-2019